ICD-10-CA | CCI

Canadian Coding Standards

for Version 2018 ICD-10-CA and CCI

Canadian Institute for Health Information
Institut canadien d'information sur la santé

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We would also like to acknowledge the expertise provided by representatives from the following:

- Canadian Cardiovascular Society
- Canadian Diabetes Association (CDA)
- CIHI Classification Advisory Committee
- World Health Organization (WHO) Update and Revision Committee
- Society of Obstetricians and Gynecologists of Canada (SOGC)

Introduction

The *Canadian Coding Standards for Version 2018 ICD-10-CA and CCI* is intended for use with the 2018 version of the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada* (ICD-10-CA) and the *Canadian Classification of Health Interventions* (CCI).

Format of the coding standards

Effective version 2018, the coding standards have a new look. These changes were made to ensure that the document is accessible to all users. Also, text alternatives have been written for all images and flow diagrams; the text alternatives are found in Appendix G.

Each standard contains

- Directive statements, which are in a shadow box; and
- Examples demonstrating how to apply the directive statements.

These standards apply to data submitted to the Discharge Abstract Database (DAD) and the National Ambulatory Care Reporting System (NACRS). Where applicable, directive statements and examples are preceded by an icon indicating whether the statement applies to the DAD only, to NACRS only or to both the DAD and NACRS. Not all directives are easily assigned a DAD or NACRS icon, but each has the potential to apply to either database.

The icons used are

DAD only

NACRS only

DAD and NACRS

The data elements included in the examples depend on the purpose of the example, the coding standard in which the example appears and whether or not there is sufficient information to provide each data element (e.g., diagnosis typing, prefix 5 and/or prefix 6, diagnosis cluster).

The diagnosis type for the DAD and the problem identification for NACRS are indicated in the examples using the following:

(M) Most responsible diagnosis

(1) Diagnosis type (1)

(2) Diagnosis type (2)

(3) Diagnosis type (3)

(6) Diagnosis type (6)

(9) Diagnosis type (9)

(0) Diagnosis type (0)

(W) Diagnosis type (W)

(X) Diagnosis type (X)

(Y) Diagnosis type (Y)

MP Main problem diagnosis

OP Other problem diagnosis

Clinical and intervention information relevant to understanding the direction in the coding standard is included whenever necessary. Exceptions to directives are listed where appropriate.

Each coding standard is understood best when read in its entirety. There may be more than one directive statement within a directive box, and there may be more than one directive box within a standard. These are designed to flow in a logical sequence to the greatest extent possible. Each directive statement must be applied in the context of the entire standard in which it is embedded.

Amendments

CIHI amends and develops new coding standards in consultation with the provinces and territories. Some coding standards have been adapted from provincial documents and incorporated into these national standards.

The word “amended” followed by the year appears under the title of a standard to indicate years when

- New direction was provided in the standard;
- Wording changes were made to clarify the direction; and/or
- Examples were modified or new examples added.

A hyperlink to Appendix C — Table of changes — 2018 Canadian Coding Standards also appears under the title. The link reads “For description of change, see Appendix C.”

Coding standards are not designated as “amended” when changes are limited to reformatting or adding a hyperlink.

Revisions to the coding standards are made on a regular basis to keep pace with changing health care information needs.

Data quality

The coding standards are intended to supplement the classification rules inherent in ICD-10-CA and CCI by providing additional information that could not be embedded into the classifications. It is assumed that users of this document have had training in abstracting relevant information from clinical records and in using ICD-10-CA and CCI.

The clinical record is the source for coding morbidity data. Reabstraction studies have identified inadequate chart documentation as one cause of data quality concerns in the classification of diagnoses, problems and interventions. From a data collection perspective, inadequate documentation falls into two categories:

1. **Deficiencies in the documentation**

   “Complete, clear, and accurate documentation is the foundation for complete and accurate coding of all types of medical records.”[1] Deficiencies in the documentation result from

   - Failure of the health care provider to record information;
   - Lack of detail or specificity;
   - Conflicting or inconsistent information;
   - Illegible documents; and/or
   - Missing documents.

   Provincial/territorial hospital act legislation contains regulations that itemize the documentation that must be included in the clinical record. Typically, the legislation designates the board of directors as responsible for ensuring these requirements are met.

   When the record does not contain sufficient information to assign a code, the coder must consult with the responsible health care provider. The Canadian Coding Standards cannot provide direction to compensate for deficiencies in the documentation. This becomes particularly relevant when coding is outsourced.

2. Failure of health care facilities to provide the coder with appropriate documents from the clinical record

To support data quality, health care facilities must ensure coders have access to the documentation necessary for accurate code selection. As hospitals across Canada deal with recruitment issues, shortened data submission timelines and the migration to the electronic health record, processes are created that result in coders not having access to the pertinent documentation. These include, but are not limited to, hybrid records and coders working from remote locations.

CIHI suggests that facilities establish internal policies to specify the minimum set of documents that must be made available to coders to support quality data collection but recommends that source documentation (as noted below) pertaining to an episode of care be reviewed during the data collection process.

The following table provides a list of documents for each type of case that CIHI recommends be available for ICD-10-CA/CCI classification and data collection. While facilities may not use the same terminology to identify the same component of the clinical record, coders will know what record or document is required.

Source documents recommended to support quality ICD-10-CA/CCI classification and data collection

Type of case	Documentation requirements
Surgical	• Discharge/case summary (for complex cases) • Report of history and physical exam • Progress notes • Operation report (with postoperative diagnoses recorded) • Anesthesia report (for operating room time data elements) • Pathology report • Consultation reports • Diagnostic imaging reports (for specificity)
Medical	• Discharge/case summary (final diagnoses must be recorded) • Report of history and physical exam • Progress notes • Consultation reports • Interventional reports (e.g., cardiac catheterization, mechanical ventilation) • Diagnostic imaging reports (for specificity)

Type of case	Documentation requirements
Death	• Discharge/case summary (final diagnoses must be recorded) • Provisional autopsy report (when applicable) • Report of history and physical exam • Progress notes • Consultation reports • Diagnostic imaging reports (for specificity)
Obstetrical	• Prenatal record • Labor summary and delivery/operative record • Anesthesia report
Newborn	• Mother's record or copy of delivery record • Newborn physical exam
ED/outpatient visits	• Emergency/outpatient record (final diagnoses must be recorded) • Reports of diagnostic testing
Day surgery	• Outpatient record (final diagnoses must be recorded) • Report of history and physical exam • Operation report (with postoperative diagnoses recorded) • Anesthesia report (for operating room time data elements) • Pathology report

Using the PDF version of the coding standards

When used in electronic form, the portable document format (PDF) version of the coding standards is easily searchable. To facilitate searching, this document has been published using American spelling (with the exception of code titles, which are written as they appear in the classifications). This is consistent with the alphabetical index for ICD-10-CA, which uses American spelling, and the tabular version of ICD-10-CA, which is published using British spelling (e.g., "haemorrhage" rather than "hemorrhage"). CCI is published using American spelling throughout.

You can search the PDF using the following methods:

- Expand the table of contents to list the titles of the coding standards and click the name of the standard's title.
- Use the Find command to search by phrase, word or code.

You can copy portions of text from the PDF by using the select and snapshot tools.

You can move back and forth between coding standards you previously viewed by using the Previous View  and Next View  icons. These icons are available under different toolbars depending on your version of Adobe.

Hyperlinks have been inserted into the document to allow quick navigation to other related coding standards.

The hyperlink “For description of change, see Appendix C” beneath a coding standard title will take you to the appropriate section in Appendix C to review the description of the change for that particular coding standard. You can return to the coding standard from Appendix C by clicking the heading that identifies the name of the coding standard and chapter title.

History of the coding standards

The Canadian Coding Standards for ICD-10-CA and CCI was first introduced in 2001. The first iteration was entitled *ICD-10-CA and CCI Coding Guidelines, Volume 5* (volumes 1 through 4 are specific to the classifications themselves: ICD-10-CA volumes 1 and 2 and CCI volumes 3 and 4). Many of the diagnosis-related coding standards are derived from the instruction manual that accompanies the *International Statistical Classification of Diseases and Related Health Problems* (ICD-10) as published by the World Health Organization (WHO). These coding standards are identified, where applicable, with references to the WHO source.

Prior to 2001, Canadian coders used the *Coding Sourcebook*, which supported the use of the *International Classification of Disease, 1975 Revision* (ICD-9) and the *Canadian Classification of Diagnostic, Therapeutic, and Surgical Procedures* (CCP). The *Coding Sourcebook* also included information pertaining to the American clinical modification of ICD-9, the ICD-9-CM. Prior to the implementation of ICD-10-CA and CCI, both ICD-9/CCP and ICD-9-CM were used across Canada. Information from the *Coding Sourcebook* that was relevant to the new classifications was brought forward into the Canadian Coding Standards for ICD-10-CA and CCI.

CIHI maintains the coding standards in consultation with the provinces and territories. Where further clinical expertise is required, CIHI consults representatives from various organizations and groups such as the

- Canadian Cardiovascular Society;
- Canadian Diabetes Association;
- CIHI Classification Advisory Committee;
- WHO Update and Revision Committee; and
- Society of Obstetricians and Gynaecologists of Canada.

Revisions to the coding standards are made on a regular basis to keep pace with changing health care models, advancements in health care and technology, and health care information needs. Prior to 2009, the coding standards were revised and published on an annual basis. Errata identified after publication were communicated via bulletins. In 2009, the coding

standards moved to a three-year update cycle to coincide with that of the ICD-10-CA and CCI classifications. Errata identified after the publication of the 2009 and 2012 coding standards were incorporated and published as a revised version of the coding standards. In 2018, the format of the coding standards was revised to ensure that the document is accessible to all users, and resources (e.g., content from retired education products and Tips for Coders) were added as an appendix.

The basic structure and classification principles of the ICD

The ICD is a variable-axis classification. Its main purpose is "to permit the systematic recording analysis, interpretation and comparison of mortality and morbidity data collected in different countries or areas and at different times."[2] The classification is arranged to bring together conditions that would be inconveniently arranged for epidemiological study were they to be scattered, for instance, in a classification arranged primarily by anatomical site. These conditions formulate the "special groups" chapters:

- Chapter I — Certain infectious and parasitic diseases (A00–B99)
- Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99)
- Chapter XVI — Certain conditions originating in the perinatal period (P00–P96)
- Chapter XIX — Injury, poisoning and certain other consequences of external causes (S00–T98)

"The distinction between the 'special groups' chapters and the 'body system' chapters has practical implications for understanding the structure of the classification, for coding to it and for interpreting statistics based on it. It has to be remembered that, **in general**, conditions are primarily classified to one of the special groups chapters. Where there is any doubt as to where a condition should be classified, the special groups chapters should take priority." [2] This principle is enforced in the excludes notes at the beginning of each chapter in the ICD.

References

1. MacDonald E. Better coding through improved documentation: Strategies for the current environment. *Journal of AHIMA*. 1999.
2. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.

General coding standards for ICD-10-CA

Main and Other Problem Definitions for NACRS

For description of change, see Appendix C.

In effect 2002, amended 2007, 2008, 2009, 2018

Main problem

The main problem (MP) is the problem that is deemed to be the clinically significant reason for the client's visit and that requires evaluation and/or treatment or management. This can be a diagnosis, condition, problem or circumstance.

The main problem is assigned by the health care provider at the end of the visit. This may be the physician or another health care professional responsible for the client's care (e.g., an allied health professional).

When multiple problems are considered the main reason for providing ambulatory care services, the main problem is the one responsible for the greatest use of resources.

For patients who have left without being seen, the main problem is the presenting complaint. This can occur at any point in the patient's visit.

Other problem

An ICD-10-CA code is assigned, mandatory, as an other problem (OP) when

- The condition or circumstance exists at the time of the client's visit and is significant to the client's treatment or care;
  - Determination of significance: requires monitoring and/or treatment.
- The direction is provided within another coding standard and/or within the classification itself.
  - Other problems include codes from External Causes of Morbidity and Mortality (V01–Y98) and Place of Occurrence (U98). See also the coding standards *External Cause Codes* and *Place of Occurrence*.

It is optional to assign a code for a condition or circumstance when it does not meet the above definition for mandatory other problem (OP) assignment.

CIHI recommends that any decision regarding optional other problem assignment be made at the jurisdiction or facility level, based on data needs and in consultation with stakeholders responsible for overseeing coding and data quality.

Jurisdiction-wide or facility-mandated direction ensures consistent capture of optional other problem codes. Unless an other problem code is consistently captured by all coders at the jurisdiction or facility level (i.e., not on an individual coder basis), it is not reliable or valid for use. The assignment of optional other problem codes, which has not been mandated by CIHI or by a jurisdiction or facility, creates unnecessary coder burden.

Note

Documentation from allied health professionals — such as nurses, crisis team workers and physiotherapists — who are not the main service provider can be used for assignment of other problems.

Note

See data elements 44 and 45 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual* for additional main problem and other problem collection instructions.

Example: A patient presents to the emergency department with a cough and fever and is treated for pneumonia. The nurse records that he has had type 2 diabetes mellitus for many years. He also has coronary artery disease (CAD).

Code	NACRS	Code title
J18.9	MP	Pneumonia, unspecified
E11.52	OP	Type 2 diabetes mellitus with certain circulatory complications

Rationale: E11.52 is assigned as an other problem because the coding standard *Diabetes Mellitus* provides the direction to assign a code from E10–E14, mandatory, whenever diabetes is documented. See also the coding standard *Use Additional Code/Code Separately Instructions*.

Example: A patient presents to the oncology clinic for a chemotherapy session for active left main bronchus malignancy.

Code	NACRS	Code title
Z51.1	MP	Chemotherapy session for neoplasm
C34.01	OP	Malignant neoplasm of left main bronchus

Rationale: It is mandatory to assign an additional code for the malignant neoplasm as an other problem. See also the coding standard *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*.

Example: A patient presents to the emergency department with chest pain. After observation and diagnostic testing, it is determined that the chest pain was non-cardiac in nature. The emergency department discharge diagnosis is non-cardiac chest pain, suspected GERD.

Code	NACRS	Code title
R07.4	MP	Chest pain, unspecified
(Q) K21.9	OP	Gastro-oesophageal reflux disease without oesophagitis (optional)

Rationale: Codes for suspected diagnoses may be assigned, optionally, as other problems. Apply the prefix Q in such circumstances. See also the coding standard *Unconfirmed Diagnosis*.

Coding of Main and Other Problems for NACRS

For description of change, see Appendix C.

In effect 2002, amended 2008, 2009, 2018

Diagnoses must be supported by physician or primary care provider documentation to be classified as a **main problem** (MP). The National Ambulatory Care Reporting System (NACRS) recognizes that allied health professionals, such as nurses, crisis team workers and physiotherapists, can be the main and/or only service providers. When a physician is **not** the main service provider, documentation from allied health professionals may be used to select the main problem. When a physician is the main service provider, documentation from allied health professionals may be used for other problem code selection.

It is optional to assign a code as an other problem for a diagnosis listed only on a death certificate, history and physical or pre-operative anesthetic consult, unless that diagnosis meets the definition for mandatory **other problem** (OP) assignment.

Conditions documented in nurses' notes, pathology reports, medication profiles, radiological investigations, nuclear imaging and other similar investigations are valuable tools when they clearly add specificity in identifying the appropriate diagnosis code for conditions documented in the physician/primary care provider notes.

NACRS-only directive statements

N Determine the main problem from the documentation by identifying either

- The definitive (formulated) diagnostic statement;
- A symptom, sign or abnormal test result in the absence of a definitive diagnostic statement; or
- The specific reason for encounter (e.g., follow-up exam, treatment, observation for suspected condition or pre-operative assessment).

N List the main problem as the first diagnosis code on the abstract.

N Always code to the greatest degree of specificity supported by the documentation.

See also the coding standards *Diagnoses of Equal Importance*, *Specificity* and *Unconfirmed Diagnosis*.

Definitive (formulated) diagnostic statement

N **Example:** A woman presents with hematemesis that, on investigation, is found to be due to an acute gastric ulcer (with hemorrhage). She is taking an NSAID for an unrelated condition. The physician documents “NSAID related gastric bleed.”

Code	NACRS	Cluster	Code title
K25.0	MP	A	Gastric ulcer, acute with haemorrhage
Y45.3	OP	A	Other nonsteroidal anti-inflammatory drugs [NSAID] causing adverse effects in therapeutic use

Rationale: The external cause code is mandatory to assign as an other problem when classifying an adverse effect in therapeutic use. See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

NACRS-only directive statements

N Assign an external cause code from Chapter XX — External causes of morbidity and mortality (V01–Y98), mandatory, as an other problem with any condition classifiable to Chapter XIX — Injury, poisoning and certain other consequences of external causes.

N With any accident or poisoning classifiable to W00–Y34, excluding Y06 and Y07, assign a code from U98 *Place of occurrence*, mandatory, as an other problem.

See also the coding standards *External Cause Codes* and *Place of Occurrence*.

Example: An interior decorator falls from a ladder while painting a client's living room. She sustains a closed fracture to her distal humerus.

Code	NACRS	Code title
S42.490	MP	Fracture of unspecified part of lower part of humerus, closed
W11	OP	Fall on and from ladder
U98.0	OP	Place of occurrence, home
U99.2	OP	Activity, while working for an income (optional)

Symptom, sign or abnormal test result

Example: A man who recently argued with his wife presents to the emergency department complaining of acute dizziness. Upon examination, the physician finds elevated blood pressure readings and notes this as the cause of the dizziness. The patient has not been diagnosed with hypertension. Follow-up is arranged for him with his family physician and his social worker.

Code	NACRS	Code title
R03.0	MP	Elevated blood-pressure reading, without diagnosis of hypertension

Specific reason for encounter

- **Follow-up examinations:** See also the coding standard *Admission for Follow-Up Examination*.
- **Encounters for specific forms of treatment** such as dialysis, radiation therapy or adjustment of prosthesis, stoma appliances and pacemakers: Assign codes from Chapter XXI — Factors influencing health status and contact with health services.
- **Observation:** See also the coding standard *Admission for Observation*.
- **Pre-operative assessment:** See also the coding standard *Pre-Treatment Assessment*.

Diagnosis Typing Definitions for DAD

For description of change, see Appendix C.

In effect 2001, amended 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2012, 2015, 2018

Diagnosis typing applies to all data submitted to the Discharge Abstract Database (DAD). The assignment of a diagnosis type to a condition is meant to signify the impact that the condition had on the patient's care as evidenced in the physician documentation. When the primary responsibility for care has been designated to a certain allied health care provider (such as a midwife or nurse practitioner), the documentation of this primary care provider is used for code selection and determination of significance for diagnosis type assignment. All diagnoses or conditions identified on the DAD abstract must be assigned a diagnosis type.

There are multiple diagnosis types:

- Most responsible diagnosis (type M)
- Comorbidity diagnoses (types 1 and 2)
- Secondary diagnoses (type 3)
- Admitting diagnoses (type 5)
- Proxy most responsible diagnosis (type 6)
- Service transfer diagnoses (types W, X and Y)
- External cause of injury codes (type 9)
- Diagnoses restricted to newborn abstracts only (type 0)

Diagnosis types (M), (1), (2), (6), (W), (X) and (Y) are considered significant diagnosis types.

DAD-only directive statement

D Assign an ICD-10-CA code, mandatory, for any diagnosis/condition meeting the definition of a significant/comorbid diagnosis type (M, 1, 2, 6, W, X and Y).

Definition of comorbidity

A comorbidity is defined as a condition that coexists in addition to the MRDx at the time of admission or that develops subsequently and meets at least one of the three **criteria for significance**.

Note

For the purpose of submitting data to the Discharge Abstract Database (DAD), the term "comorbidity" refers to diagnosis type (1) or (2) assignment.

Criteria for significance

The condition

1. Requires treatment beyond maintenance of the pre-existing condition;
2. Increases the length of stay (LOS) by at least 24 hours; and/or
3. Significantly affects the treatment received.

Determining when a condition meets the criteria for significance

Consider the following when determining whether a condition, documented by the physician (or primary care provider) and relevant to the current episode of care, meets at least one of the three **criteria for significance**.

- **Review the source documents** and look for evidence in the physician (or primary care provider) documentation that the condition required one of the following:
  - A consultation to assess a previously undiagnosed condition;
  - A consultation to assess a previously diagnosed condition in which a new or amended course of treatment is recommended and instituted (excludes a pre-operative anesthetic assessment);
  - A diagnostic or therapeutic intervention identified as mandatory for code assignment in the coding standards *Selection of Interventions to Code for Ambulatory Care* and *Selection of Interventions to Code for Acute Inpatient Care*; or
  - A length of stay that was extended by at least 24 hours.

Note
Consultation does not have to be a formal consultation report/form — it may be documentation of a review and assessment of the condition in the progress notes.

Note
Treatment may include transfer to another facility (e.g., another acute care inpatient facility, a day surgery unit at another facility for an out-of-hospital [OOH] intervention) for a diagnostic or therapeutic intervention identified as mandatory for code assignment in the coding standards.

Note

Documented evidence of a diagnostic investigation or an assessment, a confirmed diagnosis and a proposed treatment plan that is not implemented per the patient's decision to refuse treatment or due to a contraindication do not preclude assignment of a significant diagnosis type.

- **Keep the following in mind:**
  - Conditions documented in nurses' notes, pathology reports, autopsy reports, medication profiles, radiological investigations, nuclear imaging and other similar investigations are valuable tools for identifying specificity in assigning the appropriate diagnosis code when the diagnosis has been documented by the physician (or primary care provider). When there is no physician (or primary care provider) documentation, conditions documented in these reports may be captured, optionally, as a diagnosis type (3).
  - Documentation of ongoing medication for treatment of a pre-existing condition does not in itself denote significance, nor does a change in dosage of medication in and of itself denote significance. There must be documentation of a change in the pre-existing condition necessitating the need to change the medication dosage in order to meet the criterion "**requires treatment beyond maintenance of the pre-existing condition**." Pre-existing conditions that do not qualify as MRDx or do not meet one of the **criteria for significance** are assigned, optionally, as a diagnosis type (3).
  - Diagnoses that are **listed only** on the front sheet, discharge summary, death certificate, history and physical or pre-operative anesthetic consults qualify as a diagnosis type (3) — secondary diagnosis **unless** there is physician (or primary care provider) documentation elsewhere in the chart to support that the condition met at least one of the three **criteria for significance**.
  - Other coding standards provide direction to assign a significant diagnosis type for a certain condition (under specific circumstances). For example, see also these coding standards:
    - *Drug-Resistant Microorganisms*
    - *Acute Coronary Syndrome (ACS)*
    - *Pneumonia in Patients With Chronic Obstructive Pulmonary Disease (COPD)*
    - *Misadventures During Surgical and Medical Care*
    - *Palliative Care*
    - *Medical Assistance in Dying*

Diagnosis type (M) — Most responsible diagnosis[1]

Diagnosis type (M) is the one diagnosis or condition that can be described as being most responsible for the patient's stay in hospital. If there is more than one such condition, the one held most responsible for the greatest portion of the length of stay or greatest use of resources (e.g., operating room time, investigative technology) is selected.

- If no interventions were performed, select the first-listed diagnosis as the most responsible diagnosis (MRDx).
- If no definite diagnosis was made, select the main symptom, abnormal finding or problem as the MRDx.

Diagnosis type (1) — Pre-admit comorbidity

A diagnosis type (1) represents a condition that existed prior to admission, has been assigned an ICD-10-CA code and has been determined to meet at least one of the three criteria for significance.

Diagnosis type (2) — Post-admit comorbidity

A diagnosis type (2) represents a condition that arose post-admission, has been assigned an ICD-10-CA code and has been determined to meet at least one of the three criteria for significance.

If a post-admit comorbidity qualifies as the MRDx, it must be recorded as both the MRDx and as a diagnosis type (2).

Prefixes 5 and 6

Prefixes 5 and 6 describe the chronological relationship between a diagnosis type (2) (post-admit comorbidity) and the first qualifying intervention occurring in

- The main operating room (OR) at the reporting facility; or
- The cardiac catheterization room at the reporting facility; or
- Another facility (out of hospital [OOH]) for selected cardiac interventions:
  - 3.IP.10.^^ Xray, heart with coronary arteries;
  - 1.IJ.50.^^ Dilation, coronary arteries; and/or
  - 1.IJ.57.^^ Extraction, coronary arteries.

Note

For details related to the intervention location code and out-of-hospital (OOH) indicator, see Group 11 in the *Discharge Abstract Database* (*DAD) Abstracting Manual*.

DAD-only directive statements

Assign prefix 5, mandatory, to a diagnosis type (2) (post-admit comorbidity) that arose before the first qualifying intervention.

Assign prefix 6, mandatory, to a diagnosis type (2) (post-admit comorbidity) that arose during or after the first qualifying intervention.

Exception

Prefixes 5 and 6 do not apply to obstetrical conditions classified in Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99).

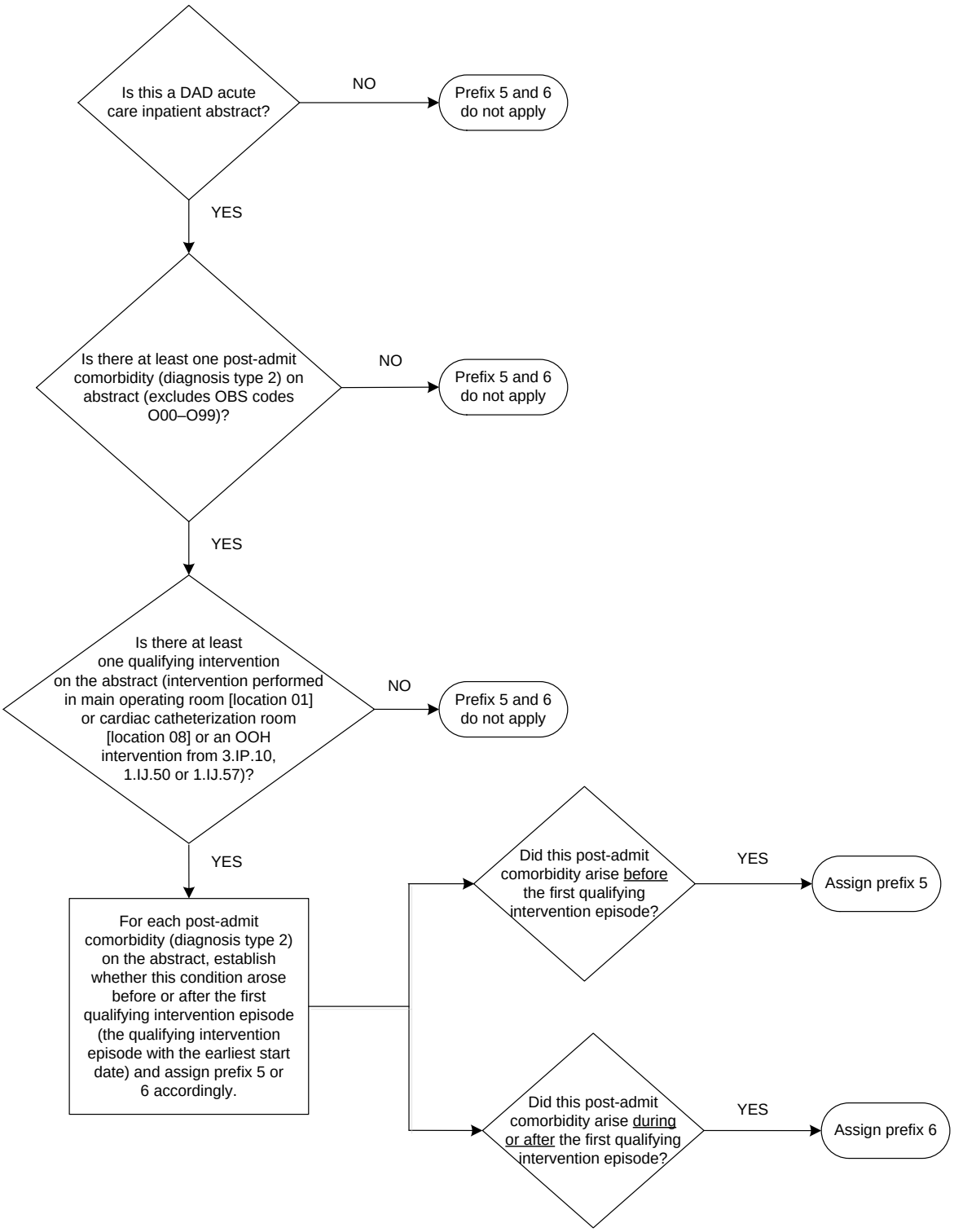
Note

Prefixes 5 and 6 apply to acute care inpatients only.

Prefixes 5 and 6 take precedence over diagnosis prefixes Q (query diagnosis) and C (cause of death) or facility-defined diagnosis prefixes.

Assigning prefixes 5 and 6 to a DAD inpatient abstract

The following flowchart describes the time frame of the post-admit comorbidity (diagnosis type 2) to the first qualifying intervention episode.



Example: On the day of admission, a patient has a bronchoscopy performed in the endoscopy suite for ongoing respiratory symptoms and abnormal radiological findings. Following bronchoscopy, the patient develops cardiac dysrhythmia requiring observation and treatment by cardiology service. On day 6, an open lung biopsy is performed in the main OR, following which the patient develops persistent post-operative atelectasis treated with physiotherapy and bronchodilators.

Prefix	Code	DAD	Cluster	Code title
5	I49.9	(2)	A	Cardiac arrhythmia, unspecified
	Y83.8	(9)	A	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
6	J98.10	(2)	B	Atelectasis
	Y83.8	(9)	B	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The first qualifying intervention in this example is the open lung biopsy performed in the main OR. Prefix 5 is assigned to the post-admit comorbidity that arose before the first qualifying intervention. Prefix 6 is assigned to the post-admit comorbidity that arose after the first qualifying intervention.

Example: A patient delivers by Cesarean section for obstructed labor due to breech presentation of the baby. Prior to discharge, a Cesarean wound dehiscence is diagnosed.

Prefix	Code	DAD	Code title
	O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
	O90.002	(2)	Disruption of caesarean section wound, delivered, with mention of postpartum complication
	Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Prefixes 5 and 6 do not apply to obstetrical codes.

Diagnosis type (3) — Secondary diagnosis

A diagnosis type (3) is a secondary diagnosis or condition for which a patient may or may not have received treatment, that has been assigned an ICD-10-CA code and that does not meet any of the three criteria for significance.

Diagnosis type (3) is also used for ICD-10-CA codes that are assigned to provide detail but that in themselves do not represent a condition. Examples include the following:

- B95–B98 Bacterial, viral and other infectious agents
- Sequelae of . . . (B90–B94, E64, E68, G09, I69, O94, O97,T90–T98)
- Z22.30– Carrier of drug-resistant microorganism
- Z37 Outcome of delivery
- Z80–Z84 Family history of . . .
- Z85–Z88 Personal history of . . .

Note

Diagnosis type (3) is not allowed when the entry code is N — Newborn.

Direction pertaining to the assignment of diagnosis type (3) is found throughout the coding standards. Direction may be specified as mandatory or optional.

CIHI recommends that any decision regarding **optional diagnosis type (3) assignment** be made at the jurisdiction or facility level, based on data needs and in consultation with stakeholders responsible for overseeing coding and data quality.

Jurisdiction-wide or facility-mandated direction ensures consistent capture of optional diagnosis type (3) codes. Unless a diagnosis type (3) code is consistently captured by all coders at the jurisdiction or facility level (i.e., not on an individual coder basis), it is not reliable or valid for use. The assignment of optional diagnosis type (3) codes, which has not been mandated by CIHI or by a jurisdiction or facility, creates unnecessary coder burden.

See Appendix F1 — References to mandatory diagnosis type (3)/other problem in directive statements and Appendix F2 — References to optional diagnosis type (3)/other problem in directive statements.

Diagnosis type (W), (X), (Y) — Service transfer diagnosis

A service transfer diagnosis, type (W), (X) or (Y), is an ICD-10-CA code associated with the first, second or third service transfer, respectively. The use of this diagnosis type is determined at the jurisdictional or facility level. Service transfer diagnoses are optional, with the exception of service transfer to alternate level of care (ALC).

Note

When a diagnosis is recorded with a service transfer diagnosis type, it is equivalent to a diagnosis type (1); therefore, it is not necessary to repeat it on the abstract as a diagnosis type (1).

When a diagnosis is recorded as a diagnosis type (2) and also qualifies as a service transfer diagnosis type (W), (X) or (Y), facilities choosing to capture service transfer diagnoses must record the condition twice: first, mandatory, as a diagnosis type (2) and second, optional, as a service transfer diagnosis type (W), (X) or (Y).

Example: A patient is admitted with a cerebral infarction. He has a history of severe chronic obstructive pulmonary disease (COPD). The neurologist deems the patient ready for discharge on day 3 of his admission. However, he begins exhibiting signs of a cold, and a chest X-ray reveals that he has pneumonia. His respiratory status rapidly worsens. He is started on antibiotics and requires intubation and mechanical ventilation. He is transferred to the intensive care unit (ICU) under the service of an internist. He is discharged 10 days later.

Code	DAD	Code title
J44.0	(M)	Chronic obstructive pulmonary disease with acute lower respiratory infection
J18.9	(2)	Pneumonia, unspecified
I63.9	(W) or (1)	Cerebral infarction, unspecified

Rationale: The cerebral infarction meets the definition of diagnosis type (1) or service transfer diagnosis (W). Therefore, for facilities that capture service transfer diagnoses, I63.9 is service transfer diagnosis (W). Since a service transfer diagnosis (W), (X), or (Y) is equivalent to diagnosis type (1) it is not necessary to repeat I63.9 as a diagnosis type (1).

Example: A patient is admitted with a non-ST elevation myocardial infarction (MI). The cardiologist deems the patient ready for discharge on day 4 of his admission. However, he begins exhibiting respiratory distress and is diagnosed with pneumonia. He is transferred to respirology under the care of a respirologist. He is discharged three days later.

Code	DAD	Code title
I21.4	(M)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]
J18.9	(2)	Pneumonia, unspecified
J18.9	(W)	Pneumonia, unspecified (optional)

Rationale: The pneumonia meets the criteria for diagnosis type (2). For those facilities choosing to capture pneumonia as a service transfer diagnosis, the code for pneumonia is repeated with a diagnosis type (W).

Diagnosis type (5) — Admitting diagnosis

Diagnosis type (5) can be used to code the admitting diagnosis when it differs from the MRDx code. Its use is determined at the jurisdictional or facility level. Refer to the *DAD Abstracting Manual* and facility policies to determine the jurisdictional or facility requirement for using this diagnosis type.

Diagnosis type (6) — Proxy most responsible diagnosis

A diagnosis type (6) is assigned to a designated asterisk code in a dagger/asterisk convention when the condition it represents fulfills the requirements stated in the definition for diagnosis type (M) — MRDx. In morbidity coding, asterisk codes are manifestations of an underlying condition and, according to the World Health Organization (WHO) rules, must be sequenced following the code for the underlying cause. The underlying cause codes are identified with a dagger symbol (†) in the ICD-10-CA classification. Diagnosis type (6) is used on the **second line** of the diagnosis field of the abstract to indicate that the manifestation is the condition most responsible for the patient's stay in hospital. When the underlying condition meets the criteria for MRDx, or when it would be difficult to delineate whether it is the underlying condition or the manifestation that meets the criteria for MRDx, the asterisk code is assigned diagnosis type (3).

See also the coding standard *Dagger/Asterisk Convention*.

Note

Only one asterisk code is allowed as a diagnosis type (6).

Example: A patient has advanced Crohn's disease. He is on a maintenance dose of medications for his regional enteritis. This time, he presents with pain, swelling and inflammation of the lower back. He is admitted for treatment of sacroiliac joint arthritis, a complication of the enteritis.

Code	DAD	Code title
K50.9†	(M)	Crohn's disease, unspecified
M07.4*	(6)	Arthropathy in Crohn's disease [regional enteritis]

Rationale: The arthropathy code is an asterisk code; thus it must be sequenced in the second diagnosis location on the abstract. However, since the arthropathy (and not the Crohn's disease) meets the criteria for MRDx, it is assigned diagnosis type (6). Note that K50.9 is not always a dagger code. However, in this disease combination, the alphabetical index directs that it be used as such with M07.4.

Example: A patient with known systemic lupus erythematosus presents with hematuria and fever. He is diagnosed with nephritis and admitted for treatment of his renal condition.

Code	DAD	Code title
M32.1†	(M)	Systemic lupus erythematosus with organ or system involvement
N08.5*	(6)	Glomerular disorders in systemic connective tissue disorders

Rationale: The glomerular disorder code is an asterisk code; thus it must be sequenced in the second diagnosis location on the abstract. However, since the nephritis (and not the systemic lupus erythematosus) meets the criteria for MRDx, it is assigned diagnosis type (6).

Example: A patient is admitted for meningococcal meningitis.

Code	DAD	Code title
A39.0†	(M)	Meningococcal meningitis
G01*	(3)	Meningitis in bacterial diseases classified elsewhere

Rationale: This patient has an infectious disorder involving the nervous system, and a dagger/asterisk convention applies. However, since it would be difficult to delineate whether it is the underlying condition or the manifestation that meets the criteria for MRDx, the asterisk code is assigned diagnosis type (3).

Example: A patient is known to have type 1 diabetes mellitus with diabetic retinopathy. He is admitted by an ophthalmologist for management of his retinopathy.

Code	DAD	Code title
E10.30†	(M)	Type 1 diabetes mellitus with background retinopathy
H36.0*	(6)	Diabetic retinopathy

Rationale: Retinopathy is an asterisk code; thus it must be sequenced in the second diagnosis location on the abstract. However, since the retinopathy (and not the diabetes mellitus) meets the criteria for MRDx, it is assigned diagnosis type (6).

Diagnosis type (7), (8) — Restricted to CIHI — DO NOT USE

Diagnosis type (9) — External cause of injury code

A diagnosis type (9) is an external cause of injury code (Chapter XX — External causes of morbidity and mortality), place of occurrence code (U98.– *Place of occurrence*) or activity code (U99.– *Activity*). Chapter XX codes are mandatory for use with codes in the range S00–T98 *Injury, poisoning and certain other consequences of external causes*. Category U98 *Place of occurrence* is mandatory with codes in the range W00–Y34, with the exception of Y06 and Y07; category U99 *Activity* is optional.

Diagnosis type (0) — Newborn

Diagnosis type (0) is restricted to newborn codes only (admit category N).

In a **healthy** infant for whom the MRDx is a code from category Z38 *Liveborn infants according to place of birth*, any other codes entered on the newborn abstract must be diagnosis type (0).

Note

Diagnosis type (3) cannot be assigned to any code on a newborn's abstract.

In an **unhealthy** infant for whom the MRDx is a code from the range P00–P96 or any other code from another chapter within ICD-10-CA indicating a significant condition (i.e., any condition that meets the criteria for significance), then Z38.– must be a diagnosis type (0). In this circumstance, diagnosis type (0) can be used to record any additional insignificant conditions that do not affect the newborn's treatment or length of stay and do not satisfy the requirements for determining when a condition meets the criteria for significance. Additional conditions that meet the criteria for significance are assigned diagnosis type (1), (2), (W), (X) or (Y) as indicated by the documentation in the chart.

Note

It is mandatory to assign a code from category Z38 *Liveborn infants according to place of birth* on a newborn's abstract.

A newborn is considered unhealthy and Z38.– is assigned diagnosis type (0) when a **documented condition** in the newborn meets one of the criteria below.

- Required supervision and/or specific monitoring (e.g., admission to neonatal intensive care unit [NICU]; excludes routine admission to NICU following Cesarean section);
- Put the baby's health and/or life at risk;
- Prematurity (gestational age of the newborn less than 37 completed weeks);
- Low birth weight (less than 2,500 grams);
- Required a medical and/or surgical consultation;
- Required further investigation, for example, therapeutic or diagnostic interventions; and/or
- Requires further treatment or follow-up (beyond routine postnatal check-up) after discharge (e.g., congenital malformations, deformations and chromosomal abnormalities).

Exception

Consultation for circumcision and/or the intervention does not qualify a newborn as unhealthy. Z41.2 *Routine and ritual circumcision,* when assigned on the newborn abstract, is always a diagnosis type (0).

Example: A newborn female is delivered vaginally at 34 weeks with birth weight of 2,400 grams. She is transferred to the NICU with a diagnosis of prematurity and request for a cardiology consultation. Following consultation, she is diagnosed with a patent ductus arteriosus (PDA), which spontaneously closes after five days. She is discharged home at 21 days of age.

Code	DAD	Code title
P07.1	(M)	Other low birth weight
P07.3	(1)	Other preterm infants
Q25.0	(1)	Patent ductus arteriosus
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: This baby is unhealthy due to a low birth weight and PDA. See also the coding standard *Low Birth Weight and/or Preterm Infant*.

Example: A term infant is delivered by operative vaginal delivery using forceps. On the newborn physical examination report, the physician notes that there is cephalhematoma.

Code	DAD	Code title
Z38.000	(M)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception
P12.0	(0)	Cephalhaematoma due to birth injury
P03.2	(0)	Fetus and newborn affected by forceps delivery

Rationale: The newborn is healthy, as there is no documentation indicating that the cephalhematoma was complicated. If a code for cephalhematoma is assigned, it must be a diagnosis type (0).

Example: A newborn male is delivered vaginally at 40 weeks. On initial assessment, the physician documents the infant as having left talipes equinovarus (club foot). There are no consultations during the hospital stay, but the discharge note indicates the mother is to make an appointment with an orthopedic surgeon for follow-up.

Code	DAD	Code title
Q66.0	(M)	Talipes equinovarus
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: This infant is considered an unhealthy newborn. The club foot is a condition that will require subsequent follow-up and treatment.

Example: A baby girl is born at term via spontaneous vaginal delivery with a birth weight of 3,928 grams. It is documented in the chart that the infant's discharge was delayed because the mother developed a postpartum fever and required further investigation and treatment. The mother continued breastfeeding and caring for the baby.

Code	DAD	Code title
Z38.000	(M)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: This is a healthy infant even though there was a prolonged length of stay. An additional code to describe the extended length of stay would depend on physician documentation.

More examples of diagnosis typing for comorbid and secondary conditions

Example: A patient is admitted for inguinal hernia repair. The discharge summary states that he has chronic atrial fibrillation and is on digoxin, propranolol and long-term Coumadin. The post-op orders are to hold warfarin tonight, give warfarin 2.5 mg tomorrow morning and evening, and check INR daily for three days. While in hospital, the patient has a cardiology consult, and his digoxin and propranolol medications are adjusted. The discharge summary also states that the patient was kept in the ICU for 24 hours to monitor his atrial fibrillation closely.

Code	DAD	Code title
K40.9	(M)	Unilateral or unspecified inguinal hernia, without obstruction or gangrene
I48.02	(1)	Chronic atrial fibrillation

Rationale: Atrial fibrillation is a pre-admit comorbidity, as it met at least one of the criteria for significance. Atrial fibrillation required treatment beyond maintenance of the pre-existing condition; it warranted a consult, amended course of treatment and admission to ICU.

Example: A patient is admitted with a non-Q-wave MI. It states in the history and physical that he has osteoarthritis and pain in his left knee. While recovering in hospital, an X-ray of his left knee is done, but no treatment is undertaken and there is no further documentation.

Code	DAD	Code title
I21.4	(M)	Acute subendocardial myocardial infarction
R94.38	(3)	Other and unspecified abnormal results of cardiovascular function studies
M17.9	(3)	Gonarthrosis, unspecified (optional)

Rationale: The physician has documented osteoarthritis in the history and physical. A simple X-ray was taken to assess a previously diagnosed condition, but there was no treatment beyond maintenance of this pre-existing condition. There was also no additional documentation indicating the condition prolonged the stay. If assigned, M17.9 is recorded as a diagnosis type (3). A code from subcategory R94.3– as a diagnosis type (3) is mandatory with a diagnosis from category I21. Since there is no documentation in this example to support the selection of R94.30 or R94.31, the code R94.38 is assigned.

Example: A patient is admitted with congestive heart failure (CHF) and an acute exacerbation of COPD. Treatment and progress is documented in the discharge summary and progress notes. He is treated with IV Lasix, oxygen and local pharmacotherapy (Ventolin and Combivent). He recovers quickly. Hypokalemia is documented in the physician's progress notes, and the patient is kept in hospital for an additional 24 hours to deliver KCL boluses × 2. The patient is sent home on KCL elixir p.o.

Code	DAD	Code title
I50.0	(M)	Congestive heart failure
J44.1	(1)	Chronic obstructive pulmonary disease with acute exacerbation, unspecified
E87.6	(2)	Hypokalaemia

Rationale: J44.1 is a diagnosis type (1) because it was present prior to the patient's admission, and both the discharge summary and the progress notes confirm its significance. E87.6 is a diagnosis type (2) because it was not present on admission to hospital (post-admission comorbidity), and the progress notes clearly reflect the increased length of stay for treatment and stabilization.

Example: A patient is admitted with CHF and an acute exacerbation of COPD. She is treated with IV Lasix, oxygen and local pharmacotherapy (Ventolin and Combivent). Treatment for the CHF and COPD and the patient's response are clearly documented in the progress notes. She recovers quickly, but low potassium is noted on a lab report, and an order for a KCL bolus is given. Following this, her potassium level returns to normal. There is no mention of hypokalemia in the progress notes.

Code	DAD	Code title
I50.0	(M)	Congestive heart failure
J44.1	(1)	Chronic obstructive pulmonary disease with acute exacerbation, unspecified

Rationale: Unless hypokalemia is documented by the physician, no code is assigned.

Example: A patient is admitted with an upper gastrointestinal (GI) hemorrhage. On admission, the physician documents that the hemoglobin is low. An upper GI endoscopy is performed. An acute duodenal ulcer with perforation is diagnosed and repaired. During the episode of care, the patient's hemoglobin is monitored, and anemia is documented throughout the stay. On day 3 of the admission, the physician recommends that the patient have a blood transfusion. The patient refuses the blood transfusion and opts for "wait and see" management. The final diagnosis is documented as acute duodenal ulcer with hemorrhage and anemia due to acute blood loss.

Code	DAD	Code title
K26.2	(M)	Duodenal ulcer, acute with both haemorrhage and perforation
D62	(1)	Acute posthaemorrhagic anaemia

Rationale: D62 is a diagnosis type (1) because it was present on admission and the physician's documentation and proposed treatment plan (i.e., blood transfusion) confirm its significance. Therefore, even though it is not treated, based on the documentation, it is significant in the context of this episode of care.

Example: A term patient with gestational diabetes presents in labor. Resources at the facility are limited; therefore, arrangements are made to transfer the patient to the care of an obstetrician at another facility. However, while waiting for the ambulance, after 90 minutes of labor, she delivers a baby boy, manually assisted without episiotomy. She sustains a third-degree laceration of the perineum. She is transferred via ambulance to the other facility for repair of the third-degree laceration.

Code	DAD	Code title
O24.801	(M)	Diabetes mellitus arising in pregnancy (gestational), delivered, with or without mention of antepartum condition
O70.291	(1)	Third degree perineal laceration during delivery, unspecified type, delivered, with or without mention of antepartum condition
O62.301	(1)	Precipitate labour, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: The third-degree perineal laceration was not repaired at the reporting facility during this episode of care. However, the patient was transferred to another facility for the repair. Therefore, the third-degree laceration qualifies as a diagnosis type (1) because a therapeutic intervention identified as mandatory for code assignment in the coding standards was performed.

Diagnosis Cluster

For description of change, see Appendix C.

In effect 2012, amended 2015, 2018

A diagnosis cluster is a group of two or more ICD-10-CA codes that relate to one another. Assigning the same diagnosis cluster character (uppercase alpha character A to Y) to each of the codes in the cluster is the mechanism that links these codes together on the abstract.

DAD and NACRS directive statements

Apply a diagnosis cluster, mandatory, when a code from the following categories is assigned:

- External causes related to complications of medical and surgical care (Y40–Y84); and
- Resistance to antibiotics (U82 and U83) and other antimicrobial drugs (U84).

Assign the same diagnosis cluster character (uppercase alpha character A to Y) to all codes within the same diagnosis cluster.

Note

Ensure application of a diagnosis cluster is used *only* for adverse effects in therapeutic use (Y40–Y59), post-intervention conditions (Y60–Y84) and infections from drug-resistant microorganisms (U82–U84). *Application of a diagnosis cluster in any other circumstance is not permitted*.

Note

When there are two or more diagnosis clusters on the abstract, each must make use of a different uppercase alpha character A to Y for the codes within the cluster.

Note

There is no limit to the number of codes assigned to the same diagnosis cluster.

Note

The diagnosis type for each code within a cluster is based on the diagnosis typing/problem definitions and/or directions found in another coding standard.

Note

For more information about diagnosis clusters, see Group 10, Field 03 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 127 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Creating a diagnosis cluster for drug-resistant microorganism infections

Note

The purpose of the diagnosis cluster for a drug-resistant microorganism infection is to link resistance to a specific drug with the microorganism and the infection site with which the drug resistance is associated.

Create one diagnosis cluster for

- A single infection associated with a drug-resistant microorganism; or
- Two or more infections associated with the *same* drug-resistant microorganism.

Create two or more diagnosis clusters when there is more than one infection and each is associated with a **different** drug-resistant microorganism.

The set of codes in the drug-resistant microorganism diagnosis cluster identifies the

- Type of drug resistance (U82–U84);
- Infectious organism; and
- Infection site or sites.

See also the coding standard *Drug-Resistant Microorganisms*.

Example: A patient presents to hospital with septic arthritis of the left shoulder that is MRSA positive. Arthroscopy is performed to thoroughly irrigate and debride the shoulder.

Code	DAD	NACRS	Cluster	Code title
M00.01	(M)	MP	A	Staphylococcal arthritis and polyarthritis, shoulder region
B95.6	(3)	OP	A	Staphylococcus aureus as the cause of diseases classified to other chapters
U82.1	(1)	OP	A	Resistance to methicillin

Rationale: Application of a diagnosis cluster is mandatory for drug-resistant microorganism infections. The same diagnosis cluster character is assigned to all codes describing the single drug-resistant microorganism infection. Diagnosis cluster A links the drug resistance (methicillin) to the related microorganism (staph aureus) and infection site (shoulder). (This example demonstrates the use of one diagnosis cluster for a single infection associated with a drug-resistant microorganism.)

Example: A patient is admitted with a urinary tract infection (UTI) and pneumonia, both of which are due to staphylococcus aureus that is resistant to methicillin.

Code	DAD	NACRS	Cluster	Code title
J15.2	(M)	MP	A	Pneumonia due to Staphylococcus
N39.0	(1)	OP	A	Urinary tract infection, site not specified
B95.6	(3)	OP	A	Staphylococcus aureus as the cause of diseases classified to other chapters
U82.1	(1)	OP	A	Resistance to methicillin

Rationale: Application of a diagnosis cluster is mandatory for drug-resistant microorganism infections. The same diagnosis cluster character is assigned to all codes describing the two infections that are associated with the same drug resistance. Diagnosis cluster A links the drug resistance (methicillin) to the related organism (staph aureus) and infection sites (lung and urinary tract). (This example demonstrates the use of one diagnosis cluster for two or more infections associated with the **same** drug-resistant microorganism.)

Creating a diagnosis cluster for post-intervention conditions

Note

The purpose of the diagnosis cluster for a post-intervention condition is to link the external cause code denoting the nature of the post-intervention condition with the condition(s) with which that complication of surgical and medical care is associated.

The nature of the post-intervention condition pertains to the type of post-intervention condition, per the external cause code that is assigned. Each post-intervention condition is

- A misadventure (Y60–Y69);
- An adverse incident associated with a medical device (Y70–Y82); or
- An abnormal reaction/later complication (Y83–Y84).

Note: Y83–Y84 includes both abnormal reactions and later complications.

Create one diagnosis cluster for

- A single post-intervention condition; or
- Two or more post-intervention conditions of the **same nature** (misadventure, medical device associated with adverse incident or abnormal reaction/later complication) that are related to the **same intervention episode**.

Create two or more diagnosis clusters when

- There are two or more post-intervention conditions of the **same nature** and each is related to a **different intervention(s) within an intervention episode or different intervention episodes**; and/or
- There are two or more post-intervention conditions of a **different nature** and each is related to the **same intervention episode**.

The set of codes included in the post-intervention condition diagnosis cluster identifies the

- Nature of the complication of surgical and medical care (Y60–Y84);
- Related condition(s); and
- Additional code(s) for specificity (when required and available).

See also the coding standard *Post-Intervention Conditions*.

Note

It is mandatory to apply a diagnosis cluster each time a post-intervention condition is classified. This includes when a post-intervention condition is captured

- During the episode of care;
- On readmission; and
- When the patient is transferred from another facility.

Example: A patient has a total hip replacement and is discharged. The next day, the patient returns to the hospital with a dislocated left total hip replacement with no associated trauma. A closed reduction is performed.

Code	DAD	NACRS	Cluster	Code title
T84.031	(M)	MP	A	Mechanical complication of hip prosthesis, instability
Y83.1	(9)	OP	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. The same diagnosis cluster character is assigned to all codes describing the single post-intervention condition. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (mechanical complication). (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition. It also demonstrates the application of a diagnosis cluster when a post-intervention condition is captured on readmission.)

Example: A patient has a carpal tunnel release and briefly exhibits mild confusion in the recovery room, which quickly clears on its own.

Code	DAD	NACRS	Cluster	Code title
G56.0	(M)	MP		Carpal tunnel syndrome
R41.0	(3)	OP	A	Disorientation, unspecified (optional)
Y83.8	(9)	OP	A	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure (optional)

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions regardless of diagnosis type assignment. The post-operative confusion does not meet the criteria for significance in this case. If it is captured, it is assigned diagnosis type (3). The same diagnosis cluster character is assigned to all codes describing the single post-intervention condition. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (confusion). (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition. It also demonstrates that the diagnosis type for each code within a cluster is based on the diagnosis typing/problem definitions and/or direction found within another coding standard.)

Example: A patient is admitted for a revision arthroplasty due to metallosis, abrasion of the metal components. The original surgery was 10 years ago.

Code	DAD	NACRS	Cluster	Code title
T84.032	(M)	MP	A	Mechanical complication of hip prosthesis, wear of articular bearing surface
Y83.1	(9)	OP	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions regardless of when the intervention took place. The same diagnosis cluster character is assigned to all codes describing the single post-intervention condition. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (mechanical complication). (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition. It also demonstrates the application of a diagnosis cluster when a post-intervention condition is captured on readmission.)

Example: The patient is admitted for a partial excision of the colon due to cancer. During the intervention, an accidental tear to the spleen results in an unplanned splenectomy. The patient also has ongoing issues with hypotension post-operatively.

Code	DAD	Cluster	Code title
C18.9	(M)		Malignant neoplasm colon, unspecified
T81.2	(2)	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S36.091	(3)	A	Haematoma NOS, laceration NOS, injury to spleen NOS, with open wound into cavity
Y60.0	(9)	A	Unintentional cut, puncture, perforation or haemorrhage, during surgical operation
I95.9	(2)	B	Hypotension, unspecified
Y83.9	(9)	B	Surgical procedure, unspecified as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Since there are post-intervention conditions related to the same intervention episode that are of different natures, two diagnosis clusters are applied; each makes use of a different uppercase alpha character. Diagnosis cluster A links the external cause (misadventure) to the related condition (accidental laceration) and the additional code for specificity (laceration of spleen). Diagnosis cluster B links the external cause (abnormal reaction/later complication) to the related condition (hypotension). (This example demonstrates the use of two or more diagnosis clusters for post-intervention conditions of a different nature [misadventure and abnormal reaction/later complication] that are related to the same intervention episode.)

Example: A patient undergoes a vaginal hysterectomy for uterovaginal prolapse. On the second day following the intervention, she is diagnosed with urinary retention and atelectasis requiring further treatment and monitoring. An indwelling urinary catheter was inserted at the end of surgery, and the patient subsequently develops catheter-related cystitis.

Code	DAD	Cluster	Code title
N81.4	(M)		Uterovaginal prolapse, unspecified
R33	(2)	A	Retention of urine
J98.10	(2)	A	Atelectasis
Y83.6	(9)	A	Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
T83.5	(2)	B	Infection and inflammatory reaction due to prosthetic device, implant and graft in urinary system
N30.0	(3)	B	Acute cystitis
Y84.6	(9)	B	Urinary catheterization as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Since there are post-intervention conditions related to different interventions, two diagnosis clusters are applied; each makes use of a different uppercase alpha character. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related conditions (retention of urine and atelectasis) associated with the same intervention episode (hysterectomy). Diagnosis cluster B links the external cause (abnormal reaction/later complication) to the related condition (cystitis) associated with a different intervention episode (catheterization). (This example demonstrates the use of two or more diagnosis clusters for two or more post-intervention conditions of the same nature [abnormal reaction/later complication] that are related to different intervention episodes [hysterectomy and catheterization].)

Example: A patient with primary, bilateral osteoarthritis of the knee has a total knee replacement in Hospital A and is transferred to Hospital B one day after surgery for convalescence. On admission to Hospital B, the patient is diagnosed with anemia, for which she is transfused with two units of washed red blood cells.

Code	DAD	Cluster	Code title
Z54.0	(M)		Convalescence following surgery
M17.0	(3)		Primary gonarthrosis, bilateral
D64.9	(1)	A	Anaemia, unspecified
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The same diagnosis cluster character is assigned to all codes describing the single post-intervention condition. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (anemia). (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition. It also demonstrates the application of a diagnosis cluster when a post-intervention condition is present on transfer during an uninterrupted continuous episode of care.)

Example: A patient with known coronary atherosclerosis is admitted for a coronary artery bypass graft. Two days after surgery the patient suffers a cerebral infarction, which significantly affects the length of stay and qualifies as the MRDx.

Code	DAD	Cluster	Code title
I63.9	(M)	A	Cerebral infarction, unspecified
I63.9	(2)	A	Cerebral infarction, unspecified
Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
I25.10	(1)		Atherosclerotic heart disease of native coronary artery

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Since the cerebral infarction is a post-admit comorbidity that also qualifies as the MRDx, it is captured twice on the abstract; as MRDx and as diagnosis type (2). The same diagnosis cluster character is assigned to all codes describing the single post-intervention condition. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (cerebral infarction). Since there is only one cerebral infarction associated with a single intervention episode, the external cause code is recorded once. The same diagnosis cluster character is applied to all three codes, thereby indicating that the cerebral infarction occurred following the intervention and became the MRDx. (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition that is a post-admit comorbidity and becomes the MRDx.)

Example: A patient is admitted with sepsis due to hernia repair (without tissue) performed two weeks ago. He is treated for five days for the infection and is ready to go home when he coughs and suffers a wound dehiscence, for which he has to be taken to the OR for closure. He remains in hospital for another 25 days.

Code	DAD	Cluster	Code title
T81.3	(M)	A	Disruption of operation wound, not elsewhere classified
T81.3	(2)	A	Disruption of operation wound, not elsewhere classified
T81.4	(1)	A	Infection following a procedure, not elsewhere classified
A41.9	(3)	A	Sepsis, unspecified
Y83.4	(9)	A	Other reconstructive surgery as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Although one post-intervention condition is present on admission and the other arises following admission, both the sepsis and the wound dehiscence are of the same nature (abnormal reaction/later complication) and are related to the same intervention episode (hernia repair); thus only one diagnosis cluster is applied. The same diagnosis cluster (A) is assigned to all codes describing the post-intervention conditions. (This example demonstrates the use of one diagnosis cluster for two or more post-intervention conditions of the same nature [abnormal reaction/later complication] that relate to the same intervention episode even when one is present on admission [pre-admit comorbidity] and another arises following admission [post-admit comorbidity]. It also demonstrates the application of a diagnosis cluster for a post-admit comorbidity that becomes the MRDx.)

Example: The patient is admitted for evaluation of deep, painful abscesses on the back of her neck. She also has a fever and abdominal pain. Culture and sensitivity of the pus taken from the boils show that it is MRSA. She is placed in isolation. Ultrasound of the abdomen reveals appendicitis, and an appendectomy is performed. Surgical drainage of the neck abscess is done during the same operative episode. Post-appendectomy, the patient has an infection of the incision site, which is treated.

Code	DAD	Cluster	Code title
K35.8	(M)		Acute appendicitis, other and unspecified
L02.1	(1)	A	Cutaneous abscess, furuncle and carbuncle of neck
B95.6	(3)	A	Staphylococcus aureus as the cause of diseases classified to other chapters
U82.1	(1)	A	Resistance to methicillin
T81.4	(2)	B	Infection following a procedure, not elsewhere classified
Y83.6	(9)	B	Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for drug-resistant microorganism infections and post-intervention conditions. Diagnosis cluster A links the drug resistance (methicillin) to the related organism (staphylococcus aureus) and infection site (cutaneous abscess). Diagnosis cluster B links the external cause (abnormal reaction/later complication) to the related condition (wound infection). (This example demonstrates the use of separate diagnosis clusters for a single infection associated with drug resistance and a single post-intervention condition when neither of the conditions relates to one another.)

Example: This patient previously had a partial colectomy with anastomosis performed for colon cancer. The patient is readmitted with an infection of the abdominal incision, which is positive for MRSA. The wound infection is successfully treated and the patient is discharged home.

Code	DAD	Cluster	Code title
T81.4	(M)	A	Infection following a procedure, not elsewhere classified
U82.1	(1)	A	Resistance to methicillin
B95.6	(3)	A	Staphylococcus aureus as the cause of diseases classified to other chapters
Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for drug-resistant microorganism infections and post-intervention conditions. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (MRSA wound infection). (This example demonstrates the use of one diagnosis cluster for a single post-intervention condition that involves an infection associated with drug resistance.)

Example: The patient is admitted for removal and replacement of an infected knee prosthesis that was implanted six months ago. Following the revision procedure, the patient develops pneumonia and remains in hospital for six more days.

Code	DAD	Cluster	Code title
T84.54	(M)	A	Infection and inflammatory reaction due to knee prosthesis
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
J18.9	(2)	B	Pneumonia, unspecified
Y83.1	(9)	B	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (infection of knee prosthesis) following the insertion of the knee joint prosthesis. Diagnosis cluster B links the external cause (abnormal reaction/later complication) to the related condition (pneumonia) following the revision of the knee joint prosthesis. The two identical external cause codes (Y83.1) reflect that there are two different intervention episodes with one or more related post-intervention conditions. (This example demonstrates the use of two or more diagnosis clusters for two or more post-intervention conditions of the same nature [abnormal reaction/later complication] that are related to different intervention episodes [insertion of knee prosthesis and replacement of knee prosthesis] even when the external cause code for the different episodes is the same.)

Example: A trauma patient is admitted and taken emergently to the OR, where he undergoes repair of a large laceration on the arm, partial resection with primary anastomosis of the small bowel related to his injury and application of an external fixator to an open fracture of the tibia (intervention episode 1). On day 3, the patient develops respiratory failure. On day 10, he is taken back to the OR for tracheostomy (intervention episode 2). The following day, he returns to the OR for control of hemorrhage around the tracheostomy site (intervention episode 3). On day 13, the patient develops post-operative renal failure.

Code	DAD	Cluster	Code title
J95.2	(2)	A	Acute pulmonary insufficiency following nonthoracic surgery
Y83.9	(9)	A	Surgical procedure, unspecified, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
T81.0	(2)	B	Haemorrhage and haematoma complicating a procedure, not elsewhere classified
Y83.3	(9)	B	Surgical operation with formation of external stoma as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
N99.0	(2)	C	Postprocedural renal failure
N17.9	(3)	C	Acute renal failure, unspecified
Y83.9	(9)	C	Surgical procedure, unspecified, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Application of a diagnosis cluster is mandatory for post-intervention conditions. Diagnosis cluster A links the external cause (abnormal reaction/later complication) to the related condition (respiratory failure) following the first intervention episode in which multiple types of interventions were performed (Y83.9). Diagnosis cluster B links the external cause (abnormal reaction/later complication) to the related condition (hemorrhage around tracheostomy site), which is clearly related to the tracheostomy intervention episode. In this example, since it is unknown to which intervention episode the renal failure pertains (or whether it is a cumulative effect), a third diagnosis cluster (C) is necessary, as this post-intervention condition cannot be included in a diagnosis cluster identifying a post-intervention condition that is related to a given intervention episode.

Noteworthy is that the two identical external cause codes (Y83.9) in two separate diagnosis clusters have different meanings. The first Y83.9 represents a single intervention episode during which there were different types of interventions performed. The second Y83.9 represents multiple intervention episodes where different types of interventions were performed.

(This example demonstrates the use of multiple diagnosis clusters when all of the post-intervention conditions are of the same nature [abnormal reaction/later complication] and some are clearly related to different intervention episodes [intervention episode 1 and intervention episode 2] while for another the related intervention episode is unknown [unknown whether related to intervention episode 1, 2 or 3 or a combination of these].)

Creating a diagnosis cluster for adverse effects in therapeutic use

Note

The purpose of the diagnosis cluster for adverse effects in therapeutic use is to link one or more drugs, medicaments or biological substances causing one or more adverse effects to the specific adverse effects with which they are associated.

Create one diagnosis cluster for

- A single adverse effect of a drug, medicament or biological substance in therapeutic use; or
- Two or more adverse effects resulting from the same drug, medicament or biological substance in therapeutic use; or
- One or more adverse effects resulting from a combination of drugs, medicaments or biological substances in therapeutic use.

Create two or more diagnosis clusters when there are two or more adverse effects that are the result of a **different** drug, medicament or biological substance in therapeutic use.

The set of codes included in the adverse effect in therapeutic use diagnosis cluster identifies the

- Drug(s), medicament(s) or biological substance(s) causing the adverse effect (Y40–Y59); and
- Adverse effect(s).

See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Example: A patient is admitted for treatment of chemotherapy-induced neutropenia. The patient is receiving a combination of chemotherapy agents, as an outpatient, for treatment of cancer of the left lower lobe of the lung.

Code	DAD	Cluster	Code title
D70.0	(M)	A	Neutropenia
Y43.3	(9)	A	Other antineoplastic drugs causing adverse effects in therapeutic use
C34.31	(3)		Malignant neoplasm of lower lobe, left bronchus or lung

Rationale: Application of a diagnosis cluster is mandatory for adverse effects in therapeutic use. The same diagnosis cluster character is assigned to all codes describing the single adverse effect from one drug in therapeutic use. Diagnosis cluster A links the drug causing the adverse effect (antineoplastic drugs) to the related adverse effect (neutropenia). (This example demonstrates the use of one diagnosis cluster for a single adverse effect of a single drug in therapeutic use.)

Example: A patient presents to hospital with hives and swelling of the face. The patient has been taking Keflex to treat a UTI for the past 24 hours. The discharge diagnosis is drug reaction. The patient is advised to stop the Keflex, and a new antibiotic is introduced.

Code	NACRS	Cluster	Code title
L50.0	MP	A	Allergic urticaria
R22.0	OP	A	Localized swelling, mass and lump, head
Y40.1	OP	A	Cefalosporins and other ß-lactam antibiotics causing adverse effects in therapeutic use

Rationale: Application of a diagnosis cluster is mandatory for adverse effects in therapeutic use. Diagnosis cluster A links the drug causing the adverse effect (cephalosporin antibiotics) to the related adverse effects (urticaria and localized swelling). (This example demonstrates the use of one diagnosis cluster for two or more adverse effects resulting from the same drug in therapeutic use.)

Example: The patient is admitted to hospital with ventricular tachycardia due to digoxin toxicity. On day 3, the patient develops pneumonia and is started on amoxicillin. The patient develops confusion that is documented as being due to the amoxicillin. The amoxicillin is stopped, and a new antibiotic is introduced. The pneumonia extends the patient's stay in hospital by another eight days.

Code	DAD	Cluster	Code title
J18.9	(M)		Pneumonia, unspecified
J18.9	(2)		Pneumonia, unspecified
I47.2	(1)	A	Ventricular tachycardia
Y52.0	(9)	A	Cardiac-stimulant glycosides and drugs of similar action causing adverse effects in therapeutic use
R41.0	(2)	B	Disorientation, unspecified
Y40.0	(9)	B	Penicillins causing adverse effects in therapeutic use

Rationale: Application of a diagnosis cluster is mandatory for adverse effects in therapeutic use. Diagnosis cluster A links the one drug causing an adverse effect (cardiac-stimulant glycosides) to the related adverse effect (ventricular tachycardia). Diagnosis cluster B links a second drug causing an adverse effect (penicillin) to the related adverse effect (confusion). (This example demonstrates the use of two or more diagnosis clusters when there are two or more adverse effects that are the result of different drugs in therapeutic use.)

Example: The patient presents to hospital with spontaneous bruising on the skin. The patient is on Coumadin therapy and has also been taking tetracycline to treat a UTI for the past eight days. The discharge diagnosis is “enhanced anticoagulation effect” from an interaction between these two drugs. The patient is advised to stop both drugs, and a new antibiotic is introduced.

Code	DAD	NACRS	Cluster	Code title
R23.3	(M)	MP	A	Spontaneous ecchymoses
Y44.2	(9)	OP	A	Anticoagulants causing adverse effects in therapeutic use
Y40.4	(9)	OP	A	Tetracyclines causing adverse effects in therapeutic use

Rationale: Application of a diagnosis cluster is mandatory for adverse effects in therapeutic use. Diagnosis cluster A links the combination of drugs causing the adverse effect (anticoagulants and tetracyclines) to the related adverse effect (spontaneous bruising [cutaneous hemorrhage]). (This example demonstrates the use of one diagnosis cluster when there are single or multiple adverse effects resulting from a combination of drugs in therapeutic use.)

Diagnoses of Equal Importance[1]

In effect 2001, amended 2006

DAD and NACRS directive statement

When two or more diagnoses of equal importance are listed with no clear indication in the health record as to which one is the MRDx/main problem, select the condition for which a definitive (as opposed to diagnostic) surgical or non-surgical procedure has been performed. If no surgery has been performed, select the first-listed diagnosis as the MRDx/main problem.

Example: A patient is discharged home with a diagnosis of bronchopneumonia treated with antibiotics and upper gastrointestinal hemorrhage due to esophageal varices, which were sclerosed, endoscopically, using a laser.

Code	DAD	Code title
I85.0	(M)	Oesophageal varices with bleeding
J18.0	(1)	Bronchopneumonia, unspecified

1.NA.13.BA-AG Control of bleeding, esophagus, using endoscopic per orifice approach and laser

Example: The patient has a five-day stay in hospital to further investigate and conservatively manage her COPD with acute exacerbation and bowel obstruction.

Code	DAD	Code title
J44.1	(M)	Chronic obstructive pulmonary disease with acute exacerbation, unspecified
K56.6	(1)	Other and unspecified intestinal obstruction

Rationale: Both diagnoses are of equal importance. Neither was treated surgically. COPD is selected as the MRDx because it is listed first.

Example: The patient is admitted with a stroke and spends 20 days on neurology. He develops urinary retention and is assessed by a urologist, who diagnoses benign prostatic hyperplasia and recommends a resection of the prostate. While remaining on the neurology service, the patient continues to receive physiotherapy and occupational therapy for hemiplegia. He is also taken to the OR for a transurethral resection of the prostate, which is carried out without incident.

Code	DAD	Code title
I64	(M)	Stroke, not specified as haemorrhage or infarction
G81.99	(1)	Hemiplegia of unspecified type of unspecified [unilateral] side
N40	(1)	Hyperplasia of prostate

Rationale: Although the prostatic hyperplasia is the condition for which the patient received surgical care, the stroke is still the MRDx. The stroke has consumed more resources in terms of time and attention devoted to its treatment. (There will not always be a direct match between the MRDx and the principal intervention.)

Example: An elderly female patient presents to the emergency department. She has a chest X-ray performed and is transferred to the medical unit with the diagnoses of pneumonia and CHF.

Code	NACRS	Code title
J18.9	MP	Pneumonia, unspecified
I50.0	OP	Congestive heart failure

Rationale: Pneumonia and CHF are of equal importance. As pneumonia is listed first, it is selected as the main problem.

Specificity[1]

In effect 2001, amended 2003

DAD and NACRS directive statement

When one diagnosis describes a condition in general terms but a more descriptive term providing more precise information about the site or nature of the condition is reported among the other listed diagnoses, select the most specific condition.

Example: The physician lists both cerebrovascular accident and cerebral hemorrhage as diagnoses.

Code	DAD	NACRS	Code title
I61.9	(M)	MP	Intracerebral haemorrhage, unspecified

Rationale: Intracerebral hemorrhage is a type of cerebrovascular accident and is more specific; only a code for intracerebral hemorrhage is assigned.

Example: The physician has noted that the patient developed a decubitus ulcer that is delaying discharge (the ulcer was not present on admission). The nurse specialist has documented the ulcer as stage 3.

Code	DAD	Code title
L89.2	(2)	Stage III decubitus [pressure] ulcer

Rationale: Since the ulcer is documented in the physician's notes, the nursing documentation can be used to add specificity.

Using Diagnostic Test Results in Coding

In effect 2003, amended 2006, 2009, 2015

DAD and NACRS directive statement

Use X-ray, pathology and other diagnostic results (excluding laboratory reports) when they clearly add specificity in identifying the appropriate diagnosis code for conditions documented in the physician/primary care provider notes.

Example: The patient tripped and fell in a grocery store; the physician records a closed fracture of the neck of femur. The X-ray result shows a cervicotrochanteric fracture.

Code	DAD	NACRS	Code title
S72.010	(M)	MP	Fracture of base of femoral neck (cervicotrochanteric), closed
W01	(9)	OP	Fall on same level from slipping, tripping and stumbling
U98.5	(9)	OP	Place of occurrence, trade and service area

Example: The patient's chart documentation shows that she was admitted for removal of a skin lesion. The pathology report shows solar keratosis.

Code	DAD	NACRS	Code title
L57.0	(M)	MP	Actinic keratosis

Example: The physician has recorded the diagnosis of intracranial hemorrhage. The CT scan confirmed subarachnoid hemorrhage.

Code	DAD	NACRS	Code title
I60.9	(M)	MP	Subarachnoid haemorrhage, unspecified

Example: The patient presents with signs and symptoms of a UTI and is started on a course of treatment. The laboratory report shows *Escherichia coli* (*E. coli*). The final diagnosis is recorded by the physician as UTI.

Code	DAD	NACRS	Code title
N39.0	(M)	MP	Urinary tract infection, site not specified

Rationale: Laboratory reports are not used to add specificity to a documented condition. There must be physician documentation confirming the causative organism of the UTI before B96.2 *Escherichia coli [E. coli] as the cause of diseases classified to other chapters* can be assigned. See also the coding standard *Infections*.

DAD and NACRS directive statement

When a condition is suggested by diagnostic test results, assign a code only when the condition has been confirmed by physician/primary care provider documentation.

Example: Microbiology reports suggest a UTI, and medication reports indicate that the patient received antibiotics. There is no documentation relating to this in the physician notes.

Code
No code is assigned

Rationale: Clinical interpretation is required to confirm the diagnosis.

Example: A patient has lower abdominal pain. A CT scan reveals adhesions of the abdomen, but there is no documentation in physician notes identifying the adhesions as the cause of the pain.

Code	DAD	NACRS	Code title
R10.39	(M)	MP	Lower abdominal pain, unspecified

Rationale: Clinical interpretation is required to confirm the cause of the pain.

Dagger/Asterisk Convention[2]

In effect 2006, amended 2015

In ICD-10-CA, the dagger symbol (†) is used to indicate a code that represents the etiology or underlying cause of a disease. The asterisk symbol (*) is used to indicate a code that represents the manifestation of a disease.

DAD and NACRS directive statement

Assign an asterisk code whenever indicated in ICD-10-CA.

DAD-only directive statement

Assign diagnosis type (6) or diagnosis type (3) to asterisk codes in accordance with the diagnosis typing definitions (see also the coding standard *Diagnosis Typing Definitions for DAD*).

In the tabular portion of the classification, the dagger represents the different applications of the convention stipulated by the WHO, as shown below:

(i) If the dagger symbol and asterisk code both appear in the code title, all terms classifiable to that code are subject to dual classification and all have the same alternative code.

Example

A17.0† **Tuberculous meningitis (G01*)**

Tuberculosis of meninges (cerebral) (spinal)

Tuberculous leptomeningitis

(ii) If the dagger symbol appears in the code title but the asterisk code does not, all terms classifiable to that code are subject to dual classification, but they have different asterisk codes (which are listed for each term).

Example

A18.0† **Tuberculosis of bones and joints**

Tuberculosis of:

- hip (M01.1*)
- knee (M01.1*)
- vertebral column (M49.0*)

Tuberculosis:

- arthritis (M01.1*)
- mastoiditis (H75.0*)
- necrosis of bone (M90.0*)
- osteitis (M90.0*)
- osteomyelitis (M90.0*)
- synovitis (M68.0*)
- tenosynovitis (M68.0*)

(iii) If neither the dagger symbol nor the asterisk code appears in the title, the rubric as a whole is not subject to dual classification, but individual inclusion terms may be; if so, these terms will be marked with the dagger symbol and their asterisk codes will be given.

Example

A54.88 Other gonococcal infections

Blenorrhagic bubo

Gonococcal:

- brain abscess † (G07*)
- dermatosis † (L99.8*)
- endocarditis † (I39.8*)
- heart disease NOS † (I52.0*)
- keratoderma † (L86*)
- keratosis † (L86*)
- lymphadenitis
- meningitis † (G01*)
- myocarditis † (I41.0*)
- pericarditis † (I32.0*)
- perihepatitis † (K67.1*)
- peritonitis † (K67.1*)
- pneumonia † (J17.0*)
- skin infection † (L99.8*)
- specified site NEC

(iv) In some instances, the direction to use dual classification appears in the index only.

Example

Neuropathy, neuropathic

– peripheral (nerve) (see also Polyneuropathy) G62.9

– – autonomic G90.9

– – – in (due to)

– – – – gout M10.0† G99.1*

Example: A patient presents for management of herpes viral meningoencephalitis.

Code	DAD	NACRS	Code title
B00.4†	(M)	MP	Herpesviral encephalitis
G05.1*	(3)	OP	Encephalitis, myelitis and encephalomyelitis in viral diseases classified elsewhere

Rationale: Since both the dagger symbol and asterisk code appear in the code title, all inclusion terms are subject to dual classification and both codes are assigned. In this case, the asterisk code applies to encephalitis. Since it would be difficult to delineate whether it is the underlying condition or the manifestation that meets the criteria for MRDx, the asterisk code is assigned diagnosis type (3).

Example: A patient is seen for meningococcal pericarditis.

Code	DAD	NACRS	Code title
A39.5†	(M)	MP	Meningococcal heart disease
I32.0*	(3)	OP	Pericarditis in bacterial diseases classified elsewhere

Rationale: The dagger symbol appears in the code title, making all terms classifiable to A39.5 subject to dual classification, but the asterisk codes vary depending on the condition. Since it would be difficult to delineate whether it is the underlying condition or the manifestation that meets the criteria for MRDx, the asterisk code is assigned diagnosis type (3).

Example: A patient is seen for balanitis due to an amebic infection.

Code	DAD	NACRS	Code title
A06.8†	(M)	MP	Amoebic infection of other sites
N51.2*	(3)	OP	Balanitis in diseases classified elsewhere

Rationale: Neither the dagger symbol nor the asterisk symbol appears in the code title. Only the inclusion term “balanitis” is subject to dual classification, in which case A06.8 becomes a dagger code and N51.2 is the corresponding asterisk code. The dagger/asterisk convention does not apply to amebic appendicitis. Since it would be difficult to delineate whether it is the underlying condition or the manifestation that meets the criteria for MRDx, the asterisk code is assigned diagnosis type (3).

Example: A patient has carcinoma of the lung and has developed anemia as a result of her neoplastic disease. She is admitted for management of the anemia.

Code	DAD	NACRS	Code title
C34.99†	(M)	MP	Malignant neoplasm bronchus or lung, unspecified, unspecified side
D63.0*	(6)	OP	Anaemia in neoplastic disease

Rationale: In this case, the alphabetical index directs the coder to D48.9 and D63.0*. This indicates that the code to describe the patient’s neoplastic disorder becomes a dagger code. D48.9 is assigned when the neoplasia is unspecified. Since it is specified in this example, the more specific neoplasia code is the dagger code. Note that the full range of codes C00–D48 are identified as dagger codes following the code title at D63.0 in the tabular listing. D63.0 is an asterisk code, so it must be sequenced in the second diagnosis location on the abstract. However, since it is the condition that meets the criteria for MRDx (and not the malignancy of the lung), it is assigned diagnosis type (6).

Example: The patient's discharge diagnosis is hemolytic uremic syndrome encephalopathy.

Code	Code title
D59.3	Haemolytic-uraemic syndrome
G93.4	Encephalopathy, unspecified

Rationale: There is no dagger/asterisk convention applied to this disorder. Each condition is classified separately. Diagnosis type and sequence will depend on circumstances documented in the record.

Acute and Chronic Conditions[3]

In effect 2001, amended 2006, 2007, 2015

DAD and NACRS directive statements

When a condition is described as being both acute (or subacute) and chronic, and ICD-10-CA provides separate categories or subcategories for each but not for the combination, assign a code for the acute condition.

- Assign a code for the chronic condition, optional, as a diagnosis type (3)/other problem.

When an appropriate combination code is provided for both the acute and chronic condition, assign only the combination code.

Exception

It is mandatory to assign a code for chronic kidney disease when a patient has acute kidney injury and chronic kidney disease. See also the coding standard *Acute on Chronic Kidney Disease*.

Example: A patient is admitted for a total cholecystectomy because of chronic cholecystitis. The physician noted in the discharge summary that acute and chronic cholecystitis were noted on the pathology report.

Code	DAD	NACRS	Code title
K81.0	(M)	MP	Acute cholecystitis
K81.1	(3)	OP	Chronic cholecystitis

Example: The patient is admitted to hospital with a diagnosis of acute exacerbation of COPD.

Code	DAD	NACRS	Code title
J44.1	(M)	MP	Chronic obstructive pulmonary disease with acute exacerbation, unspecified

DAD and NACRS directive statement

A condition described as recurrent cannot be assumed to be chronic. Follow the alphabetical index for a sub-term of "recurrent." If no sub-term exists for "recurrent," classify the condition to the NOS category.

Exception
When a patient is admitted for tonsillectomy with a diagnosis of "recurrent" tonsillitis, select the code for chronic tonsillitis.

Impending or Threatened Conditions

In effect 2003, amended 2006

DAD and NACRS directive statement

Assign a code for impending or threatened conditions only when indexed as such in ICD-10-CA.

Example: The patient has a stage 4 decubitus ulcer. Documentation within the physician's notes states "impending gangrene."

Code	DAD	NACRS	Code title
L89.3	(M)	MP	Stage IV decubitus [pressure] ulcer

Rationale: In the case of impending gangrene of the leg that did not progress within the episode of care due to prompt treatment, the coder must look for an index entry such as "gangrene, impending." If no index entry is found, this case must be classified to the documented precursor condition.

Example: Threatened abortion.

Code	DAD	NACRS	Code title
O20.003	(M)	MP	Threatened abortion, antepartum condition or complication

Underlying Symptoms or Conditions[1]

For description of change, see Appendix C.

In effect 2001, amended 2003, 2009, 2012, 2018

The purpose of this coding standard is to provide direction for code assignment when a patient presents for investigation of a sign, symptom and/or abnormal finding for which there is **no documentation** to support that the patient has a specific suspected condition that is being investigated. When there **is documentation** that the patient is being investigated to rule out a specific suspected condition, see the coding standard *Admission for Observation*.

See also the coding standard *Unconfirmed Diagnosis*.

DAD and NACRS directive statements

When a patient presents with a symptom or condition and, during that episode of care, the underlying disease or disorder is identified, assign the underlying disease or disorder as the MRDx/main problem.

- Assign an additional code for the symptom or condition, optional, as a diagnosis type (3)/other problem based on the facility's data needs.

When no definite diagnosis has been established by the end of the episode of care, code the information that permits the greatest degree of specificity and knowledge about the condition that necessitated care or investigation. This may be a sign, an abnormal test result or a symptom.

Example: A patient presents to the emergency department with a seizure. There is no history of a previous seizure documented. The CT scan taken reveals a large brain tumor. The patient is then admitted for a stereotactic biopsy of the brain.

Code	NACRS	Code title
D43.2	MP	Neoplasm of uncertain or unknown behaviour of brain, unspecified
R56.88	OP	Other and unspecified convulsions (optional)

3.AN.20.VA Computerized tomography [CT], brain, without contrast

Rationale: The patient presents with a symptom (seizure) and the underlying condition is found. The greatest specificity about the condition is that it is a brain tumor. The type of neoplasm is not identified.

Example: The above emergency patient is admitted for a stereotactic biopsy of the brain after a CT scan reveals a large brain tumor. Physician documentation states “no previous history of seizures.” A stereotactic burr hole biopsy of the brain reveals a benign neoplasm, and the patient is scheduled for further surgery.

Code	DAD	Code title
D33.2	(M)	Benign neoplasm of brain, unspecified
R56.88	(3)	Other and unspecified convulsions (optional)

2.AN.71.SE Biopsy, brain, using burr hole approach

3.AN.94.ZC Imaging intervention NEC, brain, using stereotaxis (without computer guidance)

Example: The patient presents with diarrhea and anemia. A colonoscopy is performed and a single polyp is excised from the sigmoid colon. Final impression: “Single polyp removed by snare and sent to pathology.” Pathology confirms a hyperplastic polyp.

Code	DAD	NACRS	Code title
K63.5	(M)	MP	Polyp of colon
A09.9	(3)	OP	Gastroenteritis and colitis of unspecified origin (optional)
D64.9	(3)	OP	Anaemia, unspecified (optional)

Rationale: The patient presents with symptoms (diarrhea and anemia). A polyp is found and excised. The final diagnosis is recorded as “polyp.” Therefore, assign K63.5 as the MRDx/main problem.

Example: The patient presents with dyspepsia and for follow-up of diverticulosis. An esophagogastroduodenoscopy (EGD) and colonoscopy are performed. Biopsies are taken from the duodenum and stomach. Polyps are excised from the descending colon and rectum. The pathology report demonstrates negative EGD biopsies, a tubular adenoma from the colon and an inflammatory polyp of the rectum. No diverticulosis is noted.

Code	DAD	NACRS	Code title
D12.4	(M)	MP	Benign neoplasm of descending colon
K62.1	(1)	OP	Rectal polyp
Z09.9	(3)	OP	Follow-up examination after unspecified treatment for other conditions
R10.19	(1)	OP	Upper abdominal pain, unspecified

Rationale: The patient presents with a symptom (dyspepsia) and is also admitted for concomitant follow-up of diverticulosis. A tubular adenoma and an inflammatory polyp are identified and excised. Since a therapeutic intervention was performed, D12.4 is assigned as the MRDx/main problem and K62.1 is assigned as diagnosis type (1)/other problem.

Diverticulosis is not found; therefore, a code from category Z09 is assigned. See also the coding standard *Admission for Follow-Up Examination*.

Example: The patient presents for an EGD and colonoscopy to investigate iron deficiency anemia. During the colonoscopy, external hemorrhoids are noted. EGD demonstrates a normal examination. Final impression is documented as "No identifiable cause to explain the anemia. Patient is referred back to family physician for further investigation planning."

Code	DAD	NACRS	Code title
D50.9	(M)	MP	Iron deficiency anaemia, unspecified
K64.8	(3)	OP	Other specified haemorrhoids (optional)

Rationale: The patient presents with a sign (iron deficiency anemia) for investigation. An underlying condition is not found. The greatest degree of specificity about this case is the anemia. Therefore, a code for the anemia (sign) is assigned as the MRDx/main problem. The external hemorrhoids are noted during the examination and are an incidental finding. A code for an incidental finding is optional.

Example: A patient presents to the emergency department with right lower quadrant (RLQ) abdominal pain. After thorough investigations are completed, the physician documents that both an ovarian cyst and appendicitis are ruled out. The patient is discharged with instructions to follow up with her family physician. The final diagnosis is recorded by the physician as "right-sided lower abdominal pain."

Code	NACRS	Code title
R10.30	MP	Right lower quadrant pain

Rationale: The patient presents with a symptom (RLQ pain). An underlying condition is not found. The greatest degree of specificity known about this case at the end of the episode of care is RLQ pain. Therefore, a code for the RLQ pain (symptom) is assigned as the main problem.

DAD and NACRS directive statement

When a patient presents with a manifestation of an underlying disease or disorder that is known at the time of admission, and management is directed solely to the manifestation, assign the manifestation as the MRDx/main problem.

- Assign a code for the underlying disease as a diagnosis type (3)/other problem.

Example: A 45-year-old patient presents with unstable angina. He has known coronary atherosclerosis at the time of admission. During this current admission, symptomatic treatment is directed toward the unstable angina only. The patient is to see his physician to discuss surgical options.

Code	DAD	NACRS	Code title
I20.0	(M)	MP	Unstable angina
I25.19	(3)	OP	Atherosclerotic heart disease of unspecified type of vessel, native or graft

Example: A patient suffering from advanced colon cancer is admitted with bowel obstruction, and an enteroenterostomy is performed.

Code	DAD	Code title
K56.6	(M)	Other and unspecified intestinal obstruction
C18.9	(3)	Malignant neoplasm colon, unspecified

Unconfirmed Diagnosis

For description of change, see Appendix C.

In effect 2018

The purpose of this coding standard is to provide direction for code assignment when a final diagnosis is recorded using terms that denote uncertainty. The assignment of a code for an unconfirmed diagnosis is determined by the specific manner in which the physician/primary care provider has documented the conclusions. The code assigned reflects the greatest degree of knowledge and specificity.

Unconfirmed pertains to physician documentation of the final diagnosis that suggests any degree of uncertainty. This includes terms such as “query,” “suspected,” “questionable,” “rule out,” “possible,” “probable,” “likely”, “?” and “presumed.” When more than one possibility is recorded, comparative or contrasting terminology such as “versus” may be used. Please note that this is not an exhaustive list of terms that denote unconfirmed.

See also the coding standards *Admission for Observation* and *Underlying Symptoms or Conditions*.

Unconfirmed diagnosis

DAD and NACRS directive statements

When a **single unconfirmed diagnosis** is recorded as the final diagnosis and there is no further information or clarification, assign a code for the unconfirmed diagnosis as if it were established.

- Apply the prefix Q in such circumstances.

When **two (or more) unconfirmed diagnoses** are recorded as the final diagnosis and there is no further information or clarification, assign the first-listed unconfirmed diagnosis as the MRDx/main problem. Assignment of a code for the additional unconfirmed diagnosis is **optional**. If assigned, it is a diagnosis type (3)/other problem.

- Apply the prefix Q in such circumstances.

When two (or more) diagnoses that are part of a combination code and/or set of codes in ICD-10-CA are recorded as the final diagnosis and **one of the diagnoses is unconfirmed**, assign the applicable combination code and/or set of codes as if each of the diagnoses were established.

- Apply the prefix Q in such circumstances to the combination code and/or set of codes as applicable.

Exception
Neonatal sepsis. See also the coding standard *Confirmed Sepsis and Risk of Sepsis in the Neonate*.

Note
The prefix Q is applied when the health care provider has documented uncertainty in the diagnosis, **not** when the coder is uncertain of the diagnosis.

Note
The prefix Q to identify unconfirmed diagnoses is used with diagnosis codes only; it is not used with external cause codes. See Group 10, Field 01 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 43 in the *National Ambulatory Care Reporting System (NACRS) Manual*.

Note
Prefixes 5 and 6 take precedence over prefix Q. See also the coding standard *Diagnosis Typing Definitions for DAD*.

Example: The final diagnosis is recorded by the physician as “Query peptic ulcer.”

Code	DAD	NACRS	Code title
(Q) K27.9	(M)	MP	Peptic ulcer, unspecified as acute or chronic, without haemorrhage or perforation

Rationale: The physician has recorded the final diagnosis as unconfirmed. This unconfirmed diagnosis represents the greatest degree of knowledge. It is coded as if it was established and prefix Q is applied.

Example: A young woman presents with severe abdominal pain; the final diagnoses listed on the chart are “? dysmenorrhea” and “? constipation.”

Code	DAD	NACRS	Code title
(Q) N94.6	(M)	MP	Dysmenorrhoea, unspecified
(Q) K59.0	(3)	OP	Constipation (optional)

Rationale: Two unconfirmed diagnoses are recorded as the final diagnosis. These unconfirmed diagnoses represent the greatest degree of knowledge. Dysmenorrhea is selected as the MRDx/MP, as it is the first-listed unconfirmed diagnosis and there is no further information or clarification, and prefix Q is applied.

Example: The patient is being investigated for tingling and numbness in her right hand. The final diagnosis is recorded by the physician as “query carpal tunnel syndrome.” The documentation states the patient has type 1 diabetes mellitus.

Code	NACRS	Code title
(Q) E10.40†	MP	Type 1 diabetes mellitus with mononeuropathy
(Q) G59.0*	OP	Diabetic mononeuropathy

Rationale: The carpal tunnel syndrome is unconfirmed. This unconfirmed diagnosis represents the greatest degree of knowledge. Diabetes mellitus with carpal tunnel syndrome is classified using two codes: a combination code for diabetes mellitus with mononeuropathy and a separate code for carpal tunnel syndrome. The combination code and the code for carpal tunnel syndrome are assigned as if the diagnosis were established. Prefix Q is applied to both E10.40 and G59.0 (the set of codes that includes a combination code), as both encompass the unconfirmed diagnosis.

Example: The final diagnosis is recorded by the physician as “presumed pneumonia.” COPD is also recorded in the documentation.

Code	DAD	NACRS	Code title
(Q) J44.0	(M)	MP	Chronic obstructive pulmonary disease with acute lower respiratory infection
(Q) J18.9	(1)	OP	Pneumonia, unspecified

Rationale: The acute lower respiratory infection (pneumonia) is unconfirmed. This unconfirmed diagnosis represents the greatest degree of knowledge. COPD with pneumonia is classified using two codes: a combination code for COPD with acute lower respiratory infection and a separate code for pneumonia. The combination code and the code for pneumonia are assigned as if the pneumonia was established. Prefix Q is applied to both J44.0 and J18.9 (the set of codes that includes a combination code), as both encompass the unconfirmed diagnosis.

Example: The patient has a noted history of type 2 diabetes. The final diagnosis is recorded as “likely lactic acidosis.”

Code	DAD	NACRS	Code title
(Q) E11.11	(M)	MP	Type 2 diabetes mellitus with lactic acidosis

Rationale: The lactic acidosis is unconfirmed. This unconfirmed diagnosis represents the greatest degree of knowledge. Diabetes with lactic acidosis is classified using a combination code. The combination code is assigned as if the lactic acidosis was established. Prefix Q is applied as the combination code encompasses the unconfirmed diagnosis.

Confirmed diagnosis with unconfirmed specificity

The physician or primary care provider may have established that a patient has a particular diagnosis but may document uncertainty about some aspect of the diagnosis. For example, the underlying cause or (sub)type of the condition may be recorded as questionable.

DAD and NACRS directive statement

When a **confirmed diagnosis** is recorded as the final diagnosis with **unconfirmed specificity**, assign only the unspecified code for the diagnosis.

Note

Do **not** assign an additional code to reflect the unconfirmed specificity. Do **not** assign prefix Q.

The selection of the unspecified code for the diagnosis depends on the feature of the diagnosis that is uncertain and the structure of ICD-10-CA. Sometimes, the unspecified code is selected at the category level. Other times, the unspecified code is selected at the block or chapter level.

Category level

Example: The final diagnosis is recorded by the physician as “angina, ? Prinzmetal.”

Code	DAD	NACRS	Code title
I20.9	(M)	MP	Angina pectoris, unspecified

Rationale: The greatest degree of specificity is the angina; there is uncertainty about the type. Both Prinzmetal angina (I20.1) and unspecified angina (I20.9) fall within the same category (I20 *Angina pectoris*). The code for unspecified angina from this category is assigned.

Example: The final diagnosis is recorded by the physician as “middle cerebral artery infarction, probably cardioembolic.”

Code	DAD	NACRS	Code title
I63.5	(M)	MP	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries

Rationale: The greatest degree of specificity is the cerebral infarction; there is uncertainty about the cause. Both cardioembolic middle cerebral artery infarction (I63.4) and unspecified middle cerebral artery infarction (I63.5) fall within the same category (I63 *Cerebral infarction*). The code for unspecified middle cerebral artery infarction from this category is assigned.

Block level

Example: The final diagnosis is recorded by the physician as “iron deficiency anemia versus vitamin B12 deficiency anemia.”

Code	DAD	NACRS	Code title
D53.9	(M)	MP	Nutritional anaemia, unspecified

Rationale: The greatest degree of specificity is the anemia. There is uncertainty about the type. Iron deficiency anemia is classified to D50.9 and vitamin B12 deficiency anemia is classified to D51.9. These codes are from different categories but fall within the same block: *Nutritional anaemias* (D50–D53). The code for unspecified nutritional anemia from this block is assigned.

Chapter level

Example: A patient presents with anemia of unknown cause. She has impaired renal function, and she also has gastritis that could account for the anemia as well. The final diagnosis is “anemia NYD, possibly due to chronic renal disease, possibly due to chronic bleeding from gastritis.”

Code	DAD	NACRS	Code title
D64.9	(M)	MP	Anaemia, unspecified

Rationale: The greatest degree of specificity is the anemia; there is uncertainty about the cause. Anemia in chronic renal disease is classified to D63.8 and anemia due to chronic loss of blood is classified to D50.0. These codes are from different blocks within Chapter III — Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89). The code for unspecified anemia from this chapter is assigned.

Sign/symptom/abnormal finding with unconfirmed diagnosis

DAD and NACRS directive statement

When a sign, symptom or abnormal finding and an **unconfirmed diagnosis** are recorded as the final diagnosis and there is no further information or clarification, assign the code representing the sign, symptom or abnormal finding. Assignment of a code for the unconfirmed diagnosis is **optional**. If assigned, it is a diagnosis type (3)/other problem and prefix Q is mandatory to apply.

Example: The final diagnosis is recorded as "Right lower abdominal pain. Query acute appendicitis."

Code	DAD	NACRS	Code title
R10.30	(M)	MP	Right lower quadrant pain
(Q) K35.8	(3)	OP	Acute appendicitis, other and unspecified (optional)

Rationale: The physician has recorded the final diagnosis as a symptom followed by an unconfirmed diagnosis. The code for the symptom, which is the greatest degree of knowledge, is assigned.

Example: A young woman presents with severe abdominal pain and nausea. The final diagnosis is recorded as "severe abdominal pain and nausea — query dysmenorrhea, query constipation."

Code	DAD	NACRS	Code title
R10.0	(M)	MP	Acute abdomen
R11.1	(1)	OP	Nausea only
(Q) N94.6	(3)	OP	Dysmenorrhoea, unspecified (optional)
(Q) K59.0	(3)	OP	Constipation (optional)

Rationale: The health care provider has recorded the final diagnosis as multiple symptoms with multiple unconfirmed diagnoses. The codes for the symptoms, which are the greatest degree of knowledge, are assigned.

Example: A patient is seen in the clinic for investigation of a suspicious lesion of the left lung that was noted on chest X-ray. Following a complete history and physical, the patient is booked for a bronchoscopy. The final diagnosis is recorded as “abnormal chest xray — ?lung ca.”

Code	NACRS	Code title
R91	MP	Abnormal findings on diagnostic imaging of lung
(Q) C34.91	OP	Malignant neoplasm left bronchus or lung, unspecified (optional)

Rationale: The health care provider has recorded the final diagnosis as an abnormal finding followed by an unconfirmed diagnosis. The code for the abnormal finding (abnormal test result), which is the greatest degree of knowledge, is assigned.

Use Additional Code/Code Separately Instructions

For description of change, see Appendix C.

In effect 2006, amended 2007, 2009, 2018

DAD and NACRS directive statement

When a “use additional code” instruction is provided in ICD-10-CA, assign the additional code as instructed, mandatory.

When a “code separately” instruction is provided in ICD-10-CA, assign the additional code, mandatory, when the condition meets the criteria for significance.

See also the coding standards *Diagnosis Typing Definitions for DAD*, *Main and Other Problem Definitions for NACRS* and *Dagger/Asterisk Convention*.

Exception

The instruction to “use additional code (B95–B98) to identify infectious agent” is optional when it is not one of the mandatory drug-resistant infectious organisms. See also the coding standard *Drug-Resistant Microorganisms*.

Example: A patient presents for investigation of abnormal hematology tests. It is determined that he has aplastic anemia due to occupational exposure to insecticides at the dairy farm where he works.

Code	DAD	NACRS	Code title
D61.2	(M)	MP	Aplastic anaemia due to other external agents
X48	(9)	OP	Accidental poisoning by and exposure to pesticides
U98.7	(9)	OP	Place of occurrence, farm

Rationale: Follow the “use additional code” instruction to identify the external cause code.

Example: A 70-year-old male patient is diagnosed with epididymitis due to *E. coli*.

Code	DAD	NACRS	Code title
N45.90	(M)	MP	Epididymitis
B96.2	(3)	OP	Escherichia coli [E. coli] as the cause of diseases classified to other chapters (optional)

Rationale: Assignment of a code from B95–B98 is optional, unless the infection is due to one of the mandatory drug-resistant microorganisms.

Example: A 54-year-old patient presents with a vitreous hemorrhage for a vitrectomy. The physician notes that he has had type 2 diabetes mellitus, well controlled, for many years.

Code	DAD	NACRS	Code title
H43.1	(M)	MP	Vitreous haemorrhage
E11.33†	(3)	OP	Type 2 diabetes mellitus with other retinopathy
H36.0*	(3)	OP	Diabetic retinopathy

Rationale: Vitreous hemorrhage meets the criteria for significance in this example; therefore, the “code separately” instruction is followed at E11.33†.

Example: A patient presents to the emergency department with a cough and fever and is admitted for treatment of pneumonia. She has had type 2 diabetes mellitus for many years. She also has CAD and had an MI three years ago.

Code	DAD	NACRS	Code title
J18.9	(M)	MP	Pneumonia, unspecified
E11.52	(3)	OP	Type 2 diabetes mellitus with certain circulatory complications

Rationale: Since neither the CAD nor the history of the MI meets the criteria for significance during this visit, it is not mandatory to follow the "code separately" direction.

Sequelae

In effect 2001, amended 2005, 2006, 2012

A sequela (or late effect) of a disease is a current condition under investigation or treatment that was caused by a previously occurring condition or injury. There is no universal time frame in which a condition can be considered a sequela. The residual condition (sequela) may be apparent early in the process, such as neurological deficits occurring following a cerebral infarction.[4] A scar or cicatrix is a sequela of a third-degree burn that develops remote to the burn incident itself.

DAD and NACRS directive statement

When a patient presents with a sequela of a previously treated condition, assign a code for the current condition under investigation or treatment as a significant diagnosis type.

- Assign codes from categories titled "Sequelae of . . ." (B90–B94, E64, E68, G09, I69, O94, O97, T90–T98), optional, as a diagnosis type (3)/other problem to identify the current problem as sequelae.

Example: Unequal leg length (acquired). Late effect of poliomyelitis.

Code	DAD	NACRS	Code title
M21.7	(M)	MP	Unequal limb length (acquired)
B91	(3)	OP	Sequelae of poliomyelitis (optional)

Example: Osteoarthritis of hip joint due to an old hip fracture from a motor vehicle accident 20 years ago.

Code	DAD	NACRS	Code title
M16.5	(M)	MP	Other post-traumatic coxarthrosis
T93.1	(3)	OP	Sequelae of fracture of femur (optional)
Y85.0	(9)	OP	Sequelae of motor-vehicle accident (optional)

Example: A patient is admitted for release of skin contracture and fibrosis, old burn of hand (due to a hot oil spill two years ago).

Code	DAD	NACRS	Code title
L90.5	(M)	MP	Scar conditions and fibrosis of skin
T95.2	(3)	OP	Sequelae of burn, corrosion and frostbite of upper limb (optional)
Y86	(9)	OP	Sequelae of other accidents (optional)

Example: A patient presents with pain of the knee joint due to an old injury of the knee.

Code	DAD	NACRS	Code title
M25.56	(M)	MP	Pain in joint, lower leg
T93.9	(3)	OP	Sequelae of unspecified injury of lower limb (optional)
Y89.9	(9)	OP	Sequelae of unspecified external cause (optional)

Note

Coders are reminded to read and follow all notes at block headings and chapter headings, where guidance is provided regarding time frames, that is, I69, O97 and T90–T98.

See also the coding standard *Current Versus Old Injuries*.

Admissions From Emergency Department

In effect 2003, amended 2006, 2007

Patients often move from one setting to another as their condition is being treated. Treatment that begins in the emergency department may end in the inpatient setting.

DAD and NACRS directive statement

Select the diagnosis or diagnoses for each level of care (e.g., ambulatory care, acute care inpatient) to accurately reflect the circumstances for the treatment provided during that episode of care.

Example: An 87-year-old man is seen in the emergency department for a fractured rib. He had slipped and fallen down in the grocery store that morning.

Code	NACRS	Code title
S22.300	MP	Fracture of rib, closed
W01	OP	Fall on same level from slipping, tripping and stumbling
U98.5	OP	Place of occurrence, trade and service area

Example: The patient in the example above is subsequently admitted from the emergency department for overnight care, as he lives alone. He is discharged the next morning in the care of his daughter.

Code	DAD	Code title
Z60.2	(M)	Living alone
S22.300	(3)	Fracture of rib, closed
W01	(9)	Fall on same level from slipping, tripping and stumbling
U98.5	(9)	Place of occurrence, trade and service area

DAD-only directive statement

When a patient is admitted as an inpatient to complete treatment started in the emergency department, assign the MRDx according to the diagnosis typing definitions (see also the coding standard *Diagnosis Typing Definitions for DAD*).

- When definitive treatment for an injury or a condition occurs in the emergency department and no reason is given for why the patient was subsequently admitted, assume that it was for continuation of treatment of the presenting condition.

Example: A patient with known CAD is brought to the emergency department complaining of chest pain. ECG shows ST elevation; therefore, thrombolytics are administered. Diagnosis on the emergency department record is STEMI.

Code	NACRS	Code title
R94.30	MP	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

1.ZZ.35.HA-1C Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal] using thrombolytic agent

Example: The patient in the above example is subsequently admitted from the emergency department for continued treatment and care. Final diagnosis on the inpatient record is averted MI.

Code	DAD	Code title
I24.0	(M)	Coronary thrombosis not resulting in myocardial infarction
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

1.ZZ.35.HA-1C Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal] using thrombolytic agent

Rationale: The patient's MI was successfully averted with administration of the thrombolytics. As there was evidence of elevated ST segments found on the ECG, assign R94.30 on the inpatient abstract as a diagnosis type (3).

Example: A 4-year-old child is brought into the emergency department with an anterior dislocation of the shoulder after falling from the jungle gym in the day care play area. The patient is admitted following a closed reduction in the emergency department. The child is discharged in the care of his mother the following morning.

Code	DAD	NACRS	Code title
S43.000	(M)	MP	Anterior dislocation of shoulder, closed
W09.08	(9)	OP	Fall involving other playground equipment
U98.28	(9)	OP	Place of occurrence, school and other institutions and public areas

Cancelled Interventions

For description of change, see Appendix C.

In effect 2001, amended 2007, 2008, 2009, 2012, 2015

A scheduled or planned intervention may sometimes be cancelled for reasons such as staffing, another emergency case taking precedence or even contraindications such as the patient developing flu-like symptoms.

DAD and NACRS directive statements

When a scheduled or planned intervention is cancelled, assign a code from category Z53 *Persons encountering health services for specific procedures, not carried out*, mandatory.

When a scheduled or planned intervention is cancelled due to administrative reasons, assign Z53.8 *Procedure not carried out for other reasons* as the MRDx/main problem.

When a scheduled or planned intervention is cancelled due to a contraindication and the patient is discharged without treatment for the contraindication, assign Z53.0 *Procedure not carried out because of contraindication* as the MRDx/main problem.

When a scheduled or planned intervention is cancelled due to a contraindication and the patient is treated for the contraindication, assign

- The contraindication as the MRDx/main problem; and
- Z53.0 *Procedure not carried out because of contraindication* as a diagnosis type (3)/other problem, mandatory.

DAD-only directive statement

D For an inpatient admission, when the contraindication meets the definition of a post-admit comorbidity, assign a code for the contraindication as the MRDx and as a diagnosis type (2).

Note

It is optional to record "CANCELLED" in the intervention field of the abstract when a patient presents to a day surgery unit, clinic or emergency department for a scheduled or planned intervention that does not occur. Check with your provincial/territorial department/ministry of health for any policies that might apply to the coding of cancelled cases submitted to the DAD or NACRS.

Note

There is no status attribute in CCI to identify a cancelled intervention, and it is incorrect to code such cases to the planned intervention with status attribute A.

Note

For more information about cancelled interventions, see Group 11, Field 02 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data elements 35, 46 and 47 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

See also the coding standard *Abandoned Interventions*.

DN **Example:** A patient arrives for a scheduled coronary angiogram. The procedure is cancelled due to staffing problems (snowstorm).

Code	DAD	NACRS	Code title
Z53.8	(M)	MP	Procedure not carried out for other reasons

N **Example:** A patient with breast cancer arrives for her scheduled chemotherapy, and her blood work identifies neutropenia. The chemotherapy is cancelled and the patient is discharged home with no treatment for the neutropenia.

Code	NACRS	Code title
Z53.0	MP	Procedure not carried out because of contraindication

Example: A patient is admitted as an inpatient for elective hip replacement for osteoarthritis (coxarthrosis) but develops acute chest pain prior to surgery. A cardiologist is called to see the patient, and STEMI is documented. The patient is transferred to the cardiac care unit on thrombolytic therapy. The elective surgery is cancelled and the patient remains in hospital for treatment of MI. The final diagnosis is recorded as acute anterior wall MI.

Code	DAD	Code title
I21.0	(M)	Acute transmural myocardial infarction of anterior wall
I21.0	(2)	Acute transmural myocardial infarction of anterior wall
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]
Z53.0	(3)	Procedure not carried out because of contraindication

Rationale: The scheduled intervention (hip replacement) was cancelled because the patient suffered an MI (contraindication). The MI was treated; therefore, it is assigned as the MRDx and a diagnosis type (2). Z53.0 is a mandatory type (3).

Example: A patient with breast cancer arrives for her scheduled chemotherapy, and her blood work identifies neutropenia. The chemotherapy is cancelled, and a red blood cell blood transfusion is started to treat the neutropenia.

Code	NACRS	Code title
D70.0	MP	Neutropenia
Z53.0	OP	Procedure not carried out because of contraindication

Rationale: The scheduled intervention (chemotherapy) was cancelled because of neutropenia (contraindication). The neutropenia was treated; therefore, it is assigned as the main problem. Z53.0 is a mandatory other problem.

References

1. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.

2. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.

3. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.

4. National Centre for Classification in Health. *Australian Coding Standards for the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) and the Australian Classification of Health Interventions (ACHI), 6th Edition*. 2008.

General coding standards for CCI

Selection of Interventions to Code for Ambulatory Care (Emergency, Clinic and Day Surgery Visits)

For description of change, see Appendix C.

In effect 2012, amended 2015, 2018

This coding standard applies to day surgery cases submitted to the Discharge Abstract Database (DAD) and all cases submitted to the National Ambulatory Care Reporting System (NACRS). The DAD and NACRS icon  refers to ambulatory cases submitted to the DAD and NACRS.

Codes from all sections of CCI may be applicable in an ambulatory care setting.

Not every action carried out during an episode of care requires code assignment (see the coding standard *Multiple Codes in CCI*). **This standard identifies the minimum requirements** for ambulatory care submitted to the DAD and NACRS; however, provincial/territorial and local standards may specify additional requirements.

Additionally, certain interventions that may not meet the criteria relating to intervention room, anesthesia or operative approach must also be captured. These are listed in the table Additional mandatory CCI codes for ambulatory care.

Clinic visits

Clinic visits may include audiology, dietetics, mental health, obstetrics, occupational therapy, physiotherapy, recreational therapy, respiratory therapy, speech therapy and social work.

NACRS-only directive statement

 Assign a code from any section in CCI for each intervention performed during a clinic visit.

All other ambulatory care visits

Other ambulatory care visits include scheduled and non-scheduled emergency visits and day surgery.

Any section in CCI

DAD and NACRS directive statement

Assign a code from any section in CCI for interventions that meet one or more of the following criteria:

- Specified as mandatory elsewhere in these standards; or
- Included in the table Additional mandatory CCI codes for ambulatory care.

Note

When applying the directive statements below, reference Appendix A — CCI Code Structure — Qualifier 1 — Section — Approach/Technique in CCI as needed for more detail about operative approaches.

Section 1

DAD and NACRS directive statement

Assign a code for interventions classified in Section 1 of CCI that meet one or more of the following criteria:

- Classified to a generic intervention number of 50 or higher (excluding per orifice catheter interventions for bladder drainage and IV insertion using percutaneous approach);
- Performed in an operating/intervention room (e.g., endoscopy room or cardiac catheterization room);
- Performed under anesthesia (any anesthesia, including local); and/or
- Performed using one of the following approaches:
  - Open;
  - Endoscopic; or
  - Percutaneous transluminal/transarterial

Section 2

DAD and NACRS directive statement

Assign a code for interventions classified in Section 2 of CCI that meet one or more of the following criteria:

- An inspection performed as the sole intervention at a given anatomical site using one of the following approaches:
  - Open;
  - Endoscopic; or
  - Percutaneous transluminal/transarterial;
- A biopsy performed as the sole intervention at a given anatomical site; and/or
- The sole intervention performed under anesthesia (any anesthesia, including local).

Section 3

DAD and NACRS directive statement

Assign a code for interventions classified in Section 3.

Exception
It is optional to assign a code for the use of an operating microscope: 3.^^.94.ZA *Imaging intervention NEC using microscope*.

Note
Per the direction in CCI, 3.^^.12.^^ *Fluoroscopy* excludes that with X-ray (see 3.^^.10.^^ *Xray*); when a fluoroscopy is performed during the same intervention episode as an X-ray, assign a code from 3.^^.10.^^ *Xray* only.

Section 5

DAD and NACRS directive statement

Assign a code for interventions classified in Section 5 of CCI with a generic intervention number of 40 or higher.

Additional mandatory CCI codes for ambulatory care

CCI code	Intervention
1.ZX.07.KS-KK	Hyperthermy, multiple body sites, using extracorporeal blood warming device
1.AN.09.^^	Stimulation, brain
1.HZ.09.^^	Stimulation, heart NEC
1.ET.13.CA-HB	Control of bleeding, nose, using per orifice approach and diathermy or thermal device
1.ET.13.CA-GX	Control of bleeding, nose, **when using per orifice approach and electrocautery**
1.FJ.13.JA-GX	Control of bleeding, tongue, **when using electrocautery**
1.FR.13.JA-GX	Control of bleeding, tonsils and adenoids, **when using electrocautery**
1.FX.13.JA-GX	Control of bleeding, oropharynx, **when using electrocautery**
1.LZ.19.HH-U7-^	Transfusion, circulatory system NEC, **of stem cells**
1.LZ.19.HH-U8-^	Transfusion, circulatory system NEC, **of cord blood stem cells**
1.LZ.20.^^	Apheresis, circulatory system NEC
1.^^.21.^^	Dialysis, any site
1.^^.26.^^	Brachytherapy, any site
1.^^.27.^^	Radiation, any site
1.GZ.30.JH	Resuscitation, respiratory system NEC, using external manual compression technique
1.HZ.30.JN	Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation
1.GZ.31.^^	Ventilation, respiratory system NEC
1.^^.35.H2-^^	Any pharmacotherapy **when delivered via drug eluting balloon**
1.^^.35.HZ-^^	Any pharmacotherapy delivered via drug eluting stent
1.^^.35.^^-1C	Any infusion/injection of thrombolytic agent
1.^^.35.^^-M^	Pharmacotherapy using antineoplastic and immunomodulating agents
1.NF.35.^^	Pharmacotherapy (local), stomach (includes gastric lavage)
1.OT.35.^^	Pharmacotherapy (local), abdominal cavity
1.ZZ.35.^^	Pharmacotherapy, total body — **mandatory only in certain circumstances**; see the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*
1.HZ.37.JA-NN	Installation of external appliance, heart NEC, of temporary (external) cardiac pacemaker
2.ZZ.02.PM	Assessment (examination), total body for assistance in dying

CCI code	Intervention
2.HZ.08.^^	Test, heart NEC
2.AX.13.^^	Specimen collection (diagnostic), spinal canal and meninges
2.AN.24.^^	Electrophysiological measurement, brain
2.CZ.24.^^	Electrophysiological measurement, eye NEC
2.HZ.24.GP.^^	Electrophysiological measurement, heart NEC, percutaneous transluminal [cardiac catheterization] insertion
2.CZ.25.^^	Potential (evoked) measurement, eye NEC
2.CZ.28.^^	Pressure measurement, eye NEC
2.NM.28.CA-PL	Pressure measurement, large intestine, using per orifice approach with pressure measuring device
2.HZ.29.GP-TS	Other measurement NEC, heart NEC, using percutaneous transluminal approach and balloon catheter
2.IJ.57.GQ	Flow study, coronary arteries, using percutaneous transluminal arterial approach
2.CZ.58.^^	Function study, eye NEC
2.RF.58.LA-Z9	Function study, fallopian tube, using open approach and agent NEC
2.AN.59.^^	Other study, brain
2.M^.71.^^	Biopsy, lymph node(s), any site with extent attribute=SN (Sentinel node(s))
5.AB.02.^^	Amniocentesis
5.AB.03.^^	Obstetrical ultrasound examinations
5.AB.04.^^	Obstetrical Doppler studies
5.AB.05.^^	Other antepartum diagnostic imaging examination
5.AB.09.^^	Antepartum diagnostic interventions, biopsy
5.CA.20.^^	Pharmacotherapy (in preparation for), termination of pregnancy
5.CA.24.^^	Preparation by dilating cervix (for), termination of pregnancy
5.AC.24.CK-BD	Preparation by dilating cervix (for), labour, using per orifice (ripening) by balloon catheter
5.AC.24.CK-W6	Preparation by dilating cervix (for), labour, using per orifice insertion of laminaria
5.LD.25.^^	Removal of device, cervix, during active labour
5.PC.25.^^	Removal of device, postpartum
5.AC.30.^^	Induction of labour
5.LD.31.^^	Augmentation of labour
7.SC.08.PM	Other ministration, personal care for assistance in dying

In addition to the general coding standards for CCI, see also the following coding standards, which provide direction for mandatory CCI code assignment:

Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction

Interventions Relevant to Neoplasm Coding

Sentinel Lymph Node Biopsy

Brachytherapy

Hierarchy for Classification of Intracranial Lesion Resection

Thrombolytic Therapy

Chronic Ischemic Heart Disease

Cardiac Arrest

Central Venous Catheters

Invasive Ventilation

Arthrectomy and Arthroplasty

Interventions Associated With Delivery

Vital Signs Absent (VSA)

Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy

Medical Assistance in Dying

Example: The patient has an open reduction internal fixation of a bimalleolar fracture of the left ankle. Fixation is performed using screws. Intraoperative fluoroscopy images of the ankle demonstrate fixation of the fracture. Post-operative X-ray confirms satisfactory reduction and internal fixation.

1.WA.74.LA-NW	Fixation, ankle joint, open approach, using screw, plate and screw fixation device alone
3.WA.10.VA	Xray, ankle joint, without contrast (e.g. plain film) (with or without fluoroscopy)

Rationale: 3.WA.12.^^ *Fluoroscopy, ankle joint* excludes “that with xray (see 3.WA.10.^^).” Both the fluoroscopy and X-ray were performed during the same intervention episode; therefore, assign only the code for the X-ray.

Example: The patient is admitted with an injury of the right hand. An initial X-ray reveals a fracture involving the mid-shaft of the fourth metacarpal. The physician reduces the fracture and applies a cast. The right hand is X-rayed post-reduction to confirm alignment.

1.UF.73.JA	Reduction, other metacarpal bones, using closed (external) approach
3.UL.10.VA	Xray, joints of fingers and hand NEC, without contrast (e.g. plain film) (with or without fluoroscopy)
3.UL.10.VA	Xray, joints of fingers and hand NEC, without contrast (e.g. plain film) (with or without fluoroscopy)

Rationale: Assign a code for interventions classified to Section 3. Two X-rays of the finger were performed (pre- and post-reduction); therefore, 3.UL.10.VA is assigned twice, even though it is the exact same code.

Example: The patient is admitted with epistaxis. The nose is packed, but the patient continues to bleed from the left side of her nose. The packing is removed, and both sides of her nose are decongested and anesthetized with topical Xylocaine as well as cocaine. A posterior pack is done after examining the left nose for some time and not being able to identify the actual site of bleeding. Using a #14 Foley catheter, 10 cc of water is placed in the balloon. The left anterior nose is packed with a Vaseline gauze pack. Bleeding is eventually controlled.

No code assigned.

Rationale: The interventions performed do not meet any of the criteria for assigning a code for interventions classified in Section 1. While the standard indicates that a code must be assigned for interventions performed under anesthesia (including local), this case presents a unique but common circumstance. In the case of epistaxis, topical (local) anesthetics, such as Xylocaine, are used as a means to control the bleeding rather than to achieve anesthesia itself. For this reason, the criterion “performed under anesthesia” does not apply in this case.

The table Additional mandatory CCI codes for ambulatory care directs to assign a code when control of bleeding of the nose is performed using diathermy/thermal device or electrocautery only; therefore, it is not mandatory to assign a code for the packing, nasal balloon or use of Xylocaine and cocaine.

Example: The patient is admitted for elective percutaneous coronary intervention (PCI) for in-stent restenosis of the right coronary artery (RCA). Coronary angiogram is performed, and the Pantera-Lux drug-eluting balloon is deployed at the site of the two in-stent restenotic segments of the RCA. The intervention is performed in the cardiac catheterization room.

1.IJ.50.GQ-BD	Dilation, coronary arteries, percutaneous transluminal approach [e.g. with angioplasty alone] using balloon or cutting balloon dilator without stent insertion
Status: P **Extent: DG**	
3.IP.10.VX	Xray, heart with coronary arteries of left heart structures, using percutaneous transluminal arterial (retrograde) approach
Status: I **Location: U**	
1.IL.35.H2-M3	Pharmacotherapy (local), vessels of heart, elution from other device, of plant alkaloids and other natural products

Rationale: A code for the dilation is mandatory for three reasons: 1) dilation is classified to the generic intervention number 50; 2) it is performed in a cardiac catheterization room; and 3) it is performed using a percutaneous transluminal approach.

The coronary angiogram is classified to Section 3; therefore, it is mandatory to assign.

The pharmacotherapy delivered via drug-eluting balloon is assigned because it is included in the table Additional mandatory CCI codes for ambulatory care.

Example: A young woman is brought to the emergency department following a witnessed seizure at home. An electroencephalogram (EEG) is performed.

2.AN.24.JA-JA	Electrophysiological measurement, brain, using externally applied electrodes

Rationale: A code for EEG is assigned because it is included in the table Additional mandatory CCI codes for ambulatory care.

Example: A young man is brought to the emergency department, where he undergoes incisional drainage of a peritonsillar abscess and insertion of an intravenous line for infusion of Clindamycin.

1.FR.52.LA	Drainage, tonsils and adenoids, using open (incisional) approach

Rationale: A code is assigned for the drainage because it meets two of the criteria: 1) drainage is classified to the generic intervention number 52; and 2) the drainage was performed using an open approach. The infusion of antibiotics is not coded because it does not meet the criteria for interventions classified in Section 1 and is not listed in the table Additional mandatory CCI codes for ambulatory care.

Selection of Interventions to Code for Acute Inpatient Care

For description of change, see Appendix C.

In effect 2012, amended 2015, 2018

This coding standard applies to acute inpatient cases submitted to the DAD. The DAD icon in this coding standard refers to inpatient cases only. For day surgery cases submitted to the DAD, see the coding standard *Selection of Interventions to Code for Ambulatory Care*, where the DAD and NACRS icon refers to ambulatory cases submitted to either the DAD or NACRS.

Not every action carried out during an episode of care requires code assignment (see the coding standard *Multiple Codes in CCI*). **This standard identifies the minimum requirements** for acute inpatient care submitted to the DAD; however, provincial/territorial and local standards may specify additional requirements.

Interventions that are invasive to the patient and/or require significant resources must be captured for inpatient cases. Generally, CCI interventions from Section 1 with a generic intervention number of 50 or higher describe interventions that are invasive and/or require significant resources. Interventions classified to a generic intervention number of 50 or higher from Section 1 that do not meet any of the criteria in the directive statements below are not required for acute inpatient care in the DAD. Conversely, interventions with a generic intervention number below 50 from Section 1 that meet any of the criteria in the directive statements below are required for acute inpatient care in the DAD.

Additionally, certain interventions that may not meet the criteria relating to intervention room, presence of anesthetist or operative approach must also be captured. These are listed in the table Additional mandatory CCI codes for acute inpatient care.

Any section in CCI

DAD-only directive statement

Assign a code from any section in CCI for interventions that meet one or more of the following criteria:

- Specified as mandatory elsewhere in these standards; or
- Included in the table Additional mandatory CCI codes for acute inpatient care.

Note

When applying the directive statements below, reference Appendix A — CCI Code Structure — Qualifier 1 — Section — Approach/Technique in CCI as needed for more detail about operative approaches.

Section 1

DAD-only directive statement

Assign a code for interventions classified in Section 1 of CCI that would require one or more of the following:

- Performance in an operating/intervention room (e.g., endoscopy room or cardiac catheterization room);
- Performance in the presence of an anesthetist (i.e., an anesthetic record is on the chart); and/or
- Performance using the following approaches:
  - Open;
  - Endoscopic; or
  - Percutaneous transluminal/transarterial.

Section 2

DAD-only directive statement

Assign a code for interventions classified in Section 2 of CCI that meet one or more of the following criteria:

- An inspection performed as the sole intervention at a given anatomical site using one of the following approaches:
  - Open;
  - Endoscopic; or
  - Percutaneous transluminal/transarterial;
- A biopsy performed as the sole intervention at a given anatomical site; and/or
- The sole intervention performed in the presence of an anesthetist (i.e., an anesthetic record is on the chart).

Section 3

DAD-only directive statement

Assign a code for interventions classified in Section 3 of CCI that meet one or more of the following criteria:

- Performed in a cardiac catheterization room (even when performed with a therapeutic intervention at the same anatomical site); and/or
- The sole intervention performed in the presence of an anesthetist (i.e., an anesthetic record is on the chart).

Note

When diagnostic imaging studies are performed in conjunction with therapeutic interventions, it is optional to assign a code for the diagnostic imaging intervention (excluding 3.IP.10.VX *Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach*).

When diagnostic imaging studies are coded optionally, status attribute "I" may be available to signify intraoperative. Facilities are free to define the use of this status attribute to meet internal reporting needs.

Note

It is mandatory to assign a code for coronary angiogram, 3.IP.10.VX, when performed with any therapeutic intervention regardless of whether the coronary angiogram is diagnostic or intraoperative in nature.

The status and location attributes at 3.IP.10.^^ *Xray, heart with coronary arteries* are mandatory.

Example: **Diagnosis:** Acute inferior ST elevation myocardial infarction

Intervention: Primary angioplasty of RCA with stent insertion

The patient is taken immediately to the catheterization laboratory; on coronary angiography (via the left femoral artery), he is found to have a culprit RCA lesion, which is angioplastied and stented. A BMW wire is used to cross the occlusion. A 3.0 balloon is used to pre-dilate the lesion. A Pronto catheter is used to aspirate the thrombus. Further pre-dilation is carried out with a 2.5 balloon. A bare metal stent is deployed.

1.IJ.50.GU-OA	Dilation, coronary arteries, percutaneous transluminal approach with thrombectomy using balloon or cutting balloon dilator with (endovascular) stent insertion
Status: N **Extent: DG**	
3.IP.10.VX	Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach
Status: DX **Location: FY**	

Rationale: It is mandatory to assign 3.IP.10.VX when performed with a therapeutic intervention. The status attribute is “DX” because the angiogram was performed to assess (diagnose) the extent and location of coronary artery disease prior to proceeding to the dilation procedure.

Example: The patient underwent angioplasty of the distal RCA two years previously. Recent angiogram reveals restenosis, and the patient is admitted electively for PCI. An angioplasty with stent insertion of the distal RCA is performed following coronary angiogram via the femoral artery. A BMW wire is used to cross the occlusion. A 3.0 balloon is used to pre-dilate the lesion. A bare metal stent is deployed.

1.IJ.50.GQ-OA Dilation, coronary arteries, percutaneous transluminal approach using balloon or cutting balloon dilator with (endovascular) stent insertion

Status: P
Extent: DG

3.IP.10.VX Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach

Status: I
Location: FY

Rationale: It is mandatory to assign 3.IP.10.VX when performed with a therapeutic intervention. The status attribute is “I” because the intervention was performed for visualization purposes during the dilation procedure; the disease and the affected artery had already been diagnosed on a previous diagnostic coronary angiogram.

Section 5

DAD-only directive statement

Assign a code for interventions classified in Section 5 of CCI with a generic intervention number of 40 or higher.

Additional mandatory CCI codes for acute inpatient care

CCI code	Intervention
1.^^.03.HA-KC	Immobilization using percutaneous external fixator
1.AN.09.^^	Stimulation, brain
1.HZ.09.^^	Stimulation, heart NEC
1.LZ.19.HH-U7-^	Transfusion, circulatory system NEC of stem cells
1.LZ.19.HH-U8-^	Transfusion, circulatory system NEC of cord blood stem cells
1.WY.19.HH-^^	Transfusion, bone marrow

CCI code	Intervention
1.OA.21.HQ-BR	Dialysis, liver, by hemofiltration
1.PZ.21.^^	Dialysis, urinary system NEC
1.^^.26.^^	Brachytherapy, any site
1.^^.27.^^	Radiation, any site
1.HZ.30.JN	Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation
1.GZ.31.CA-^^ **1.GZ.31.CR-ND** **1.GZ.31.GP-ND**	Ventilation, respiratory system NEC, invasive approach (excluding when an inherent part of the administration of a general anesthetic, and the patient is extubated prior to leaving the operating room)
1.HZ.34.^^	Compression, heart NEC
1.^^.35.H2-^^	Any pharmacotherapy **when delivered via drug eluting balloon**
1.^^.35.HZ-^^	Any pharmacotherapy delivered via drug eluting stent
1.^^.35.^^-1C	Any infusion/injection of thrombolytic agent
1.^^.35.^^-M^	Pharmacotherapy using antineoplastic and immunomodulating agents
1.LZ.35.^^-C6	Pharmacotherapy (local), circulatory system NEC of parenteral nutrition
1.ZZ.35.^^	Pharmacotherapy, total body — **mandatory only in certain circumstances**; see the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*
1.LZ.37.^^	Installation of external appliance, circulatory system NEC
1.GV.52.^^	Drainage, pleura **when it is the sole intervention performed at a single intervention episode**
1.OT.52.^^	Drainage, abdominal cavity **when it is the sole intervention performed at a single intervention episode**
1.IS.53.^^	Implantation of internal device, vena cava (superior and inferior) — **mandatory only in certain circumstances;** see the coding standard *Central Venous Catheters*
1.NF.53.^^	Implantation of internal device, stomach **excluding 1.NF.53.CA-TS Implantation of (gastric) tube using per orifice approach**
1.NK.53.^^	Implantation of internal device, small intestine
1.^^.73.^^	Reduction, **fracture or dislocation**
1.GJ.77.^^	Bypass with exteriorization, trachea
2.ZZ.02.PM	Assessment (examination), total body for assistance in dying
2.AN.24.LA-JA	Electrophysiological measurement, brain, using insertional electrodes [e.g. sphenoidal, nasopharyngeal] by open approach
2.IJ.57.GQ	Flow study, coronary arteries, using percutaneous transluminal arterial approach

CCI code	Intervention
2.RF.58.^^	Function study, fallopian tube
2.M^.71.^^	Biopsy, lymph node(s), any site with extent attribute=SN (Sentinel node(s))
5.AB.02.^^	Amniocentesis
5.AB.09.^^	Antepartum diagnostic interventions, biopsy
5.CA.20.^^	Pharmacotherapy (in preparation for), termination of pregnancy
5.CA.24.^^	Preparation by dilating cervix (for), termination of pregnancy
5.AC.24.CK-BD	Preparation by dilating cervix (for), labour, using per orifice (ripening) by balloon catheter
5.AC.24.CK-W6	Preparation by dilating cervix (for), labour, using per orifice insertion of laminaria
5.LD.25.^^	Removal of device, cervix, during active labour
5.PC.25.^^	Removal of device, postpartum
5.AC.30.^^	Induction of labour
5.LD.31.^^	Augmentation of labour
7.SC.08.PM	Other ministration, personal care for assistance in dying

In addition to the general coding standards for CCI, see also the following coding standards, which provide direction for mandatory CCI code assignment:

Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction

Interventions Relevant to Neoplasm Coding

Sentinel Lymph Node Biopsy

Brachytherapy

Hierarchy for Classification of Intracranial Lesion Resection

Thrombolytic Therapy

Chronic Ischemic Heart Disease

Cardiac Arrest

Central Venous Catheters

Invasive Ventilation

Arthrectomy and Arthroplasty

Interventions Associated With Delivery

Vital Signs Absent (VSA)

Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy

Medical Assistance in Dying

Example: Insertion of a urinary catheter performed on the nursing unit without anesthetic

No code assigned.

Rationale: Insertion of a urinary catheter is classified to a generic intervention number of 50 or higher from Section 1: 1.PM.52.CA-TS *Drainage, bladder, using per orifice approach and drainage catheter*. However, the intervention performed in this example does not meet any of the criteria in the above directive statements; therefore, it is not mandatory to assign.

Example: Injection of antihemorrhagic agent into burr hole to control bleeding of the meninges of the brain

1.AA.13.SE-C2	Control of bleeding, meninges and dura mater of brain, using injection of antihemorrhagic agent into burr hole

Rationale: Control of bleeding of the meninges of the brain is classified to a generic intervention number below 50 from Section 1: 1.AA.13.^^ *Control of bleeding, meninges and dura mater of brain*. However, the intervention in this example was performed using an open approach; therefore, it is mandatory to assign. CCI's Appendix A — CCI Code Structure — Qualifier 1 — Section — Approach/Technique confirms that burr hole is an open approach for Section 1; SE is defined as "using open approach with burr hole technique."

Example: A patient with a pathological fracture of the vertebra is admitted, and a percutaneous vertebroplasty is performed in the diagnostic imaging (DI) room.

1.SC.80.HA-XX-N	Repair, spinal vertebrae, using percutaneous approach and (injection of) synthetic material (e.g. bone cement)

Rationale: A vertebroplasty is an intervention classified to Section 1. It is mandatory to assign a code from Section 1 when an intervention classified there requires performance in an operating/intervention room. The DI room is considered an "intervention room" because the vertebroplasty was performed in it; therefore, it is mandatory to assign 1.SC.80.HA-XX-N.

Example: Closed elbow reduction performed on the nursing unit

1.TM.73.JA	Reduction, elbow joint, using closed (external) approach

Rationale: 1.^^.73.^^ *Reduction, fracture or dislocation* is included in the table Additional mandatory CCI codes for acute inpatient care; therefore, it is mandatory to assign 1.TM.73.JA.

Composite Codes in CCI

In effect 2001, amended 2012

DAD and NACRS directive statements

When available, use one CCI code to describe complex health interventions by selecting the appropriate qualifiers.

When one CCI code is not available to describe complex health interventions, code additionally any associated concomitant interventions.

Every attempt has been made to reduce the need for multiple code assignment to describe a complex health intervention. In most cases, it is possible to use a single code to definitively describe, in generic terms, the intent and means of accomplishing an intervention. When an intervention commonly or frequently involves a sequence of associated concomitant actions to reach its goal, this will be described — wherever possible — by a single code. The qualifiers provide options that describe the alternate techniques involved.

Example: A partial gastrectomy may be performed alone or with a vagotomy. When the vagotomy is performed with the gastrectomy, a qualifier is selected to identify this. A second code for the vagotomy is not recorded.

1.NF.87.GX	Excision partial, stomach, endoscopic [laparoscopic] approach with vagotomy and esophagogastric anastomosis

Rationale: Vagotomy would be a separate code only when it is performed alone.

An even more common example is the excision of (lesion of) an anatomical site with a concomitant repair involving a graft or a flap to close the surgical defect. A qualifier is selected to describe the concomitant repair.

Example: A patient with breast malignancy undergoes a simple total mastectomy. The defect is repaired using a local flap.

1.YM.89.LA-XX-E **Location: U**	Excision total, breast, using open approach and local flap

Rationale: Both the mastectomy and the repair of the surgical defect using a flap are assigned to 1.YM.89.LA-XX-E.

Multiple Codes in CCI

In effect 2001, amended 2006, 2007, 2008, 2012, 2015

Multiple codes from different rubrics

DAD and NACRS directive statements

When more than one intervention is performed during the same intervention episode, assign multiple codes from different rubrics when there is no composite code (qualifier) to cover this combination.

When an intervention is performed using robotic assistance, assign 7.SF.14.ZX *Robotic assisted telemanipulation of tools, service, using system NEC,* mandatory, as an additional code.

Note

Not every action carried out during an intervention needs to be coded. Many smaller actions that are carried out during an intervention episode are an inherent part of an overall intervention and do not need to be coded separately. Additionally, the closure of the operative site is included in the intervention code.

Example: Closed reduction fracture of right humerus and open reduction with screw fixation of left humerus

1.TK.74.LA-NW	Fixation, humerus, open approach, using plate, screw, no tissue used
1.TK.73.JA	Reduction, humerus, using closed [external] approach

Rationale: Different generic interventions were performed on bilateral sites: fixation of the left humerus and closed reduction of the right humerus. Therefore, multiple codes are assigned.

Example: Robotic-assisted supraglottic laryngectomy for carcinoma in situ of the supraglottis

1.GE.87.NZ	Excision partial, larynx NEC, open approach [e.g. apron flap incision] with horizontal technique no tissue used
7.SF.14.ZX	Robotic assisted telemanipulation of tools, service, using system NEC

Rationale: It is mandatory to assign 7.SF.14.ZX when an intervention is performed using robotic assistance.

Note

In CCI, explanatory notes are provided to clarify what is classified to a rubric or code.

When these notes describe various components of a complex intervention that may or may not be performed in a given case, additional codes for these components are not assigned. These notes are intended to eliminate assigning multiple codes. They do not purport to describe the exact nature of all possible interventions that may be correctly classified to the rubric or code.

Example: The patient previously had a total colectomy with rectal sparing and creation of ileostomy. He presents to hospital for elective takedown of the ileostomy, completion proctectomy, ileoanal J-pouch and defunctioning loop ileostomy.

1.NQ.84.LA-XX-G	Construction or reconstruction, rectum, using open approach with ileum (to construct pouch)
1.NK.77.EN	Bypass with exteriorization, small intestine, endoscopic [laparoscopic] approach, end enterostomy [e.g. terminal, end or loop ileostomy]

Rationale: This note is at 1.NQ.84.^^: “Usually involves takedown of ileostomy to construct a functional pseudo-rectum using distal ileum. This may involve conversion of a Hartmann rectal closure by excising remaining rectal and anal tissue [e.g. anorectal mucosectomy].” The note provides the information that the takedown of the existing ileostomy is included in this rubric; therefore, one code, 1.NQ.84.LA-XX-G, is required to capture the creation of the pelvic pouch and the concomitant takedown of the ileostomy. An additional code is required for the creation of the temporary ileostomy because this is not implicit with construction of the ileoanal J-pouch.

Note

In CCI, the “code also” instruction means that the rubric does not include the interventions in the “code also” instruction. When the intervention in the “code also” instruction is performed, an additional code is mandatory when it meets the requirements for mandatory code selection specified in these standards.

While “code also” notes have been included throughout CCI, they do not cover every possible circumstance where multiple codes are required.

Example: The patient is admitted for a lumpectomy and sampling of the sentinel axillary lymph nodes.

1.YM.87.LA	Excision partial, breast, using open approach with simple apposition of tissue (e.g. suturing)
Location: U	
2.MD.71.LA	Biopsy, lymph node(s), axillary, using open approach
Extent: SN	

Rationale: Sampling of the sentinel axillary lymph nodes is not included at rubric 1.YM.87.^^. The “code also” instruction directs to also assign a code from 2.MD.71.^^ if a biopsy (sampling) of the sentinel axillary lymph nodes is also performed. It is mandatory to assign 2.MD.71.^^ based on the direction in the coding standard *Sentinel Lymph Node Biopsy*.

Example: A patient suffers a trauma resulting in bone loss to the anterior maxilla. The patient is admitted for a repair of the maxilla using autograft from her mandible, allograft and screws.

1.ED.80.LA-NW-Q	Repair, maxilla, open approach using plate, screw device (with/without wire/mesh) with combined sources of tissue
1.EE.58.LA-XX-A	Procurement, mandible, using open approach of (bone) autograft

Rationale: The procurement of bone from the mandible is not included at rubric 1.ED.80.^^. While no “code also” note is included in this rubric, another code is required to cover this combination. See also the coding standard *Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction*.

Multiple codes from the same rubric

As a general rule, multiple codes from the same rubric are not assigned for the same intervention episode, unless the codes within a rubric identify separate operative approaches. Multiple codes from the same rubric are not assigned to show different devices used at the same operative site. A hierarchy for orthopedic devices is provided below; in all other cases, select the qualifier that is most significant or important for the reporting facility.

Example: The patient has both an esophagogastroduodenoscopy (EGD) and ileoscopy.

2.NK.70.BA-BL	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope
2.NK.70.BD-BK	Inspection, small intestine, using retrograde (via rectum) endoscopic per orifice approach and (double) balloon enteroscope

Rationale: EGD and ileoscopy are distinct interventions because they require different operative approaches and involve different sites that happen to be classified to the same rubric; therefore, multiple codes are assigned.

Note

In many orthopedic procedures, the surgeon may use more than one device to stabilize the **bone**. Make the code selection based on the following hierarchy of devices (from highest to lowest):

- Endoprosthesis
- Intramedullary nail
- Screws and plates
- Pins and nails
- Wire, staples and mesh
- No device

Make the code selection based on the following hierarchy of devices used to repair **ligament or soft tissue** (from highest to lowest):

- Biodegradable binding devices (e.g., bioscrews and biodegradable anchors)
- Screw (and washer)
- Endobutton or staple
- Sutures, suture anchors

Example: The patient suffers a hip fracture and is admitted for repair. An intramedullary nail and screws are used for fixation.

1.VA.74.LA-LQ Fixation, hip joint, open approach, using intramedullary nail, fixation device alone

Rationale: The fixation was performed at one operative site; therefore, only one code is assigned. Using the orthopedic hierarchy of devices, the code identifying the fixation using intramedullary nail is selected.

DAD and NACRS directive statement

When the same generic intervention is performed on bilateral sites and there is **no variation in any component** of the CCI code, assign

- A single code from the rubric; and
- The location attribute "B" (signifying bilateral), mandatory, when available.

Example: A woman has a bilateral total mastectomy using free flap for breast cancer.

1.YM.90.LA-XX-F Excision total with reconstruction, breast, with no implanted device, using free flap

Location: B

Rationale: Exactly the same intervention was performed on both sides; therefore, only one code is assigned, along with the mandatory location attribute to identify bilateral reconstruction.

Note

When the location attribute "bilateral" is not available, a single code is still assigned.

Example: A patient has an open reduction with internal fixation using a combination of plates and screws for bilateral maxilla fractures.

1.ED.74.LA-NW Fixation, maxilla, using plate, screw device (with/without wire/mesh) no tissue used [device only]

Rationale: Exactly the same intervention was performed on both sides; therefore, only one code is assigned. There is no location attribute available at 1.ED.74.^^ because the maxilla is a single bone.

DAD and NACRS directive statement

When the same generic intervention is performed on bilateral sites and there is a **variation in any component** of the CCI code, assign

- Separate codes for each intervention from the same rubric; and
- The applicable location attribute to each code, mandatory, when available.

Example: A patient has bilateral inguinal hernias repaired at the same intervention episode. Both are repaired laparoscopically through separate groin incisions; the left side requires mesh in the repair and the right side uses simple suturing.

1.SY.80.DA-XX-N — Repair, muscles of the chest and abdomen, endoscopic [laparoscopic] approach, using synthetic tissue [e.g. mesh, sponge]
Status: 0
Location: LW

1.SY.80.DA — Repair, muscles of the chest and abdomen, endoscopic [laparoscopic] approach, without tissue [e.g. suturing or stapling]
Status: 0
Location: LW

Rationale: When interventions are performed on bilateral sites and there is a variation in any component of the CCI code, multiple codes are assigned to identify these as different interventions. In this example, the variation is with the tissue qualifier — one side used synthetic tissue (mesh) and the other used no tissue. The mandatory location attributes identify that each repair was unilateral.

Example: Closed reduction fracture of right humerus and open reduction fracture of left humerus

1.TK.73.JA — Reduction, humerus, using closed [external] approach
Location: R

1.TK.73.LA — Reduction, humerus, using open approach
Location: L

Rationale: Reductions were performed on the left and right humeri with different approaches; therefore, multiple codes are assigned to identify these as different interventions. The mandatory location attributes identify that each reduction was unilateral.

Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction

In effect 2002, amended 2008

DAD and NACRS directive statement

When a separate incision is made to obtain the tissue, assign the appropriate CCI code for procurement of tissue.

Procurements are coded to reflect the existence of a separate surgical defect (wound) that usually requires its own post-surgical care and monitoring. If an incision is simply enlarged to obtain the tissue, there is no need to code the procurement. A local flap (for advancement, rotation and realignment) does not usually involve a separate incision for procurement of the flap.

For clinical information, see Definitions of flaps and grafts in Appendix A.

Example: A fasciocutaneous free flap from the thigh is harvested to repair a serious facial burn.

1.YF.80.LA-XX-F	Repair, skin of face, using free flap [e.g. microvascular free flap]
1.YV.58.LA-XX-F	Procurement, skin of leg, of free flap using open approach

Example: A high tibial osteotomy with patellar tendon transfer

1.VQ.80.LA-KD	Repair, tibia and fibula, using wire, mesh, staple, no tissue used (for repair)
1.VS.80.LA-XX-E	Repair, tendons of lower leg [around knee], using apposition technique [tendon sutured to tendon] with tendon transfer for realignment [e.g. advancement, transposition]

Rationale: Procurement is not coded because a separate incision at another site on the body was not made.

Note

When the tissue qualifier is "E," this **usually** means that you do not need a procurement code.

Exception
Whenever a segment of the **intestine** is harvested, a procurement code is assigned. This happens most often for repairs and reconstructions of the urinary tract and the esophagus. Because creating a defect along the gastrointestinal tract always requires careful post-surgical monitoring, the procurement of intestine must be coded.

Combined Diagnostic and Therapeutic Interventions

In effect 2001, amended 2006, 2008, 2009, 2012, 2015

DAD and NACRS directive statement

When both a diagnostic intervention from Section 2 and a therapeutic intervention from Section 1 are performed at the same anatomical site, assign a code for the therapeutic intervention, mandatory. Assign a code for the diagnostic intervention, optional, as required to meet facility reporting requirements.

Exception
In order to identify whether a therapeutic intervention was performed by sigmoidoscopy or colonoscopy, assign an additional code, mandatory, for the inspection (see also the coding standard *Endoscopic Interventions*).

Exception
Sentinel lymph node biopsy, 2.M^.71.^^ *Biopsy, lymph node(s)*, any site, with extent attribute "SN" (sentinel node(s)) is mandatory to assign whenever it is performed. See also the coding standard *Sentinel Lymph Node Biopsy*.

Example: A frozen section of a biopsy of thyroid that was performed on this patient reveals malignancy and a total thyroidectomy is performed.

1.FU.89.^^ Excision total, thyroid gland
Location: U

Rationale: When a biopsy and a therapeutic intervention are performed at the same site during the same operative episode, a code for the biopsy is optional.

Example: The patient is brought into hospital for a lumpectomy of her left breast. A sentinel node biopsy is performed followed by an axillary node dissection.

1.YM.87.^^ **Location: L**	Excision partial, breast
1.MD.89.LA	Excision total, lymph node(s), axillary, using open approach
2.MD.71.LA **Extent: SN**	Biopsy, lymph node(s), axillary, using open approach

Rationale: It is mandatory to assign 2.MD.71.^^ with extent attribute "SN" (sentinel node(s)) whenever performed. See also the coding standard *Sentinel Lymph Node Biopsy*.

Note

The intent of an excisional biopsy is therapeutic as well as diagnostic. The lesion has to be excised and a diagnosis established by pathology. The therapeutic intervention takes precedence and a code from Section 2 is not assigned. An excisional biopsy is classified to a "partial excision" at the appropriate anatomical site.

Example: The patient is brought into hospital to investigate a suspicious lump in her right breast. The surgeon performs an excisional biopsy of breast, which is sent to pathology for examination.

1.YM.87.^^ **Location: R**	Excision partial, breast

Example: A trauma victim is taken to the operating room for an explorative laparotomy. A ruptured spleen is identified upon opening the abdominal cavity. A total splenectomy is performed.

1.OB.89.LA	Excision total, spleen, using open [abdominal] approach

Rationale: When the intervention was planned as a diagnostic one but was subsequently changed to a therapeutic one, only the therapeutic component of the procedure is coded.

Example: The patient is experiencing severe shortness of breath. A CT scan of the chest reveals significant pleural effusion. A pleurocentesis is performed, and the fluid is sent to pathology for analysis. Pathology reports a malignant pleural effusion.

1.GV.52.^^ Drainage, pleura

Rationale: Aspiration of fluids from a body cavity may have both diagnostic and therapeutic value. Procedures such as pleurocentesis are coded to the therapeutic intervention "drainage." **Note:** 3.GY.20.VA *Computerized tomography [CT], thoracic cavity NEC, without contrast* would be assigned on the ambulatory care abstract.

DAD and NACRS directive statement

Classify incisional biopsies in Section 2 to the generic intervention "biopsy" at the appropriate anatomical site. Incisional biopsies involve removing a tissue sample for diagnostic purposes only.

Example: The patient is being followed by a nephrologist for elevated creatinine and blood urea nitrogen (BUN). He is now being admitted for a renal biopsy to rule out glomerulonephritis.

2.PC.71.^^ Biopsy, kidney

Example: The patient is admitted for investigation of a suspicious lung lesion. A right lung biopsy is done by percutaneous needle aspiration.

2.GT.71.HA Biopsy, lung NEC, using percutaneous (needle) approach
Location: R

See also the coding standard *Endoscopic Interventions*.

Endoscopic Interventions

For description of change, see Appendix C.

In effect 2001, amended 2003, 2009, 2018

Endoscopic interventions are widely performed and may be either diagnostic or therapeutic in their intent.

DAD and NACRS directive statements

When the intent of an endoscopy is diagnostic only, classify the intervention to "inspection" of the anatomical site.

Select the anatomical site based on the furthest site inspected through the endoscope

Example: Esophagogastroduodenoscopy (EGD) done for screening

2.NK.70.BA-BL	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope

DAD and NACRS directive statement

When a biopsy and an inspection are performed at the same anatomical site, assign a code for the biopsy only.

Example: Colonoscopy with biopsy of lesion in transverse colon

2.NM.71.BA-BJ	Biopsy, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

DAD and NACRS directive statement

At 2.NM.70.^^ *Inspection, large intestine* and 2.NM.71.^^ *Biopsy, large intestine*, select the device qualifier based on the intent of the intervention (sigmoidoscopy versus colonoscopy).

An endoscopic intervention of the lower gastrointestinal tract may be performed either via colonoscope or sigmoidoscope.

A colonoscopy and a sigmoidoscopy are very different interventions in terms of risk, complication, preparation and anesthetic.

The device qualifiers at both 2.NM.70.^^ *Inspection, large intestine* and 2.NM.71.^^ *Biopsy, large intestine* are meant to distinguish a colonoscopy from a sigmoidoscopy.

For clinical information, see also Diagnostic colonoscopic interventions in Appendix A.

Note

In some facilities, a colonoscope may be used when the intent is to perform a sigmoidoscopy; however, the device qualifier "sigmoidoscope" is selected because the codes reflect the intent of the intervention. When the documentation is unclear as to the intent of the procedure, refer to the consent form to identify the planned intervention to which the patient consented.

Example: The patient presents for a flexible sigmoidoscopy. The inspection is successful to the descending colon, and no biopsies are taken.

2.NM.70.BA-BH	Inspection, large intestine, using endoscopic per orifice approach (or via stoma) and flexible sigmoidoscope

Rationale: A sigmoidoscopy is an inspection of the rectum, to the sigmoid colon, up into the lower portion of the descending colon.

Example: The patient presents for a colonoscopy. At the time of inspection, the physician is able to proceed only as far as the sigmoid colon due to an obstruction. It is biopsied and the scope is withdrawn.

2.NM.71.BA-BJ	Biopsy, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: This is considered a **failed intervention** because the expected outcome was not entirely achieved upon termination of the procedure. Classify a failed intervention in the same manner as one that is successful.

Example: The patient is booked for a colonoscopy. The endoscope is inserted and maneuvered through the colon. The ileocecal valve is visualized, and the scope is withdrawn.

2.NM.70.BA-BJ	Inspection, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: The intent of this procedure was a colonoscopy. The scope was inserted up to the ileocecal valve, but the terminal ileum was not intubated. Visualization of the ileocecal valve in this case is the landmark that tells the physician he has successfully reached the end of the colon and that the colonoscopy has been completed.

DAD and NACRS directive statement

When an inspection goes beyond the site of the biopsy, assign codes for both the biopsy and the inspection, sequencing the biopsy first.

Example: EGD with biopsy of stomach lesion

2.NF.71.BA	Biopsy, stomach, using endoscopic per orifice approach (or via stoma)
2.NK.70.BA-BL	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope

DAD and NACRS directive statement

When the colonoscope enters the terminal ileum during colonoscopy, assign

- 2.NK.70.^^ *Inspection, small intestine*; or
- 2.NK.71.^^ *Biopsy, small intestine* when a biopsy is performed.

Example: The physician documents that the colonoscope was passed through the colon and that the terminal ileum was intubated.

2.NK.70.BA-BJ	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: In this example, the inspection has gone beyond the large intestine (NM) and has entered the small intestine (NK); therefore, the correct CCI anatomical site is NK.

Example: The patient is booked for a colonoscopy. The endoscopy report documents that a colonoscope was inserted and a suspicious lesion was seen in the ascending colon; it was biopsied. There is also documentation that the terminal ileum was intubated. The scope was then withdrawn.

2.NM.71.BA-BJ	Biopsy, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope
2.NK.70.BA-BJ	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: When an inspection goes beyond the anatomical site of a biopsy, assign codes for both the biopsy and the inspection, sequencing the biopsy first.

Example: The colonoscope is advanced through the colon and into the terminal ileum. Biopsies are taken of the rectum, colon and ileum.

2.NK.71.BA-BJ	Biopsy, small intestine, using endoscopic per orifice approach (or via stoma) and colonoscope
2.NM.71.BA-BJ	Biopsy, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope
2.NQ.71.BA	Biopsy, rectum, using endoscopic per orifice approach

Rationale: When separate anatomical sites are biopsied, a code for each site is assigned; the deepest site is sequenced first.

Example: The patient has an EGD and a colonoscopy. The gastroscope is advanced to the duodenum. The colonoscope is advanced into the terminal ileum, and the physician notes findings of ileitis in the terminal ileum.

2.NK.70.BA-BJ	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and colonoscope
2.NK.70.BA-BL	Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope

Rationale: Although two codes from the same rubric are not normally assigned, in this example, two distinct interventions were performed.

DAD and NACRS directive statement

When both an inspection and a therapeutic intervention are performed at the same anatomical site, assign a code for the therapeutic intervention only.

Exception

In order to identify whether a therapeutic intervention was performed by sigmoidoscopy or colonoscopy, assign an additional code, mandatory, for the inspection.

Example: Cystoscopy with fulguration of bladder tumor

1.PM.59.BA-GX	Destruction, bladder, endoscopic per orifice approach using device NEC (for tissue ablation or lithotripsy)

Rationale: Inspection by cystoscopy is inherent in the device qualifier (BA) at destruction, bladder; therefore, a code for cystoscopy is not assigned separately.

Example: Colonoscopy with polypectomy of large intestine

1.NM.87.BA	Excision partial, large intestine, endoscopic per orifice approach, simple excisional technique
Location: U	
2.NM.70-BA-BJ	Inspection, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: A code for the inspection is assigned along with the therapeutic intervention to identify that a colonoscopy instead of a sigmoidoscopy was performed.

Example: Colonoscopy to cecum with polypectomy of sigmoid colon and random biopsies of ascending colon

1.NM.87.BA	Excision partial, large intestine, endoscopic per orifice approach, simple excisional technique
Location: U	
2.NM.71.BA-BJ	Biopsy, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

Rationale: In this example, colonoscopy is inherent in the device qualifier (BJ) for the biopsy code; therefore, a code for inspection is not assigned separately.

DAD and NACRS directive statement

When separate anatomical sites are biopsied during one operative episode, assign a code for the biopsy of each anatomical site.

- Sequence the biopsy of the deepest site first.

Example: EGD with biopsy of stomach lesion and biopsy of a duodenal lesion

2.NK.71.BA-BL	Biopsy, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope
2.NF.71.BA	Biopsy, stomach, using endoscopic per orifice approach (or via stoma)

See also the coding standard *Combined Diagnostic and Therapeutic Interventions*.

Interventions to Manage Bleeding

In effect 2002, amended 2006, 2012

See also the coding standards *Selection of Interventions to Code for Acute Inpatient Care* and *Selection of Interventions to Code for Ambulatory Care*.

Interventions to manage bleeding can be classified to 1.^^.13.^^ *Control of bleeding*, 1.^^.51.^^ *Occlusion*, 1.^^.59.^^ *Destruction* or 1.^^.80.^^ *Repair* depending upon

- The anatomical site:
  - For example, some organs are only ever repaired to manage bleeding. In order to not duplicate categories in CCI, there are no repair (80) interventions available for the tonsil/adenoid, thyroid, spleen and liver anatomical sites. The management of bleeding of these organs is included in the intervention control of bleeding (13);
- The method used to manage the bleeding (e.g., vessel occlusion, local area destruction or organ repair); and
- Whether or not the bleeding is a result of a damaged artery/vein or is within a solid organ.

Note
It is essential to follow the includes/excludes notes in CCI to determine the correct rubric for interventions to manage bleeding.

Example: During his hospital admission, the patient requires control of an episode of intractable epistaxis. This is accomplished by clipping the ethmoid artery via a transantral open approach.

1.JX.51.LA-FF Occlusion, other vessels of head, neck and spine NEC, open approach [e.g. transantral, Caldwell Luc] using clips

Extent: 0

Rationale: The excludes note at rubric 1.ET.13.^^ excludes ligation of the ethmoidal artery and directs the coder to assign 1.JX.51.^^.

DAD and NACRS directive statement

When a solid organ is damaged and is bleeding from within, or when the bleeding is due to internal pathology, assign 1.^^.13.^^ *Control of bleeding*, by anatomical site.

Example: A stabbing victim has surgery to control bleeding to an internal wound of the liver. An open approach is used to apply fibrin glue to repair the damage and stem the bleeding.

1.OA.13.LA-W3 Control of bleeding, liver, open approach using fibrin glue
Extent: 0

Example: The patient is admitted for uterine embolization for control of heavy uterine bleeding due to fibroids. This is accomplished via uterine artery embolization with two coils.

1.RM.13.GQ-GE Control of bleeding, uterus and surrounding structures, using percutaneous (transarterial) approach and [detachable] coils
Extent: 02

Example: During his hospital stay, the patient requires control of an episode of intractable epistaxis. A transarterial embolization of the ethmoid artery is accomplished using microspheres.

1.ET.13.GQ-W0 Control of bleeding, nose, using percutaneous [transarterial] approach and other synthetic material [e.g. gelfoam, microspheres, polystyrene, polyvinyl alcohol, contour particles]
Extent: 0

DAD and NACRS directive statement

When a blood vessel **outside of an organ** has been transected and is being repaired to control hemorrhage, assign a code from 1.^^.80.^^ *Repair* of the blood vessel.

Example: A stabbing victim has surgery to control internal bleeding caused by a transected hepatic artery, which is repaired with simple suturing through a laparotomy approach.

1.KE.80.LA Repair, abdominal arteries NEC, using open approach

DAD and NACRS directive statement

When an intervention to manage bleeding is done to a **skin site** via destruction of tissue, assign a code from 1.^^. 59.^^ *Destruction, skin*, by site. Omit the code when the management of bleeding is part of a more invasive procedure.

Example: A patient with a bleeding laceration of the skin on his forehead has the bleeding controlled via cauterization only, with light dressing applied.

1.YB.59.JA-GX Destruction, skin of forehead, using device NEC

Example: A patient with a bleeding laceration of the skin on the forehead has the bleeding points cauterized prior to suturing of the laceration.

1.YB.80.LA Repair, skin of forehead, using apposition technique [e.g. suturing, stapling]

Rationale: While both cauterization and sutures were performed to manage the bleeding, the sutures are more invasive; therefore, only 1.YB.80.LA is assigned.

Destruction or Excision of Aberrant/ Ectopic Tissue

In effect 2006

DAD and NACRS directive statement

Classify the excision or destruction of aberrant (or ectopic) tissue of a gland or an organ to the anatomical site of origin, even though the tissue is found outside the site of origin and at a distance from it.

The most common types of aberrant tissue found away from a gland or organ are adrenal, endometrial and parathyroid. A location attribute indicating that the tissue is aberrant (AT) may be selected to accompany the intervention code.

Example: Laparoscopic destruction by electrocautery of endometrial tissue found within the pelvic cavity — on ovary and intestine

1.RM.59.DA-GX Destruction, uterus and surrounding structures, endoscopic [laparoscopic] approach using device NEC [e.g. electrocautery, rollerball diathermy]

Location: AT

Rationale: The destruction is of endometrial tissue even though it is found on the ovary and intestine. No intervention is assigned to indicate surgery on the ovaries or intestines.

Debulking of a Space-Occupying Lesion

In effect 2006

For various reasons, it is not always possible to completely excise a lesion. For example, in an intracranial lesion, the neurological defect could be so severe as to outweigh the benefits of total eradication of the neoplasm. A surgeon may, however, choose to excise or destroy the bulk of the lesion to alleviate symptoms or to facilitate subsequent radiation or chemotherapy. When an intramarginal excision or destruction of a lesion is performed, it is frequently termed a "debulking" of a tumor. Excisional debulking procedures should not be confused with biopsy procedures, where the intent is to remove a small piece of the tumor for diagnostic purposes only.

Debulking procedures of intracranial lesions may be performed using an ultrasonic aspirator. Common names for this frequently used tool are "Cavitron" and "Cavitronic ultrasonic aspirator (CUSA)."

Following this intralesional excision, chemotherapy may be used to further retard the growth of (and shrink) the neoplasm. A planned second resection done to complete surgical management of the lesion may be flagged with a status attribute "staged." Because this is a completion procedure, it would never be described as a revision. This holds true even if a person returns for a neoplasm resection at the same site years later. In such a situation, the resection would be coded without the use of an attribute at all.

If, however, a re-visitation to the original site of the resection is required to evacuate a hematoma or to debride an abscess, the status attribute "revision" must be used to describe this (see also the coding standard *Revised Interventions*).

DAD and NACRS directive statement

Classify debulking procedures to the generic CCI intervention "destruction" or "partial excision," by site, according to the procedure performed.

Example: The surgeon performs a debulking of a tracheal tumor using laser via bronchoscopy.

1.GJ.59.BA-AG	Destruction, trachea, using endoscopic per orifice approach and laser

Example: The surgeon performs a craniotomy to debulk a cerebral neoplasm using a CUSA device.

1.AN.87.SZ-AZ	Excision partial, brain, craniotomy [or craniectomy] flap technique for access, with ultrasonic aspirator [e.g. CUSA]

Abandoned Interventions

For description of change, see Appendix C.

In effect 2001, amended 2005, 2006, 2008, 2015, 2018

An abandoned intervention describes a situation in which a planned intervention classifiable to Section 1 or Section 5 is begun but, due to usually unanticipated circumstances, cannot be completed beyond an incision, inspection, biopsy or anesthetization.

DAD and NACRS directive statements

When a planned intervention from Section 1 or Section 5 cannot be completed beyond incision, inspection, biopsy or anesthetization, assign a CCI code from one of the following:

- Incision (1.^^.70)
- Inspection (2.^^.70)
- Biopsy (2.^^.71)
- Anesthetization (1.^^.11)

Immediately following, sequence the CCI code for the planned intervention from Section 1 or Section 5, optional. If the code is assigned, it is mandatory to assign the status attribute "A."

Note

When an intervention meets the criteria for "abandoned," it is mandatory to assign the status attribute "A," when available, even when the status attribute is not activated as mandatory in Folio (i.e., the status attribute box is not pink in Folio).

Note

An attribute for abandoned does not exist in Section 2 and Section 3. When a planned intervention from Section 2 or Section 3 is attempted beyond anesthetization but the expected outcome is either poor or not achieved entirely, code the intervention in the same manner as an intervention with successful results.

See also the coding standards *Failed Interventions* and *Cancelled Interventions*.

Example: The intended intervention was to excise the large intestine for a malignancy, but at laparotomy it is discovered that the neoplasm is so extensive that removal is impossible. The surgeon simply conducts an inspection and then closes the abdomen without attempting the colon resection.

2.OT.70.^^	Inspection, abdominal cavity
1.NM.89.^^	Excision total, large intestine

Status: A

Note

An incision into the site may be coded for a limited number of anatomical sites (e.g., 1.OT.70.LA *Incision NOS, abdominal cavity using open approach*).

Example: The patient is admitted to the day surgery unit for tonsillectomy. The patient is taken to the operating room and given general anesthesia. The surgeon notes that he cannot position the Boyle Davis gag to allow access to the tonsils because the patient has a very large neck. The procedure is terminated and the patient is discharged home.

1.ZZ.11.HA-P1	Anesthetization, total body, using percutaneous (needle) approach and general anesthetic agent
1.FR.89.LA	Excision total, tonsils and adenoids, tonsillectomy alone using device NEC

Status: A

Example: The patient presents for bronchoscopy. Her throat is sprayed with Xylocaine, but the physician is called off to an emergency before the procedure starts. The patient is discharged home to have the procedure rebooked for another date.

No CCI code assigned.

Rationale: This example does not meet the definition of an abandoned intervention. It also does not meet the definition of a failed intervention because the bronchoscopy (a Section 2 intervention) was not attempted beyond anesthetization. Therefore, the example meets the definition of a cancelled intervention. The patient presented for a scheduled intervention that did not occur due to administrative reasons. See the coding standard *Cancelled Interventions* for direction related to diagnosis code assignment.

Failed Interventions

In effect 2002, amended 2003, 2006

DAD and NACRS directive statement

Classify a failed intervention in the same manner as one that is successful.

For the purposes of classification, an intervention is considered “failed” if, on termination of the procedure, the expected outcome is either poor or not achieved entirely.

Example: A failed cholangiogram could mean that the common bile duct was explored but that the dye could not pass, as expected, into the duct. As a result, the expected outcome (viewing of the common bile duct using a dye) was not adequately achieved.

Code the cholangiogram.

3.OE.10.WZ	Xray, bile ducts, following endoscopic (retrograde) injection of contrast

Example: A failed elective coronary angioplasty could be one during which the balloon catheter could not be advanced beyond the stenosis in the artery. The expected dilation of the coronary artery could not be performed to the satisfaction of the surgeon.

Code the coronary angioplasty.

1.IJ.50.GQ-BD	Dilation, coronary arteries, percutaneous transluminal approach [e.g. with angioplasty alone] using balloon or cutting balloon dilator without stent insertion
Status: P **Extent: DG**	
Assign also 3.IP.10.VX	Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach
Status: UN **Location: U**	

Note

In such a scenario, the responsible physician will sometimes attempt to clear the plaque or thrombus formation by injecting a thrombolytic agent directly into the coronary artery. This is classified to 1.IL.35.HA-1C *Pharmacotherapy (local), vessels of heart, percutaneous injection approach of thrombolytic agent*. When a drug is administered via a venous approach, it must be considered systemic pharmacotherapy. When the drug is injected into an artery, it is always classified to local pharmacotherapy.

Example: The patient is prepped for an endoscopic retrograde cholangiopancreatography (ERCP). The procedure is started and the ampulla appears inflamed, as though it may have been traumatized. The pancreatic duct is easily opacified and seen to be normal. Despite good positioning and trying various papillotomes, it is not possible to get deep cannulation of the bile duct even using a wire. The procedure is aborted.

3.OG.10.WZ	Xray, biliary ducts with pancreas, following endoscopic (retrograde) injection of contrast [ERCP]

Example: Failed closed reduction of the shoulder joint is one in which the responsible physician could not reduce the displaced bone to its normal anatomical location despite efforts in that direction. **Code the closed reduction**, even though the desired outcome was not achieved. The patient goes on to have an open reduction and internal fixation at a later operative episode.

1.TA.73.JA	Reduction, shoulder joint, using closed (external) approach

Exception

Failed trial of labor following previous Cesarean section (subcategory O66.4) and failed application of vacuum extractor and forceps (subcategory O66.5) are captured by ICD-10-CA codes and do not lend themselves to this coding standard. See also the coding standard *Interventions Associated With Delivery*.

See also the coding standard *Abandoned Interventions*.

Change of Plans During an Intervention

In effect 2001, amended 2007

DAD and NACRS directive statement

When an intervention is performed that is different than the one originally intended, code only the intervention that was actually performed.

The intended therapeutic intervention has no clinical significance and must not be recorded on the abstract. Coding of therapeutic interventions reflects what was actually done.

Example: The patient is admitted with abdominal pain. Appendicitis is suspected, and the patient is taken to the operating room for an appendectomy. At laparotomy, it is clear that the patient has a ruptured ovarian cyst and a normal appendix. Unilateral oophorectomy is performed.

1.RB.89.LA Excision total, ovary, using open approach
Location: U

Converted Interventions

For description of change, see Appendix C.

In effect 2001, amended 2018

DAD and NACRS directive statement

When an intervention begins as an endoscopic approach but is changed to an open approach, select the qualifier to indicate open approach and assign the status attribute “C” (converted).

CCI allows for the capture of information regarding interventions that begin as endoscopic procedures but, for some reason, must be changed to an open approach. The status attribute “C” (converted) is currently available at the most common interventions where this may occur. The intervention is coded with the appropriate qualifier designating the open approach, followed by the use of the status attribute “C.”

Note
When an intervention meets the criteria for "converted," it is mandatory to assign the status attribute "C," when available, even when the status attribute is not activated as mandatory in Folio (i.e., the status attribute box is not pink in Folio).

Example: The patient is admitted for a laparoscopic cholecystectomy. Extensive adhesions are encountered while attempting to perform the cholecystectomy, so the intervention is switched to an open cholecystectomy.

1.OD.89.LA	Excision total, gallbladder, open approach, cholecystectomy alone without extraction (of calculi)

Status: C

Revised Interventions

In effect 2003, amended 2009, 2012, 2015

Describing a therapeutic intervention as a revision in CCI requires the use of status attribute "R."

Note
The status attribute "R" (revision) is currently activated as mandatory (i.e., the status attribute box is pink) at the most common interventions where a revision intervention may occur. However, when the attribute box is yellow, it is mandatory to assign the status attribute "R" whenever the criteria stated in the directive box below are met.

DAD and NACRS directive statement

Assign the status attribute "R" when the current intervention is a complete or partial redo of an intervention performed previously for any problem, whether expected (e.g., end of life of device) or unexpected (e.g., complication).

Note

The following interventions **are not** classified as revisions:

- Re-insertion of stents, catheters and shunt systems (e.g. 1.^^.52.^^): The replacement of stents and catheters is such a routine activity that it is considered a reasonable expectation, especially when in situ long term.
- Management of any internal device (1.^^.54.^^): Devices such as cardiac pacemakers, lens prostheses, chest tubes and penile prostheses will always involve going back to the site of the original implant. Hence it is redundant to code these as revisions, and the attribute is unavailable at this generic intervention.
- Control of bleeding using local application of antihemorrhagic agent, packing, diathermy or thermal device, electrocautery, or external manual compression or direct compression to the site (1.^^.13.^^ and not requiring re-apposition by suture, staple, etc.).
- Management of operative wounds, for example, first repair of an incisional hernia, wound debridement or scar revision.
- Implantation of internal device (1.^^.53.^^) when it is the initial (first) implantation of an internal device at a site where an intervention was previously performed.
- A second resection at the same anatomical site: This is usually done to take care of additional diseased tissue and must be considered a new resection each time it is performed.
- Any intervention on a surgically constructed site (i.e., anatomical sites OW — Surgically Constructed Sites in Digestive and Biliary Tract, PV — Surgically Constructed Sites in Urinary Tract and KY — Artery With Vein), as these are always, by nature, revisions in themselves; status attribute “R” is not available.
- Repeat diagnostic interventions such as biopsies performed to discover if any new pathology has returned to a site or inspections with no further intervention (e.g., a post-operative exploratory laparoscopy) are not revisions because they result in no real definitive change to the previous intervention at that anatomical site.

Example: **Diagnosis:** Loose left hip arthroplasty

Previous procedure: Total left hip replacement

Current intervention: Replacement of acetabular cup using a bone graft and cement

Code	DAD	Cluster	Code title
T84.030	(M)	A	Mechanical complication of hip prosthesis, loosening
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

1.SQ.53.LA-PM-Q Implantation of internal device, pelvis, prosthetic device, single component [e.g. cup] using combined sources of tissue [e.g. bone, graft, cement/paste]

Status: R
Location: L

Rationale: This example meets the criteria for revision because it is a partial redo of an intervention performed previously. It is mandatory to assign the status attribute “R.” The redo is for an unexpected reason.

Example: **Diagnosis:** End of life of pacemaker

Previous procedure: Implantation of a dual chamber rate responsive pacemaker (DDD)

Current intervention: Total replacement of DDD, which includes replacement of battery/generator pack and replacement of ventricular and atrial leads

Code	DAD	Code title
Z45.00	(M)	Adjustment and management of cardiac pacemaker

1.HZ.53.GR-NK Implantation of internal device, heart NEC, percutaneous transluminal [transvenous] approach or approach NOS, dual chamber rate responsive pacemaker [DVI, DDD, DDDR modes]

Status: R
Extent: AV

Rationale: This example meets the criteria for revision because it is a complete redo of an intervention performed previously. It is mandatory to assign the status attribute “R” despite the fact that the status attribute box is yellow. The redo is for an expected reason.

Example: **Diagnosis:** Pain in the left knee. The patient had left knee repair with meniscectomy two years ago and has now developed osteoarthritis requiring a total knee replacement.

Previous procedure: Knee repair with meniscectomy

Current intervention: Total replacement of the knee prosthesis, uncemented, using a tri component prosthetic device

Code	DAD	Code title
M17.9	(M)	Gonarthrosis, unspecified

1.VG.53.LA-PP Implantation of internal device, knee joint, uncemented, tri component prosthetic device

Status: P
Location: L
Extent: 3

Rationale: This example does not meet the criteria for revision because it is not a redo of a previous intervention for the meniscus problem. This is the first implantation of a joint prosthesis.

Example: **Diagnosis:** Leaking left breast implant

Previous procedure: Insertion of bilateral silicone breast implants

Current intervention: Replacement of the left breast prosthesis with a new silicone implant using open approach and no graft required

Code	DAD	NACRS	Cluster	Code title
T85.4	(M)	MP	A	Mechanical complication of breast prosthesis and implant
Y81.2	(9)	OP	A	General- and plastic-surgery devices associated with adverse incidents, prosthetic and other implants, materials and accessory devices

1.YM.79.LA-PM Repair by increasing size, breast, open approach with implantation of prosthesis without tissue

Status: R

Rationale: This example meets the criteria for revision because it is a complete redo of an intervention performed previously. It is mandatory to assign the status attribute “R.” The redo is for an unexpected reason.

Example: **Diagnosis:** Incisional hernia in upper abdominal region

Previous procedure: Cholecystectomy

Current intervention: Herniorrhaphy with mesh and autograft, open approach

Code	DAD	NACRS	Code title
K43.2	(M)	MP	Incisional hernia without obstruction or gangrene

1.SY.80.LA-XX-Q Repair, muscles of the chest and abdomen, open approach using combined sources of tissue [e.g. mesh with autograft]

Status: 0

Location: UP

Rationale: This example does not meet the criteria for revision because it is a first-time repair of an incisional hernia (i.e., it is not a recurrent incisional hernia that was previously repaired).

Example: **Diagnosis:** Continued symptoms of nerve entrapment following left carpal tunnel release performed two years previously

Previous procedure: Carpal tunnel release, left wrist

Current intervention: Carpal tunnel release, left wrist

Code	DAD	NACRS	Code title
G56.0	(M)	MP	Carpal tunnel syndrome

1.BN.72.LA Release, nerve(s) of forearm and wrist, using open approach

Status: R

Rationale: This example meets the criteria for revision because it is a complete redo of an intervention performed previously. It is mandatory to assign the status attribute “R” despite the fact that the status attribute box is yellow. This redo is for an unexpected reason.

Example: One year after fixation of the second and third metatarsal bones of the right foot, the patient returns for surgery due to excessive pain and migration of the pins (noted on X-ray). The surgeon elects to fuse the MTP joints because of malunion; fixation is not a good option for this obese man. This time, wire is used and an iliac crest bone graft is harvested.

Code	DAD	Cluster	Code title
M84.07	(M)		Malunion of fracture, ankle and foot
T84.15	(1)	A	Mechanical complication of internal fixation device of bones of foot
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

1.WJ.75.LA-KD-A Fusion, tarsometatarsal joints, other metatarsal bones and other metatarsophalangeal joints [forefoot], using wire, staple, with bone autograft

Status: R

1.SQ.58.LA-XX-A Procurement, pelvis, of [bone] autograft [e.g. iliac crest bone graft] using open approach

Rationale: This example meets the criteria for revision because it is a complete redo of a correction of the fracture, even though a different intervention is done to accomplish this. It is mandatory to assign the status attribute “R” despite the fact that the status attribute box is yellow. This redo is for an unexpected reason.

A staged intervention versus revision of an intervention

Staged interventions involve a complex course of treatment planned right from the onset. Revisions represent a problem requiring a complete or partial redo.

DAD and NACRS directive statement

Apply the status attribute "S" to all (initial and subsequent) surgical interventions that are part of the complex course of treatment. Currently, capturing staged interventions is optional, but facilities may elect to code this based on their data needs.

Note

At times it may be difficult to tell whether a second procedure is a revision or part of a planned series of steps (stages) to reach the desired outcome. When in doubt, discuss the decision to use the staged or revision attribute with the surgeon.

Example: A child with a cleft face has had the major portion of her face repaired and is now presenting for cleft palate repair.

Code	DAD	Code title
Q35.9	(M)	Cleft palate, unspecified

1.FB.86.LA-XX-E Closure, fistula, hard palate, using local flap [e.g. levator veli palatini sling reconstruction; VY advancement flap, vomer flap]

Status: S (optional)

Example: A child who had her cleft palate repaired is admitted to undergo a reclosure of her palate due to a palatal fistula.

Code	DAD	Cluster	Code title
T81.82	(M)	A	Persistent postoperative fistula
Y83.4	(9)	A	Other reconstructive surgery as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

1.FB.86.LA-XX-E Closure, fistula, hard palate, using local flap [e.g. levator veli palatini sling reconstruction; VY advancement flap, vomer flap]

Status: R

Rationale: This is a revision procedure and not a staged procedure. The palatal fistula is a complication of the original repair and was not planned. It is mandatory to assign the status attribute “R” despite the fact that the status attribute box is yellow.

Chapter I — Certain infectious and parasitic diseases

Infections

For description of change, see Appendix C.

In effect 2001, amended 2005, 2006, 2015, 2018

See also the coding standards *Using Diagnostic Test Results in Coding* and *Drug-Resistant Microorganisms*.

DAD and NACRS directive statement

When coding an infection and the causative organism is not known, code the infection by site.

Example: The patient presents with abdominal pain, which is later shown to be due to a urinary tract infection (UTI).

Code	Code title
N39.0	Urinary tract infection, site not specified

DAD and NACRS directive statement

When the causative organism is known, classify the case in one of the following three ways, as indicated by the classification:

- Use the dual classification (dagger/asterisk) with a code specifying the infectious organism followed by the manifestation. Both codes must be used together to identify the infectious disease.
- Use a combination code.
- Use two codes, the first identifying the locally manifesting disease and the second identifying the infectious organism. The infectious agent is classified to categories B95–B98. Assignment of codes from categories B95–B98 is optional; if coded, they must be assigned diagnosis type (3)/other problem.

Exception
It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganisms. See also the coding standard *Drug-Resistant Microorganisms*.

Example: The patient is diagnosed with a candidal infection of the vulva and vagina.

Code	Code title
B37.3†	Candidiasis of vulva and vagina
N77.1*	Vaginitis, vulvitis and vulvovaginitis in infectious and parasitic diseases classified elsewhere

Rationale: Candidiasis of vulva and vagina is classified using the dual classification (dagger/asterisk).

Example: Final diagnosis: *Clostridium difficile* diarrhea resistant to multiple antibiotics.

Code	Code title
A04.7	Enterocolitis due to Clostridium difficile

Rationale: *Clostridium difficile* diarrhea is classified using a combination code per the classification. It is one of the most common causes of antibiotic-associated diarrhea. Antibiotic-associated diarrhea is not the same as an infection due to a specific drug-resistant microorganism; therefore, do not assign U83.7 *Resistance to multiple antibiotics*.

Example: After laboratory investigation, the physician confirms acute cystitis due to *E. coli*.

Code	DAD	NACRS	Code title
N30.0	(M)	MP	Acute cystitis
B96.2	(3)	OP	Escherichia coli [E. coli] as the cause of diseases classified to other chapters (optional)

Rationale: Acute cystitis due to *E. coli* is classified using two codes. One code identifies the locally manifesting disease (cystitis) and one code identifies the documented infectious organism (*E. coli*); however, assignment of B96.2 is optional.

DAD and NACRS directive statement

When only the organism is known and the site is not specified, classify as infection by the organism of unspecified site.

Example: The chart documentation states only “Staph infection.”

Code	Code title
A49.0	Staphylococcal infection, unspecified site

Drug-Resistant Microorganisms

For description of change, see Appendix C.

In effect 2003, amended 2006, 2009, 2012, 2015, 2018

The presence of the drug-resistant microorganisms methicillin-resistant *Staphylococcus aureus* (MRSA), carbapenem-resistant Enterobacteriaceae (CRE), extended-spectrum betalactamase (ESBL) producing microorganisms and vancomycin-resistant enterococci (VRE) has been increasing and is a patient safety concern in hospitals across the country. Once in a health care environment, these drug-resistant microorganisms can be difficult to treat, can further compromise a patient who is already unwell and can spread to other patients.

When a patient has a current infection due to MRSA, CRE, ESBL producing microorganisms or VRE, it means that the drug-resistant microorganism has caused the infection. The correct code assignment is described in the directive statements below.

For clinical information, see Drug-resistant microorganisms in Appendix A.

Infections due to MRSA, CRE, ESBL or VRE

DAD and NACRS directive statement

When there is a current infection that is clearly documented by the physician/primary care provider as being due to MRSA, CRE, ESBL producing microorganisms or VRE, assign, mandatory, the appropriate code combination to identify the

- Site of the infection, as a significant diagnosis type/main problem or other problem;
- Infectious microorganisms from categories B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem; and
- Specific drug-resistance as a comorbid diagnosis type (1) or type (2)/other problem:
  - U82.1 *Resistance to methicillin*; or
  - U82.20 Resistance to carbapenem; or
  - U82.28 *Resistance to other specified extended spectrum betalactam antibiotics*; or
  - U83.0 *Resistance to vancomycin*.

Note
Documentation by infection control staff stating that a patient has a current infection due to MRSA, CRE, ESBL producing microorganisms or VRE may be used to meet the requirement for code assignment as directed above.

Note
It is mandatory to apply the diagnosis cluster to the set of codes that describes a drug-resistant microorganism infection. See also the coding standard *Diagnosis Cluster*.

Example: This patient, who has primary, bilateral osteoarthritis of the hip, is admitted for a left total hip replacement. Five days post-surgery, the physician documents that the patient has an infected hip prosthesis with the presence of MRSA in the wound. The patient is started on antibiotics and placed in isolation. A consult with the infection control nurse results in initiation of the MRSA protocol.

Code	DAD	Cluster	Code title
M16.0	(M)		Primary coxarthrosis, bilateral
T84.53	(2)	A	Infection and inflammatory reaction due to hip prosthesis
B95.6	(3)	A	Staphylococcus aureus as the cause of diseases classified to other chapters
U82.1	(2)	A	Resistance to methicillin
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The infection is clearly documented as being due to MRSA. It is mandatory to assign the set of codes that describe an infection due to a specific drug-resistant microorganism: the infection (T84.53), the specific microorganism causing the infection (B95.6) and the specific drug resistance (U82.1).

Example: **Final diagnosis:** ESBL *E. coli* UTI

Code	DAD	NACRS	Cluster	Code title
N39.0	(M)	MP	A	Urinary tract infection, site not specified
B96.2	(3)	OP	A	Escherichia coli [E. coli] as the cause of diseases classified to other chapters
U82.28	(1)	OP	A	Resistance to other specified extended spectrum betalactam antibiotics

Rationale: The infection (UTI) is clearly documented as being due to ESBL *E. coli*. It is mandatory to assign the set of codes that describe an infection due to a specific drug-resistant microorganism: the infection (N39.0), the specific microorganism causing the infection (B96.2) and the specific drug resistance (U82.28).

Example: The patient is admitted for treatment of infected stage II pressure ulcers. The ulcers are documented as infected by VRE and MRSA.

Code	DAD	Cluster	Code title
L89.1	(M)	A	Stage II decubitus [pressure] ulcer
U82.1	(1)	A	Resistance to methicillin
B95.6	(3)	A	Staphylococcus as the cause of diseases classified to other chapters
U83.0	(1)	A	Resistance to vancomycin
B95.21	(3)	A	Enterococcus as the cause of diseases classified to other chapters

Rationale: The infected pressure ulcers are clearly documented as being due to VRE and MRSA. It is mandatory to assign the set of codes that describe an infection due to a specific drug-resistant microorganism: the infection (L89.1), the specific microorganisms causing the infection (B95.6 and B95.21) and the specific drug resistance (U82.1 and U83.0).

Example: A patient is admitted with a diagnosis of pneumonia due to MRSA.

Code	DAD	NACRS	Cluster	Code title
J15.2	(M)	MP	A	Pneumonia due to Staphylococcus
B95.6	(3)	OP	A	Staphylococcus aureus as the cause of diseases classified to other chapters
U82.1	(1)	OP	A	Resistance to methicillin

Rationale: The infection is clearly documented as being due to MRSA. It is mandatory to assign the set of codes that describe an infection due to a specific drug-resistant microorganism: the infection (J15.2), the specific microorganism causing the infection (B95.6) and the specific drug resistance (U82.1).

Carriers of drug-resistant microorganisms

When a patient is a carrier of MRSA, CRE, ESBL producing microorganisms or VRE, it means that the microorganism is present on or in the body without causing illness. Patients will have no signs or symptoms of infection but will have a positive microbiology report for MRSA, CRE, ESBL producing microorganisms or VRE. Documentation of a positive microbiology report for MRSA, CRE, ESBL producing microorganisms or VRE **without** documentation of a current infection due to these drug-resistant microorganisms is classified to Z22.30– *Carrier of drug-resistant microorganism*. Many facilities have policies and procedures related to screening certain patients for specific drug-resistant microorganisms. Knowing your facility's policies and procedures related to drug-resistant microorganisms will help with correct interpretation of the documentation.

DAD and NACRS directive statement

Assign Z22.30– *Carrier of drug-resistant microorganism,* mandatory, as a diagnosis type (3)/other problem when there is documentation that the patient is a carrier of a specific drug-resistant microorganism.

Note

Documentation by nursing or infection control staff stating that a patient is a carrier of a specific drug-resistant microorganism may be used to capture Z22.30– as a mandatory diagnosis type (3)/other problem.

Example: This patient presents with congestive heart failure. The physician documents that the swab taken from the patient at the time of admission came back MRSA+. There is no documentation indicating that the patient has a current infection. As a precautionary measure, the patient is placed in isolation.

Code	DAD	NACRS	Code title
I50.0	(M)	MP	Congestive heart failure
Z22.300	(3)	OP	Carrier of drug-resistant staphylococcus

Septicemia/Sepsis

For description of change, see Appendix C.

In effect 2001, amended 2005, 2006, 2008, 2009, 2012, 2015, 2018

A response to infection, sepsis can be a serious condition calling for immediate medical care. If sepsis becomes severe, it can result in extensive tissue damage, organ failure or death. Sepsis can be caused by a number of bacterial, fungal or viral infections that progress into the bloodstream. While sepsis can develop from minor infections, such as the flu or a UTI, it is most likely to develop in people who have serious wounds, extremely weakened immune systems and open or exposed areas from catheters.[1]

See also the coding standards *Confirmed Sepsis and Risk of Sepsis in the Neonate*, *Systemic Inflammatory Response Syndrome (SIRS)* and *Post-Intervention Conditions*.

DAD and NACRS directive statement

Assign a code for septicemia/sepsis only when the physician has documented the diagnosis. It cannot be assumed or ruled out on the basis of laboratory values alone.

- When the underlying localized infection is documented, assign an additional code, mandatory, as a significant diagnosis type.
- When septic shock is documented, also assign R57.2 *Septic shock*, mandatory

Exception

When sepsis and the underlying localized infection are classified using the dagger/asterisk coding convention, the localized infection is assigned either diagnosis type (3) or (6).

Example: The history and physical states that the patient was seen in the emergency department on January 1 and sent home with a diagnosis of *E. coli* UTI. The patient returns on January 3, complaining of feeling unwell. He is admitted to the intensive care unit (ICU) with a diagnosis of sepsis.

Final diagnosis: *E. coli* sepsis due to UTI

Code	DAD	Code title
A41.50	(M)	Sepsis due to Escherichia coli [E.coli]
N39.0	(1)	Urinary tract infection, site not specified
B96.2	(3)	Escherichia coli [E. coli] as the cause of diseases classified to other chapters (optional)

Rationale: When the underlying localized infection is documented in cases of generalized sepsis, codes identifying both sepsis and the localized infection are assigned as significant diagnosis types.

Example: The patient is being treated in ICU for *Staphylococcus aureus* septicemia due to pneumonia.

Final diagnosis: Sepsis and pneumonia due to *Staphylococcus aureus*

Code	DAD	Code title
A41.0	(M)	Sepsis due to Staphylococcus aureus
J15.2	(1)	Pneumonia due to Staphylococcus

Rationale: Sepsis is documented, so A41.0 is assigned; it meets the definition of MRDx.

Example: A 35-year-old trauma patient is in ICU for several days and develops an *E. coli* UTI that progresses to *E. coli* septicemia. He continues to deteriorate, with signs of acute renal failure and hepatic failure, and goes into septic shock. Despite aggressive treatment, the patient dies.

Code	DAD	Code title
A41.50	(2)	Sepsis due to Escherichia coli [E.coli]
N17.9	(2)	Acute renal failure, unspecified
K72.9	(2)	Hepatic failure, unspecified
R57.2	(2)	Septic shock
N39.0	(2)	Urinary tract infection, site not specified
B96.2	(3)	Escherichia coli [E. coli] as the cause of diseases classified to other chapters (optional)
R65.1	(3)	Systemic inflammatory response syndrome of infectious origin with acute organ failure (optional)

Note

Sometimes physicians will use the term “sepsis” to describe a localized infection; therefore, care must be taken in code assignment. When the term “sepsis” is used to mean a localized infection, search the lead term “Infection” rather than “Sepsis.”

Example: The patient undergoes an abdominal hysterectomy and is subsequently diagnosed with fever two days following the surgery. The incision site is noted to be reddened, and there is purulent drainage. The physician documents that the patient has wound sepsis due to staph epidermidis.

Code	DAD	Cluster	Code title
T81.4	(2)	A	Infection following a procedure, not elsewhere classified
B95.7	(3)	A	Other staphylococcus as the cause of diseases classified to other chapters (optional)
Y83.6	(9)	A	Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The physician has used the term “sepsis” to describe a localized infection (redness and purulent drainage). There is no documentation describing an illness affecting the body as a whole; therefore, a code for septicemia/sepsis is not assigned. As this is a post-intervention condition, it is mandatory to assign the diagnosis cluster to all the codes assigned related to this condition. See also the coding standard *Post-Intervention Conditions*.

DAD and NACRS directive statement

When septicemia/sepsis is classified to one of the following:

O03–O05	*Pregnancy with abortive outcome* (with a fourth character .0 or .5)
O07.3	*Failed attempted abortion, complicated*
O08.0–	*Genital tract and pelvic infection following abortion and ectopic and molar pregnancy*
O75.3–	*Other infection during labour*
O85.–	*Puerperal sepsis*
O98.–	*Maternal infectious and parasitic diseases complicating pregnancy, childbirth and the puerperium* (with a fourth character of .2, .5 or .8)
T80.2	*Infections following infusion, transfusions and therapeutic injection*
T81.4	*Infection following a procedure, not elsewhere classified*
T88.0	*Infection following immunization*
T82–T85	*Infections and inflammatory reaction due to prosthetic devices, implants and grafts*

- Assign the appropriate code from the list above as a significant diagnosis type/main or other problem; and
- Assign an additional code, **mandatory**, to identify the type of sepsis as a diagnosis type (3)/other problem.

Note

Categories T82–T85 *Infections and inflammatory reaction due to prosthetic devices, implants and grafts* are used only when an infected device, implant or graft is documented as causing the sepsis. Otherwise, T81.4 *Infection following a procedure, not elsewhere classified* is assigned. See also the coding standard *Complications of Devices, Implants and Grafts*.

Example: The patient has an incomplete spontaneous abortion with candidal septicemia diagnosed during the current episode of care.

Code	DAD	NACRS	Code title
O03.0	(M)	MP	Spontaneous abortion, incomplete, complicated by genital tract and pelvic infection
B37.7	(3)	OP	Candidal sepsis

Example: The patient develops post-operative *E. coli* septicemia following total colectomy with stoma creation.

Code	DAD	Cluster	Code title
T81.4	(2)	A	Infection following a procedure, not elsewhere classified
A41.50	(3)	A	Sepsis due to Escherichia coli [E.coli]
Y83.3	(9)	A	Surgical operation with formation of external stoma as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Example: The patient develops post-operative staphylococcal sepsis documented as due to a prosthetic cardiac valve replacement.

Code	DAD	Cluster	Code title
T82.6	(2)	A	Infection and inflammatory reaction due to cardiac valve prosthesis
A41.2	(3)	A	Sepsis due to unspecified staphylococcus
Y83.1	(9)	A	Implant of artificial internal device, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Example: The patient is admitted for a total colectomy with ileostomy for colon cancer. On post-operative day 2, he develops post-operative staphylococcus sepsis. On post-operative day 4, he is transferred to the intensive care unit with septic shock.

Code	DAD	Cluster	Code title
T81.4	(2)	A	Infection following a procedure, not elsewhere classified
A41.2	(3)	A	Sepsis due to unspecified staphylococcus
T81.1	(2)	A	Shock during or resulting from a procedure, not elsewhere classified
R57.2	(3)	A	Septic shock
Y83.3	(9)	A	Surgical operation with formation of external stoma as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Per the alphabetical index lookup for sepsis, postprocedural, post-operative sepsis is classified to T81.4. Per the use additional code note at T81.4, it is mandatory to assign an additional code to provide specificity; therefore, A41.2 is assigned to identify the type of sepsis.

Per the directive statement, it is mandatory to also assign a code for septic shock (R57.2). Post-operative septic shock is classified to T81.1, per the alphabetical index lookup for shock, postoperative. R57.2 is assigned to identify the type of shock per the use additional code note at T81.1.

Example: The patient is admitted to the intensive care unit with a diagnosis of central line–associated *E. coli* sepsis and septic shock. He is treated with intravenous antibiotics and is subsequently discharged home.

Code	DAD	Cluster	Code title
T82.701	(M)	A	Bloodstream infection and inflammatory reaction due to central venous catheter
A41.50	(3)	A	Sepsis due to Escherichia coli [E.coli]
T82.8	(1)	A	Other specified complications of cardiac and vascular prosthetic devices, implants and grafts
R57.2	(3)	A	Septic shock
Y84.8	(9)	A	Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Per the alphabetical index lookup, infection due to or resulting from an infusion catheter specified as a central venous catheter, central line–associated sepsis (or bloodstream infection) is classified to T82.701. Per the use additional code note at T82.701, it is mandatory to assign an additional code to provide specificity; therefore, A41.50 is assigned to identify the type of sepsis.

Per the directive statement, it is mandatory to also assign a code for septic shock (R57.2). Central line–associated septic shock is classified to T82.8, per the alphabetical index lookup complication, infusion, catheter, specified NEC. R57.2 is assigned to identify the type of shock per the use additional code note at T82.8.

DAD and NACRS directive statement

When more than one causative organism of septicemia/sepsis is documented, assign a code for each.

Example: The patient has septicemia documented as due to *E. coli* and staphylococcus bacteria.

Code	Code title
A41.50	Sepsis due to Escherichia coli [E.coli]
A41.2	Sepsis due to unspecified staphylococcus

Human Immunodeficiency Virus (HIV) Disease

In effect 2001, amended 2005, 2006, 2007, 2008, 2012, 2015

DAD and NACRS directive statements

When a patient with AIDS/HIV disease presents for management of one or more manifestations of AIDS/HIV disease, assign

- B24 *Human immunodeficiency virus [HIV] disease* as the MRDx/main problem; and
- An additional code as a diagnosis type (1)/other problem in the second position for the manifestation being treated.

When AIDS or HIV disease is recorded as a diagnosis, assume that a documented condition, classified to the code ranges below, is a manifestation of AIDS/HIV disease:

- Infectious and viral diseases: A00–B19, B25–B34, B99;
- Mycoses: B35–B49;
- Protozoal diseases: B58–B64;
- Neoplasms: C46.–, C81–C96; or
- Pneumonia (viral, bacterial and infectious): J12–J18.[2]

Note

The above directives apply when AIDS or HIV disease is recorded; it does not apply when the diagnosis is "HIV positive."

AIDS manifestations are not limited to the code ranges above. The list above shows the manifestations that are assumed if no connection is provided in the documentation. When a condition is documented as resulting from HIV disease or AIDS, classify that condition as a manifestation.

Note

B24 *Human immunodeficiency virus [HIV] disease* cannot appear as the MRDx/main problem without an additional code for at least one manifestation.

Note

B24 *Human immunodeficiency virus [HIV] disease* must not be recorded as a post-admit comorbidity (diagnosis type (2)).

Example: A patient who has AIDS is admitted for treatment of Kaposi's sarcoma of the soft palate. The patient also has lymphoma, which is not actively treated at this admission.

Code	DAD	Code title
B24	(M)	Human immunodeficiency virus [HIV] disease
C46.2	(1)	Kaposi's sarcoma of palate
C85.9	(3)	Non-Hodgkin lymphoma, unspecified

Example: The patient is admitted due to severe AIDS-related dementia. The patient also has Kaposi's sarcoma of the skin, which is not treated during this admission.

Code	DAD	Code title
B24†	(M)	Human immunodeficiency virus [HIV] disease
F02.4*	(6)	Dementia in human immunodeficiency virus [HIV] disease
C46.0	(3)	Kaposi's sarcoma of skin

Rationale: Code F02.4* is the only asterisk code that may be sequenced **in the second position** on the abstract after B24 *Human immunodeficiency virus [HIV] disease*. As AIDS-related dementia is the focus of care in this example, it is assigned a diagnosis type (6).

Example: A patient who has AIDS is treated for *Pneumocystis jiroveci* pneumonia (PJP).

Code	DAD	NACRS	Code title
B24	(M)	MP	Human immunodeficiency virus [HIV] disease
B59†	(1)	OP	Pneumocystosis
J17.3*	(3)	OP	Pneumonia in parasitic diseases

Example: A patient who has AIDS encounters the health care system for treatment of wasting syndrome due to HIV.

Code	DAD	NACRS	Code title
B24	(M)	MP	Human immunodeficiency virus [HIV] disease
R64	(1)	OP	Cachexia

DAD and NACRS directive statement

When the diagnosis is recorded as "HIV positive" with no documentation of AIDS or HIV disease and the patient

- Has an indicator disease listed in the chapter on AIDS in *Case Definitions for Communicable Diseases Under National Surveillance* (see below), assign B24 *Human immunodeficiency virus [HIV] disease*.
- Does not have an indicator disease listed in the chapter on AIDS in *Case Definitions for Communicable Diseases Under National Surveillance* (see below), assign Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status*.

National surveillance case definitions for acquired immunodeficiency syndrome (AIDS): Indicator diseases for adults and adolescents age 15 and older[3]

Bacterial pneumonia, recurrent

Candidiasis, bronchi, trachea or lungs

Candidiasis, esophageal

Cervical cancer, invasive

Coccidioidomycosis, disseminated or extrapulmonary

Cryptococcosis, extrapulmonary

Cryptosporidiosis chronic intestinal, >1 month duration

Cytomegalovirus diseases, other than in liver, spleen or nodes

Cytomegalovirus retinitis, with loss of vision

Encephalopathy, HIV-related dementia

Herpes simplex: chronic ulcer(s), >1 month duration, or bronchitis, pneumonitis or esophagitis

Histoplasmosis, disseminated or extrapulmonary

Isosporiasis, chronic intestinal >1 month duration

Kaposi's sarcoma

Lymphoma, Burkitt's or equivalent term

Lymphoma, immunoblastic or equivalent term

Lymphoma, primary in brain

Mycobacterium avium complex or *Mycobacterium kansasii*, disseminated or extrapulmonary

Mycobacterium of other species or unidentified species

Mycobacterium tuberculosis, disseminated or extrapulmonary

Mycobacterium tuberculosis, pulmonary

Pneumocystis jiroveci pneumonia (formerly known as *Pneumocystis carinii* pneumonia)

Progressive multifocal leukoencephalopathy

Salmonella sepsis, recurrent

Toxoplasmosis of brain

Wasting syndrome due to HIV

Indicator diseases for pediatric cases only (younger than age 15)

Bacterial infections, multiple or recurrent, excluding recurrent bacterial pneumonia

Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia

Example: A patient who has a diagnosis of "HIV positive" is admitted for treatment of disseminated histoplasmosis.

Code	DAD	Code title
B24	(M)	Human immunodeficiency virus [HIV] disease
B39.3	(1)	Disseminated histoplasmosis capsulati

Rationale: When a patient presents to hospital with one or more conditions from the national surveillance case definitions for AIDS list (an indicator disease) and the clinical documentation states only that the patient is "HIV positive," it is assumed the patient has HIV disease classifiable to B24, not simply Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status*.

Example: A patient is admitted for treatment of staphylococcus pneumonia. The documentation also states that the patient is "HIV positive."

Code	DAD	NACRS	Code title
J15.2	(M)	MP	Pneumonia due to Staphylococcus
Z21	(3)	OP	Asymptomatic human immunodeficiency virus [HIV] infection status

Rationale: In this example, the documentation states "HIV positive." Staphylococcus pneumonia is not recorded as recurrent; therefore, documentation does not support that this patient has an indicator disease for AIDS. Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status* is assigned for the diagnosis of "HIV positive."

DAD and NACRS directive statements

Ensure that the following mutually exclusive codes are not assigned for the same episode of care:

- R75 *Laboratory evidence of human immunodeficiency virus [HIV]*
- Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status*
- B24 *Human immunodeficiency virus [HIV] disease*

Ensure that R75 is not assigned as the MRDx/main problem, as it relates to patients who have an inconclusive HIV test.

When patients are admitted and discharged on the same day for primary prophylactic chemotherapy for HIV infection, select Z29.2 *Other prophylactic chemotherapy* as the MRDx/main problem along with Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status,* mandatory, as an additional diagnosis type (3)/other problem.

Example: An HIV-infected patient with no symptoms attends for anti-retroviral therapy on a same-day basis.

Code	DAD	NACRS	Code title
Z29.2	(M)	MP	Other prophylactic chemotherapy
Z21	(3)	OP	Asymptomatic human immunodeficiency virus [HIV] infection status

DAD and NACRS directive statement

When a patient who has previously been identified as having AIDS presents with a condition that is unrelated to the HIV disease, and that condition fulfils the criteria for MRDx/main problem, assign the presenting condition as the MRDx/main problem for that admission.

Example: The patient suffers a Colles fracture of the right arm due to a fall on ice on a sidewalk. The patient also has active HIV disease. His fracture is treated, and he is discharged two days later.

Code	DAD	Code title
S52.500	(M)	Colles' fracture, closed
W00	(9)	Fall on same level involving ice and snow
U98.4	(9)	Place of occurrence, street and highway
U99.9	(9)	During unspecified activity (optional)
B24	(3)	Human immunodeficiency virus [HIV] disease

References

1. Canadian Institute for Health Information. *In Focus: A National Look at Sepsis*. 2009.
2. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.
3. Public Health Agency of Canada. *Case Definitions for Diseases Under National Surveillance*. 2000.

Chapter II — Neoplasms

Primary and Secondary Neoplasms

In effect 2001, amended 2005, 2006, 2007, 2009, 2015

DAD and NACRS directive statements

When a patient is diagnosed with a primary neoplasm with metastasis, and treatment is directed toward both the primary and secondary sites equally, sequence the primary site before the secondary site.

When metastasis is diagnosed during an episode of care, assign diagnosis type (1)/other problem for the specified metastatic sites.

Note

Codes from the range C00–D48 are never assigned diagnosis type (2).

Example: The patient is diagnosed with right lower lobe lung cancer with vertebral metastasis. Chemotherapy is initiated for the primary lesion, and radiotherapy sessions are given to treat the bony metastasis.

Code	DAD	Code title
C34.30	(M)	Malignant neoplasm of lower lobe, right bronchus or lung
C79.5	(1)	Secondary malignant neoplasm of bone and bone marrow

1.ZZ.35.HA-M0 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal] using antineoplastic agent NOS

1.SC.27.JA Radiation, spinal vertebrae, using external beam

Example: The patient is admitted for modified radical mastectomy. The pathology report shows infiltrating ductal carcinoma of the right breast. Three axillary lymph nodes are positive for metastases.

Code	DAD	Code title
C50.90	(M)	Malignant neoplasm of right breast, part unspecified
C77.3	(1)	Secondary malignant neoplasm of axillary and upper limb lymph nodes

Rationale: Metastasis to the axillary lymph nodes was diagnosed during the episode of care and qualifies as a diagnosis type (1).

DAD and NACRS directive statement

When a patient is diagnosed with a secondary neoplasm, assign an additional code, mandatory, to identify the primary site: a code from either

- Chapter II — Neoplasms; or
- Category Z85 *Personal history of malignant neoplasm* when the malignancy has been completely eradicated or excised **and** there is no further treatment (including adjuvant therapy) being directed to the primary site.

Example: A patient with an inoperable malignant neoplasm of the sigmoid colon is admitted for aspiration of malignant ascites with drainage tube. No treatment is directed toward the colon cancer.

Code	DAD	Code title
C78.6	(M)	Secondary malignant neoplasm of retroperitoneum and peritoneum
C18.7	(3)	Malignant neoplasm of sigmoid colon

1.OT.52.HA-TS Drainage, abdominal cavity, using percutaneous (needle) approach and leaving drainage tube in situ

Example: The patient presents to day surgery for bronchoscopy and left lung biopsy. The morphology reveals metastatic carcinoma from the patient's primary breast malignancy. The patient had a radical mastectomy five years ago.

Code	DAD	NACRS	Code title
C78.01	(M)	MP	Secondary malignant neoplasm of left lung
Z85.39	(3)	OP	Personal history of malignant neoplasm of breast, unspecified side

2.GT.71.BA Biopsy, lung NEC, using endoscopic per orifice approach
Location: L

Example: A patient with metastatic right breast cancer treated with chemotherapy presents for radiotherapy of liver metastases. The patient is on maintenance Herceptin therapy for the breast cancer.

Code	NACRS	Code title
Z51.0	MP	Radiotherapy session
C78.7	OP	Secondary malignant neoplasm of liver and intrahepatic bile duct
C50.90	OP	Malignant neoplasm of right breast, part unspecified

Rationale: It is mandatory to assign a code for the primary malignancy when a patient is diagnosed with a secondary neoplasm. The primary site is classified to C50.90 (not Z85.30) because the patient is still undergoing adjuvant therapy (Herceptin), which is considered treatment directed at the primary site.

DAD and NACRS directive statements

When a **primary site is specified** and "carcinomatosis" is recorded as a final diagnosis

- Without mention of the specific secondary sites, assign C79.9 *Secondary malignant neoplasm, unspecified site*.
- With mention of the specific secondary sites, assign individual codes for the secondary sites.

When the **primary site is unspecified** and "carcinomatosis" is recorded as a final diagnosis, assign two codes: C80.9 *Malignant neoplasm, primary site unspecified* and C79.9 *Secondary malignant neoplasm, unspecified site*.

Example: The patient is diagnosed with primary malignancy of his sigmoid colon “with carcinomatosis.” The metastatic sites are not documented.

Code	DAD	Code title
C18.7	(M)	Malignant neoplasm of sigmoid colon
C79.9	(1)	Secondary malignant neoplasm, unspecified site

Rationale: The primary site is known; therefore, a statement of “carcinomatosis” refers to metastatic spread from the primary site. There is no mention of the secondary sites, so C79.9 is assigned to identify metastatic cancer.

Example: The patient is brought in complaining of severe abdominal pain. She is admitted by the general surgeon. Exploratory laparotomy reveals extensive carcinomatosis.

Code	DAD	Code title
C80.9	(M)	Malignant neoplasm, primary site unspecified
C79.9	(1)	Secondary malignant neoplasm, unspecified site

Rationale: When a patient is diagnosed with a secondary neoplasm, it is mandatory to identify the primary site. In this example, the primary site is unspecified; therefore, C80.9 is assigned.

Example: The patient is investigated during the admission, and the pathology report identifies primary carcinoma of the pancreas with metastases to the right lung, bone and brain. The final diagnosis is stated as “carcinomatosis.”

Code	DAD	Code title
C25.9	(M)	Malignant neoplasm pancreas part unspecified
C78.00	(1)	Secondary malignant neoplasm of right lung
C79.3	(1)	Secondary malignant neoplasm of brain and cerebral meninges
C79.5	(1)	Secondary malignant neoplasm of bone and bone marrow

Rationale: The primary and metastatic sites are known and specifically documented; therefore, a code for each site is assigned.

Multiple Independent Primary Neoplasms

In effect 2001, amended 2005, 2006, 2012, 2015

DAD and NACRS directive statement

When a patient is diagnosed with multiple independent primaries, assign a code to identify the site of each primary neoplasm.

Example: The patient has an exploratory laparoscopy, in which her left ovary and colon are biopsied. The pathology report reveals separate primary malignancies of the ovary and the colon.

Code	DAD	NACRS	Code title
C56.0	(M)	MP	Malignant neoplasm of ovary, unilateral
C18.9	(1)	OP	Malignant neoplasm colon, unspecified

DAD and NACRS directive statement

When a patient is diagnosed with documented separate primary invasive neoplasms in the same organ, but they are of non-contiguous sites, code each separate primary neoplasm.

Example: The patient has investigation and diagnosis of a transitional cell carcinoma of the posterior wall of the bladder, as well as a separate non-contiguous transitional cell carcinoma of the trigone of the bladder.

Code	DAD	NACRS	Code title
C67.4	(M)	MP	Malignant neoplasm of posterior wall of bladder
C67.0	(1)	OP	Malignant neoplasm of trigone of bladder

Example: The pathology report describes two malignant primary neoplasms of the right breast. Both are in the 12 o'clock position, but they are non-contiguous (one is superior to the other).

Code	DAD	NACRS	Code title
C50.80	(M)	MP	Overlapping malignant lesion of right breast
C50.80	(1)	OP	Overlapping malignant lesion of right breast

Rationale: The fourth character .8 has been selected because the 12 o'clock position overlaps the outer and inner quadrants. This case is **not** one of a contiguous neoplasm whose point of origin cannot be determined. Even though the neoplasms fall to the same code, they are listed twice to describe the circumstances of two separate primaries.

DAD and NACRS directive statement

When a patient has separate primary invasive neoplasms and in situ neoplasia at separate, non-contiguous locations within the same organ, assign a code for each.

Example: The patient is admitted for left mastectomy for carcinoma of the upper-outer quadrant of the breast. The pathology report describes infiltrating duct carcinoma and a non-contiguous carcinoma in situ in the 2 o'clock position.

Code	DAD	Code title
C50.41	(M)	Malignant neoplasm of upper-outer quadrant of left breast
D05.11	(1)	Intraductal carcinoma in situ of left breast

Rationale: Two codes are assigned: one for the infiltrating duct carcinoma and one for the carcinoma in situ.

Acquired Absence of Breast and Lung Due to Primary Malignancy

In effect 2015

The purpose of assigning Z90.1– *Acquired absence of breast(s)* in combination with a code from Z85.3– *Personal history of malignant neoplasm of breast* is to assist in identifying patients who have undergone previous total mastectomy for the treatment of primary malignancy. Likewise, the purpose of assigning Z90.2– *Acquired absence of lung [part of]* in combination with a code from Z85.11– *Personal history of malignant neoplasm of bronchus and lung* is to assist in identifying patients who have undergone previous lobectomy/pneumonectomy for the treatment of primary malignancy. These patients are now undergoing another excision (partial or total) of the contralateral breast or lung (or the remainder of the lung) for a **new** primary malignancy. The collection of this data makes it possible to analyze and report on these patient types to study surgical treatment outcomes.

DAD and NACRS directive statements

When a patient has a history of **total mastectomy** for the treatment of primary malignancy and is now undergoing partial or total excision of the contralateral breast (with/without reconstruction) for a **new** primary breast malignancy, assign two additional codes, mandatory:

- Z90.1– *Acquired absence of breast(s)* as a diagnosis type (3)/other problem; and
- Z85.3– *Personal history of malignant neoplasm of breast* as a diagnosis type (3)/ other problem.

When a patient has a history of lobectomy or pneumonectomy for the treatment of primary malignancy and is now undergoing partial or total excision of either lung for a **new** primary lung malignancy, assign two additional codes, mandatory:

- Z90.2– *Acquired absence of lung [part of]* as a diagnosis type (3)/other problem; and
- Z85.11– *Personal history of malignant neoplasm bronchus and lung* as a diagnosis type (3)/other problem.

See also the coding standards *Personal History of Primary Malignant Neoplasm of Breast, Lung and Prostate* and *Recurrent Malignancies*.

Example: The patient is admitted for left simple mastectomy for invasive breast cancer. The patient has a history of invasive right breast cancer treated with total mastectomy 12 years ago.

Code	DAD	Code title
C50.91	(M)	Malignant neoplasm of left breast, part unspecified
Z90.10	(3)	Acquired absence of right breast
Z85.30	(3)	Personal history of malignant neoplasm of right breast

Rationale: The patient has a history of total mastectomy of the right breast and is now undergoing total excision of the left breast for primary breast cancer. It is mandatory to assign Z90.10 in combination with Z85.30 to identify that this patient has previously undergone a total mastectomy for the treatment of primary breast cancer.

Example: The patient is admitted for right upper lobectomy for adenocarcinoma of the lung. The patient has a history of left lower lobectomy for primary lung cancer five years ago.

Code	DAD	Code title
C34.10	(M)	Malignant neoplasm of upper lobe, right bronchus or lung
Z90.21	(3)	Acquired absence of left lung [part of]
Z85.111	(3)	Personal history of malignant neoplasm of left bronchus and lung

Rationale: The patient has a history of left lower lobectomy and is now undergoing excision on the contralateral lung (right upper lobectomy) for primary lung cancer. It is mandatory to assign Z90.21 in combination with Z85.111 to identify that this patient has previously undergone a lobectomy for the treatment of primary lung cancer.

Example: The patient is admitted for a completion pneumonectomy of the residual left lung for a new primary squamous cell carcinoma. The patient has a history of left lobectomy for primary lung cancer three years ago.

Code	DAD	Code title
C34.91	(M)	Malignant neoplasm left bronchus or lung, unspecified
Z90.21	(3)	Acquired absence of left lung [part of]
Z85.111	(3)	Personal history of malignant neoplasm of left bronchus and lung

Rationale: The patient has a history of left lobectomy and is now undergoing excision on the remainder of the same lung for primary lung cancer. It is mandatory to assign Z90.21 in combination with Z85.111 to identify that this patient has previously undergone a lobectomy for the treatment of primary lung cancer and is now undergoing excision in the same lung for a new primary lung cancer.

Neoplasms Arising in Lymphoid, Hematopoietic and Related Tissue

In effect 2001, amended 2006

DAD and NACRS directive statement

When there is documentation of more than one site of malignancy in lymphatic and hematopoietic tissues (i.e., one in each system), code each site as a separate primary neoplasm.

Example: A patient admitted with multiple myeloma is also determined to have developed leukemia.

Code	DAD	NACRS	Code title
C90.0	(M)	MP	Multiple myeloma
C95.9	(1)	OP	Leukaemia, unspecified

DAD and NACRS directive statement

When a primary of the lymphoid hematopoietic or related tissues (categories C81–C96) is documented as having metastasized, do not assign a secondary malignancy neoplasm code.

Unlike solid tumors of other sites, neoplasms that arise in lymphatic and hematopoietic tissues do not metastasize to secondary sites. The malignant cells circulate within the lymphatic or hematopoietic circulation and may occur in other sites within these tissues, but they are considered to be part of the primary disease rather than metastatic spread.

The physician documentation may describe the extent of these malignancies using terminology such as “spread to” or “metastasis to”; however, these are included in the appropriate code from C81–C96.[1]

Example: A patient with multiple myeloma is stated to have metastatic spread to the pelvis and spine.

Code	Code title
C90.0	Multiple myeloma

Example: A patient with non-Hodgkin’s lymphoma is stated to have metastatic spread to the inguinal nodes.

Code	Code title
C85.9	Non-Hodgkin lymphoma, unspecified

DAD and NACRS directive statement

When documentation indicates “leukemia in remission,” assign a code from categories C91–C95.

Example: The patient is stated to have leukemia in remission for six months.

Code	Code title
C95.9	Leukaemia, unspecified

Rationale: Leukemia described as “in remission” cannot be specifically identified in ICD-10-CA. “In remission” means that the disease activity has abated but the condition is still present. Diagnosis type will depend on the circumstances documented in the record.

Neoplasms Extending Into Adjacent Tissue

In effect 2002

DAD and NACRS directive statement

Classify neoplasms to the point of origin when documented as “invading into” or “extending into” adjacent sites.

Example: Pancreatic malignancy extending into the duodenum

Code	Code title
C25.9	Malignant neoplasm pancreas part unspecified

Neoplasms With Overlapping Boundaries (Contiguous Sites)

In effect 2001, amended 2006

DAD and NACRS directive statement

Classify a neoplasm that overlaps two or more contiguous sites **within** a three-character category and whose point of origin cannot be determined to the subcategory .8 (overlapping lesion), unless the combination is specifically indexed elsewhere.

Example: The patient has a carcinoma of the tip and ventral surface of the tongue. No point of origin is determined or documented.

Code	Code title
C02.8	Overlapping malignant lesion of tongue

Example: The patient has a carcinoma of the tip of the tongue documented as “with invasion” or “spreading to” the ventral surface of the tongue.

Code	Code title
C02.1	Malignant neoplasm of border of tongue

Rationale: The point of origin is known and stated as the tip of the tongue.

Example: The patient has a malignant neoplasm that overlaps the junction of the esophagus and stomach.

Code	Code title
C16.0	Malignant neoplasm of cardia

Rationale: This site of overlap (of sites next to each other) is indexed separately.

DAD and NACRS directive statement

Classify a neoplasm that overlaps two or more contiguous sites of **separate** three-character categories and whose point of origin cannot be determined to a distinct single code listed in ICD-10-CA at the beginning of Chapter II — Neoplasms (C00–D48) at Note 5.

Example: The patient has a malignant neoplasm, which is stated as overlapping the pylorus and duodenum.

Code	Code title
C26.8	Overlapping malignant lesion of digestive system

Rationale: Malignant neoplasm of the pylorus is classified to C16.4, and malignant neoplasm of the duodenum is classified to C17.0. Since the neoplasm overlaps the two sites otherwise classified at different three-character categories, and its point of origin cannot be determined, the code for overlapping lesion of the digestive tract is assigned. Coders are directed to the notes at the beginning of Chapter II — Neoplasms, where they will find a list of applicable .8 categories.

Admissions Following Diagnosis of Cancer

In effect 2001, amended 2006

DAD and NACRS directive statement

When a patient is admitted for definitive surgery to remove tissue from the site of a neoplasm that was previously excised, assign a code for the primary malignancy as the MRDx/main problem. This is the case even when the pathology report for the current episode is negative for malignancy.

Example: The patient has a skin lesion removed from her shoulder area as an outpatient. The pathology report shows malignant melanoma. The patient returns for wider excision. Pathology is negative for malignancy.

Code	DAD	NACRS	Code title
C43.6	(M)	MP	Malignant melanoma of upper limb, including shoulder

Rationale: Definitive surgery includes removal of a neoplasm and/or surrounding tissue. As in this example, the physician most often documents the diagnosis as malignancy in accordance with the initial biopsy or excision. The coder should accept this diagnosis, even though the pathology report shows no malignancy remaining, since the surgery is part of the treatment plan for the malignant condition.

Complications of Malignant Disease

For description of change, see Appendix C.

In effect 2001, amended 2003, 2006, 2018

DAD and NACRS directive statement

When a patient is admitted for treatment of a specific complication of the malignancy, and no treatment is directed toward the malignancy itself, assign the code for the complication as the MRDx/main problem.

- Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem.

Exception

When the complication is captured as an asterisk code, assign the malignancy as the MRDx and the asterisk code as a diagnosis type (6).

Example: Family members bring the patient to the emergency department. He is complaining of lethargy, fever and generalized pain. The emergency department physician admits the patient for treatment of his streptococcal septicemia. He has chronic myeloid leukemia.

Code	DAD	NACRS	Code title
A40.9	(M)	MP	Streptococcal sepsis, unspecified
C92.1	(3)	OP	Chronic myeloid leukaemia [CML], BCR/ABL-positive

Example: The patient has primary adenocarcinoma of the lung and is admitted for management of resulting anemia.

Code	DAD	Code title
C34.99†	(M)	Malignant neoplasm bronchus or lung, unspecified, unspecified side
D63.0*	(6)	Anaemia in neoplastic disease

DAD and NACRS directive statement

When a patient is admitted for management of a side effect of cancer treatment, assign a code for the side effect as the MRDx/main problem.

- Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem.

Example: The patient is admitted for treatment of chemotherapy-induced neutropenia. The patient is receiving a combination of chemotherapy agents as an outpatient for treatment of cancer of the left lower lobe of the lung.

Code	DAD	Cluster	Code title
D70.0	(M)	A	Neutropenia
Y43.3	(9)	A	Other antineoplastic drugs causing adverse effects in therapeutic use
C34.31	(3)		Malignant neoplasm of lower lobe, left bronchus or lung

Example: The patient is undergoing outpatient radiotherapy sessions for advanced carcinoma of the prostate. He presents to the emergency department complaining of the inability to urinate for the past 12 hours. The emergency department physician orders blood tests, urinalysis, X-ray of the kidney with IV contrast and urinary catheterization. The patient is transferred to the urology service with the admitting diagnosis of urinary retention.

Code	NACRS	Code title
R33	MP	Retention of urine
C61	OP	Malignant neoplasm of prostate

3.PC.10.VC Xray, kidney, following intravenous injection of contrast (with or without fluoroscopy)

DAD-only directive statement

Assign diagnosis type (2), post-admit comorbidity, to side effects of chemotherapy that arise during a patient's admission for diagnosis and initial treatment for cancer when the side effect condition satisfies the criteria for post-admit comorbidity.

Example: A patient newly diagnosed with acute lymphoblastic leukemia has his initial chemotherapy treatment while in hospital. He experiences significant nausea and vomiting requiring IV therapy.

Code	DAD	Cluster	Code title
C91.0	(M)		Acute lymphoblastic leukaemia [ALL]
R11.3	(2)	A	Nausea with vomiting
Y43.3	(9)	A	Other antineoplastic drugs causing adverse effects in therapeutic use

1.ZZ.35.HA-M0 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal] using antineoplastic agent NOS

See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Recurrent Malignancies

In effect 2002, amended 2008

DAD and NACRS directive statement

Assign a code from categories C00–C75 when a primary malignancy, eradicated from the same organ or tissue, has recurred.

- Assign an additional code, mandatory, from category Z85 *Personal history of malignant neoplasm* as a diagnosis type (3)/other problem to identify the primary site.

Example: The patient is diagnosed with infiltrating ductal carcinoma of the right breast and undergoes a lumpectomy with removal of the entire lesion. A year later, she comes in with a nodule in the same breast at the site of the previous lumpectomy. Needle biopsy shows infiltrating ductal carcinoma. This is a recurrence of the primary malignancy.

Code	DAD	NACRS	Code title
C50.90	(M)	MP	Malignant neoplasm of right breast, part unspecified
Z85.30	(3)	OP	Personal history of malignant neoplasm of right breast

Example: The patient is diagnosed with infiltrating ductal carcinoma of the right breast and undergoes a mastectomy with removal of the entire breast. A year later, she comes in with a nodule at the site of the previous mastectomy. Needle biopsy shows infiltrating ductal carcinoma. The physician documentation and pathology report state that there is recurrence of the infiltrating ductal carcinoma in the right chest wall (after the mastectomy).

Code	DAD	NACRS	Code title
C50.90	(M)	MP	Malignant neoplasm of right breast, part unspecified
Z85.30	(3)	OP	Personal history of malignant neoplasm of right breast

Example: The patient is diagnosed with infiltrating ductal carcinoma of the right breast and undergoes a lumpectomy with removal of the entire lesion. A year later, she comes in with a nodule in the same breast at the site of the previous lumpectomy. The physician documentation and pathology report state **metastatic** infiltrating ductal carcinoma in skin of lumpectomy scar.

Code	DAD	NACRS	Code title
C79.2	(M)	MP	Secondary malignant neoplasm of skin
Z85.30	(3)	OP	Personal history of malignant neoplasm of right breast

Rationale: This is not classified as a recurrent malignancy of the primary site because it has metastasized to a different organ/tissue.

Example: A patient with a primary malignant neoplasm of the brain undergoes a debulking procedure. A year later, he returns to hospital for further debulking.

Code	DAD	Code title
C71.9	(M)	Malignant neoplasm of brain unspecified

Rationale: A debulking procedure does not eradicate the lesion; malignant tissue would have been left at the site and continued to grow. This is not a recurrent malignancy and Z85.– is not assigned.

See also the coding standards *Personal and Family History of Malignant Neoplasms* and *Debulking of a Space-Occupying Lesion*.

Interventions Relevant to Neoplasm Coding

In effect 2001, amended 2006, 2007, 2012

Generally speaking, in the *Canadian Classification of Health Interventions* (CCI), the therapeutic interventions performed on body sites are hierarchical in nature; this means that the higher the number in the third field (intervention), the more extensive or complex the intervention. The destruction and excisional interventions are of particular relevance in neoplasm treatment.

DAD and NACRS directive statement

When body tissue is destroyed, **not** removed, select a code from 1.^^.59.^^ *Destruction*.

1.^^.59.^^ *Destruction* includes ablation of tissue, often using extreme heat (laser, cautery), extreme cold (cryoprobe) or chemicals (chemical cautery). No tissue is removed; it is just destroyed. Sometimes, debulking of a neoplasm may be done in this way if none of the actual body parts are being removed.

Example: A patient with malignant neoplasm of the large intestine has an endoscopic debulking of the neoplasm using a laser device.

1.NM.59.BA-AG	Destruction, large intestine, using endoscopic per orifice approach and laser

DAD and NACRS directive statement

When a neoplasm is excised locally with a margin of normal tissue, with or without grafting to the surgical defect, select a code from 1.^^.87.^^ *Excision partial*.

Example: Lumpectomy of the right breast

1.YM.87.LA	Excision partial, breast, using open approach with simple apposition (e.g. suturing)
Location: R	

Note

There is no separate generic intervention for excisional biopsy in CCI. This intervention is classified as a partial excision of the anatomical site involved.

Example: Lumpectomy of the left breast with autograft to fill in defect

1.YM.87.LA-XX-A Excision partial, breast, using open approach with autograft (to close defect)

Location: L

DAD and NACRS directive statement

When a neoplasm is excised by removing an entire body part (except amputations), with or without grafting to the surgical defect, select a code from 1.^^.89.^^ *Excision total*.

Example: A patient with breast malignancy undergoes a bilateral simple total mastectomy with grafting of defect.

1.YM.89.LA-XX-A Excision total, breast, using open approach and autograft
Location: B

DAD-only directive statement

For the three anatomical sites Eyelid (CX), Vulva (RW) and Breast (YM), select a code from 1.^^.88.^^ *Excision partial with reconstruction* when the intervention includes an excision that is not as extensive as total or radical excision but includes reconstruction and/or prosthetic implants.

Example: A patient with malignant neoplasm of the eyelid has a partial excision of the eyelid with a local flap reconstruction performed during the same episode.

1.CX.88.UD-XX-E Excision partial with reconstruction, eyelid NEC, full thickness excision of major lesion, with local flap

DAD and NACRS directive statement

When an excision of tissue includes removal of adjacent body structures, with or without complex repair of the wide surgical defect, select a code from 1.^^.91.^^ *Excision radical*.

Example: A patient with osteosarcoma of the humeral head is treated with a “limb-sparing” radical excision of the humerus with prosthetic implants.

1.TK.91.LA-PM Excision radical, humerus, using endoprosthesis [humeral head], no tissue used (for closure of defect)

Rationale: In CCI, a radical excision does not **require** a total excision of a body part. It usually means that organs from multiple body systems are involved in the excision. There may be partial or total excision of the multiple sites. This intervention is often used for definitive surgical treatment of large malignant neoplasms.

See also the coding standards *Brachytherapy* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*.

Sentinel Lymph Node Biopsy

In effect 2015

DAD and NACRS directive statement

Whenever a sentinel lymph node biopsy is performed, assign a code from 2.M^.71.^^ *Biopsy, lymph node(s), any site* with extent attribute of “SN” (Sentinel node(s)), mandatory.

Example: The patient is admitted for a lumpectomy of the right breast and sampling of the sentinel axillary lymph nodes. The pathology report demonstrates adenocarcinoma of the breast and negative lymph nodes.

Code	DAD	NACRS	Code title
C50.90	(M)	MP	Malignant neoplasm of right breast, part unspecified

1.YM.87.LA Excision partial, breast, using open approach, with simple apposition (e.g. suturing)

2.MD.71.LA Biopsy, lymph node(s), axillary, using open approach
Extent: SN

Rationale: It is mandatory to assign a code for a sentinel lymph node biopsy whenever one is performed. Sampling of the sentinel axillary lymph nodes is classified to 2.MD.71.^^.

Example: A patient with right breast cancer is brought into hospital for a right lumpectomy and sentinel lymph node biopsy. Frozen section demonstrates that one of three nodes is positive for metastatic disease. Partial dissection of axillary lymph nodes is performed.

Code	DAD	NACRS	Code title
C50.90	(M)	MP	Malignant neoplasm of right breast, part unspecified
C77.3	(1)	OP	Secondary malignant neoplasm of axillary and upper limb lymph nodes

1.YM.87.^^ Excision partial, breast
Location: R

1.MD.87.LA Excision partial, lymph node(s), axillary, using open approach

2.MD.71.LA Biopsy, lymph node(s), axillary, using open approach
Extent: SN

Rationale: Codes for both the lymph node dissection (1.MD.87.^^) and lymph node biopsy (2.MD.71.LA) are mandatory to assign.

Example: The patient is brought into hospital for a total mastectomy of her left breast due to cancer. A sentinel node biopsy is performed, and frozen section demonstrates metastatic disease. An axillary lymph node dissection is performed.

Code	DAD	Code title
C50.91	(M)	Malignant neoplasm of left breast, part unspecified
C77.3	(1)	Secondary malignant neoplasm of axillary and upper limb lymph nodes

1.YM.91.^^ Excision radical, breast
Location: L

2.MD.71.LA Biopsy, lymph node(s), axillary, using open approach
Extent: SN

Rationale: It is mandatory to assign a code for a sentinel lymph node biopsy whenever one is performed. Total mastectomy with concomitant dissection of axillary lymph nodes is classified to radical mastectomy (1.YM.91.^^). When 1.YM.91.^^ or 1.YM.92.^^ is assigned, the removal (dissection) of the axillary lymph nodes is an inherent part of a radical mastectomy; therefore, an additional code is not assigned.

Example: A patient is admitted for open perineal radical prostatectomy for a diagnosis of adenocarcinoma. A biopsy of the pelvic lymph nodes is also performed. The pathology report describes negative sentinel lymph node biopsy.

Code	DAD	Code title
C61	(M)	Malignant neoplasm of prostate

1.QT.91.PB Excision radical, prostate using open perineal approach

2.MH.71.LA Biopsy, lymph node(s), pelvic using open approach

Extent: SN

Rationale: It is mandatory to assign a code for a sentinel lymph node biopsy whenever one is performed. See also the coding standard *Using Diagnostic Test Results in Coding*.

Brachytherapy

In effect 2001, amended 2006, 2007, 2012

DAD and NACRS directive statements

When a patient is admitted for brachytherapy, assign a code for the malignant disease as the MRDx/main problem.

Assign separate intervention codes for the preparation for brachytherapy and the administration of brachytherapy.

Admissions for brachytherapy should not be confused with admissions for radiation therapy.

Typically, two distinct phases are required to complete the process of brachytherapy. The first phase involves inserting non-radioactive applicators or conduits (hollow needles, catheters, stents, etc.) that receive or transmit the radioactive material into the body. The second phase involves afterloading the radioactive material (seeds, pellets, wires, etc.) into the applicator or conduit. These stages may occur during the same operative episode or during separate episodes.

Example: The patient has cancer of the prostate gland. He is admitted for percutaneous transcatheter interstitial implantation of radioactive material. A brachytherapy applicator is implanted during the same episode.

Code	DAD	NACRS	Code title
C61	(M)	MP	Malignant neoplasm of prostate

1.QT.26.HA Brachytherapy, prostate, using percutaneous (transcatheter or transneedle) approach

1.QT.53.HA-EM Implantation of internal device, prostate, of brachytherapy applicator using percutaneous approach

Example: The patient is admitted for brachytherapy treatment of cancer of the uterus. The hysteroscopic approach is used to insert the brachytherapy applicator in a separate episode on day 1, and the sealed radiation source is afterloaded on day 2.

Code	DAD	Code title
C54.9	(M)	Malignant neoplasm corpus uteri NOS

Intervention episode 1

1.RM.53.BA-EM Implantation of internal device, uterus and surrounding structures, of brachytherapy applicator using endoscopic per orifice (hysteroscopic) approach

Intervention episode 2

1.RM.26.BA Brachytherapy, uterus and surrounding structures, using endoscopic per orifice (hysteroscopic) approach

Example: The patient is admitted to have brachytherapy catheters inserted for breast cancer of the upper-outer quadrant of the right breast.

Code	DAD	Code title
C50.40	(M)	Malignant neoplasm of upper-outer quadrant of right breast

1.YM.53.HA-EM Implantation of internal device, breast, of brachytherapy applicator using percutaneous approach

Example: The same patient as above presents to the chemotherapy clinic for brachytherapy (i.e., afterloading of brachytherapy catheters) for breast cancer of the upper-outer quadrant of the right breast.

Code	NACRS	Code title
C50.40	MP	Malignant neoplasm of upper-outer quadrant of right breast

1.YM.26.HA Brachytherapy, breast, using percutaneous (transcatheter or transneedle) approach

Other standards related to neoplasm coding

- *Admission for Observation*
- *Admission for Follow-Up Examination*
- *Screening for Specific Diseases*
- *Prophylactic Organ Removal*
- *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*
- *Personal and Family History of Malignant Neoplasms*
- *Personal History of Primary Malignant Neoplasms of Breast, Lung and Prostate*

Reference

1. Fletcher J. *ICD10-CA/CCI Classification Primer*, *7th Edition*. 2006.

Chapter III — Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism

Acute Blood Loss Anemia

In effect 2012

Acute blood loss is the sudden loss of blood. It can be due to many factors, including trauma (such as a ruptured spleen), a ruptured blood vessel (such as a ruptured abdominal aortic aneurysm), a postpartum hemorrhage, an acute gastrointestinal hemorrhage or blood loss during a surgical intervention. Acute blood loss anemia is anemia resulting from or due to an episode of acute loss of blood and is classified to D62 *Acute posthaemorrhagic anaemia*.
The physician can diagnose acute blood loss anemia based on hematological analysis.
The amount of blood loss that leads to a diagnosis of anemia depends on individual patient characteristics. Other factors that are taken into consideration when establishing a diagnosis of anemia, such as body mass index and the presence or absence of comorbidities, apply also to acute blood loss anemia.

DAD and NACRS directive statement

When anemia is documented as resulting from or due to an episode of acute blood loss or acute hemorrhage, assign D62 *Acute posthaemorrhagic anaemia*.

Note
When a link between an episode of acute blood loss and unspecified anemia is not established in the documentation, do not assume it is anemia due to acute blood loss. For example, a diagnosis documented as “postoperative anemia” is classified to D64.9 *Anaemia, unspecified* with the appropriate external cause code and diagnosis cluster data element.

See also the coding standard *Post-Intervention Conditions*.

Note

Do not assume that the administration of blood or blood products following acute blood loss means the patient has anemia. There must be documentation of "anemia" or "low hemoglobin."

Example: The patient is admitted with an acute gastrointestinal tract bleed. An esophagogastroduodenoscopy (EGD) confirms a Mallory-Weiss tear. The physician documents in the progress notes that there was an abrupt fall in the patient's hemoglobin following the acute hemorrhage. During the admission, the patient receives an intravenous bolus of saline and a transfusion to restore his volume and hemoglobin level.

Code	DAD	NACRS	Code title
K22.6	(M)	MP	Gastro-oesophageal laceration-haemorrhage syndrome
D62	(1)	OP	Acute posthaemorrhagic anaemia

Rationale: The patient experienced acute and significant blood loss. He was then diagnosed with subsequent anemia. The physician has documented the link between the abrupt fall in hemoglobin and the episode of acute blood loss. Therefore, anemia is classified to D62 *Acute posthaemorrhagic anaemia*.

Example: The patient has a long history of iron deficiency anemia related to chronic, bleeding peptic ulcer. She is admitted for a blood transfusion.

Code	DAD	Code title
Z51.3	(M)	Blood transfusion (without reported diagnosis)
D50.0	(3)	Iron deficiency anaemia secondary to blood loss (chronic) (optional)
K27.4	(3)	Peptic ulcer, chronic or unspecified with haemorrhage (optional)

Rationale: There is no documentation linking anemia to acute blood loss. The anemia is linked to a chronic, bleeding peptic ulcer; therefore, it is classified to D50.0. See also the coding standard *Admission for Blood Transfusion*.

Example: The patient is admitted for a cholecystectomy for chronic cholecystitis with cholelithiasis. “Postoperative anemia” is documented on the summary sheet. The patient is given one unit of blood. Iron supplements are prescribed, and the patient’s discharge is delayed until his hemoglobin begins to rise.

Prefix	Code	DAD	Cluster	Code title
	K80.10	(M)		Calculus of gallbladder with other cholecystitis
6	D64.9	(2)	A	Anaemia, unspecified
	Y83.6	(9)	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: There is no documentation linking anemia to acute blood loss; therefore, it is classified to D64.9.

Example: The patient is admitted with primary osteoarthritis of the right knee for an elective total knee replacement. The physician documents in the progress notes that the patient’s preoperative hemoglobin is within normal limits but that her hemoglobin is low postoperatively due to the blood loss that occurred during the procedure. On postoperative day 3, the patient is given two units of blood.

Prefix	Code	DAD	Cluster	Code title
	M17.1	(M)		Other primary gonarthrosis
6	D62	(2)	A	Acute posthaemorrhagic anaemia
	Y83.1	(9)	A	Surgical operation with implant of artificial internal device, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The physician has documented the link between the abrupt fall in hemoglobin and the episode of acute blood loss. Therefore, anemia is classified to D62 *Acute posthaemorrhagic anaemia*.

Example: The patient is admitted with primary osteoarthritis of the left hip for an elective total hip replacement. The physician documents that two units of packed red cells are transfused intraoperatively.

Code	DAD	Code title
M16.1	(M)	Other primary coxarthrosis

Rationale: A diagnosis of anemia is not assumed based on administration of blood or blood products alone; therefore, a code for anemia is not assigned for this example.

Anemia of Chronic Disease

In effect 2012

Anemia of chronic disease is a multifactorial anemia resulting from an underlying chronic condition that has an effect on the production and/or lifespan of red blood cells. Certain conditions, such as chronic infections, inflammation and cancer, have been commonly linked to anemia of chronic disease and as such are identified in ICD-10-CA by utilizing the dagger and asterisk convention; examples of such chronic diseases are neoplastic disease, chronic kidney disease, malaria and myxedema. Anemia of chronic disease is a manifestation of an underlying chronic condition; therefore, it is an asterisk code in the classification.

The literature associates a number of underlying chronic conditions with anemia of chronic disease. Sometimes the condition and the anemia of chronic disease are specifically linked in the classification using the dagger/asterisk convention. Anemia of chronic disease can also be found in the classification using an adjectival form of the disease; examples include brickmaker's, Egyptian, malarial, syphilitic and tuberculous, among others. It can also be found by using the terms "anemia . . . in"; examples include anemia "in" chronic kidney disease and anemia "in" neoplastic disease. Sometimes the underlying chronic condition and anemia of chronic disease are not linked in the classification at all.

When the underlying chronic condition and the anemia of chronic disease are not specifically linked in the classification, D63.8* *Anaemia in other chronic diseases classified elsewhere* is assigned when the health care provider specifically and clearly establishes a connection between the underlying chronic condition and "anemia of chronic disease."

See also the coding standard *Dagger/Asterisk Convention*.

DAD and NACRS directive statement

When documentation clearly establishes a connection between "anemia of chronic disease" and a chronic condition that is not linked in the classification, assign

- A code for the underlying chronic condition; and
- D63.8* *Anaemia in other chronic diseases classified elsewhere*.

Note
When the connection between anemia and the chronic condition is not documented, classify the anemia to D64.9 *Anaemia, unspecified*.

Example: The patient is admitted to treat his rheumatoid arthritis. The physician documents that the patient has associated anemia of chronic disease. During this episode of care, the patient receives a blood transfusion.

Code	DAD	NACRS	Code title
M06.9	(M)	MP	Rheumatoid arthritis, unspecified
D63.8*	(3)	OP	Anaemia in other chronic diseases classified elsewhere

Rationale: The physician has linked the anemia of chronic disease to rheumatoid arthritis, so D63.8* is assigned.

Example: The patient is admitted to treat an acute exacerbation of his chronic obstructive lung disease. The physician documents that the patient has anemia. During this episode of care, the patient receives a blood transfusion.

Code	DAD	NACRS	Code title
J44.1	(M)	MP	Chronic obstructive pulmonary disease with acute exacerbation, unspecified
D64.9	(1)	OP	Anaemia, unspecified

Rationale: D63.8***** does not apply because anemia and chronic obstructive lung disease are not linked in the classification and the physician has not described it as "anemia of chronic disease."

DAD and NACRS directive statement

When the type of anemia is **not** specified in a patient with chronic kidney disease (N18.3–N18.9) or neoplasia (C00–D48), follow the alphabetical index lookup by using the lead term "anemia" and the secondary term "in" and assign

- The indexed dagger code for either the chronic kidney disease or neoplasia; and
- The code from category D63* *Anaemia in chronic diseases classified elsewhere*.

Note

Do not confuse anemia described as "chronic" with anemia "due to" or "of" chronic disease.

Note

When the type of anemia is specified (e.g., blood loss anemia or iron deficiency anemia) in a patient with chronic kidney disease or neoplastic disease, the anemia is classified to the specific type of anemia. D63* is **not** assigned.

When multiple types of anemia (such as anemia of chronic disease and iron deficiency anemia) are documented, assign a code for each type of anemia.

Example: The patient is admitted with end-stage chronic kidney disease. During this episode of care, he receives a blood transfusion for his documented anemia.

Code	DAD	NACRS	Code title
N18.5	(M)	MP	Chronic kidney disease, stage 5
D63.8*	(3)	OP	Anaemia in other chronic diseases classified elsewhere

Rationale: A specific type of anemia is not documented and the alphabetical index links the anemia in chronic kidney disease; therefore, anemia is classified to D63.8*.

Example: The patient is admitted for treatment of his colon cancer. He also has anemia documented as due to chronic blood loss, for which he receives two units of blood.

Code	DAD	Code title
C18.9	(M)	Malignant neoplasm colon, unspecified
D50.0	(1)	Iron deficiency anaemia secondary to blood loss (chronic)

Rationale: Anemia is specified as due to chronic blood loss; therefore, the anemia is classified to D50.0.

Example: The patient is admitted with end-stage chronic kidney disease. During this episode of care, he receives a blood transfusion for his documented “anemia of chronic disease” and “iron deficiency anemia.”

Code	DAD	NACRS	Code title
N18.5	(M)	MP	Chronic kidney disease, stage 5
D63.8*	(3)	OP	Anaemia in other chronic diseases classified elsewhere
D50.9	(1)	OP	Iron deficiency anaemia, unspecified

Rationale: Anemia of chronic disease and a specific type of anemia are both documented; therefore, the anemia is classified to D63.8* and D50.9.

Chapter IV — Endocrine, nutritional and metabolic diseases

Diabetes Mellitus

In effect 2006, amended 2007, 2008, 2009, 2012

Diabetes is a serious disease that, if not controlled, can be life-threatening. It is often associated with long-term complications that can affect every system and part of the body. Diabetes can contribute to eye disorders and blindness, heart disease, stroke, kidney failure, amputation and nerve damage. It can also affect pregnancy and cause birth defects.

The code titles in block E10–E14 *Diabetes mellitus* in ICD-10-CA clearly state diabetes mellitus *with* a complication. Therefore, a cause-and-effect relationship does not have to be specifically documented to classify cases to these categories.

See also the coding standard *Use Additional Code/Code Separately Instructions* as well as Diabetes mellitus in Appendix A for clinical information.

DAD and NACRS directive statement

Assign a code for diabetes mellitus whenever the condition is documented.

Note

The intent is to assign a code for diabetes mellitus when it is noted on routine review of the record, not to conduct an exhaustive search of all ancillary documentation for reference to diabetes.

Example: The patient is seen in the emergency department for treatment of renal colic, which is diagnosed as left ureteric stone. Type 2 diabetes mellitus is noted on the emergency department sheet by the triage nurse. No further details regarding diabetic complications or glycemic control are available in the chart.

Code	NACRS	Code title
N20.1	MP	Calculus of ureter
E11.9	OP	Type 2 diabetes mellitus without (mention of) complications

Rationale: Diabetes must be coded whenever it is documented. It is acceptable to use nursing documentation to fulfill this mandatory coding requirement.

Example: A 68-year-old female patient is admitted with pneumonia. The history and physical documents that the patient has type 2 diabetes mellitus with mononeuropathy.

Code	DAD	NACRS	Code title
J18.9	(M)	MP	Pneumonia, unspecified
E11.40†	(3)	OP	Type 2 diabetes mellitus with mononeuropathy
G59.0*	(3)	OP	Diabetic mononeuropathy

Rationale: It is mandatory to assign a code for diabetes mellitus when it is documented. Since diabetes with mononeuropathy is a dagger/asterisk combination, both codes are mandatory to assign. See also the coding standard *Dagger/Asterisk Convention*.

Example: The patient is seen in the emergency department for “kidney failure” without further specification as to type or cause. The patient has type 2 diabetes mellitus.

Code	NACRS	Code title
N19	MP	Unspecified kidney failure
E11.9	OP	Type 2 diabetes mellitus without (mention of) complications

Rationale: **Unspecified** renal failure is not classified as a complication of diabetes mellitus. The alphabetical index does not associate unspecified renal failure and diabetes mellitus.

DAD and NACRS directive statements

DN When there are complications of diabetes mellitus, assign a code from E10–E14 to describe each complication that meets the criteria for significance.

DN When multiple complications of diabetes mellitus affect separate body systems and none meet the criteria for significance, assign the one code E1–.78 *Type ~ diabetes mellitus with multiple other complications*.

D Example: A 51-year-old woman known to have type 2 diabetes mellitus is admitted to the hospital for treatment of her diabetic nonproliferative retinopathy. She is also seen by a nephrologist to evaluate signs of diabetic nephropathy noted by her family physician. The nephrologist recommends and begins appropriate treatment. She has no other known complications related to diabetes.

Code	DAD	Code title
E11.30†	(M)	Type 2 diabetes mellitus with background retinopathy
H36.0*	(6)	Diabetic retinopathy
E11.23†	(1)	Type 2 diabetes mellitus with established or advanced kidney disease
N08.39*	(3)	Unspecified glomerular disorders in diabetes mellitus

Rationale: The diabetic retinopathy and nephropathy both meet the criteria for significance; therefore, codes are assigned to describe each complication.

DN Example: A 45-year-old female patient with type 1 diabetes mellitus is admitted for treatment of preproliferative diabetic retinopathy. She also has diabetic nephropathy and mononeuropathy, for which she receives no treatment during this admission.

Code	DAD	NACRS	Code title
E10.31†	(M)	MP	Type 1 diabetes mellitus with preproliferative retinopathy
H36.0*	(6)	OP	Diabetic retinopathy

Rationale: Since only the diabetic retinopathy is significant to this visit, only E10.31† is assigned with the corresponding asterisk code.

Example: A patient with type 2 diabetes mellitus, known end-stage kidney disease (ESKD) and congestive heart failure (CHF) presents to hospital. The patient presents with increased shortness of breath, poor appetite and excessive thirst, symptoms of the CHF and kidney disease. The final diagnosis is CHF and diabetic ESKD; appropriate treatment is given.

Code	DAD	NACRS	Code title
I50.0	(M)	MP	Congestive heart failure
E11.52	(3)	OP	Type 2 diabetes mellitus with certain circulatory complications
E11.23†	(1)	OP	Type 2 diabetes mellitus with established or advanced kidney disease
N08.35*	(3)	OP	Glomerular disorders in diabetes mellitus, chronic kidney disease, stage 5

Rationale: The CHF and kidney disease both meet the criteria for significance; therefore, codes are assigned to describe each complication.

Example: The patient is registered for his biweekly hemodialysis session. He has type 2 diabetes with ESKD. He also has diabetic maculopathy and sensorimotor peripheral neuropathy.

Code	NACRS	Code title
Z49.1	MP	Extracorporeal dialysis
E11.23†	OP	Type 2 diabetes mellitus with established or advanced kidney disease
N08.35*	OP	Glomerular disorders in diabetes mellitus, chronic kidney disease, stage 5

Rationale: Although this patient has multiple diabetic complications, only the kidney disease meets the criteria for significance; thus a code for ESKD is the only one required.

Example: A patient with type 2 diabetes mellitus is admitted to hospital due to acute symptoms of known Crohn's disease of the large intestine. The history and physical documents that the patient has CHF and multi-infarct dementia. Neither of these conditions is significant to the patient's stay in hospital.

Code	DAD	NACRS	Code title
K50.1	(M)	MP	Crohn's disease of large intestine
E11.52	(3)	OP	Type 2 diabetes mellitus with certain circulatory complications

Rationale: E11.78 does not apply in this example because CHF and multi-infarct dementia are complications affecting the same body system. Although neither condition meets the criteria for significance, it is mandatory to code diabetes mellitus whenever it is documented; E11.52 satisfies this requirement.

Example: A patient with type 2 diabetes mellitus is admitted for treatment of a fractured wrist due to a fall out of bed at home. The patient has a history of peripheral vascular disease and cardiomyopathy.

Code	DAD	NACRS	Code title
S62.800	(M)	MP	Fracture of other and unspecified parts of wrist and hand, closed
W06	(9)	OP	Fall involving bed
U98.0	(9)	OP	Place of occurrence, home
E11.52	(3)	OP	Type 2 diabetes mellitus with certain circulatory complications

Rationale: E11.78 does not apply in this example because peripheral vascular disease and cardiomyopathy are complications affecting the same body system. Both are classified to separate fourth-character subcategories, and although neither meets the criteria for significance, it is mandatory to code diabetes mellitus whenever documented. To satisfy this requirement, assign either E11.52 or E11.50†/I79.2*.

Example: A patient with type 2 diabetes mellitus is admitted due to an acute exacerbation of chronic obstructive pulmonary disease. It is documented that on admission the patient's diabetes mellitus is uncontrolled. The history documents that the patient has peripheral vascular disease and retinopathy; however, these complications do not impact the patient's hospital stay.

Code	DAD	Code title
J44.1	(M)	Chronic obstructive pulmonary disease with acute exacerbation, unspecified
E11.64	(1)	Type 2 diabetes mellitus with poor control, so described

Rationale: Uncontrolled diabetes mellitus is always captured as a significant diagnosis type. This patient has multiple complications of diabetes, but only E11.64 meets the criteria for significance. It satisfies the mandatory requirement to code diabetes mellitus, and E11.78 is not assigned.

Example: The patient comes to the emergency department after slipping and falling on ice and sustaining a closed bimalleolar fracture of her left ankle. She has type 2 diabetes with known nephropathy and retinopathy.

Code	NACRS	Code title
S82.800	MP	Bimalleolar fracture of ankle, closed
W00	OP	Fall on same level involving ice and snow
U98.9	OP	Unspecified place of occurrence
E11.78	OP	Type 2 diabetes mellitus with multiple other complications

Rationale: The nephropathy and retinopathy are not significant to the emergency visit; E11.78 is assigned to identify the diabetes mellitus.

DAD and NACRS directive statements

When the type of diabetes mellitus is not evident from the documentation, seek clarification from the physician/primary care provider or assign E14.– *Unspecified diabetes mellitus*.

When diabetes mellitus is described as poorly controlled by the physician/primary care provider at admission or at any time during the episode of care, assign E1–.64 *Type ~ diabetes mellitus with poor control, so described* as a significant diagnosis type/main problem or other problem.

Note

E1–.64 *Type ~ diabetes mellitus with poor control, so described* identifies diabetes mellitus with poor control. The code R73.8–2 *Other evidence of elevated blood glucose level, greater than or equal to 14.0 mmol/L* is not required.

E1–.64 *Type ~ diabetes mellitus with poor control, so described* must not be assigned a diagnosis type (2).

Terminology that indicates poor control includes “out of control,” “uncontrolled,” “unstable,” “inadequately controlled” or “that with secondary treatment failure.” Patients requiring stabilization of poorly controlled diabetes include those who need to initiate insulin therapy because they are experiencing secondary treatment failure to oral hypoglycemic agents. It should be noted that the use of a sliding-scale insulin regimen does not imply uncontrolled diabetes.

Example: A 54-year-old patient is admitted with CHF. He has had type 2 diabetes for many years and is on oral hypoglycemic medication. Lately, his blood sugars have been consistently on the high side. The physician notes that his diabetes is out of control, and appropriate treatment is given.

Code	DAD	Code title
I50.0	(M)	Congestive heart failure
E11.52	(3)	Type 2 diabetes mellitus with certain circulatory complications
E11.64	(1)	Type 2 diabetes mellitus with poor control, so described

Example: A 62-year-old patient with type 2 diabetes is admitted for elective radical prostatectomy for carcinoma of the prostate. Following surgery, he is sent to the intensive care unit (ICU), and the physician’s notes state that his diabetes is out of control. The patient’s insulin dosage is adjusted, and he is kept in ICU for two extra days.

Code	DAD	Code title
C61	(M)	Malignant neoplasm of prostate
E11.64	(1)	Type 2 diabetes mellitus with poor control, so described

Rationale: Postoperatively, patients with diabetes may experience temporary poor control of their diabetes. Diabetes is a chronic condition and must not be assigned a diagnosis type (2).

Note

Diabetes mellitus with poor control is inherent with coma and acidosis associated with diabetes; as such, the code E1–.64 *Type ~ diabetes mellitus with poor control, so described* is not assigned with codes E1–.0 *Type ~ diabetes mellitus with coma* or E1–.1– *Type ~ diabetes mellitus with acidosis*. There is an exclusion note at E1–.64 *Type ~ diabetes mellitus with poor control, so described* providing this direction.

Example: A 56-year-old man is brought to the hospital by ambulance. His wife says that he appears to be semi-conscious. His diabetes is documented as uncontrolled with blood glucose of 46 mmol/L. The patient is admitted with dehydration and hyperosmolality. With IV rehydration and other treatment, his condition improves significantly.

Final diagnosis: Hyperosmolar hyperglycemic nonketotic coma, type 2 diabetes mellitus

Code	DAD	NACRS	Code title
E11.0	(M)	MP	Type 2 diabetes mellitus with coma
E87.0	(1)	OP	Hyperosmolality and hypernatraemia
E86.0	(1)	OP	Dehydration

Note

It is important to be aware that coma (a state of unconsciousness) can be due to a number of problems, including traumatic brain injury, stroke, brain tumor or infection such as encephalitis, as well as extremely high or low blood sugar in diabetes mellitus. Use physician/primary care provider documentation to verify diabetes mellitus as the cause of the coma prior to assigning a code from categories E10–E14 to record the coma.

Example: The patient is an 18-year-old who went swimming in the lake with some friends. The lifeguard noticed that the young man was in trouble and immediately rushed in and brought him to the beach, where he performed resuscitation. An ambulance was called and transported the youth to hospital. Though resuscitation was successful, the patient remains in a coma. History and physical examination report that the patient has type 1 diabetes. He dies two days after admission.

Final diagnosis: Accidental drowning

Code	DAD	NACRS	Code title
T75.1	(M)	MP	Drowning and nonfatal submersion
W69	(9)	OP	Drowning and submersion while in natural water
U98.8	(9)	OP	Other specified place of occurrence
R40.29	(1)	OP	Coma, unspecified
E10.9	(3)	OP	Type 1 diabetes mellitus without (mention of) complication

Rationale: This patient with type 1 diabetes was in a coma because of lack of blood flow and oxygen to the brain during his near-drowning experience. There was no documentation linking the coma to his type 1 diabetes mellitus.

DAD and NACRS directive statement

Classify diabetic foot ulcer to E1–.70 *Type ~ diabetes mellitus with foot ulcer* or E1–.71 *Type ~ diabetes mellitus with foot ulcer with gangrene* to identify the absence or presence of gangrene.

- Assign an additional code for abscess, cellulitis or osteomyelitis associated with the ulcer.

Example: The patient has had type 2 diabetes for many years with multiple diabetes-related complications. She is admitted with a diabetic (right) foot with ulcer and gangrene. During her stay, she undergoes amputation of her second and third toes of her right foot, with drainage of the associated abscess.

Final diagnosis: Diabetic foot abscess with gangrenous toes

Pathology report: Necrotic second and third toes with ulcer

Code	DAD	Code title
E11.71	(M)	Type 2 diabetes mellitus with foot ulcer (angiopathic) (neuropathic) with gangrene
L02.4	(1)	Cutaneous abscess, furuncle and carbuncle of limb

Rationale: An additional code is assigned for the abscess. An additional code for the ulcer is not assigned.

DAD and NACRS directive statements

When assigning the mandatory asterisk code N08.3–* *Glomerular disorders in diabetes mellitus*, select the fifth character based on documentation of the stage of chronic kidney disease, not the glomerular filtration rate (GFR).

When the stage of chronic kidney disease is not documented, assign N08.39* *Unspecified glomerular disorders in diabetes mellitus*.

Example: **Diagnosis:** Type 2 diabetes with chronic kidney disease

Nephropathy stage 4

Code	Code title
E11.23†	Type 2 diabetes mellitus with established or advanced kidney disease
N08.34*	Glomerular disorders in diabetes mellitus, chronic kidney disease, stage 4

Example: **Diagnosis:** Type 2 diabetes with chronic kidney disease with documented GFR of 35

Code	Code title
E11.23†	Type 2 diabetes mellitus with established or advanced kidney disease
N08.39*	Unspecified glomerular disorders in diabetes mellitus

Rationale: Since the stage of the chronic kidney disease is not documented, N08.39* is assigned despite documentation of the GFR.

Example: **Diagnosis:** Type 2 diabetes with end-stage kidney disease

Nephropathy stage 4

Code	Code title
E11.23†	Type 2 diabetes mellitus with established or advanced kidney disease
N08.35*	Glomerular disorders in diabetes mellitus, chronic kidney disease, stage 5

Rationale: If the health care provider documents both a stage of chronic kidney disease and ESKD, assign the code N08.35* for the ESKD. ESKD is always classified as stage 5.

DAD and NACRS directive statement

When a diagnostic statement of "borderline diabetes" is recorded, seek further information from the physician/primary care provider to determine whether the patient has type 2 diabetes (E11.–) or impaired glucose tolerance/pre-diabetes (R73.0).

For clinical information, see also Borderline diabetes in Appendix A.

DAD and NACRS directive statement

Assign E1–.63 *Type ~ diabetes mellitus with hypoglycaemia* to identify a hypoglycemic episode in a patient with diabetes.

Note

Ensure that code E1–.63 *Type ~ diabetes mellitus with hypoglycaemia* does not appear on the same abstract with a code for hypoglycemia from the range E16.0–E16.2, as these codes are mutually exclusive.

Example: A 51-year-old man with type 1 diabetes mellitus is brought to hospital, where the physician notes that his diabetes is poorly controlled. The patient is admitted with a glucometer reading of 14.1 mmol/L, and he is given insulin per the physician's orders. The next day, he has only a light breakfast and complains of feeling dizzy and weak. The physician documents "hypoglycemia" in the progress notes and the patient is treated appropriately.

Code	DAD	Code title
E10.64	(M)	Type 1 diabetes mellitus with poor control, so described
E10.63	(2)	Type 1 diabetes mellitus with hypoglycaemia

Rationale: It is possible to have a high blood sugar reading and hypoglycemia in the same episode of care.

For clinical information, see also Hypoglycemia in diabetes mellitus in Appendix A.

DAD and NACRS directive statements

Classify diabetes that is first diagnosed during pregnancy to O24.8– *Diabetes mellitus arising in pregnancy (gestational)*.

Sequence codes from Chapter XV — Pregnancy, childbirth and the puerperium before any applicable diabetes code from E10–E14 *Diabetes mellitus*.

Example: The patient presents at 39 weeks gestation. She was first diagnosed with diabetes mellitus at the first prenatal visit (10 weeks gestation). She spontaneously delivers a healthy baby girl.

Code	DAD	Code title
O24.801	(M)	Diabetes mellitus arising in pregnancy (gestational), delivered with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: A patient with type 1 diabetes mellitus, with nephropathy, is admitted at 39 weeks gestation. She delivers a healthy baby girl. She is seen by a nephrologist for evaluation and recommendations for treatment of her renal condition.

Code	DAD	Code title
O24.501	(M)	Pre-existing type 1 diabetes mellitus in pregnancy, delivered, with or without mention of antepartum condition
E10.23†	(1)	Type 1 diabetes mellitus with established or advanced kidney disease
N08.39*	(3)	Unspecified glomerular disorders in diabetes mellitus
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: A patient with type 1 diabetes, who is pregnant, is brought to the hospital with a history of nausea and vomiting for a few days. Blood sugars are tested during this visit, and the physician diagnoses uncontrolled glucose levels and gravidarum emesis with dehydration.

Code	DAD	NACRS	Code title
O21.103	(M)	MP	Hyperemesis gravidarum with metabolic disturbance, antepartum condition or complication
O24.503	(1)	OP	Pre-existing type 1 diabetes mellitus in pregnancy, antepartum condition or complication
E10.64	(1)	OP	Type 1 diabetes mellitus with poor control, so described

DAD and NACRS directive statement

When total or partial pancreatectomy causes diabetes mellitus, the resulting diabetes mellitus is classified to E89.1 *Postprocedural hypoinsulinaemia* for the episode of care during which the surgery was performed.

- For all subsequent encounters, any resulting diabetes mellitus is assigned to category E13 *Other specified diabetes mellitus*.

First visit

Example: A non-diabetic patient is admitted for a Whipple procedure, and part of her pancreas is removed. She is monitored in ICU following surgery. She goes into acute hyperglycemia and is put on insulin to control the hypoinsulinemia.

The final diagnosis is recorded as benign pancreatic tumor and acquired diabetes mellitus with postoperative hyperglycemia.

Code	DAD	Cluster	Code title
D13.6	(M)		Benign neoplasm of pancreas
E89.1	(2)	A	Postprocedural hypoinsulinaemia
Y83.6	(9)	A	Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Following a pancreatectomy, loss of beta cells results in a decrease in insulin production. This condition may sometimes be transient; as such, for the current episode of care only, assign E89.1 *Postprocedural hypoinsulinaemia*.

Second visit

Example: The patient is readmitted to hospital four days after discharge. She has developed a *Staphylococcus aureus* wound infection. The physician notes state that the patient has acquired diabetes and is on insulin as a result of the pancreatectomy.

Code	DAD	Cluster	Code title
T81.4	(M)	A	Infection following a procedure, not elsewhere classified
B95.6	(3)	A	Staphylococcus aureus as the cause of diseases classified to other chapters
Y83.6	(9)	A	Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
E13.9	(3)		Other specified diabetes mellitus without (mention of) complication

Rationale: When the condition is established as diabetes mellitus in any subsequent admissions, assign a code from category E13 *Other specified diabetes mellitus* since this is neither type 1 nor type 2 diabetes mellitus. An external cause code is not assigned with E13.9 for diabetes resulting from pancreatectomy.

DAD-only directive statements

When a patient develops steroid-induced diabetes after admission, assign a code from category E13 *Other specified diabetes mellitus* as a diagnosis type (2).

When lactic acidosis or a hypoglycemic event meets the criteria for a post-admit comorbidity, assign the appropriate codes as a diagnosis type (2).

Example: The patient is in hospital undergoing treatment for pemphigus. She is given high doses of steroids. She develops steroid-induced diabetes and is put on oral hypoglycemic medication.

Code	DAD	Cluster	Code title
L10.9	(M)		Pemphigus, unspecified
E13.9	(2)	A	Other specified diabetes mellitus without (mention of) complication
Y42.0	(9)	A	Glucocorticoids and synthetic analogues causing adverse effects in therapeutic use

Example: A 36-year-old woman with type 1 diabetes mellitus is brought to hospital because her diabetes is poorly controlled. The next day, she complains of feeling dizzy and weak. The physician documents “hypoglycemia” in the progress notes, and the patient is given orange juice.

Code	DAD	Code title
E10.64	(M)	Type 1 diabetes mellitus with poor control, so described
E10.63	(2)	Type 1 diabetes mellitus with hypoglycaemia

Dehydration

In effect 2002, amended 2005, 2006, 2009

DAD and NACRS directive statement

Assign a code for documented dehydration as a significant diagnosis type/main problem or other problem when it is either

- A condition in its own right without any documented underlying cause; or
- Noted to be severe enough to warrant rehydration with intravenous (IV) fluids.

See also the coding standard *Gastroenteritis and Diarrhea*.

When there is a documented underlying cause and dehydration is managed by increased oral intake of fluids alone, it must not be assigned a significant diagnosis type; if coded, assign a diagnosis type (3).

Note

The presence of an IV does not in itself indicate rehydration. IV lines may be started for other purposes, including administration of medications and stabilization of the patient.

Example: An elderly man who lives alone is found in a state of confusion and dehydration. He improves significantly following aggressive IV fluid treatment and is sent home with home care to visit three times a week.

Code	DAD	NACRS	Code title
E86.0	(M)	MP	Dehydration
R41.0	(3)	OP	Disorientation, unspecified (optional)

Rationale: Dehydration must be clearly documented before it can be coded. Dehydration is a condition in its own right in this example and is treated with IV fluids. Disorientation is a symptom of dehydration and, if coded, must be assigned diagnosis type (3)/other problem.

Example: A patient with type 1 diabetes mellitus is admitted to stabilize his condition. His blood sugars have been spiraling and not staying in the acceptable range. His family doctor refers him for an urgent admission. He is given insulin twice and responds to this treatment nicely, with fasting and random blood sugar levels well within the adequate range. The physician documents dehydration and prescribes an increase in oral fluids.

Code	DAD	Code title
E10.64	(M)	Type 1 diabetes mellitus with poor control, so described
E86.0	(3)	Dehydration (optional)

Rationale: Dehydration treated with an increase in oral intake of fluids does not meet the criteria for significance and, if assigned, is an optional type (3) diagnosis.

Chapter VI — Diseases of the nervous system

Cranioplasty and/or Duraplasty Concomitant With Intracranial Interventions

In effect 2001, amended 2006, 2015

To gain access to the brain, the cranium and dura must be incised. While raising/closing (reaffixing) a cranial bone flap and incising/re-approximating the dura following intracranial resection are considered a routine part of any invasive intracranial intervention, there are two occasions when it becomes necessary to assign an additional code for a concomitant cranial and/or dural repair.

DAD-only directive statements

- When there is documentation of a cranial **defect** requiring a repair/reconstruction concomitant with an intracranial intervention, assign an additional code, 1.EA.80.^^ *Repair, cranium*.
- When there is documentation of a **dural** graft used for the dural repair concomitant with an intracranial intervention, assign an additional code, 1.AA.80.^^ *Repair, meninges and dura mater of brain*.

Note

Reaffixing (replacing) the cranial bone flap that was created to gain access to the brain with small plates/screws or clamps is not classified as a “repair” of the cranium. The small plates/screws or clamps are considered to be routine closure of the operative site and are not coded separately. Similarly, re-approximating the dura with sutures is considered to be routine closure of the operative site and is not coded separately.

See also the coding standard *Debulking of a Space-Occupying Lesion*.

Example: A 59-year-old man with a history of low-grade astrocytoma (subtotal resection eight years ago) now presents with seizure activity due to the recurrence of the neoplasm. A craniotomy is performed through the original craniotomy incision to remove the recurrent astrocytoma. The dura is adhesive and tears during surgery. Following removal of the tumor, a duraplasty using the patient's own temporalis fascia is performed. Finally, the cranial defect is repaired by performing a cranioplasty using bone from the bone bank and plates and screws to secure the graft.

1.AN.87.SZ-GX	Excision partial, brain, craniotomy [or craniectomy] flap technique for access, with device NEC
1.AA.80.SZ-XX-A	Repair, meninges and dura mater of brain, using autograft [e.g. pericranium, fascia lata]
1.EA.80.LA-NW-K	Repair, cranium, using plate, screw or clamp device (with/without wire/mesh), with homograft

Rationale: There is documentation of a cranial defect requiring repair/reconstruction and the dura required a repair using a graft; therefore, additional codes for the cranioplasty and duraplasty are assigned.

Example: The patient is admitted for resection of frontal parietal extra-axial tumor. A high-speed drill is used to create four burr holes. The cranial bone is cut temporally in order to devascularize the dura before turning the bone flap. The bone flap is elevated. The bone is obviously involved with the tumor. The bulk of the tumor is removed. Following removal of the tumor, the dura is repaired using a synthetic dura substitute that is sutured to the native dura with a running 4-0 Nurolon. Given that the bone was involved with the tumor, there was a cranial defect that required reconstruction. A large metal plate is placed over the defect and anchored to the skull using mini-screws. The plate is covered with methylmethacrylate bone cement.

1.AN.87.SZ-GX	Excision partial, brain, craniotomy [or craniectomy] flap technique for access, with device NEC
1.EA.80.LA-NW-N	Repair, cranium using plate, screw or clamp device (with/without wire/mesh) with synthetic tissue [cement, paste]
1.AA.80.SZ-XX-N	Repair, meninges and dura mater of brain, using synthetic tissue substitute [Sialastic sheath]

Rationale: As bone was involved with the tumor, the resulting cranial defect required a repair/reconstruction. The cranium was reconstructed using a large metal plate and bone cement. The dura also required repair using a graft; therefore, additional codes for both the cranioplasty and duraplasty are assigned.

Example: The patient is admitted for resection of intra-axial tumor. One burr hole is drilled at the keyhole, and two are drilled over the temporal region. These are then connected to raise the craniotomy. The dura is dissected free. Following removal of the tumor, the dura is closed using running 4-0 Nurolon. The cranial bone flap is replaced and re-approximated using cranial clamps to secure the cranial bone flap back in place.

1.AN.87.SZ-GX	Excision partial, brain, craniotomy [or craniectomy] flap technique for access, with device NEC

Rationale: There was no documentation of a cranial defect requiring repair/reconstruction, and the dura did not require a graft. Closing (reaffixing) the cranial bone flap with clamps and incising/re-approximating the dura with sutures following the intracranial resection is considered a routine part of the surgery and no additional codes are assigned.

Example: A 73-year-old man is admitted for resection of a temporal tumor. A standard craniotomy is made, and when the bone is removed the dura is intact. The dura is incised over the lesion. The lesion is visible as a firm bump in the middle of the craniotomy. The inner lining of the dura is very adherent to the lesion and it is difficult to separate. The tumor is removed. Once hemostasis is confirmed, the cadaver fascia lata is used to repair the dura where the tumor was removed. The cadaver fascia lata is sutured with interrupted silk, and the cranial bone flap is replaced using small plates/screws to secure it back in place.

1.AN.87.SZ-GX	Excision partial, brain, craniotomy [or craniectomy] flap technique for access, with device NEC
1.AA.80.SZ-XX-K	Repair, meninges and dura mater of brain using homograft [e.g. freeze dried donor dura]

Rationale: A duraplasty requiring a graft is not considered a routine part of an intracranial intervention; therefore, an additional code for the duraplasty is required. However, closure (reaffixing) of the cranial bone flap created to gain access to the brain is considered a routine part of the intracranial intervention; therefore, an additional code is not required.

Example: The patient is admitted for evacuation of right cerebellar intracerebellar hematoma. A single burr hole is placed in the appropriate position and a craniotomy is fashioned out of this. The bone flap is lifted and the dura is exposed and incised. A significant amount of blood is found deep in the cerebellum. The blood is evacuated easily with suction. The dura is closed with a Dura-Guard patch, and DuraGen is laid over the patch. The bone flap is put back in place and secured with burr hole covers and screws.

1.AN.52.SZ	Drainage brain drainage alone [without catheter in situ] open craniotomy flap technique.
1.AA.80.SZ-XX-L	Repair, meninges and dura mater of brain, using xenograft [e.g. bovine]

Rationale: There was no documentation of a cranial defect requiring repair/reconstruction. Closing (reaffixing) the cranial bone flap with burr hole covers and screws is considered a routine part of the surgery, so no additional code for the cranioplasty is assigned. A duraplasty requiring a graft is not considered a routine part of an intracranial intervention; therefore, an additional code for the duraplasty is required.

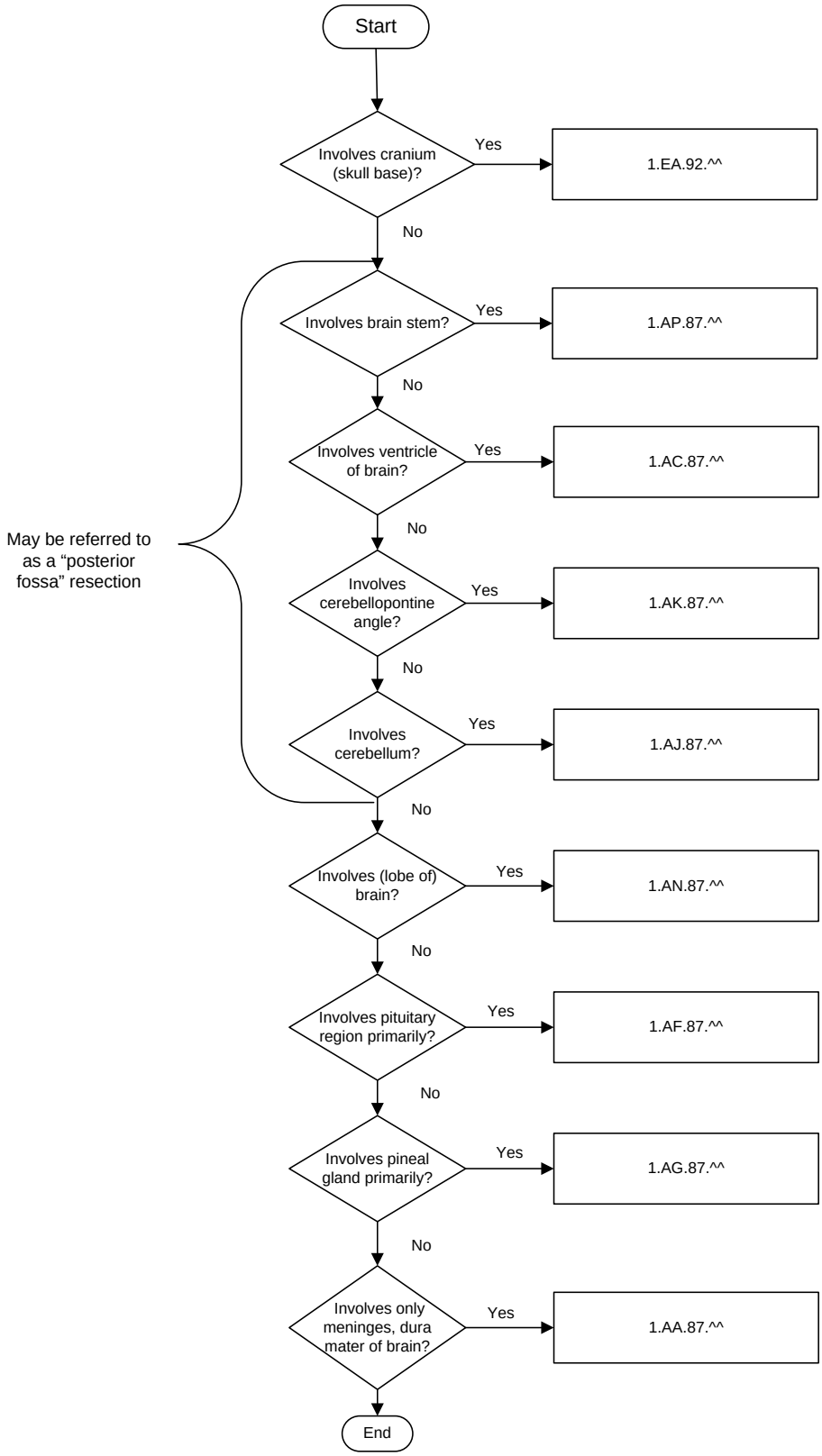
Hierarchy for Classification of Intracranial Lesion Resection

In effect 2001, amended 2015

To avoid assigning multiple codes to describe the surgical management of intracranial resections, a coding hierarchy has been factored into CCI that considers the severity of the neurological defect and the complexity of the surgery in order to determine the single most appropriate code for the type of resection. Necessary guidance for code selection is provided in the inclusions, exclusions and notes at the excision codes.

DAD and NACRS directive statement

Classify intracranial resections that overlap regions of the brain to one code (see flowchart below).


Start
Involves cranium (skull base)?
Yes
1.EA.92.^^
No
Involves brain stem?
Yes
1.AP.87.^^
No
Involves ventricle of brain?
Yes
1.AC.87.^^
No
Involves cerebellopontine angle?
Yes
1.AK.87.^^
No
Involves cerebellum?
Yes
1.AJ.87.^^
No
May be referred to as a “posterior fossa” resection
Involves (lobe of) brain?
Yes
1.AN.87.^^
No
Involves pituitary region primarily?
Yes
1.AF.87.^^
No
Involves pineal gland primarily?
Yes
1.AG.87.^^
No
Involves only meninges, dura mater of brain?
Yes
1.AA.87.^^
End

Revision of Cerebrospinal Fluid (CSF) Shunt Systems (Ventricle, Brain Stem, Spinal Canal)

In effect 2001, amended 2006

Partial revision

DAD and NACRS directive statement

When the replacement of a part of a cerebrospinal fluid (CSF) shunt system is documented as a revision, select one of the following codes, depending on the originating site of drainage (where the blockage lies):

1.AC.54.^^ *Management of internal device, ventricles of brain*

1.AP.54.^^ *Management of internal device, brain stem*

1.AX.54.^^ *Management of internal device, spinal canal and meninges*

The qualifier portion of the code identifies the region of the body in which the shunt terminates.

Example: The patient has a ventriculoperitoneal shunt because of hydrocephalus. He is admitted on this occasion to have the valve changed.

1.AC.54.ME-SJ	Management of internal device, ventricles of brain, open approach, shunt system terminating in abdominal cavity [e.g. ventriculoperitoneal, gallbladder]

Complete revision

DAD and NACRS directive statement

When there is removal and concomitant reinstallation of an entire CSF shunt system, select one of the following code sets, depending on the originating site of drainage (where the blockage lies). The qualifier portion of the code identifies the region of the body in which the shunt terminates.

1.AC.52.^^ *Drainage, ventricles of brain*

1.AC.55.^^ *Removal of device, ventricles of brain*

1.AP.52.^^ *Drainage, brain stem*

1.AP.55.^^ *Removal of device, brain stem*

1.AX.52.^^ *Drainage, spinal canal and meninges*

1.AX.55.^^ *Removal of device, spinal canal and meninges*

The insertion of the new system is sequenced as the principal intervention, followed by the removal of the old system.

Example: The patient had a previous insertion of a syringopleural shunt for syringomyelia. On this occasion, she is admitted for a complete removal and replacement of the syringopleural shunt due to shunt failure.

1.AP.52.MQ-SJ	Drainage, brain stem, using shunt system terminating in thoracic cavity [e.g. syringopleural]
1.AP.55.SE-SJ	Removal of device, brain stem, of shunt catheter system, burr hole technique for access

As with any other indwelling catheterization for continuous drainage, there is no status attribute in CCI to indicate “revision” at the drainage codes, as there is a reasonable expectation that there may be a need to replace valves, unblock shunts and reposition catheters over the course of its installation. It is quite common to replace any long-term indwelling catheter system in its entirety, especially in a growing child.

Seizures

For description of change, see Appendix C.

In effect 2001, amended 2003, 2006, 2009, 2018

DAD and NACRS directive statements

When there is documentation of a recurrent seizure that is not associated with an acute medical illness or psychoactive drug withdrawal, use the alphabetical index lead term “Epilepsy.”

When there is documentation of a seizure provoked by

- Psychoactive drug withdrawal, use the alphabetical index lead term “Withdrawal.”
- Acute medical illness, assign a code for the medical illness.

When there is documentation of “seizure disorder”

- Described as febrile, use the alphabetical index lead term and subterm “Seizure, febrile.”
- With no further specification, assign R56.80 *Seizure disorder, so described*.

Note
Examples of acute medical illnesses that may provoke a seizure are hyponatremia, hypomagnesemia, hypocalcemia, hypoglycemia, nonketotic hyperglycemia, hypoxia, renal or hepatic failure and sepsis.

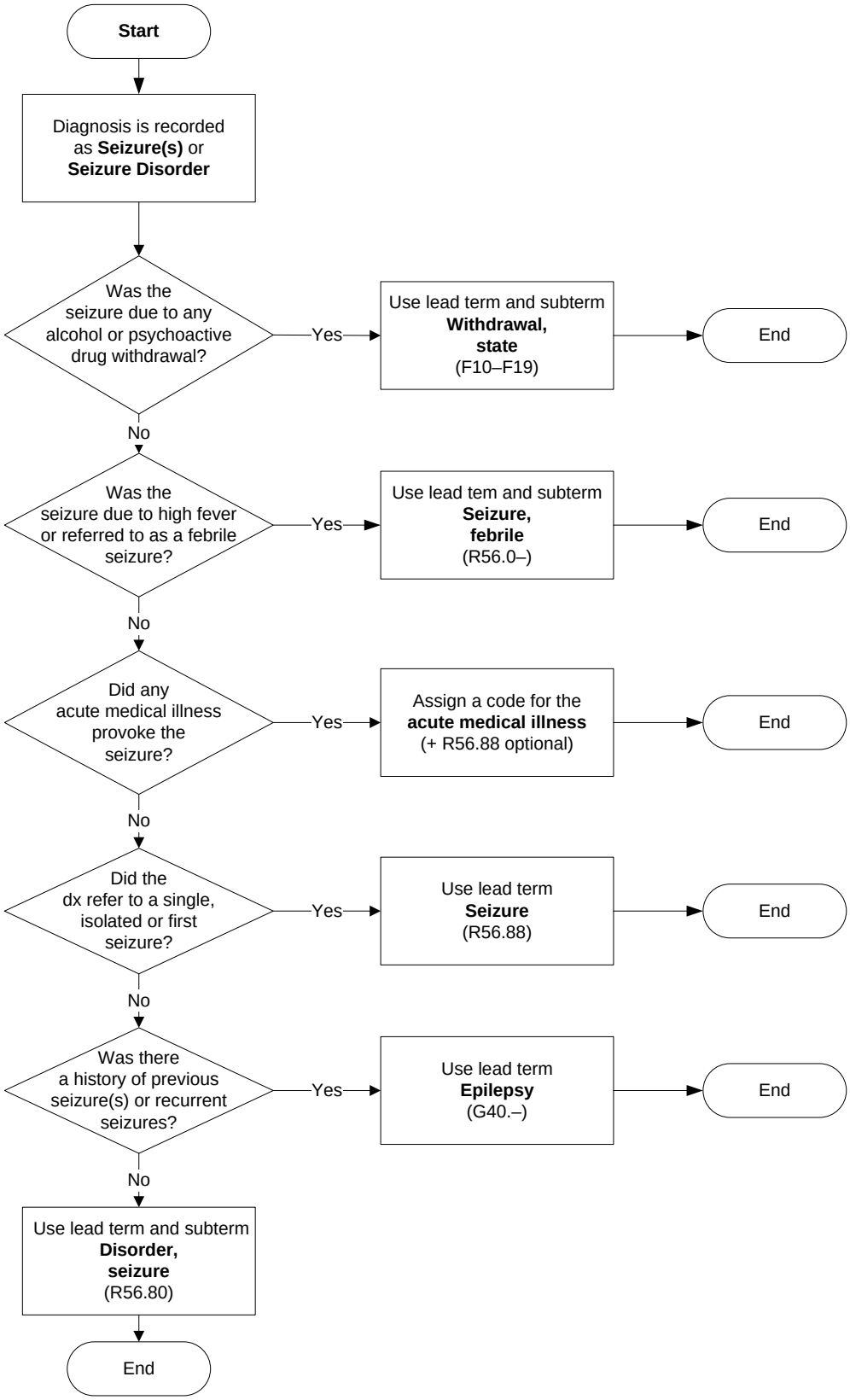
Note
A single, isolated (no history of previous seizure) or first-time seizure is not classified to epilepsy. See the exclusion note at category G40 *Epilepsy*.

Note
Do not confuse intractable epilepsy (medication-resistant or refractory) with status epilepticus. Intractable epilepsy means that the seizures are “poorly controlled” with the current anticonvulsant medication regime, whereas status epilepticus refers to continuous seizure activity and is a life-threatening emergency.

The documentation must specifically state “status epilepticus” before a code from G41 *Status epilepticus* is assigned.

Note
For assistance in determining the correct lead term for documentation of seizure or seizure disorder, see the following flowchart.

Correct index search for seizure(s) and seizure disorder



Example: A 65-year-old male patient is brought in by ambulance having suffered a seizure. The physician describes a tonic-clonic seizure and notes that the patient has had three such seizures in the past. The final diagnosis is recorded as tonic-clonic seizure.

Code	NACRS	Code title
G40.60	MP	Grand mal seizures, unspecified (with or without petit mal), not stated as intractable

Rationale: The patient has a history of seizures. The current seizure was not caused by an acute medical illness or withdrawal from psychoactive drugs; therefore, this case is classified as epilepsy. Based upon the further detail of tonic-clonic seizure, G40.60 is assigned.

Example: A 5-year-old child is admitted following a seizure not associated with any fever. The physician documents that the child has had at least two previous seizures and records the final diagnosis as “Seizure Disorder.”

Code	DAD	NACRS	Code title
G40.90	(M)	MP	Epilepsy, unspecified, not stated as intractable

Rationale: A final diagnosis of seizure disorder with a history of previous seizures is classified as epilepsy. R56.80 *Seizure disorder, so described* is not assigned because there is documentation of previous seizures.

Example: A 4-year-old child is admitted following a febrile convulsion. The physician documents that he has had a previous febrile convulsion. Final diagnosis is recorded as “Febrile Convulsion.”

Code	DAD	NACRS	Code title
R56.09	(M)	MP	Febrile convulsions, unspecified

Rationale: The correct code is found by following the alphabetical index lookup “Convulsions, febrile.”

Example: This 57-year-old woman has a grand mal seizure in a shopping mall. She is taken to the hospital by ambulance. History and physical reveals that she has no previous history of seizures. Final diagnosis is recorded as grand mal seizure.

Code	NACRS	Code title
R56.88	MP	Other and unspecified convulsions

Rationale: An isolated seizure, even when described using terminology such as “grand mal,” “tonic-clonic” or “petit mal,” is assigned to R56.88. The category G40 *Epilepsy* excludes an isolated (first) seizure.

Example: The patient is a known alcoholic. He was enrolled in an alcohol rehab program but quit. He went back to drinking heavily. His wife calls 911 when he begins convulsing in the afternoon after having consumed several drinks. The emergency physician notes that this patient has a history of alcoholic seizures, with multiple emergency visits in the past. The emergency department record documents “Alcohol poisoning and seizures.” The patient is admitted to the intensive care unit.

Code	NACRS	Code title
T51.0	MP	Toxic effect of ethanol
G40.50	OP	Special epileptic syndromes, not stated as intractable
X45	OP	Accidental poisoning by and exposure to alcohol
U98.9	OP	Unspecified place of occurrence

Rationale: Recurrent seizures induced by alcohol, drugs, stress, sleep deprivation or photosensitivity are classified as epilepsy. There is no documentation of withdrawal to classify this as a withdrawal seizure. To assign the correct code, use the alphabetical index lookup “Epilepsy, related to, alcohol.”

Example: A 17-year-old male is brought to the emergency department following a seizure. He consumed an excessive amount of alcoholic beverages throughout the evening. History reveals no previous seizures. The diagnosis is recorded as seizure due to alcohol poisoning.

Code	NACRS	Code title
T51.0	MP	Toxic effect of ethanol
R56.88	OP	Other and unspecified convulsions
X45	OP	Accidental poisoning by and exposure to alcohol
U98.9	OP	Unspecified place of occurrence

Rationale: The seizure is an isolated event and assigned to R56.88.

Example: A 3-day-old female is brought to the emergency department of Children's Hospital because she had a seizure. Tests are done, and the baby is treated with anticonvulsive medication. She is released, and her parents are to take her to her pediatrician for monitoring and follow-up.

Code	NACRS	Code title
P90	MP	Convulsions of newborn

Rationale: The correct code is found by using the alphabetical index lookup "Seizure, newborn."

Example: A patient known to have epilepsy is admitted through the emergency department. The admitting diagnosis is "status epilepticus."

Code	Code title
G41.9	Status epilepticus, unspecified
G40.90	Epilepsy, unspecified, not stated as intractable

Rationale: The "**Use additional code**" instruction at category G41 *Status epilepticus* directs to assign a code to identify any underlying convulsions, seizures or epileptic syndromes. Diagnosis typing definitions must be applied to individual cases. No sequencing rules apply.

Neurological Deficits Following a Stroke

In effect 2002, amended 2006, 2008

DAD-only directive statements

Code as comorbid conditions all neurological deficits documented by the physician, such as paralysis, dysphagia, aphasia, urinary incontinence and fecal incontinence, when they affect the management and treatment of the patient during the acute care phase of the stroke.

Criteria

R13.– *Dysphagia* must be assigned a diagnosis type (1) when the patient requires nasogastric tube/ enteral feeding or still requires treatment more than seven days after the stroke occurred.

R15 *Fecal incontinence* must be assigned a diagnosis type (1) when it is still present at discharge or persists for at least seven days.

R32 *Unspecified urinary incontinence* must be assigned as a diagnosis type (1) when it is still present at discharge or persists for at least seven days.

For all other neurological deficits following a stroke, apply diagnosis types according to the diagnosis typing definitions.

See also the coding standards *Strokes: Hemorrhagic, Ischemic and Unspecified* and *Sequelae*.

Example: On admission, a patient experiences left-sided weakness. He is diagnosed as having suffered an acute cerebral infarction, and tissue plasminogen activator (TPA) is administered. On admission, he also has difficulty swallowing. On day 8 following the stroke, the patient is transferred to a facility closer to home for continued stroke care with a nasogastric tube in place.

Code	DAD	Code title
I63.9	(M)	Cerebral infarction, unspecified
R13.8	(1)	Other and unspecified dysphagia

Hemiplegia

DAD and NACRS directive statements

Assign a code from category G81 *Hemiplegia* as a most responsible diagnosis/main problem only when it is reported without further specification or it is stated to be old or long-standing but of unspecified cause.[1]

Assign a code from category G81 *Hemiplegia* as an additional code to identify types of hemiplegia resulting from any cause.

Example: A patient is seen in day surgery for excision of multiple skin lesions of basal cell carcinoma — lower leg. Examination reveals residual hemiparesis from a previous stroke. No specific treatment is directed to the residual hemiparesis in this episode of care.

Code	DAD	NACRS	Code title
C44.7	(M)	MP	Malignant neoplasm skin of lower limb, including hip
G81.99	(3)	OP	Hemiplegia of unspecified type of unspecified [unilateral] side (optional)
I69.4	(3)	OP	Sequelae of stroke, not specified as haemorrhage or infarction (optional)

Example: A right-handed patient has suffered a CVA due to an embolism of a cerebral artery. He has left-sided hemiplegia, which is a focus of this treatment, and he receives physiotherapy.

Code	DAD	Code title
I63.4	(M)	Cerebral infarction due to embolism of cerebral arteries
G81.91	(1)	Hemiplegia of unspecified type of non-dominant side

Neurologically Determined Death

For description of change, see Appendix C.

In effect 2018

Neurological determination of death is a clear and standardized process for determining the death of an individual based on neurologic or brain-based criteria. Neurological determination of death is one of the requirements for deceased organ donation.[2]

"Brain death" is the most universal term used to describe neurological determination of death and is based on the concept of complete and irreversible loss of brain function. Common terms used in clinical practice to describe neurologically determined death include "brain death," "brain dead," "neurological death," "neurologically deceased" and "death by neurological criteria." Brain death is defined as "irreversible loss of the capacity for consciousness combined with the irreversible loss of all brain stem functions, including the capacity to breathe."[3] A patient who is brain dead will not have the capacity to breathe, which means he or she will be mechanically ventilated.

Brain death is determined according to accepted medical practice and is confirmed by a health care provider.[2] This would be a physician who is fully authorized to pronounce death in accordance with an internal/facility-written policy and procedure on pronouncement of death as a delegated medical function. This coding standard addresses how to classify documented cases of neurologically determined death.

DAD and NACRS directive statement

Assign G93.81 *Neurologically determined death* as a diagnosis type (3)/other problem, mandatory, when there is documentation of brain death by a designated physician.

Note

Documentation of brain death will often include the outcome of neurological assessments that are completed to see if the patient meets the clinical criteria for neurological death. Some of these assessments may test for the absence of gag and cough reflexes and the absence of respiratory effort based on an apnea test. Assessments may also test the absence of bilateral motor responses (excluding spinal reflexes), corneal responses and pupillary responses to light.[4] These assessments in and of themselves do not qualify for the case to be classified to G93.81. There must be documentation of neurologically determined death (brain death).

Example: A patient attempts suicide by hanging himself. He is found at home. He is ultimately resuscitated from this and admitted to the intensive care unit on life support. Despite aggressive resuscitation, he proceeds to brain death. He is determined neurologically dead and organ support is withdrawn. Brain death is determined and is documented by the physician.

Code	DAD	Code title
T71	(M)	Asphyxiation
X70	(9)	Intentional self-harm by hanging, strangulation and suffocation
U98.0	(9)	Place of occurrence, home
G93.81	(3)	Neurologically determined death

Rationale: This patient was determined neurologically dead and brain death is documented; therefore, G93.81 is assigned, mandatory, as a diagnosis type (3).

Example: A patient presents after collapsing while exercising. The CT scan reveals a subarachnoid hemorrhage due to a ruptured aneurysm of the basilar artery. While the patient is in the intensive care unit, it is determined that he is not a surgical candidate and he progresses to meet the criteria for the neurological determination of death. It is documented by the physician that the patient is brain dead.

Code	DAD	Code title
I60.4	(M)	Subarachnoid haemorrhage from basilar artery
G93.81	(3)	Neurologically determined death

Rationale: This patient was determined neurologically dead and this is documented; therefore, G93.81 is assigned, mandatory, as a diagnosis type (3).

Example: A patient presents with peritonitis and disseminated intravascular coagulation (DIC). A discussion is held with the family regarding her small chance of survival, and withdrawal of life support is recommended. The patient's family agrees with the physician's recommendation. The patient is extubated, and vasopressors and hemodynamic support are discontinued. The patient dies shortly thereafter.

Code	DAD	Code title
K65.9	(M)	Peritonitis, unspecified
D65	(1)	Disseminated intravascular coagulation [defibrination syndrome]

Rationale: There is no documentation of brain death; therefore, G93.81 is not assigned. G93.81 is not meant as a flag for all deaths.

Example: A patient presents with a devastating ischemic stroke in the left middle cerebral artery territory and continues to have a poor neurological exam, including absent pupillary reflexes and absent corneal reflexes. The family agrees that CPR should not be provided. She develops worsening hypotension and is pronounced dead by the attending physician.

Code	DAD	Code title
I63.5	(M)	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries

Rationale: There is no documentation of brain death; therefore, G93.81 is not assigned. G93.81 is not meant as a flag for all deaths.

Example: A patient is brought to the emergency department by ambulance after collapsing at home. Paramedics performed CPR en route to the hospital. In the emergency department, an endotracheal tube is inserted and CPR is continued and is ultimately successful. At this point it is determined that due to the long downtime, the patient has suffered severe anoxic brain injury due to cardiac arrest. Brain death is determined and documented by the physician.

Code	NACRS	Code title
I46.0	MP	Cardiac arrest with successful resuscitation
G93.1	OP	Anoxic brain damage, not elsewhere classified
G93.81	OP	Neurologically determined death

Rationale: There is documentation on the emergency department record of brain death. Therefore, G93.81 is assigned, mandatory, as an other problem (OP).

References

1. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems (ICD-10), Tenth Revision, Volume 1*. 2010

2. Canadian Council for Donation and Transplantation. *Severe Brain Injury to Neurological Determination of Death: A Canadian Forum*. October 2003.

3. Shemie SD, Doig C, Dickens B, Byrne P, Wheelock B, Rocker G, Baker A, Seland TP, Guest C, Cass D, Jefferson R, Young K, Teitelbaum J; Pediatric Reference Group; Neonatal Reference Group. Severe brain injury to neurological determination of death: Canadian Forum recommendations. *Canadian Medical Association Journal*. March 2006.

4. Trillium Gift of Life Network. *Donation Resource Manual*. March 2010.

Chapter IX — Diseases of the circulatory system

Hypertension and Associated Conditions

In effect 2001, amended 2002, 2005, 2006, 2007, 2009

Hypertensive heart and hypertensive renal disease

DAD and NACRS directive statements

Assign I11 *Hypertensive heart disease,* I12 *Hypertensive renal disease* or I13 *Hypertensive heart and renal disease* **only** when the physician specifically documents a cause/effect relationship between the cardiac or renal condition and the hypertension. A causal relationship must not be assumed.

Assign an additional code to identify any associated conditions that are due to hypertension (such as congestive heart failure or chronic renal failure). Sequence I11, I12 or I13 first.

Note
Ensure that codes from categories I10–I13 are never recorded as a post-admit comorbidity — diagnosis type (2) — on an inpatient abstract and are never used together on one abstract, as they are mutually exclusive.

Example: An obese patient with long-standing hypertension complains of exertional and non-exertional dyspnea, ankle edema and weight gain. A transthoracic echocardiography (TTE) is performed. He is admitted in congestive heart failure.

Diagnosis: Hypertensive heart disease
Congestive heart failure

Code	Code title
I11	Hypertensive heart disease
I50.0	Congestive heart failure

Rationale: When heart failure is caused by essential hypertension, physicians commonly use terminology such as “due to hypertension” or “hypertensive” to link the two. When diagnostic statements on the chart mention both conditions independently, a causal relationship must not be assumed. Since “hypertensive” is used in this example, a causal relationship is indicated.

Example: Chronic renal failure and hypertension

Code	Code title
N18.9	Chronic kidney disease, unspecified
I10.0	Benign hypertension

Rationale: I12 *Hypertensive renal disease* is not assigned because a causal relationship cannot be presumed.

Example: **Diagnosis:** Type 2 diabetes mellitus with chronic renal failure

Hypertension

Code	Code title
E11.23†	Type 2 diabetes mellitus with established or advanced kidney disease
N08.39*	Unspecified glomerular disorders in diabetes mellitus
I10.0	Benign hypertension

Rationale: I12 *Hypertensive renal disease* is not assigned because a causal relationship cannot be assumed between the hypertension and kidney disease. Classify each condition separately.

Example: A patient is admitted for treatment of congestive heart failure and chronic renal failure documented as secondary to long-standing pre-existing hypertension. Treatment consists of aggressive diuresis and dialysis.

Code	DAD	Code title
I13	(M)	Hypertensive heart and renal disease
I50.0	(1)	Congestive heart failure
N18.9	(1)	Chronic kidney disease, unspecified

Rationale: A cause-and-effect relationship has been documented between heart failure and renal failure due to hypertension. Diagnosis type (1) is assigned with I50.0 and N18.9 because treatment was directed toward the congestive heart failure and kidney failure.

Hypertension with cerebrovascular disease

DAD and NACRS directive statement

Sequence the code for cerebrovascular disease first when it is present with hypertension

Example: Occlusion of basilar artery with hypertension

Code	Code title
I65.1	Occlusion and stenosis of basilar artery
I10.0	Benign hypertension

Acute Coronary Syndrome (ACS)

In effect 2001, amended 2003, 2006, 2007, 2008, 2009, 2012, 2015

For clinical information, see also Acute coronary syndrome (ACS) and related interventions in Appendix A.

DAD and NACRS directive statement

When any code from category I21 *Acute myocardial infarction* or I22 *Subsequent myocardial infarction* or the code I24.0 *Coronary thrombosis not resulting in myocardial infarction* is assigned, assign an additional code from subcategory R94.3– *Abnormal results of cardiovascular function studies*, mandatory, as diagnosis type (3)/other problem.

Note

For inpatient and day surgery abstracts, R94.30 and R94.31 are reserved for the purpose of adding ST segment elevation myocardial infarction (STEMI) and non–ST segment elevation myocardial infarction (NSTEMI) information to acute myocardial infarction (AMI) or aborted myocardial infarction. These codes are to be used only when a code from category I21 *Acute myocardial infarction* or I22 *Subsequent myocardial infarction* or the code I24.0 *Coronary thrombosis not resulting in myocardial infarction* is assigned. R94.30 and R94.31 are not used with any other diagnosis.

For emergency department encounters, R94.30 and R94.31 may be used without a code from category I21 or I22 or without code I24.0; however, they must be used only for the purpose of indicating a discharge diagnosis of STEMI or NSTEMI.

Note

Do not refer to the ECG or laboratory reports for assignment of R94.3–. Use the physician statement of the ECG findings. If no such statement is found, use R94.38 *Other and unspecified abnormal results of cardiovascular function studies*.

Example: A 74-year-old female is seen in the emergency department and subsequently admitted with chest discomfort, pain radiating down both arms and a general sense of feeling unwell. Symptoms had been present for about three days before the patient came to hospital. Upon admission to hospital, the physician notes that the patient's ECG is normal but her troponin and CK-MB are elevated.

Final diagnosis: Non-Q-wave myocardial infarction

Code	DAD	Code title
I21.4	(M)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]

Rationale: R94.31 is assigned because the physician documented the diagnosis as a myocardial infarction (MI) **and** there was documentation indicating that there was no ST segment elevation (i.e., the ECG was normal) but there were positive biomarkers.

Example: The patient presents with episodes of syncope. An admission ECG documents ST depression in leads V4 to V6 with non-specific ST changes in the high lateral leads. His biomarkers are positive.

Impression: NSTEMI

Plan: NSTEMI management

His first troponin is 0.18. The second is 0.16, and the CK-MB is negative. This points to a noncardiac cause of troponin leak. He has a computerized tomography (CT) pulmonary angiogram study, which confirms pulmonary embolism. He is started on heparin and warfarin.

Final diagnosis: Pulmonary embolism

Code	DAD	Code title
I26.9	(M)	Pulmonary embolism without mention of acute cor pulmonale

Rationale: As the final diagnosis is not an MI, R94.3– is not assigned.

The diagnosis of STEMI or NSTEMI clinically represents the early picture of ACS on presentation. The evolution or outcome of the condition may not be determined until after further investigation or treatment.

In the emergency department setting, a diagnosis written as STEMI, for example, is classified to R94.30 alone to reflect that the outcome is yet to be determined. However, when a physician records the diagnosis in the emergency department in terms such as “acute MI,” it is interpreted to mean that the outcome has been determined, and the appropriate code from I21 is assigned.

In the inpatient setting, the evolution or outcome of the condition is expected to be determined by the time of discharge. The usual evolution of STEMI is Q-wave MI. Therefore, an MI documented as STEMI is classified to the appropriate code from I21.0–I21.3 unless there is documentation to support that the final outcome is a non-Q-wave MI or an averted MI. The usual evolution of NSTEMI is non-Q-wave MI. Therefore, an MI documented as NSTEMI is classified to I21.4 unless there is documentation to support that the final outcome is a Q-wave MI.

NACRS-only directive statements

N When the emergency department discharge diagnosis is documented as ST segment elevation myocardial infarction (STEMI) or non–ST segment elevation myocardial infarction (NSTEMI), assign the appropriate code from subcategory R94.3– *Abnormal results of cardiovascular function studies* as the main problem.

N When the emergency department discharge diagnosis is documented in terms of an acute myocardial infarction, assign the appropriate code from category I21 *Acute myocardial infarction* as the main problem.

N **Example:** This patient presents to the emergency department with crushing chest pain and associated jaw pain. The ECG initially shows depression in anterior and inferior leads. Subsequent ECGs show that the patient developed right bundle branch block and ST depression in anterolateral and inferior leads. The patient is transferred to the coronary care unit (CCU) with a diagnosis of NSTEMI.

Code	NACRS	Code title
R94.31	MP	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]

Rationale: In the emergency department, the working diagnosis of NSTEMI represents the greatest degree of specificity known at the time of transfer to the CCU.

N **Example:** The patient is received in the emergency department from Hospital A by air ambulance with a diagnosis of STEMI. On examination, the patient is ashen and there are no peripheral pulses. The patient is sent directly to the catheterization lab with an emergency department discharge diagnosis of AMI.

Code	NACRS	Code title
I21.9	MP	Acute myocardial infarction, unspecified
R94.30	OP	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: Always assign codes to the greatest degree of specificity documented. The documentation states that this patient was brought to hospital with a diagnosis of STEMI, so R94.30 is assigned. I21.9 is selected as the code for the main problem because the final outcome or type of MI has not yet been established.

DAD-only directive statement

Classify a myocardial infarction **with** ST segment elevation to subcategory I21.0–I21.3 *Acute transmural myocardial infarction* by site **unless** there is documentation to support that the final outcome was a non-Q-wave myocardial infarction or aborted myocardial infarction.

Example: A 61-year-old man is transferred in from another hospital with an acute inferior wall STEMI, having failed thrombolytic therapy. The physician notes that ECGs done on admission at the referring hospital showed ST segment elevation. The patient has no previous history of coronary artery disease (CAD). Percutaneous coronary intervention (PCI) is performed on day 1 to the right coronary artery.

Discharge diagnosis: ST segment elevation MI, inferior wall

Code	DAD	Code title
I21.1	(M)	Acute transmural myocardial infarction of inferior wall
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: I21.1 is assigned because the final diagnosis is documented as ST segment elevation MI, inferior wall. There is no documentation to support that the final outcome is a non-Q-wave MI or that the MI is aborted. R94.30 is assigned to denote that the patient presented with ST segment elevation.

Example: A 54-year-old male presents with chest pain. The physician notes that his admitting ECG shows ST segment elevation. He is admitted to the CCU with thrombolytic therapy initiated immediately. His ECG appears normal following treatment, but troponin levels are documented as elevated. Final diagnosis is documented as non-Q-wave MI.

Code	DAD	Code title
I21.4	(M)	Acute subendocardial myocardial infarction
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: Although this case presented as STEMI, thrombolytic therapy was successful in preventing this MI from evolving into a Q-wave MI; therefore, a code from subcategory I21.0–I21.3 is not assigned. R94.30 is assigned to denote that the patient presented with ST segment elevations.

DAD-only directive statement

Classify a myocardial infarction **presenting** with ST segment elevation but aborted or averted by successful treatment to I24.0 *Coronary thrombosis not resulting in myocardial infarction*.

Example: A 57-year-old male with known CAD presents with chest pain. The physician notes that his admitting ECG shows ST segment elevation. A primary PCI is performed. Final diagnosis is documented as aborted MI.

Code	DAD	Code title
I24.0	(M)	Coronary thrombosis not resulting in myocardial infarction
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]
I25.19	(1)	Atherosclerotic heart disease of unspecified type of vessel, native or graft

DAD-only directive statement

Classify a myocardial infarction **without** ST segment elevation to I21.4 *Acute subendocardial myocardial infarction* **unless** there is documentation to support that the final outcome was a Q-wave myocardial infarction.

Example: A 45-year-old male presents with a clinical picture and subsequent ECG and enzyme documentation of a small ACS event. NSTEMI is documented. Subsequent coronary angiogram indicates triple-vessel CAD. Surgical consultation is obtained, and a bypass procedure will be scheduled. Discharge medications include aspirin, Plavix and ramipril.

Final diagnosis: Non–ST segment elevation myocardial infarction

Code	DAD	Code title
I21.4	(M)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]
I25.10	(1)	Atherosclerotic heart disease of native coronary artery

Rationale: I21.4 is assigned because the final diagnosis is documented as non–ST segment elevation myocardial infarction. There is no documentation to support that the final outcome is a Q-wave MI. R94.31 is assigned to denote that the patient presented with non–ST segment elevation.

DAD-only directive statement

Whenever a myocardial infarction is within the acute phase (i.e., within 28 days), assign a comorbid diagnosis type (M), (1), (2), (W), (X) or (Y) as appropriate for the case.

DAD and NACRS directive statements

When a patient presents with any condition in the spectrum of acute coronary syndrome (ACS) and undergoes emergent or urgent percutaneous coronary intervention (PCI) during the same admission, assign a code for the ACS diagnosis as the MRDx/main problem. Assign an additional code for any documented underlying coronary artery disease as a diagnosis type (1)/other problem. This applies to in-hospital and out-of-hospital PCIs and to both the transferring and receiving hospitals.

When a patient who has a myocardial infarction that is still in the acute phase presents for elective percutaneous coronary intervention, assign a code for the underlying coronary artery disease as the MRDx/main problem and assign an additional code for the MI as a significant diagnosis type/other problem.

Exception

When a patient is readmitted with a diagnosis classifiable to category I22 *Subsequent myocardial infarction*, a code from category I21 *Acute myocardial infarction* may be assigned as an optional diagnosis type (3)/other problem to indicate the site of the original MI.

Example: The patient choked on some custard earlier this week. She then went on to develop a cough and a fever. Chest X-ray confirms that she has aspiration pneumonia. The physician notes in the discharge summary that she had an AMI two weeks ago.

Final diagnosis: Aspiration pneumonia

Code	DAD	Code title
J69.0	(M)	Pneumonitis due to food and vomit
W79	(9)	Inhalation and ingestion of food causing obstruction of respiratory tract
U98.9	(9)	Unspecified place of occurrence
I21.9	(1)	Acute myocardial infarction, unspecified
R94.38	(3)	Other and unspecified abnormal results of cardiovascular function studies

Rationale: The MI was still within the acute phase, so it was assigned a comorbid diagnosis type. Since a code from I21 was assigned, R94.38 *Other and unspecified abnormal results of cardiovascular function studies* is mandatory.

Example: The patient is received in transfer from Hospital A with a diagnosis of STEMI, having failed thrombolytic therapy. He had been treated with tenecteplase (TNK), but chest pain continued and he was referred to Hospital B for coronary angiography and possible intervention.

Final diagnosis: Acute inferior wall ST segment elevation myocardial infarction with failed thrombolytic therapy. Successful rescue PCI.

Code	DAD	Code title
I21.1	(M)	Acute transmural myocardial infarction of inferior wall
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: As this is not an elective PCI for Hospital B, I21.1 is assigned as the MRDx. In the acute phase of an MI, a PCI is most often a life-saving event. The focus of care is the MI and, secondarily, the underlying CAD. Had there been documentation of underlying CAD, it would have been a diagnosis type (1).

Example: A 52-year-old male presents with chest pain and shortness of breath. The physician documents possible ACS. The ECG is documented as showing no significant ischemia and no acute infarction. Troponin levels are documented as negative for infarction.

Final diagnosis on angiogram report: Non–ST segment elevation acute coronary syndrome (non-STEACS) with diffuse coronary artery disease.

Code	DAD	Code title
I20.0	(M)	Unstable angina
I25.19	(1)	Atherosclerotic heart disease of unspecified type of vessel, native or graft

Rationale: **Note:** For this example, non-STEACS = unstable angina because of the normal ECG and the negative troponin. R94.3– is not assigned in this case because the MRDx is not from category I21 or I22 and is not code I24.0.

DAD-only directive statements

When a transmural (Q-wave) myocardial infarction is classifiable to more than one code in category I21, assign I21.2 *Acute transmural myocardial infarction of other sites*.

Assign a code from category I22 *Subsequent myocardial infarction* to capture a repeat myocardial infarction within the acute phase (i.e., within 28 days) of the initial infarction or an extension of the initial infarct occurring within the 28-day period. Assign a diagnosis type according to the diagnosis typing definitions.

DAD and NACRS directive statement

When a code from category I22 *Subsequent myocardial infarction* is assigned, assign an additional code from subcategory R94.3– *Abnormal results of cardiovascular function studies*, mandatory, as a diagnosis type (3)/other problem.

See also the coding standard *Diagnosis Typing Definitions for DAD*.

Example: Acute Q-wave MI involving the anterolateral and inferolateral wall. Progress notes state ECGs show ST segment elevation.

Code	DAD	NACRS	Code title
I21.2	(M)	MP	Acute transmural myocardial infarction of other sites
R94.30	(3)	OP	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Example: A 63-year-old woman presents to the hospital by ambulance because of ongoing chest pain since midnight. ECG shows non-specific ST-T wave changes. There are no ST segment elevations. Her cardiac markers are abnormal, with troponin peaking at 1.42. The patient has a known history of CAD and had a previous angioplasty in 2001. She is admitted to the CCU.

Impression: NSTEMI

On her third day in the CCU, the patient starts to have severe chest pain. The physician notes that a stat ECG taken during that time showed that she was having ST segment elevations in 2, 3 and AVF, which did not settle down within 5 to 10 minutes. Therefore, the patient is immediately taken to the cardiac catheterization lab for primary PCI for STEMI. Coronary angiograms show that the patient has a 95% stenosis of the proximal circumflex artery and a 75% stenosis of the distal circumflex artery. She goes on to have primary angioplasty with deployment of two stents to her circumflex artery.

Final diagnosis: Acute myocardial infarction

Code	DAD	Code title
I22.9	(M)	Subsequent myocardial infarction of unspecified site
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]
I21.4	(1)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]
I22.9	(2)	Subsequent myocardial infarction of unspecified site
I25.10	(1)	Atherosclerotic heart disease of native coronary artery

Rationale: Both I21.4 and I22.9 are required. In this case, I22.9 meets the definition of the MRDx. Since the subsequent MI occurred after admission, it is also assigned a diagnosis type (2). An additional code from subcategory R94.3– is mandatory for both I21.4 (i.e., R94.31, to show that the original MI was NSTEMI) and I22.9 (i.e., R94.30 to show that the subsequent MI was STEMI).

Example: The patient is treated and discharged from hospital with an acute Q-wave MI of the inferolateral wall. Two days following discharge, he is readmitted with an AMI of the posterolateral and posteroseptal wall.

Code	DAD	Code title
I22.8	(M)	Subsequent myocardial infarction of other sites
R94.38	(3)	Other and unspecified abnormal results of cardiovascular function studies
I21.1	(3)	Acute transmural myocardial infarction of inferior wall (optional)
R94.38	(3)	Other and unspecified abnormal results of cardiovascular function studies

Rationale: I22.8 is assigned because the previous MI was less than 28 days old. **The fact that the patient had a recent MI is inherent in the code I22.8.** In the case of a readmission for a subsequent MI, it is optional to assign a code from category I21 *Acute myocardial infarction* to indicate the site of the original MI. If I21 is assigned, it is a diagnosis type (3)/other problem, and a code from subcategory R94.3– must also be assigned. In this case, since it is not documented whether the (initial or subsequent) MIs were STEMI or NSTEMI, R94.38 is assigned.

DAD-only directive statement

Assign a code from category I23 *Certain current complications following acute myocardial infarction* for specified complications that occur during the acute phase (i.e., within 28 days) of a myocardial infarction.

These complications usually occur within 2 to 7 days post-AMI. However, this does not preclude the use of these codes when the condition is documented as a current complication following AMI or when the MI is in the acute stage (i.e., within 28 days). When complications occur simultaneously with the infarction, they are included in the AMI code.

Example: The patient is admitted from the emergency department, where she received thrombolytics, with a diagnosis of STEMI. She is admitted directly to the CCU. Based on documented ST segment elevations noted on the ECG, she is diagnosed with an inferior STEMI. Two days later, she suffers post-MI angina.

Diagnosis: Acute myocardial infarction of inferior wall

Post–myocardial infarction angina

Code	DAD	Code title
I21.1	(M)	Acute transmural myocardial infarction of inferior wall
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]
I23.82	(2)	Postmyocardial infarction angina as current complication following acute myocardial infarction

DAD-only directive statement

Assign I25.2 *Old myocardial infarction* (i.e., "history of MI"), optional, as a diagnosis type (3) only when **both** of the following criteria apply:

- The previous myocardial infarction occurred more than 4 weeks (28 days) ago; and
- The patient is not currently receiving observation, evaluation or treatment for the previous myocardial infarction.

Example: The patient is admitted for a hemicolectomy. The physician documents a past history of MI based on ECG investigations. No treatment is directed toward the healed infarct.

Code	DAD	Code title
I25.2	(3)	Old myocardial infarction (optional)

Selection of Status Attribute for Percutaneous Coronary Intervention (PCI)

In effect 2012, amended 2015

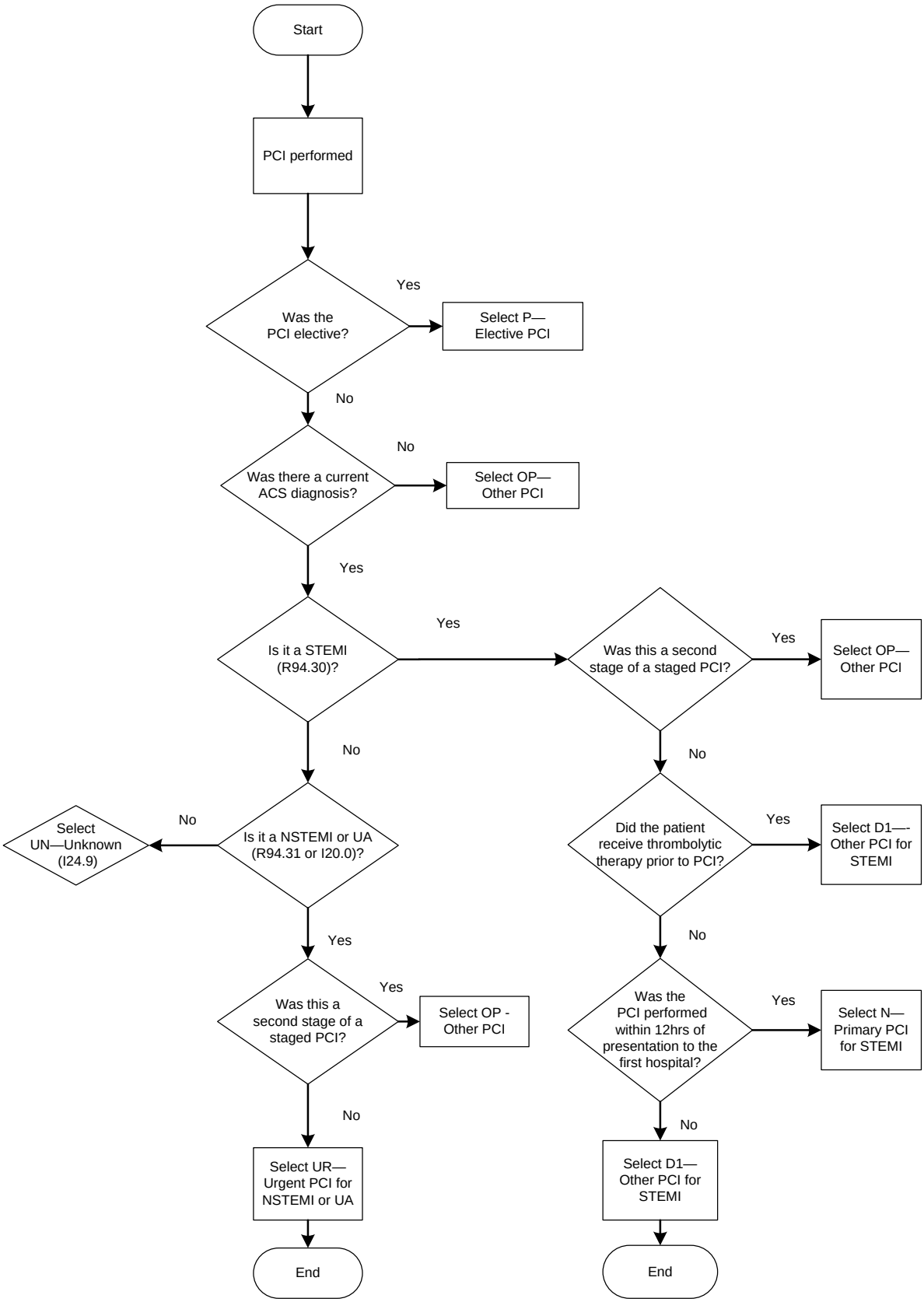
The main purpose of the mandatory status attribute at rubric 1.IJ.50.^^ *Dilation, coronary arteries* is to distinguish primary PCI for STEMI from other PCI.

DAD and NACRS directive statement

When a percutaneous coronary intervention classifiable to rubric 1.IJ.50.^^ *Dilation, coronary arteries* is performed, assign, mandatory, the status attribute (see flowchart below).

Note

Ensure status attribute N — Primary PCI for STEMI or D1 — Other PCI for STEMI is selected only with a diagnosis of STEMI (i.e., R94.30 must be assigned on the abstract).


Start
PCI performed
Was the PCI elective?
Yes
Select P—Elective PCI
No
Was there a current ACS diagnosis?
No
Select OP—Other PCI
Yes
Is it a STEMI (R94.30)?
Yes
Was this a second stage of a staged PCI?
Yes
Select OP—Other PCI
No
No
Is it a NSTEMI or UA (R94.31 or I20.0)?
No
Select UN—Unknown (I24.9)
Did the patient receive thrombolytic therapy prior to PCI?
Yes
Select D1—-Other PCI for STEMI
Yes
No
Was this a second stage of a staged PCI?
Yes
Select OP - Other PCI
Was the PCI performed within 12hrs of presentation to the first hospital?
Yes
Select N—Primary PCI for STEMI
No
No
Select UR—Urgent PCI for NSTEMI or UA
Select D1—Other PCI for STEMI
End
End

Thrombolytic Therapy

For description of change, see Appendix C.

In effect 2006, amended 2007, 2008, 2009, 2015, 2018

Thrombolytics are serine proteases that convert plasminogen to plasmin, which in turn breaks down the fibrinogen and fibrin in a clot to dissolve it. In other words, a thrombolytic is a clot "buster."[1]

Some examples of thrombolytic agents currently used (sometimes referred to as reperfusion therapy) include streptokinase (Streptase®), alteplase or tissue plasminogen activator (TPA) (Activase®), anistreplase (Eminase®), reteplase (Retavase®), urokinase or urokinase-type plasminogen activator (UPA) (Abbokinase®) and tenecteplase (TNKase®). The intent is to achieve a reperfusion by thrombolysis.

DAD and NACRS directive statement

Assign a code for thrombolytic therapy, mandatory, whenever it is administered, regardless of the diagnosis.

NACRS-only directive statement

When thrombolytic therapy is administered in the emergency department or prior to arrival, such as by a paramedic, assign a code for thrombolytic therapy, mandatory, on the National Ambulatory Care Reporting System (NACRS) emergency department abstract.

DAD-only directive statement

Assign a code for thrombolytic therapy, mandatory, on the abstract of the first inpatient encounter of the current, uninterrupted episode of care, even when administered

- Prior to arrival in the emergency department (such as by a paramedic); or
- In the emergency department of the same facility or transfer facility.

DAD and NACRS directive statements

Classify administration of a thrombolytic agent by **intravenous infusion** to 1.ZZ.35.HA-1C *Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using thrombolytic agent*.

Classify administration of a thrombolytic agent by **injection into an artery** or by **intra-arterial infusion** to 1.^^.35.^^ *Pharmacotherapy (local), vessel, by site*.

Note

The intent of assigning a code for thrombolytic therapy is to identify a specific patient population (i.e., those who received thrombolytic therapy), not to capture the number of times thrombolytic therapy is administered.

Note

Apply the Intervention Pre-Admit Flag only when the diagnosis is ST-segment elevation myocardial infarction (STEMI) to indicate when thrombolytic therapy was administered prior to admission during an encounter of the current, uninterrupted episode of care. See Group 11, Field 20 in the *Discharge Abstract Database (DAD) Abstracting Manual* for specific instructions for applying the flag for interventions initiated prior to admission.

Example: The patient is admitted with left hemiparesis, slurred speech and facial drooping. He is diagnosed with a cerebral infarction. Intravenous streptokinase is immediately administered.

1.ZZ.35.HA-1C	Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using thrombolytic agent

Note: The diagnosis is not STEMI and the thrombolytic agent is administered after admission. Therefore, the Intervention Pre-Admit Flag does not apply.

Example: The patient is admitted from the emergency department with STEMI for possible PCI. Two culprit arteries, LAD and Cx, are dilated and stented. Following PCI, intracoronary thrombolytic injection is performed for a clot in the artery. The femoral artery approach is used and coronary angiograms are taken.

1.IJ.50.GQ-OA	Dilation, coronary arteries, percutaneous transluminal approach [e.g. with angioplasty alone] using balloon or cutting balloon dilator with (endovascular) stent insertion

Status: N
Extent: DF

1.IL.35.HA-1C	Pharmacotherapy (local), vessels of heart, percutaneous injection approach, of thrombolytic agent
3.IP.10.VX	Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach

Status: DX
Location: FY

Note: The diagnosis is STEMI. However, the thrombolytic therapy is administered after admission. Therefore, the Intervention Pre-Admit Flag does not apply.

Example: The patient is admitted to Facility A with STEMI. Streptokinase is administered in the emergency department, and the patient is admitted to the intensive care unit (ICU). When a bed is available at Facility B (a tertiary facility), the patient is transferred.

1.ZZ.35.HA-1C	Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using thrombolytic agent

Note: The diagnosis is STEMI and the thrombolytic therapy is administered prior to admission. Therefore the Intervention Pre-Admit Flag does apply.

Rationale: Facility A would capture thrombolytic therapy on both the NACRS emergency abstract (if it is a NACRS reporting facility) and the DAD inpatient abstract. Facility B would not capture the administration of the thrombolytic agent on its inpatient abstract.

Many facilities in Canada do not report to NACRS; therefore, to ensure that thrombolytic therapy given prior to admission as an inpatient is not lost, it must be captured on the abstract of the first inpatient encounter. In this scenario, thrombolytic therapy would be captured on the DAD inpatient abstract of Facility A; therefore, it is not necessary to report it again on the DAD inpatient abstract of Facility B.

Example: The patient is brought to the emergency department at Facility A, where he is diagnosed with STEMI and receives TNK. The patient is immediately transferred to Facility B, where he is admitted directly to the CCU.

1.ZZ.35.HA-1C	Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using thrombolytic agent

Note: The diagnosis is STEMI and the thrombolytic therapy is administered prior to admission. Therefore, the Intervention Pre-Admit Flag does apply.

Rationale: Facility A would capture thrombolytic therapy on the NACRS emergency abstract (if it is a NACRS reporting facility). Facility B **must** capture the administration of the thrombolytic agent on its inpatient abstract.

Many facilities in Canada do not report to NACRS; therefore, to ensure that thrombolytic therapy that is given prior to admission as an inpatient is not lost, it must be captured on the abstract of the first inpatient encounter. In this scenario, the first inpatient DAD abstract would be generated at Facility B; therefore, thrombolytic therapy must be captured on the DAD abstract of Facility B.

Example: The patient is admitted with an arteriovenous (AV) fistula thrombosis. The patient undergoes a fistuloplasty and thrombolysis of the left brachiocephalic arteriovenous fistula; 5 mg of TPA is given via each infusion catheter.

1.KY.80.LA	Repair artery with vein using open approach
1.KV.35.HH-1C	Pharmacotherapy (local), artery NEC, percutaneous infusion approach, using thrombolytic agent

Note: The diagnosis is not STEMI and the thrombolytic agent is administered after admission. Therefore, the Intervention Pre-Admit Flag does not apply.

Rationale: A code for the administration of thrombolytic therapy is mandatory to assign. Intra-arterial infusion of a thrombolytic agent is classified by site.

A patient presenting with NSTEMI may be treated with antithrombotics (such as heparin) to inhibit the coagulation process. Medical management following an MI may include platelet aggregation inhibitors[2] (such as Plavix, ReoPro or Integrilin), ACE inhibitors and acetylsalicylic acid (ASA) to prevent further atherothrombotic events. It is optional to capture pharmacotherapy using antithrombotics or platelet aggregation inhibitors. The Intervention Pre-Admit Flag does not apply to antithrombotics or platelet aggregation inhibitors.

Example: This 81-year-old gentleman is admitted with ACS. He has been having chest pain on and off for several days leading up to his admission. He has ischemic-looking T wave changes laterally in his ECG, associated with an elevation of his troponin T. He is admitted to the ICU with a diagnosis of NSTEMI and treated in the usual fashion with beta blockers, subcutaneous Lovenox, etc.

Note: Lovenox is in a class of antithrombotic agents known as low-molecular-weight heparins.

1.ZZ.35.HA-C1	Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using antithrombotic agent (optional)

Rationale: Since Lovenox is an antithrombotic, assignment of 1.ZZ.35.HA-C1 is optional; it is mandatory to capture only thrombolytic therapy.

Angina

In effect 2001, amended 2002, 2006, 2007

Angina pectoris (I20) is a clinical syndrome caused by myocardial ischemia; it is characterized by precordial discomfort or pressure, typically precipitated by exertion and relieved by rest or sublingual nitroglycerin. Unstable angina is characterized by a progressive increase in anginal symptoms, new onset of rest or nocturnal angina, or onset of prolonged angina, and is part of the spectrum of conditions in ACS.

See also the coding standards *Chronic Ischemic Heart Disease* and *Acute Coronary Syndrome (ACS)*.

DAD-only directive statements

D Classify angina as a significant diagnosis type (M), (1) or (2) only when it is documented as occurring during the current episode of care.

D When a patient is admitted with angina that progresses to a myocardial infarction in the same episode of care, assign a code for the myocardial infarction only.

D When a coronary artery bypass graft (CABG) is performed, select I25.1– *Atherosclerotic heart disease* as the MRDx.

D **Example:** A patient who is known to have coronary atherosclerosis presents to the emergency department with unstable angina. She is subsequently admitted to undergo CABG. The patient has had no previous bypass procedure.

Final diagnosis: CAD with unstable angina

Procedure: CABG (× 3)

Code	DAD	Code title
I25.10	(M)	Atherosclerotic heart disease of native coronary artery
I20.0	(1)	Unstable angina

Rationale: Since the unstable angina occurred during the current episode of care and was present on admission, it is assigned a diagnosis type (1).

DN **Example:** The patient has had a long-standing history of CAD with exertional angina that has been worsening in severity. He is admitted for elective PCI with stent insertion. He experiences no episodes of angina during the current episode of care.

Final diagnosis: CAD with history of angina

Code	DAD	NACRS	Code title
I25.10	(M)	MP	Atherosclerotic heart disease of native coronary artery
I20.88	(3)	OP	Other forms of angina pectoris (optional)

Rationale: Treatment was aimed at the underlying disease. While the patient had angina prior to admission, there was no episode of angina during the current episode of care. A history of angina with no documented episode occurring during the patient's stay in hospital describes a risk factor and may be recorded at the facility's discretion with a diagnosis type (3)/other problem.

Example: A patient with known CAD presents with unstable angina. He is stabilized and transferred to another hospital for coronary angiogram and possible CABG.

Code	DAD	NACRS	Code title
I20.0	(M)	MP	Unstable angina
I25.10	(3)	OP	Atherosclerotic heart disease of native coronary artery

Rationale: Treatment at the first hospital was aimed at the unstable angina only.

Chronic Ischemic Heart Disease

In effect 2001, amended 2002, 2005, 2006, 2007

Chronic ischemic heart disease is also described as arteriosclerotic heart disease, atherosclerotic heart disease (ASHD), CAD or coronary atherosclerosis; it is classified to I25.1– *Atherosclerotic heart disease*. I25.0 *Atherosclerotic cardiovascular disease, so described* is used only for atherosclerotic cardiovascular disease (ASCVD) when it is so documented by the physician. In advanced disease, ASHD is often manifested by angina or an AMI.

See also the coding standards *Angina* and *Acute Coronary Syndrome (ACS)*.

DAD-only directive statement

When the patient is admitted with an acute myocardial infarction and undergoes coronary artery bypass during the same admission, select a code from I25.1– *Atherosclerotic heart disease* as the MRDx and assign diagnosis type (1) to the code for myocardial infarction.

Example: This patient presents to the emergency department on August 17 with crushing chest pain and associated jaw pain. ECG initially shows depression in anterior and inferior leads. Subsequent ECGs show that the patient developed slight bundle branch block and ST depression. Troponin 0.57, CK-MB 5.5. Diagnosed as NSTEMI and admitted to CCU on ASA, Plavix, B-blocker and ACE-I. He is booked for coronary angiography on August 18, which shows severe three-vessel CAD, amenable to bypass. The patient has CABG on August 19. He is discharged on August 27.

Code	DAD	Code title
I25.10	(M)	Atherosclerotic heart disease of native coronary artery
I21.4	(1)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]

Rationale: In this case, the CAD meets the criteria for MRDx.

Related interventions

CABG is classified in CCI to the rubric 1.IJ.76.^^ *Bypass, coronary arteries*. The tissue used for the bypass is captured as the qualifier. The saphenous vein is considered a free graft, whereas the internal mammary artery is a pedicled graft. When both pedicled and free autografts are used, the qualifier for combined grafts is selected.

Harvesting of the vessel used for the bypass (such as the saphenous vein or radial artery) is coded whenever a separate incision is made to obtain it.

See also the coding standard *Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction*.

Note

A mandatory extent attribute is required to record the number of arteries bypassed.

DAD-only directive statement

When cardiopulmonary bypass, endarterectomy or intraoperative cell saver is performed with coronary artery bypass graft, assign an additional CCI code to capture these procedures.

Procedures such as hypothermia, cardioplegia, cardioversion, insertion of pacing wires and chest tube insertions are an inherent part of the bypass surgery and do not need to be coded separately.

Example: Internal mammary artery bypass graft of the left anterior ascending artery and saphenous vein bypass graft of the proximal posterior descending artery. Extracorporeal heart–lung bypass is used, and cardioplegia is achieved. Epicardial pacing wires are placed and a chest tube is inserted.

1.IJ.76.LA-XX-Q	Bypass, coronary arteries, open approach [sternotomy], using combined sources of tissue [e.g. graft/pedicled flap]
Extent: 2	
1.LZ.37.LA-GB	Installation of external appliance, circulatory system NEC, open (chest) approach, cardiopulmonary bypass (intraoperative)
1.KR.58.LA	Procurement, veins of leg NEC, using open approach

Rationale: Codes for extracorporeal bypass are mandatory, but codes for pacing wires and chest tube insertion are not.

Occlusion Following Coronary Artery Bypass Grafts (CABGs)

In effect 2002, amended 2006

The success of CABG varies depending on whether the revascularization was performed using saphenous vein graft or a pedicled artery. Saphenous vein grafts are prone to occlusive disease. By 10 years after surgery, 50% have closed, mainly because of atherosclerosis. In contrast, the internal mammary artery is less affected by atherosclerosis and has a 90% patency rate after 10 years.

Different processes can cause saphenous vein graft occlusion. These processes include the following:

- Thrombosis accounts for graft failure within the first month but continues to occur as long as one year after surgery. Graft thrombosis is classified in ICD-10-CA to T82.8 *Other complications of cardiac and vascular prosthetic devices, implants and grafts*.

- Vein graft atherosclerosis may begin as early as the first year but is fully developed after about five years. Saphenous vein graft atherosclerosis is classified to I25.11 *Atherosclerotic heart disease of autologous vein bypass graft*.[3]

CIHI has sought clinical advice for classification of occluded CABGs when documentation is ambiguous.

DAD and NACRS directive statements

When coronary artery bypass graft occlusion is stated as being due to thrombosis OR when it occurs within one month of surgery, assign T82.8 *Other complications of cardiac and vascular prosthetic devices, implants and grafts*.

When coronary artery bypass graft occlusion is stated as being due to atherosclerosis (or atheroma) OR when it occurs one year or more after surgery, assign a code from I25.1– *Atherosclerotic heart disease*.

When the cause of coronary artery bypass graft occlusion is not stated and occlusion occurs between one month and one year after surgery, seek clarification from the physician.

See also the coding standard *Post-Intervention Conditions*.

Example: The patient is admitted for occlusion of his previous saphenous vein CABG. The graft surgery was done almost six years previously.

Code	DAD	Code title
I25.11	(M)	Atherosclerotic heart disease of autologous vein bypass graft

Example: The patient is readmitted two weeks following CABG due to a thrombus within the newly placed graft.

Code	DAD	Cluster	Code title
T82.8	(M)	A	Other specified complications of cardiac and vascular prosthetic devices, implants and grafts
I24.0	(3)	A	Coronary thrombosis not resulting in myocardial infarction
R94.38	(3)	A	Other and unspecified abnormal results of cardiovascular function studies
Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Cardiac Arrest

In effect 2002, amended 2005, 2006, 2008, 2009, 2012

DAD and NACRS directive statements

Assign I46.0 *Cardiac arrest with successful resuscitation* or I46.9 *Cardiac arrest, unspecified* when cardiac arrest is documented by the physician and a resuscitative intervention is undertaken, regardless of outcome.

Assign, mandatory, codes to identify cardiac resuscitative interventions undertaken.

When cardiac arrest occurs as an expected terminal event in hospital and no resuscitation is attempted, code only the underlying condition.

Assign I46.1 *Sudden cardiac death, so described* only when specifically documented as such by the physician.

Cardiac resuscitative interventions include

- Codes from rubric 1.HZ.30.^^ *Resuscitation, heart NEC*; and
- Codes from rubric 1.HZ.09.^^ *Stimulation, heart NEC*.

Note
Do not confuse a statement of vital signs absent (VSA) with cardiac arrest. Cardiac arrest must be clearly documented as such before assigning I46.0 or I46.9. A diagnosis of cardiac arrest cannot be assumed on the basis of administration of cardiocerebral resuscitation (CCR) or cardiopulmonary resuscitation (CPR) alone.

Note
CCR is chest compressions only, without artificial respiration.

See also the coding standard *Vital Signs Absent (VSA)*.

Example: An 80-year-old woman calls 911. When the paramedics arrive, she is found VSA. At the hospital, the emergency department physician pronounces her dead and documents “sudden cardiac death” on the emergency record.

Code	NACRS	Code title
I46.1	MP	Sudden cardiac death, so described

Example: A patient with AIDS with disseminated aspergillosis is terminally ill. There is a do not resuscitate (DNR) order on the chart. The physician documents that the patient arrested at 11:45 and was subsequently pronounced dead.

Code	DAD	Code title
B24	(M)	Human immunodeficiency virus [HIV] disease
B44.7	(1)	Disseminated aspergillosis

Rationale: As the arrest is an expected terminal event, only the underlying condition is coded.

Example: This 58-year-old female presents to the emergency department with chest pain. The physician notes that the ECG shows ST segment elevation. The patient is admitted to the CCU with a diagnosis of AMI. The patient subsequently goes into cardiac arrest. CPR is initiated but is unsuccessful. The patient is pronounced expired at 17:10.

Code	DAD	Code title
I21.3	(M)	Acute transmural myocardial infarction of unspecified site
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]
I46.9	(2)	Cardiac arrest, unspecified

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

1.GZ.31.CB-EP Ventilation, respiratory system NEC, non-invasive approach manual hand assisted (e.g. ambu bag) (optional)

Extent: 0

Rationale: Cardiac arrest was documented and a cardiac resuscitation intervention was undertaken; therefore, it is mandatory to assign a code for the cardiac arrest, regardless of the outcome. It is also mandatory to assign a code for the cardiac resuscitation intervention. **Note:** It is optional to assign a code for **non-invasive ventilation** in acute inpatient care.

Example: A 40-year-old man presents to the hospital with chest pain and has a documented cardiac arrest in the emergency department. An endotracheal tube is inserted, and CPR is initiated and is successful. The patient reverts to normal sinus rhythm.

Code	NACRS	Code title
I46.0	MP	Cardiac arrest with successful resuscitation

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

1.GZ.31.CA-EP Ventilation, respiratory system NEC, using invasive per orifice approach by (endotracheal) intubation manual hand assisted (e.g. ambu bag)

Extent: CN

Rationale: Cardiac arrest was documented and a cardiac resuscitation intervention was undertaken; therefore, it is mandatory to assign a code for the cardiac arrest, regardless of the outcome. It is also mandatory to assign codes for the cardiac resuscitation and invasive ventilation.

Example: A 52-year-old lady who was admitted with pneumonia has a cardiac arrest after admission. Code blue is called. CPR is started and the defibrillator is used. Resuscitation efforts are subsequently stopped and the patient is declared dead at 21:00.

Code	DAD	Code title
J18.9	(M)	Pneumonia, unspecified
I46.9	(2)	Cardiac arrest, unspecified

1.HZ.09.JA-FS Stimulation, heart NEC, external approach, using electrode converter/defibrillator

Rationale: Cardiac arrest was documented and a cardiac resuscitation intervention was undertaken; therefore, it is mandatory to assign a code for the cardiac arrest, regardless of the outcome. It is also mandatory to assign a code for the cardiac resuscitation intervention.

Example: A 55-year-old gentleman collapses at home while shoveling snow in his driveway. His wife calls the ambulance, and the paramedics find the patient pulseless. CPR is initiated and continued en route to the closest emergency department. The patient is immediately taken to the trauma room with paramedics still performing CPR. The physician examines the patient and pronounces him deceased.

Final diagnosis: Cardiac arrest.

Code	NACRS	Code title
I46.9	MP	Cardiac arrest, unspecified

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

1.GZ.31.CB-EP Ventilation, respiratory system NEC, non-invasive approach manual hand assisted (e.g. ambu bag)

Extent: 0

Rationale: Cardiac arrest was documented and a cardiac resuscitation intervention was undertaken; therefore, it is mandatory to assign a code for the cardiac arrest, regardless of the outcome. It is also mandatory to assign a code for the cardiac resuscitation intervention. **Note:** For ambulatory care, it is mandatory to assign a code from 1.GZ.31.^^ *Ventilation, respiratory system NEC*, including non-invasive ventilation. See also the coding standard *Selection of Interventions to Code for Ambulatory Care*.

Example: A 65-year-old male is brought to the emergency department by ambulance. Paramedics performed CCR, which was stopped shortly after arrival. The emergency department physician pronounces the death and documents the diagnosis as VSA.

Note: CCR is chest compressions only, without artificial respiration.

Code	NACRS	Code title
R99	MP	Other ill-defined and unspecified causes of mortality

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

Rationale: Cardiac arrest cannot be assumed on the basis of CCR. It is mandatory to assign a code for the resuscitation intervention.

Strokes: Hemorrhagic, Ischemic and Unspecified

For description of change, see Appendix C.

In effect 2001, amended 2002, 2003, 2005, 2006, 2008, 2015, 2018

This standard addresses the classification of a stroke in the context of

- The initial episode of care in which an acute/current stroke is diagnosed; and
- An admission solely for rehabilitation immediately following an acute/current stroke.

From a classification perspective, per the ICD-10-CA alphabetical index lookup, documentation of a stroke (meaning acute/current stroke diagnosis) is classified to one of four categories: I60, I61, I63 or I64. Code assignment depends on whether the cause of the stroke is hemorrhagic, ischemic or unknown.

Stroke (apoplectic) (brain) (paralytic) (CVA) I64

. . .

– hemorrhagic I61.9

– – subarachnoid (see also Hemorrhage, subarachnoid) I60.9

– ischemic (see also Infarction, cerebral) I63.9

It is important to note that some provinces/territories monitor stroke strategy performance by collecting additional data using the Stroke Special Projects in the DAD and NACRS databases. The Stroke Special Projects capture specific information on patients who have been diagnosed with an acute/current stroke as well as other conditions (i.e., transient ischemic attack [TIA], transient retinal artery occlusion, intracranial and intraspinal phlebitis and thrombophlebitis, nonpyogenic thrombosis of intracranial venous system, retinal artery occlusion). These other conditions — though from a classification perspective are not classified as hemorrhagic (I60, I61), ischemic (I63) or unspecified (I64) stroke — are monitored as part of the stroke strategy. Refer to DAD and NACRS Stroke Strategy Performance Improvement Projects (340, 640) and DAD Alpha FIM® Project 740 in Appendix A for a table that lists the ICD-10-CA codes that are included in the completion criteria for DAD and NACRS projects 340, 640 and 740.

Direction related to coding neurological deficits following a stroke and sequelae/late effects of a stroke are found in the coding standards *Neurological Deficits Following a Stroke* and *Sequelae*.

For clinical information, see also Strokes in Appendix A.

Acute/current stroke

DAD and NACRS directive statement

Assign, mandatory, the applicable code from category I60, I61, I63 or I64 for an acute/current stroke diagnosed during the initial episode of care. This includes the emergency department visit, the acute care hospitalization and any subsequent admission to another facility for rehabilitation to continue treating the associated neurological deficits during the current, uninterrupted episode of care.

DAD-only directive statements

When a patient is admitted solely for rehabilitation immediately following an acute/current stroke diagnosis, assign a code from category Z50.– *Care involving use of rehabilitation procedures* as the MRDx.

- Assign an additional code as a diagnosis type (3), mandatory, to identify the specific type of acute/current stroke (i.e., I60, I61, I63, I64).

When there is documentation of a second stroke, re-infarction or re-stroke following admission, assign a code from I60, I61, I63 or I64 as a diagnosis type (2).

Note
The diagnosis type assigned to the current stroke, classifiable to I60, I61, I63 or I64, depends on the circumstances of the episode of care.

Note
When a hemorrhagic or ischemic stroke is described as progressing or evolving, an additional code is not assigned. A stroke may continue to worsen or progress for several hours to a day or two as a steadily enlarging area of brain tissue dies (stroke in evolution).

Note
An acute/current stroke complicating pregnancy is classified per the direction in the coding standard *Complicated Pregnancy Versus Uncomplicated Pregnancy*.

Note
The term "perinatal stroke" collectively refers to a nontraumatic stroke that occurred before birth (fetal or prenatal), during birth or within 28 days after birth. Refer to the coding standard *Perinatal Stroke*.

Note
Documentation of "history of a stroke" is classified to Z86.78 *Personal history of other diseases of the circulatory system* only when there are no longer any neurological deficits present. Assignment of Z86.78 is optional. If assigned, it is diagnosis type (3)/other problem. When neurological deficits are documented in the context of "history of a stroke," follow the direction in the coding standards *Neurological Deficits Following a Stroke* and *Sequelae*.

Note
When any code from I60, I61, I63 or I64 is recorded on an abstract, the code G45.9 *Transient cerebral ischemic attack, unspecified* is typically not recorded on the same abstract unless they occurred as separate events.

Example: A person is admitted through the emergency department with a cerebral infarction.

Code	DAD	NACRS	Code title
I63.9	(M)	MP	Cerebral infarction, unspecified

Example: The same person is now transferred from acute care to rehabilitation to regain activities of daily living (ADLs) and to improve speech. Deficits are dominant-sided hemiplegia and aphasia.

Code	DAD	Code title
Z50.9	(M)	Care involving use of rehabilitation procedure, unspecified
I63.9	(3)	Cerebral infarction, unspecified (for cerebral infarction occurring two weeks ago)
G81.90	(1)	Hemiplegia of unspecified type of dominant side
R47.0	(1)	Dysphasia and aphasia

Rationale: The sole purpose of this admission was for rehabilitation to treat the neurological deficits following a stroke; therefore, Z50.9 is assigned as the MRDx and I63.9 is assigned, mandatory, as diagnosis type (3).

Example: The patient is admitted with a cerebral infarction due to an embolism. She is seen by a cardiologist and found to have atrial fibrillation; anticoagulants are started. She receives intense physiotherapy for left-sided hemiplegia (she is right-handed). On day 10 after admission, she suffers a second stroke due to an embolism of the cerebral arteries.

Code	DAD	Code title
I63.4	(M)	Cerebral infarction due to embolism of cerebral arteries
I48.90	(1)	Atrial fibrillation, unspecified
G81.91	(1)	Hemiplegia of unspecified type of non-dominant side
I63.4	(2)	Cerebral infarction due to embolism of cerebral arteries

Example: The patient presents to the emergency department after being found to have a decreased level of consciousness with decreased movements of her left side. A computed tomography (CT) scan of the head shows a very large right hemispheric ischemic stroke. In the emergency department, a decision is agreed upon with the family that a palliative course of action will be taken. The patient is admitted for palliation. The patient does not regain consciousness and passes away two days later.

Code	DAD	Code title
Z51.5	(M)	Palliative care
I63.9	(3)	Cerebral infarction, unspecified

Rationale: The documentation indicates that the patient is admitted for the sole purpose of receiving palliative care. It is mandatory to assign a code for the palliative condition. In this case, I63.9 meets the definition of a diagnosis type (3). See also the coding standard *Palliative Care*.

Related interventions

Once a stroke is suspected, a CT scan or magnetic resonance imaging (MRI) scan may be performed to distinguish a stroke caused by blood clot from one caused by hemorrhage, a critical distinction that guides therapy.

Emergency treatment of an ischemic stroke from a blood clot is aimed at dissolving the clot using thrombolytic therapy. See also the coding standard *Thrombolytic Therapy*.

Endovascular treatment (EVT) is a relatively new treatment option for acute stroke care. Examples include endovascular clot retrieval (thrombectomy) and endovascular dilation with or without stenting of carotid artery or intracranial vessels.

When the cause of stroke is hemorrhage, an evacuation procedure may be carried out (e.g., 1.AA.52.^^ *Drainage, meninges and dura mater of brain*).

Peripheral Vascular Disease

In effect 2001, amended 2005, 2006, 2012

Peripheral vascular disease (PVD) (or peripheral arterial disease) is a non-specific term. This phrase is used to describe narrowing and occlusion of the peripheral blood vessels and is often used to describe atherosclerotic disease of the peripheral arteries.[4] Common manifestations of advanced/occlusive atherosclerosis of the extremities may be ischemia of the limbs, ulcers and gangrene. Peripheral atherosclerosis is a common complication of diabetes mellitus.

See also the coding standard *Diabetes Mellitus*.

DAD and NACRS directive statement

Classify a diagnostic statement of "peripheral vascular disease" to I70.2– *Atherosclerosis of arteries of extremities* **unless** there is documentation to indicate anything else was intended.

Note

Atherosclerotic gangrene is an inclusion at I70.21 *Atherosclerosis of arteries of extremities with gangrene*.

Example: A 65-year-old patient presents to the hospital electively for arteriography of the lower limbs. He has been experiencing dull cramping pain in his thigh, and he noticed that his symptoms were precipitated by walking and were relieved by rest. He has a history of hypertension and no history of diabetes. The physician documents the diagnosis as "PVD." The arteriogram demonstrates occlusions within the left femoral artery system.

Code	DAD	NACRS	Code title
I70.20	(M)	MP	Atherosclerosis of arteries of extremities without gangrene

Exception

PVD **without** gangrene in a patient with diabetes is classified to E10–E14 with fourth and fifth characters .50 and the asterisk code I79.2* *Peripheral angiopathy in diseases classified elsewhere*.

PVD **with** gangrene in a patient with diabetes is classified to E10–E14 with fourth and fifth characters .51 and the asterisk code I79.2* *Peripheral angiopathy in diseases classified elsewhere*.

Follow the alphabetical index lookup for "Angiopathy, peripheral, diabetic."

Example: A patient with type 2 diabetes is admitted for treatment of PVD. He undergoes iliac artery angioplasty and stenting.

Code	DAD	NACRS	Code title
E11.50†	(M)	MP	Type 2 diabetes mellitus with peripheral angiopathy
I79.2*	(6)	OP	Peripheral angiopathy in diseases classified elsewhere

Related interventions

Percutaneous transluminal angioplasty (PTA) with or without stent insertion is classified at "dilation" by site. **Endarterectomy** is sometimes done locally to improve outflow and is classified at "extraction" by site.

Bypass grafting may also be performed for revascularization of a limb. When an artery is bypassed, it is coded to the anatomical site in which it originated. The terminating site of the graft is captured in the qualifier component of the code.

See also the coding standard *Procurement or Harvesting of Tissue for Closure, Repair or Reconstruction*.

Example: Aorto-femoral bypass graft using saphenous vein — originates in the aorta

1.KA.76.MZ-XX-A	Bypass, abdominal aorta, bypass terminating at lower limb vessels [e.g. iliac, femoral, popliteal, tibial], using autograft [e.g. saphenous vein]
1.KR.58.LA	Procurement, veins of leg NEC, using open approach

Amputation (93) may be performed if attempts at revascularization fail. The intervention is classified to "amputation" when the incision is made through a bone and to "disarticulation" when the incision is made through a joint.

Debridement of bone performed at a previous amputation site is coded to amputation of the same site with status attribute “R” for revision.

Aneurysms

In effect 2001, amended 2006, 2015

An aneurysm is an abnormal local dilatation in the wall of a blood vessel causing an abnormal widening or ballooning of a blood vessel, usually an artery, due to a defect, disease or injury.

Aneurysms may be treated surgically in one of six ways:

1. Resection with graft replacement — Excision, partial (87)
2. Repair (reinforcement of the aneurysm wall) — Repair (80)
3. Repair with graft insertion — Repair (80)
4. Bypass of the ballooning artery — Bypass (76)
5. Filipuncture or wiring — Destruction (59)
6. Clipping and using [detachable] coils — Occlusion (51)

DAD-only directive statement

When an aortic aneurysm is **incised** and a Dacron (or other) tubular or bifurcated graft is inserted into the vessel and then covered with the residual sac of the aneurysm (aneurysmorrhaphy), assign the appropriate CCI code by site indicating “repair with graft insertion.”

Example: The patient is admitted with an abdominal aortic aneurysm. It is repaired by opening up the aneurysmal sac and sewing a prosthetic Dacron graft into position within the aorta. The wall of the aneurysm is then sewn over the graft to protect it.

1.KA.80.LA-XX-N	Repair, abdominal aorta, using open approach with synthetic material [e.g. Teflon felt, Dacron, Nylon, Orlon]

DAD-only directive statement

When an aortic aneurysm is **excised** and the aortic segment is replaced with a tubular or bifurcated Dacron (or other) graft (aneurysmectomy), assign the appropriate CCI code by site indicating “excision partial of the aortic segment with graft replacement.”

Example: The patient comes to hospital for an elective repair of a thoracoabdominal aortic aneurysm. The aneurysm is excised and a synthetic graft is inserted to replace the excised portion of the thoracoabdominal aorta.

1.ID.87.LA-XX-N	Excision partial, aorta NEC, using open approach with synthetic material [e.g. Dacron patch]

DAD-only directive statement

When aneurysms of cerebral and precerebral arteries are treated by clipping or clamping, select the CCI generic intervention “occlusion” (51).

Clips are applied externally to the artery to clamp it. Coils are inserted internally into an artery to occlude it. The mandatory extent attribute applies to the number of **coils** deployed during an occlusion. When occlusion is performed using a technique/device other than coils, select “0.”

Example: A 45-year-old patient is admitted with epistaxis. Radiological studies show an external carotid artery aneurysm. The patient is taken to the operating room for clipping of the aneurysm.

1.JE.51.LA-FF **Extent: 0**	Occlusion, carotid artery, open approach using clips

Central Venous Catheters

In effect 2015

The purpose of this coding standard is to provide direction to assist with determining whether or not a code from rubric 1.IS.53.^^ is assigned when a central venous catheter (CVC) is inserted.

DAD and NACRS directive statement

Assign a code from rubric 1.IS.53.^^ *Implantation of internal device, vena cava (superior and inferior)*, mandatory, when a central venous catheter is inserted for one or more of the following reasons:

- As a stand-alone therapeutic intervention
- Solely for the purpose of administering
  - Bolus (large-volume, given rapidly) fluids;
  - Chemotherapy (pharmacotherapy);
  - Hemodialysis;
  - Plasmapheresis; and/or
  - Total parenteral nutrition (TPN)
- To gain vascular access during a resuscitative intervention

Note

Do **not** assign a code from rubric 1.IS.53.^^ *Implantation of internal device, vena cava (superior and inferior)* when a CVC is inserted as a routine and inherent part of a surgical procedure, such as a coronary artery bypass graft (CABG).

When trying to determine whether or not insertion of a CVC is a routine and inherent part of a surgical procedure, consider the following:

- A CVC that is a routine and inherent part of a surgical procedure is usually inserted after intubation but prior to the beginning of the surgery (review the anesthetic record for details).
- A CVC that is inserted in its own right is usually documented by the physician (listed as an intervention being performed during the operative episode and described within the body of the operative report) with the reason for the insertion (e.g., chemotherapy, dialysis, TPN).

Example: The patient has an eight-hour debulking craniotomy for a right parietal glioblastoma. Following intubation, an internal jugular CVC is passed under sterile technique using ultrasound guidance. Upon completion of the procedure, the patient is transferred to the neurosurgical intensive care unit (NICU) with the CVC in situ. The CVC is removed on post-operative day 2.

No code assigned from rubric 1.IS.53.^^.

Rationale: The CVC is a routine and inherent part of this surgical procedure. Therefore, a code from rubric 1.IS.53.^^ is not assigned.

Example: The patient presents with a non-ST-elevation myocardial infarction (NSTEMI) and is noted to have triple-vessel disease on cardiac catheterization. The patient is taken to the operating room, where she is intubated and the anesthetist places the appropriate intra-operative central venous line. The patient is put on cardiopulmonary bypass, and cardioplegia is given. A five-vessel CABG is done through a midline sternotomy.

No code assigned from rubric 1.IS.53.^^.

Rationale: The CVC is a routine and inherent part of this surgical procedure. Therefore, a code from rubric 1.IS.53.^^ is not assigned.

Example: A patient with breast cancer is admitted for insertion of a peripherally inserted central catheter (PICC) line for administration of chemotherapy. Her oncology clinic appointment for administration of chemotherapy is scheduled for the following week.

1.IS.53.GR-LF	Implantation of internal device, vena cava (superior and inferior), non-tunnelled central venous catheter using percutaneous transluminal venous approach (e.g. peripherally inserted central catheter [PICC])

Location: PI

Rationale: The CVC is **not** a routine and inherent part of a surgical procedure. The PICC line is inserted solely for administration of chemotherapy; therefore, 1.IS.53.GR-LF is assigned, mandatory.

Example: The patient is admitted with multiple trauma, including a head injury and an intra-abdominal hemorrhage, following a motor vehicle crash. The patient is transferred to the surgical intensive care unit (SICU) where a right internal jugular line is inserted. Normal saline and medications are administered via the central line.

1.IS.53.GR-LF	Implantation of internal device, vena cava (superior and inferior), non-tunnelled central venous catheter using percutaneous transluminal venous approach (e.g. peripherally inserted central catheter [PICC])

Location: JU

Rationale: The CVC is **not** a routine and inherent part of a surgical procedure. The internal jugular line is inserted solely for administration of fluids and pharmacotherapy; therefore, 1.IS.53.GR-LF is assigned, mandatory.

Example: The patient is admitted with an acute kidney injury. The nephrologist determines that hemodialysis is required immediately. A Hickman line is placed for hemodialysis.

1.IS.53.HN-LF	Implantation of internal device, vena cava (superior and inferior), tunnelled central venous catheter using percutaneous tunnelling technique (e.g. Hickman, Broviac, Groshong, Leonard)

Location: SC

1.PZ.21.HQ-BR	Dialysis, urinary system NEC, hemodialysis

Rationale: The CVC is **not** a routine and inherent part of a surgical procedure. The Hickman line is inserted solely for hemodialysis; therefore, 1.IS.53.HN-LF is assigned, mandatory.

Example: The patient is admitted after being found unconscious at home. She is admitted with multiple organ failure, altered level of consciousness, hemodynamic instability, coagulopathy and acute renal failure. She has a bradycardic event with pulseless electrical activity. A code is called. She receives cardiopulmonary resuscitation and is intubated and ventilated, and a central venous line is implanted. She receives aggressive fluid resuscitation and inotropic support with recommended doses of epinephrine and vasopressin via the line.

1.GZ.31.CA-ND	Ventilation, respiratory system NEC, invasive per orifice approach by endotracheal intubation, positive pressure (e.g. CPAP, BIPAP)

Extent: CN

1.HZ.30.JN	Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation
1.IS.53.GR-LF	Implantation of internal device, vena cava (superior and inferior), non-tunnelled central venous catheter using percutaneous transluminal venous approach (e.g. peripherally inserted central catheter [PICC])

Location: PI

Rationale: The CVC is **not** a routine and inherent part of a surgical procedure. It is inserted to gain vascular access during the resuscitative intervention; therefore, 1.IS.53.GR-LF is assigned, mandatory.

Example: The patient is admitted for a laparoscopic cholecystectomy that is converted to an open cholecystectomy due to an acutely inflamed gallbladder and dense adhesions. The liver is accidentally fractured, and the patient loses roughly 2 liters of blood. At extubation, the blood pressure drops and the patient arrests. A code blue is called. Cardiopulmonary resuscitation continues for roughly three minutes. He is reintubated and ventilated. The anesthesiologist places a central line. He receives multiple units of blood, fluids, platelets and fresh frozen plasma. He is transferred to the intensive care unit (ICU).

1.OD.89.LA	Excision total, gallbladder, open approach, cholecystectomy alone, without extraction (of calculi)
Status: C	
1.GZ.31.CA-ND	Ventilation, respiratory system NEC, invasive per orifice approach by endotracheal intubation, positive pressure (e.g. CPAP, BIPAP)
Extent: CN	
1.HZ.30.JN	Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation
1.IS.53.GR-LF	Implantation of internal device, vena cava (superior and inferior), non-tunnelled central venous catheter using percutaneous transluminal venous approach (e.g. peripherally inserted central catheter [PICC])
Location: PI	

Rationale: The CVC is **not** a routine and inherent part of this surgical procedure. It is inserted to gain vascular access during the resuscitative intervention; therefore, 1.IS.53.GR-LF is assigned, mandatory.

Example: A patient with neuroblastoma is taken to the operating room for a bone marrow biopsy, an incisional soft tissue biopsy of the palpable mass on his back and insertion of a right internal jugular Port-a-Cath for chemotherapy.

1.IS.53.LA-LF	Implantation of internal device, vena cava (superior and inferior), totally implanted central venous catheter (with injection port) [e.g. Port-a-cath] using open approach
Location: JU	
2.SH.71.LA	Biopsy, soft tissue of the back, using open [incisional] approach
2.WY.71.HA	Biopsy, bone marrow, using percutaneous (needle) approach

Rationale: The CVC is **not** a routine and inherent part of this surgical procedure. It is inserted solely for administration of chemotherapy; therefore, 1.IS.53.LA-LF is assigned, mandatory.

Anticoagulation Therapy: Management and Adverse Effects

In effect 2015

The purpose of this coding standard is to address the classification of the following:

1. Admissions where there is clear physician documentation that a patient's length of stay was extended due to the need for management of anticoagulation therapy; and
2. Adverse effects of anticoagulants in therapeutic use.

Management of anticoagulation therapy

DAD-only directive statement

When there is physician documentation of an extended length of stay due to management of anticoagulation therapy (as identified below), assign Z51.88 *Other specific medical care NEC* as a significant diagnosis type (M), (1), (W), (X) or (Y).

Note

This direction applies to cases with clear physician documentation of an extended length of stay due to management of anticoagulation therapy in the following circumstances only:

- Pre-operative reversal of anticoagulation therapy;
- Initiation of anticoagulation therapy; and
- Reinitiation of anticoagulation therapy

without documentation of adverse effects of anticoagulant therapy in therapeutic use.

Example: The patient is admitted with a fractured hip due to a fall down the stairs at home. She is on long-term warfarin therapy for pre-existing atrial fibrillation. The admission note states that the surgery will not proceed until the effects of the anticoagulants have been reversed and the international normalized ratio (INR) is at the desired level. Due to the risk of severe bleeding during surgery, the physician delays the hip repair to allow time to reverse the effects of the warfarin. Warfarin is stopped and intravenous vitamin K and fresh frozen plasma are used to reverse her INR pre-operatively. The patient's INR levels are monitored until they reach an acceptable level. Surgery proceeds on day 4 of admission.

Code	DAD	Code title
S72.090	(M)	Unspecified fracture of neck of femur, closed
W10	(9)	Fall on and from stairs and steps
U98.0	(9)	Place of occurrence, home
Z51.88	(1)	Other specified medical care NEC

Rationale: There is clear documentation of an extended length of stay due to pre-operative reversal of anticoagulation therapy (management of anticoagulation therapy); therefore, Z51.88 is assigned as a diagnosis type (1). Z92.1 *Personal history of long-term (current) use of anticoagulants* may be assigned, optionally, as diagnosis type (3), based on the facility's data needs.

Example: The patient is admitted for bilateral pulmonary emboli. The patient is not on any anticoagulation therapy prior to admission. The course in hospital is uneventful; however, the patient is kept in hospital for 14 days due to the need to monitor and regulate her INR levels after initiation of anticoagulation therapy.

Code	DAD	Code title
I26.9	(M)	Pulmonary embolism without mention of acute cor pulmonale
Z51.88	(1)	Other specified medical care NEC

Rationale: There is clear documentation of an extended length of stay due to the initiation of anticoagulation therapy (management of anticoagulation therapy); therefore, Z51.88 is assigned as a diagnosis type (1). Z92.1 *Personal history of long-term (current) use of anticoagulants* does not apply.

Example: The patient is admitted for treatment of uncontrolled type 2 diabetes mellitus. The patient was taking warfarin 4 mg p.o. daily due to pre-existing atrial fibrillation; however, she stopped taking it four days prior to admission. Her INR is 4.42 on admission. During her stay in hospital, the patient is restarted on warfarin and monitored closely until the INR becomes stable. The discharge summary states that there were problems controlling her INR, which contributed to the length of stay.

Code	DAD	Code title
E11.64	(M)	Type 2 diabetes mellitus with poor control, so described
Z51.88	(1)	Other specified medical care NEC

Rationale: There is clear documentation of an extended length of stay due to the reinitiation of anticoagulation therapy (management of anticoagulation therapy); therefore, Z51.88 is assigned as a diagnosis type (1). Z92.1 *Personal history of long-term (current) use of anticoagulants* may be assigned, optionally, as diagnosis type (3), based on the facility's data needs.

Example: The patient is admitted for left total knee replacement due to osteoarthritis. He has a history of atrial fibrillation and was on Coumadin. Coumadin was stopped prior to admission, and he was taken to the operating room on the day of admission. Post-operatively, Coumadin was restarted and his INR was therapeutic on discharge. INRs will initially be drawn twice a week and will be followed by his family physician.

Code	DAD	Code title
M17.9	(M)	Gonarthrosis, unspecified

Rationale: Z51.88 is not assigned because there is no physician documentation of an extended length of stay due to management of anticoagulation therapy (reinitiation of anticoagulation therapy). Z92.1 *Personal history of long-term (current) use of anticoagulants* may be assigned, optionally, as diagnosis type (3), based on the facility's data needs.

Adverse effects of anticoagulants in therapeutic use

DAD and NACRS directive statements

When a patient on anticoagulation therapy is diagnosed with a **hemorrhage/bleeding** that is **not documented** as due to any other external cause (e.g., trauma or poisoning), classify the hemorrhage as an adverse effect of anticoagulants in therapeutic use.

When a patient on anticoagulation therapy **is diagnosed** with a condition representing a **thromboembolic event** (e.g., cerebral infarction, pulmonary embolus) that is **clearly documented** as due to (associated with) anticoagulation therapy, classify the thromboembolic event as an adverse effect of anticoagulants in therapeutic use.

When a patient on anticoagulation therapy **is not diagnosed with a hemorrhage/bleeding or thromboembolic event** but there is documentation of interference/impact on the therapeutic effect of the anticoagulation therapy, classify the interference as "coagulopathy" due to adverse effect of anticoagulants in therapeutic use.

- Assign D68.9 *Coagulation defect, unspecified* and Y44.2 *Anticoagulants causing adverse effects in therapeutic use*.

See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Note
An example of physician documentation of interference/impact on the therapeutic effect of the anticoagulation therapy that is classified to D68.9 and Y44.2 is “increased INR,” “supratherapeutic INR,” “decreased INR,” “subtherapeutic INR” or “unstable/abnormal INR” **without** any diagnosis of hemorrhage or thromboembolic event in a patient who is on anticoagulation therapy.

Example: The patient presents with rectal bleeding. He has been on warfarin for atrial fibrillation, which is stopped on the day of admission. He is given vitamin K to reverse the effects of warfarin. The physician documents that his INR dropped to a subtherapeutic level (1.1) and the bleeding gradually stopped. The patient is going to remain off warfarin until he has planned surgery for skin lesions following discharge.

Final diagnosis: Rectal bleeding

Code	DAD	Cluster	Code title
K62.5	(M)	A	Haemorrhage of anus and rectum
Y44.2	(9)	A	Anticoagulants causing adverse effects in therapeutic use

Rationale: The patient is on anticoagulant therapy. The hemorrhage is not documented as due to any other external cause; therefore, it is classified as an adverse effect of anticoagulants in therapeutic use. The reaction/manifestation to the anticoagulants in therapeutic use is the hemorrhage. K62.5 is assigned per the alphabetical index lookup: lead term “Hemorrhage, hemorrhagic,” subterms “due to circulating anticoagulants NEC,” “specified site (see Hemorrhage, by site).”

Example: A patient with a mechanical mitral valve who is on anticoagulation therapy is admitted with a subacute cerebrovascular accident (CVA) (infarct). The physician documents that the CVA is due to subtherapeutic INR. Initially, the INR is difficult to titrate, but with the use of dalteparin bridge a therapeutic level is reached prior to discharge.

Code	DAD	Cluster	Code title
I63.9	(M)	A	Cerebral infarction, unspecified
Y44.2	(9)	A	Anticoagulants causing adverse effects in therapeutic use

Rationale: The patient is on anticoagulation therapy. The cerebral infarction (thromboembolic event) is clearly documented as due to the patient's subtherapeutic INR level. The reaction/manifestation to the anticoagulants in therapeutic use is the cerebral infarction. I63.9 is assigned per the usual alphabetical index lookup: lead term "Infarct, infarction (of)," subterm "cerebral." D68.9 is not assigned because there is a cerebral infarction (thromboembolic event) as a result of the coagulopathy (subtherapeutic INR).

Example: A patient with a history of atrial fibrillation on Coumadin is admitted with pneumonia and is started on Avelox. The physician documents that the patient develops a supratherapeutic INR secondary to drug interaction between Avelox and Coumadin. The antibiotic is changed. The Coumadin is held for three days and then restarted. INR levels are monitored until the patient is ready for discharge.

Code	DAD	Cluster	Code title
J18.9	(M)		Pneumonia, unspecified
D68.9	(2)	A	Coagulation defect, unspecified
Y44.2	(9)	A	Anticoagulants causing adverse effects in therapeutic use
Y41.8	(9)	A	Other specified systemic anti-infectives and antiparasitics causing adverse effects in therapeutic use

Rationale: There is clear documentation of a drug interaction between Coumadin and Avelox. The interaction is documented as having interfered with the therapeutic effect of the Coumadin (developed supratherapeutic INR [without hemorrhage]). The reaction/manifestation to the anticoagulants and antibiotics in therapeutic use is the supratherapeutic INR.
D68.9 is assigned because there is no hemorrhage as a result of the coagulopathy (supratherapeutic INR). Only a code for the coagulopathy is assigned. Search the alphabetical index lookup: lead term "Coagulopathy."

Example: The patient presents to hospital with spontaneous bruising on the skin. The patient is on Coumadin therapy and has also been taking tetracycline to treat a urinary tract infection (UTI) for the past eight days. The discharge diagnosis is "enhanced anticoagulation effect" from an interaction between these two drugs. The patient is advised to stop both drugs, and a new antibiotic is introduced.

Code	DAD	NACRS	Cluster	Code title
R23.3	(M)	MP	A	Spontaneous ecchymoses
Y44.2	(9)	OP	A	Anticoagulants causing adverse effects in therapeutic use
Y40.4	(9)	OP	A	Tetracyclines causing adverse effects in therapeutic use

Rationale: The patient is on anticoagulation therapy. There is clear documentation of a drug reaction between Coumadin and tetracycline. The drug interaction is documented as having interfered with the therapeutic effect of the Coumadin (enhanced therapeutic effect), which has resulted in spontaneous bruising (cutaneous hemorrhage). The reaction/ manifestation to the anticoagulants and antibiotics in therapeutic use is the spontaneous bruising (cutaneous hemorrhage). R23.3 is assigned per the alphabetical index look up: lead term "Hemorrhage, hemorrhagic," subterms "due to circulating anticoagulants NEC," "specified site (see Hemorrhage, by site)." D68.9 is not assigned because there is a hemorrhage as a result of the coagulopathy (enhanced therapeutic effect).

Example: The patient presents with increased INR. The INR has been up and down for the last couple of months and is checked frequently. The patient is taking Warfarin. There is no bleeding. Warfarin is held and the patient is to follow up in 24 hours.

Final diagnosis: Elevated INR

Code	NACRS	Cluster	Code title
D68.9	MP	A	Coagulation defect, unspecified
Y44.2	OP	A	Anticoagulants causing adverse effects in therapeutic use

Rationale: The patient is on anticoagulant therapy. The final diagnosis "elevated INR" without documentation of hemorrhage/bleeding or thromboembolic event is classified as coagulopathy (D68.9) due to adverse effect of anticoagulants in therapeutic use.

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Chapter X — Diseases of the respiratory system

For clinical information, see also Adult respiratory distress syndrome in Appendix A.

Pneumonia

In effect 2006, amended 2015

DAD and NACRS directive statements

When pneumonia is documented by the physician/primary care provider and a specific organism is documented as the cause, select the code indicating pneumonia due to the organism.

When pneumonia is documented by the physician/primary care provider, diagnostic imaging reports may be used to select the most specific diagnosis code.

When pneumonia is documented by the physician/primary care provider and no additional specificity is provided to select a more specific code, assign J18.9 *Pneumonia, unspecified*.

For clinical information, see also Pneumonia in Appendix A.

See also the coding standards *Pneumonia in Patients With Chronic Obstructive Pulmonary Disease (COPD)* and *Using Diagnostic Test Results in Coding*.

Example: An elderly patient is brought in from a retirement home with fever, chills and dyspnea. X-ray demonstrates complete consolidation of the left lower lobe. Sputum cultures are done, and the physician records the diagnosis as pneumococcal pneumonia.

Code	DAD	NACRS	Code title
J13	(M)	MP	Pneumonia due to Streptococcus pneumoniae

Rationale: Pneumonia due to a specific organism is recorded by the physician.

Example: A patient presents with a history of eight days of coughing and progressive shortness of breath. X-ray shows infiltrate in the right middle lobe.

Final diagnosis: RML pneumonia

Code	DAD	NACRS	Code title
J18.9	(M)	MP	Pneumonia, unspecified

Rationale: Pneumonia is documented by the physician without further specificity. The X-ray report does not support selecting a more specific code; therefore, J18.9 is assigned.

Lobar pneumonia

DAD and NACRS directive statement

When pneumonia is documented by the physician/primary care provider without further specificity and the diagnostic imaging reports describe the pneumonia using one of the terms “apical,” “basilar,” “massive” or “complete consolidation involving **entire** lobe,” assign J18.1 *Lobar pneumonia, unspecified*.

Note

When pneumonia is documented using terms such as “RLL pneumonia,” it may simply mean that there is an infiltrate or segment of pneumonia within the lower lobe of the lung. It cannot be assumed that terms such as “RLL pneumonia” mean lobar pneumonia unless there is physician/primary care provider or diagnostic imaging documentation to **clearly** indicate involvement of the entire lobe. The terms “apical,” “basilar” and “massive” are subterms listed under the lead term “Pneumonia” in the alphabetical index and lead to J18.1 *Lobar pneumonia, unspecified*.

Example: A 28-year-old male presents with chest pain. His chest X-ray demonstrates that he has developed complete consolidation of the left lower lobe and that there is also consolidation and partial collapse of the right lower lobe.

Final diagnosis: Pneumonia

Code	DAD	NACRS	Code title
J18.1	(M)	MP	Lobar pneumonia, unspecified

Rationale: Pneumonia is documented as the final diagnosis. The X-ray provides further specificity and demonstrates complete consolidation of the entire left lower lobe.

Example: An elderly patient is brought in from a retirement home with fever, chills and dyspnea. X-ray reveals complete consolidation of the left lower lobe. Sputum cultures show heavy growth of pneumococcus. There is no physician documentation acknowledging the culture and sensitivity (C & S) results.

Final diagnosis: Pneumonia

Code	DAD	NACRS	Code title
J18.1	(M)	MP	Lobar pneumonia, unspecified

Rationale: Pneumonia is documented by the physician. The sputum culture was positive, but it was not confirmed by the physician as the causative organism in the documentation. Therefore, J13 *Pneumonia due to Streptococcus pneumonia* cannot be assigned. J18.1 is assigned because the X-ray report described complete consolidation of the left lower lobe, which provides further specificity.

Bronchopneumonia

DAD and NACRS directive statement

When pneumonia is documented by the physician/primary care provider without further specificity and the diagnostic imaging reports describe the pneumonia using one of the terms “catarrhal,” “confluent,” “diffuse,” “disseminated (focal),” “lobular (segmental)” or “patchy,” assign J18.0 *Bronchopneumonia, unspecified*.

Note

Bronchopneumonia is identified on diagnostic imaging reports by small patches of consolidation that may appear throughout the lungs but does not involve an entire lobe. Terms such as “catarrhal,” “confluent,” “diffuse,” “disseminated (focal),” “lobular” and “patchy” are subterms listed under the lead term “Pneumonia” in the alphabetical index and lead to J18.0 *Bronchopneumonia, unspecified*.

Example: A 75-year-old woman presents to the emergency department with shortness of breath. X-ray report mentions “There is a patchy area of increased density in the left lower lobe, compatible with left lower lobe pneumonia.” The diagnosis on the summary sheet is stated as left-sided pneumonia.

Code	DAD	NACRS	Code title
J18.0	(M)	MP	Bronchopneumonia, unspecified

Rationale: There is documentation of “patchy area of increased density . . . compatible with left lower lobe pneumonia” in the X-ray report. The final diagnosis is pneumonia. The term “patchy” described in the X-ray adds specificity and, per the alphabetical index, the pneumonia is classified to J18.0.

Pneumonia in Patients With Chronic Obstructive Pulmonary Disease (COPD)

In effect 2002, amended 2005, 2006, 2008, 2015

DAD and NACRS directive statement

When COPD is present with pneumonia or any other acute lower respiratory tract infection and it is the major reason for hospitalization, assign J44.0 *Chronic obstructive pulmonary disease with acute lower respiratory infection*.

- When the infection is a significant condition in its own right, such as pneumonia, acute bronchitis or acute bronchiolitis, assign an additional code as a comorbid diagnosis type/other problem to specify the type of infection.
- Sequence the code for COPD first.

Patients with COPD are generally considered to be at high risk for pneumonia. When a person with COPD gets a cold, it can develop into bronchitis or pneumonia. The infection can damage the bronchial linings, creating a safe haven for bacteria to grow.

Example: A 68-year-old man with severe COPD contracts the common cold. He is being treated by his family physician for exacerbation of COPD. His condition worsens, and he is brought into the emergency department. Chest X-ray reveals pneumonia. He is subsequently admitted for treatment of COPD exacerbation and pneumonia.

Code	DAD	NACRS	Code title
J44.0	(M)	MP	Chronic obstructive pulmonary disease with acute lower respiratory infection
J18.9	(1)	OP	Pneumonia, unspecified

Example: A patient from a nursing home presents to the emergency department with aspiration pneumonia. He has a long-standing history of COPD.

Code	NACRS	Code title
J69.0	MP	Pneumonitis due to food and vomit
W80	OP	Inhalation and ingestion of other objects causing obstruction of respiratory tract
U98.1	OP	Place of occurrence, residential institution
J44.9	OP	Chronic obstructive pulmonary disease, unspecified

Rationale: Pneumonia due to aspiration is not classified as an acute infective exacerbation of COPD (J44.0); therefore, the above directive statements do not apply.

Example: A woman with COPD is admitted and treated with antibiotics for pneumonia due to streptococcal pneumoniae. She also receives oxygen and has her corticosteroidal regimen adjusted to manage the obstructive airway changes.

Code	DAD	Code title
J44.0	(M)	Chronic obstructive pulmonary disease with acute lower respiratory infection
J13	(1)	Pneumonia due to Streptococcus pneumoniae

Example: A woman with COPD is admitted and treated with antibiotics for acute bronchitis.

Code	DAD	Code title
J44.0	(M)	Chronic obstructive pulmonary disease with acute lower respiratory infection
J20.9	(1)	Acute bronchitis, unspecified

Example: Final diagnosis is recorded as acute exacerbation COPD. The physician also documents that the patient has chronic bronchitis.

Code	DAD	NACRS	Code title
J44.1	(M)	MP	Chronic obstructive pulmonary disease with acute exacerbation, unspecified

Rationale: J44.0 is not assigned in this example because it cannot be assumed that the acute exacerbation in a patient with obstructive chronic bronchitis is due to acute bronchitis. Follow the alphabetical index lookup “Bronchitis, chronic, obstructive,” which leads to J44.8. This code is not assigned per the excludes note “with acute exacerbation.”

Asthma

In effect 2002, amended 2003, 2005, 2006, 2009

DAD and NACRS directive statement

Classify asthma with onset during childhood (typically up to 16 years old) to J45.0– *Predominantly allergic asthma* unless otherwise specified by the physician.

Note

Ensure that asthma is not reported as a post-admit comorbidity — diagnosis type (2).

For clinical information, see also Asthma in Appendix A.

Example: A 14-year-old is brought to hospital suffering from an asthmatic attack. He is placed on bronchodilators.

Code	DAD	NACRS	Code title
J45.00	(M)	MP	Predominantly allergic asthma without stated status asthmaticus

Example: A 12-year-old is brought to hospital suffering from shortness of breath with wheezing. She has no previous history of asthma. The final diagnosis is reactive airway disease.

Code	DAD	NACRS	Code title
J98.8	(M)	MP	Other specified respiratory disorders

Rationale: A final diagnosis of reactive airway disease is not classified to asthma. The alphabetical index leads to J98.8.

Example: A 19-year-old man is brought to hospital suffering from shortness of breath with wheezing. The young man has no previous history of asthma. The patient is placed on bronchodilators. The diagnosis noted in the chart is asthma.

Code	DAD	NACRS	Code title
J45.90	(M)	MP	Asthma, unspecified, without stated status asthmaticus

Status asthmaticus

Status asthmaticus is a severe asthma attack where there is profound and intractable bronchospasm. It is a life-threatening condition with prolonged bronchiolar spasm that cannot be reversed with medication.

Terms that denote status asthmaticus include

- Acute severe asthma;
- Severe acute asthma;
- Intractable asthma attack;
- Refractory asthma;
- Severe intractable wheezing; and
- Airway obstruction not relieved by bronchodilators.

Note

The diagnostic statements “acute asthma” and “severe asthma” do not qualify as status asthmaticus.

Example: An 18-year-old is brought to hospital suffering from a severe acute asthmatic attack. He is placed on bronchodilators. It is noted in the chart that the young man has had asthma since childhood.

Code	DAD	NACRS	Code title
J45.01	(M)	MP	Predominantly allergic asthma with stated status asthmaticus

Rationale: In this example, asthma has been present since childhood and is documented using one of the terms denoting status asthmaticus; therefore, a code from category J45.0– is assigned with the fifth character “1.”

Note

As long as asthma onset is documented as having begun during childhood, follow this coding standard. It applies to an adult with chronic asthma that began in childhood who now presents for treatment of asthmatic attacks.

Resection of Space-Occupying Lesions (Polyps) of Nose

In effect 2002

DAD and NACRS directive statement

Classify resections of space-occupying lesions according to the deepest anatomical site from which the lesion is removed. This may be different from the site in which the lesion originates.


Start
Does the lesion extend into the nasopharynx?
Yes
Involves radical nasopharyngectomy?
Yes
Code to 1.FA.91.^^
No
Code to 1.FA.87.^^
No
Does the lesion extend into multiple sinuses (but not as far as the nasopharynx)?
Yes
Involves a radical pansinusectomy?
Yes
Code to 1.EY.91.^^
No
Code to 1.EY.87.^^
No
Does the lesion extend into one sinus only?
Yes
Ethmoid sinus?
Yes
Involves total exenteration?
Yes
Code to 1.EU.89.^^
No
Code to 1.EU.87.^^
No
Sphenoid sinus?
Yes
Code to 1.EV.87.^^
No
Frontal sinus?
Yes
Code to 1.EX.87.^^
No
Maxillary sinus?
Yes
Involves radical antrectomy?
Yes
End
No
Code to 1.EW.87.^^
Yes
Code to 1.EW.91.^^
No
Does the lesion occupy the nasal cavity (middle meatus) only?
Yes
Code to 1.ET.87.^^
No
End

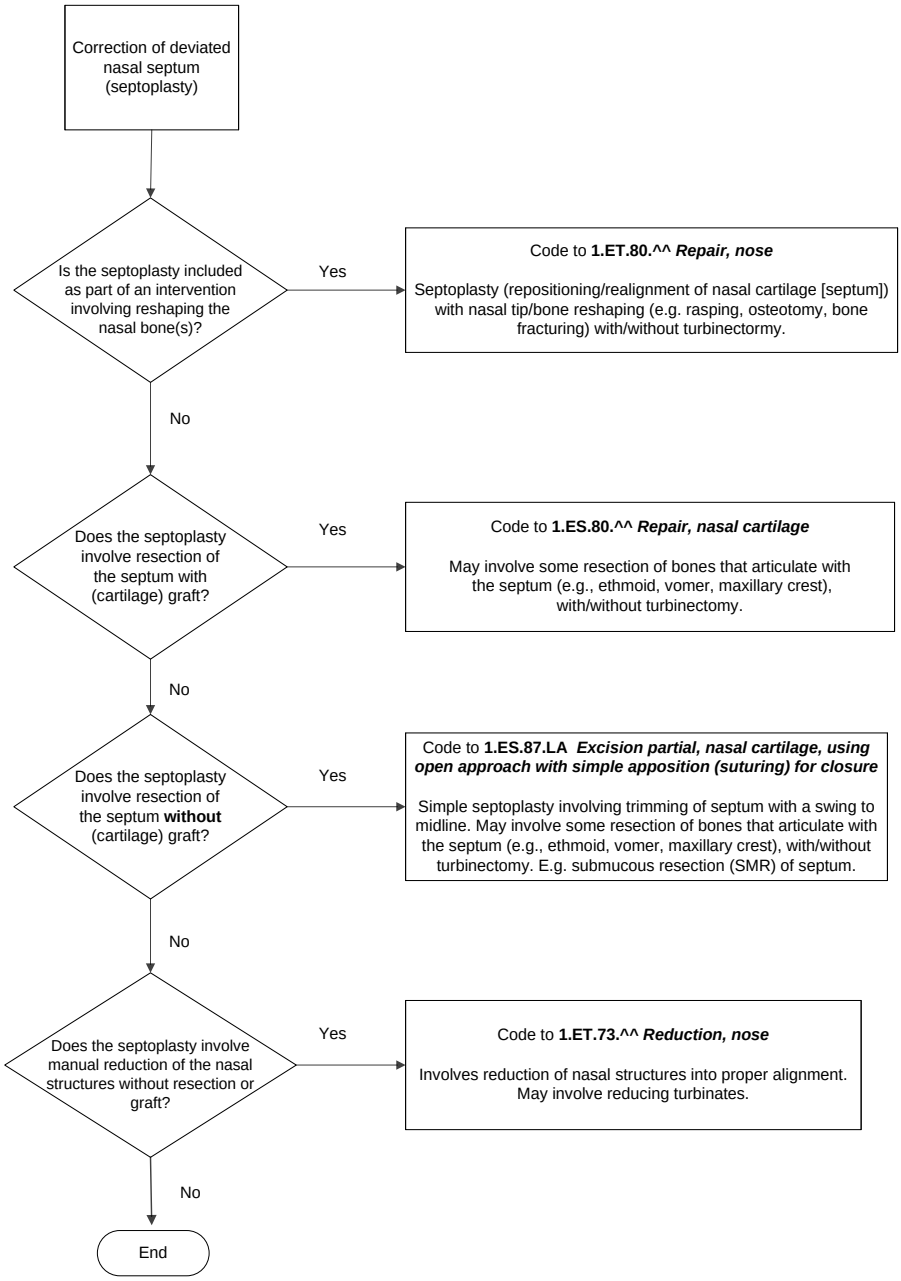
Septoplasty for Deviated Nasal Septum

In effect 2002, amended 2012

Selection of the correct CCI code for surgical procedures that involve straightening of a deviated nasal septum depends on whether the intervention is with or without excision, with or without grafting and with or without additional interventions to reshape other aspects of the nose. The flowchart below has been provided to assist in making the correct selection.

DAD and NACRS directive statement

Classify interventions involving a septoplasty for correction of deviated nasal septum according to the anatomical site and the intent of the intervention.


Correction of deviated nasal septum (septoplasty)
Is the septoplasty included as part of an intervention involving reshaping the nasal bone(s)?
Yes
Code to 1.ET.80.^^ Repair, nose
Septoplasty (repositioning/realignment of nasal cartilage [septum]) with nasal tip/bone reshaping (e.g. rasping, osteotomy, bone fracturing) with/without turbinectormy.
No
Does the septoplasty involve resection of the septum with (cartilage) graft?
Yes
Code to 1.ES.80.^^ Repair, nasal cartilage
May involve some resection of bones that articulate with the septum (e.g., ethmoid, vomer, maxillary crest), with/without turbinectomy.
No
Does the septoplasty involve resection of the septum without (cartilage) graft?
Yes
Code to 1.ES.87.LA Excision partial, nasal cartilage, using open approach with simple apposition (suturing) for closure
Simple septoplasty involving trimming of septum with a swing to midline. May involve some resection of bones that articulate with the septum (e.g., ethmoid, vomer, maxillary crest), with/without turbinectomy. E.g. submucous resection (SMR) of septum.
No
Does the septoplasty involve manual reduction of the nasal structures without resection or graft?
Yes
Code to 1.ET.73.^^ Reduction, nose
Involves reduction of nasal structures into proper alignment. May involve reducing turbinates.
No
End

Example: The patient has a major displacement of his septum with a dorsal nasal hump deformity due to previous trauma. He is admitted for a reconstructive septoplasty by a columellar incision nasal approach. During the procedure, the deflected cartilage is excised, the nasal bone is readjusted and a rasp is used to reduce the hump. The cartilage is replaced with a prosthetic implant. The septum is returned to its original midline position.

1.ET.80.WK-PM Repair, nose, using columellar incision approach with prosthetic implant

Rationale: Since reshaping the nasal bone by rasping (rhinoplasty) was performed with the septoplasty to correct the deviation of the septum, a code from 1.ET.80.^^ *Repair, nose* is assigned.

Example: A 26-year-old female suffers from recurrent sinus infections due to a deviated nasal septum and is now admitted for a septoplasty. During the procedure, a wedge of cartilage is removed along with a small fragment from the maxillary crest. The cartilage is morselized and replaced.

1.ES.80.LA-XX-A Repair, nasal cartilage, using autograft [e.g. cartilage, skin]

Rationale: Since the correction of the septal deviation involved resection of cartilage with replacement of morselized cartilage (a graft) and did not involve reshaping of the nasal bone, a code from 1.ES.80.^^ *Repair, nasal cartilage* is assigned.

Example: A 45-year-old male has been suffering from sleep apnea, which is exacerbated by a significant displacement of his septum. He is admitted for a septoplasty. A submucous resection of the septum is performed. There is no documentation indicating replacement of cartilage.

1.ES.87.LA Excision partial, nasal cartilage, using open approach with simple apposition (suturing) for closure

Rationale: Since the correction of the septal deviation involved resection of cartilage without a graft and did not involve reshaping of the nasal bone, a code from 1.ES.87.^^ *Excision partial, nasal cartilage* is assigned.

Example: A 19-year-old male is accidentally hit by a hockey stick when playing hockey and is brought to the emergency department. Upon examination, there is apparent deformity of the septum; an X-ray confirms a nasal fracture. A manual reduction of the fracture is performed.

1.ET.73.JA	Reduction, nose, using manual [reduction] technique
3.ET.10.VA	Xray, nose, without contrast (e.g. plain film) (with or without fluoroscopy)

Rationale: Since the repair of the deviated nasal septum (septoplasty) was performed by manual reduction without reshaping of the nasal bone or resection of cartilage with/without a graft, a code from 1.ET.73.^^ *Reduction, nose* is assigned.

Invasive Ventilation

For description of change, see Appendix C.

In effect 2006, amended 2007, 2008, 2012

DAD and NACRS directive statement

Assign a code from 1.GZ.31.^^ *Ventilation, respiratory system NEC,* mandatory, to describe invasive ventilation.

DAD-only directive statement

When a patient is extubated and subsequently requires another episode of the same invasive ventilation, record **at a minimum** the one episode that reflects the longest duration (extent attribute).

DAD and NACRS directive statement

When one invasive approach (such as endotracheal intubation) is changed to another invasive approach (such as tracheostomy), assign multiple codes from 1.GZ.31.^^ *Ventilation, respiratory system NEC* to describe each approach.

See also the coding standard *Selection of Interventions to Code for Ambulatory Care*.

Exception
When invasive ventilation is an inherent part of the administration of a general anesthetic and the patient is extubated prior to leaving the operating room, 1.GZ.31.^^ *Ventilation, respiratory system NEC* is not assigned.

Note
The extent attribute is mandatory, regardless of duration, for all codes at 1.GZ.31.^^ *Ventilation, respiratory system NEC*. Use "0" when the ventilation is non-invasive.

Note
Use the Intervention Pre-Admit Flag to indicate when invasive ventilation was started prior to admission during an encounter of the current, uninterrupted episode of care. See Group 11, Field 20 in the *Discharge Abstract Database (DAD) Abstracting Manual* for specific instructions for applying the flag for interventions initiated prior to admission.

To calculate the number of hours (duration) of continuous invasive ventilation during a hospitalization, begin the count from the time of the tracheal access (e.g., endotracheal intubation or transtracheal jet). The duration ends with extubation or when the ventilator is turned off. Disregard intermittent attempts at weaning from ventilation support; include these periods in the total hours.

- When a patient is intubated prior to admission, begin counting the duration from the time of admission.
- When a patient dies, is transferred or is discharged while intubated, calculate the duration ending with the time of death, transfer or discharge.
- When one invasive approach is changed to another invasive approach, assign a code for each approach and calculate the duration for each separately.
- When a patient is extubated and subsequently requires another episode of the same invasive ventilation, calculate the duration for each episode separately. Do not add the durations together, because the calculation of duration ends with extubation.
- When invasive ventilation extends beyond the time the patient leaves the operating room, calculate the duration from the time of intubation in the operating room to the time of extubation.

Example: The patient is admitted with pneumonia and an acute exacerbation of COPD. Her respirations are severely compromised. An endotracheal tube is inserted and she is connected to synchronized intermittent mandatory ventilation (SIMV). On day 3, she is extubated.

1.GZ.31.CA-ND Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: CN

Rationale: It is mandatory to code invasive ventilation regardless of duration (extent). The patient was successfully extubated prior to 96 hours of continuous invasive ventilation; therefore, the extent attribute “CN — Continuous but less than 96 hours of invasive ventilation” applies.

Example: A patient is taken to the operating room for repair of an incisional abdominal hernia. General anesthetic is administered, and intubation and ventilation is begun. The patient is extubated at completion of the procedure and is transferred to the recovery room before being transferred back to the nursing unit.

Rationale: The intubation and ventilation is an inherent part of the administration of the general anesthetic and is included in the capture of the anesthetic technique on the abstract. 1.GZ.31.^^ *Ventilation, respiratory system NEC* is not assigned.

Example: The patient is admitted for a coronary artery bypass graft. General anesthetic is administered, and he is intubated and ventilated. He is transferred to the recovery room and then to the surgical intensive care unit. He is extubated the next day and transferred to the nursing unit to continue his recovery.

1.GZ.31.CA-ND Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: CN

Rationale: It is mandatory to code invasive ventilation regardless of duration (extent). When invasive ventilation is an inherent part of the administration of a general anesthetic, it is not coded. However, when the invasive ventilation extends beyond the operating room, it is coded. In this example, the patient was ventilated for less than 96 hours from the time of intubation in the operating room to the time of extubation; therefore, the extent attribute “CN — Continuous but less than 96 hours of invasive ventilation” applies.

Example: A patient is ventilated via endotracheal tube (ETT) using positive pressure for 10 days and then extubated. Two days later, the patient develops complications and is re-intubated and ventilated using the same ventilation (positive pressure). The patient is subsequently transferred to another facility the same day.

1.GZ.31.CA-ND Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: EX

1.GZ.31.CA-ND Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV) (optional)

Extent: CN

Rationale: When a patient receives the same invasive ventilation more than once (i.e., he or she is extubated and re-intubated), it is mandatory to record only the occurrence received for the longest duration (extent). It is optional to record the same CCI code to describe invasive ventilation of a shorter duration. The duration is calculated separately for each episode because the patient was extubated and re-intubated (do not add times together).

Example: A patient is intubated and ventilated via ETT using positive pressure for two days. Due to complications, the patient is taken to the operating room to have an open tracheostomy for long-term ventilation. The patient remains in hospital for an additional 10 days.

1.GZ.31.CR-ND Ventilation, respiratory system NEC, invasive per orifice with incision approach for intubation through tracheostomy, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: EX

1.GJ.77.LA Bypass with exteriorization, trachea, using open approach (e.g. collar incision)

Status: 0

1.GZ.31.CA-ND Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: CN

Rationale: Different invasive approaches were used for ventilation; therefore, separate codes from 1.GZ.31.^^ *Ventilation, respiratory system NEC* are assigned to describe each approach. The extent attribute reflects the duration of each.

Example: The patient sustains significant trauma and multiple facial fractures in a motor vehicle accident (MVA). At the time of presentation, respirations are six per minute and shallow. An attempt to intubate is unsuccessful. Pressurized oxygen is administered via a large bore needle inserted into the cricothyroid membrane. A short time later, endotracheal intubation is achieved and she is connected to continuous mandatory ventilation (CMV). She remains ventilated until she is stabilized for transfer to the provincial trauma center. She is airlifted on post-MVA day 8.

1.GZ.31.CA-ND	Ventilation, respiratory system NEC, invasive per orifice approach by (endotracheal) intubation, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: EX

1.GZ.31.GP-ND	Ventilation, respiratory system NEC, invasive percutaneous transluminal approach (e.g. transtracheal jet) through needle, positive pressure (e.g. CPAP, BIPAP, IPPV)

Extent: CN

Rationale: Different invasive approaches were used for ventilation; therefore, separate codes from 1.GZ.31.^^ *Ventilation, respiratory system NEC* are assigned to describe each approach. The extent attribute reflects the duration of each.

Chapter XI — Diseases of the digestive system

Gastroenteritis and Diarrhea

In effect 2001, amended 2002, 2005, 2006, 2009

Most cases of gastroenteritis are infectious, even in industrialized countries; thus ICD-10-CA classifies gastroenteritis NOS as infectious (A09.9 *Gastroenteritis and colitis of unspecified origin*).

DAD and NACRS directive statements

Assign gastroenteritis as the MRDx/main problem in admissions for treatment of gastroenteritis and dehydration.

Assign a code for any associated dehydration as a significant pre-admit comorbidity/other problem only when the electrolyte imbalance is severe enough to warrant treatment with intravenous fluids and the physician clearly documents that these fluids are intended to treat the dehydration.

See also the coding standard *Dehydration*.

Example: A 4-year-old child is seen with infectious gastroenteritis and dehydration. The entire family is affected: mom, dad and three older siblings. She needs input/output monitoring and is prescribed increased oral fluids. No intravenous fluids are administered.

Code	DAD	NACRS	Code title
A09.0	(M)	MP	Other and unspecified gastroenteritis and colitis of infectious origin

Example: A 74-year-old woman is admitted to hospital from a nursing home after three days of gastroenteritis. She is quite dehydrated on admission and receives intravenous fluids for two days, with close monitoring of her input/output status. Stool culture returns negative for organisms.

Code	DAD	Code title
A09.9	(M)	Gastroenteritis and colitis of unspecified origin
E86.0	(1)	Dehydration

Rationale: Unspecified gastroenteritis is classified to A09.9 *Gastroenteritis and colitis of unspecified origin*.

Example: A 20-year-old man is seen for gastroenteritis. The final diagnosis is "non-infectious gastroenteritis."

Code	DAD	NACRS	Code title
K52.9	(M)	MP	Noninfective gastroenteritis and colitis, unspecified

Rationale: Gastroenteritis must be documented as noninfectious to assign K52.9.

Bleeding Esophageal Varices

In effect 2003, amended 2005, 2006

DAD and NACRS directive statement

Follow the dagger/asterisk convention when coding bleeding esophageal varices associated with liver disorders classified to K70.– *Alcoholic liver disease*, K71.– *Toxic liver disease* and K74.– *Fibrosis and cirrhosis of liver*.

Example: A patient with known alcoholic cirrhosis of the liver is admitted with hematemesis. Endoscopy shows bleeding esophageal varices. He is treated with sclerotherapy.

Code	DAD	Code title
K70.3†	(M)	Alcoholic cirrhosis of liver
I98.3*	(6)	Oesophageal varices with bleeding in diseases classified elsewhere

1.NA.13.BA-X7 Control of bleeding, esophagus, using endoscopic per orifice approach and chemical agent [e.g. ethanolamine, morrhuate sodium, polidocanol, sclerosants, tetradecyl sulfate]

Example: A patient has chronic persistent hepatitis, which has resulted in fibrosis of the liver. She presents with an upper gastrointestinal bleed. Endoscopy shows bleeding esophageal varices.

Code	DAD	NACRS	Code title
K74.0†	(M)	MP	Hepatic fibrosis
I98.3*	(6)	OP	Oesophageal varices with bleeding in diseases classified elsewhere
K73.0	(3)	OP	Chronic persistent hepatitis, not elsewhere classified

Rationale: While chronic persistent hepatitis (K73.0) in this case did lead to the formation of fibrosis of the liver (K74.0) causing bleeding esophageal varices (I98.3*), only codes from categories K70, K71 and K74 are designated with the dagger symbol at I98.3*. Therefore, the pair K74.0† with I98.3* is sequenced first, and K73.0 is assigned optionally.

DAD and NACRS directive statement

Select the asterisk code I98.3* *Oesophageal varices with bleeding in diseases classified elsewhere* when the physician records bleeding esophageal varices as a preoperative diagnosis but active bleeding is not evident at endoscopy.

Example: A patient with known alcoholic cirrhosis of the liver presents for urgent endoscopy and banding of varices following an episode of upper gastrointestinal bleeding. The physician documents “bleeding esophageal varices.” Endoscopy shows esophageal varices, but no active bleeding is noted. Several varices are banded.

Code	DAD	NACRS	Code title
K70.3†	(M)	MP	Alcoholic cirrhosis of liver
I98.3*	(6)	OP	Oesophageal varices with bleeding in diseases classified elsewhere

1.NA.13.BA-FA Control of bleeding, esophagus, using endoscopic per orifice approach and banding (varices)

Related interventions

In endoscopic therapy, the health care provider may directly inject the varices with a clotting agent, or he or she may place a rubber band around the bleeding veins. This procedure is used in acute bleeding episodes and as prophylactic (preventive) therapy.

Prophylactic endoscopic sclerotherapy (injection of varices with sclerosant) is done regularly, usually every one to three weeks, until varices are obliterated, then at three- to six-month intervals to maintain obliteration.

Select code 1.NA.13.BA-X7 *Control of bleeding, esophagus, using endoscopic per orifice approach and chemical agent [e.g. ethanolamine, morrhuate sodium, polidocanol, sclerosants, tetradecyl sulfate]*.

Endoscopic sclerotherapy (injection of varices with sclerosant) is also used to control acute hemorrhage from the esophageal varices.

Select code 1.NA.13.BA-X7 *Control of bleeding, esophagus, using endoscopic per orifice approach and chemical agent [e.g. ethanolamine, morrhuate sodium, polidocanol, sclerosants, tetradecyl sulfate]*.

Esophageal variceal rubber band ligation controls active bleeding and eradicates varices as effectively as sclerotherapy.

Select code 1.NA.13.BA-FA *Control of bleeding, esophagus, using endoscopic per orifice approach and banding (varices)*.

Sengstaken-Blakemore double balloon tube or Linton single balloon tube tamponade gastric balloon placement needs X-ray confirmation. Acute bleeding may be treated by a balloon tamponade — a tube that is inserted through the nose into the stomach and inflated with air to produce pressure against the bleeding veins.

Select code 1.NA.13.BA-BD *Control of bleeding, esophagus, using endoscopic per orifice approach and balloon (or Sengstaken) tube tamponade*.

Transjugular intrahepatic portosystemic shunt (TIPS) or distal splenorenal shunt (DSRS) consists of a catheter that is extended through a vein into the liver, where it connects the portal system to the systemic venous system and decreases portal venous pressure.

Select code 1.KQ.76.^^ *Bypass, abdominal veins NEC*.

Gastrointestinal Bleeding

In effect 2001, amended 2003, 2005, 2006, 2008

DAD and NACRS directive statement

When hemorrhage or bleeding is not clearly expressed in the title of the code for the underlying cause, assign an additional code:

- K92.0 *Haematemesis*
- K92.1 *Melaena*
- K92.2 *Gastrointestinal haemorrhage, unspecified*

Example: The patient's final diagnosis is noted as "acute gastritis with hemorrhage."

Code	DAD	NACRS	Code title
K29.0	(M)	MP	Acute haemorrhagic gastritis

Example: The patient is diagnosed with melena due to diverticulitis of the large bowel. Colonoscopy is carried out, and she is treated with antibiotics and ferrous gluconate.

Code	DAD	NACRS	Code title
K57.3	(M)	MP	Diverticular disease of large intestine without perforation or abscess
K92.1	(3)	OP	Melaena

DAD and NACRS directive statements

When a patient presents for investigations following an episode of gastrointestinal bleeding and no active hemorrhage is manifest on endoscopy, select an ICD-10-CA combination code indicating “with bleeding” or “with hemorrhage” in the disease/condition.

Alternatively, if there aren’t any such combination codes, code the underlying condition and an additional code to indicate the presence of bleeding (K92.0, K92.1 or K92.2).

Example: The patient presents for urgent colonoscopy following an episode of lower gastrointestinal bleeding. The physician documents “ulcerative colitis.” Endoscopy report indicates no active bleeding, but ulcerated lesions are noted with prominent vessels.

Code	DAD	NACRS	Code title
K51.9	(M)	MP	Ulcerative colitis, unspecified
K92.2	(3)	OP	Gastrointestinal haemorrhage, unspecified

DAD-only directive statement

When a patient is admitted for investigation or treatment of hemorrhage and has documented episodes of gastrointestinal (GI) bleeding while in hospital, do not assign diagnosis type (2) to the ICD-10-CA code indicating GI bleeding.

Example: The patient is admitted through the emergency department following an episode of hematemesis. His wife reports that he threw up about half a cup of bright red blood. During his stay, he has another episode of hematemesis. Several diagnostic tests and investigations are carried out, and the final diagnosis on the chart is recorded as Mallory-Weiss syndrome.

Code	DAD	Code title
K22.6	(M)	Gastro-oesophageal laceration-haemorrhage syndrome

Selection of Attributes at Hernia Repair

In effect 2001, amended 2003, 2005, 2006, 2008, 2012

DAD and NACRS directive statement

When the diagnosis does not reflect a hernia classifiable to categories K40–K43 and K45–K46, select "0" — **Not Applicable**, for the mandatory location attribute at 1.SY.80.^^ *Repair, muscles of the chest and abdomen*.

The location attribute at 1.SY.80.^^ *Repair, muscles of the chest and abdomen* is mandatory because it is the only way to identify the intervention as a hernia repair. The location attribute for ventral and incisional hernias will vary depending on the location of the hernia.

Example: The patient is admitted by the trauma team. He sustained a penetrating wound to the abdominal wall during a fight at a youth center. The victim was attacked with a knife. Internal organs are not injured. The patient is taken to the operating room where the defect in the abdominal wall is closed with sutures.

Code	DAD	Code title
S31.190	(M)	Open wound of unspecified site of abdominal wall, uncomplicated
X99	(9)	Assault by sharp object
U98.28	(9)	Place of occurrence, school and other institutions and public areas

1.SY.80.LA Repair, muscles of the chest and abdomen, open approach, without tissue [e.g. suturing or stapling]

Status: 0
Location: 0

Rationale: This was not a hernia repair, as the MRDx is an injury code; therefore, location attribute is "0."

Example: The patient is admitted for suture repair of an incisional hernia at the site of a previous cholecystectomy.

Code	DAD	NACRS	Code title
K43.2	(M)	MP	Incisional hernia without obstruction or gangrene

1.SY.80.LA Repair, muscles of the chest and abdomen, open approach, without tissue [e.g. suturing or stapling]

Status: 0

Location: UP

Rationale: Location attribute is mandatory when the diagnosis is hernia classifiable to K40–K43 and K45–K46. A cholecystectomy incision is located in the upper abdominal region.

Chapter XII — Diseases of the skin and subcutaneous tissue

Cellulitis

For description of change, see Appendix C.

In effect 2001, amended 2003, 2006, 2018

DAD and NACRS directive statements

- Classify an open wound with associated cellulitis to a “complicated” open wound.
- When the course of treatment involves **intravenous antibiotics**, sequence cellulitis as the MRDx/main problem and record the soft tissue injury as an additional diagnosis/other problem.
- When the course of treatment involves only **oral antibiotics**, sequence the soft tissue injury as the MRDx/main problem and the cellulitis as a comorbid condition/other problem.
- Assign an additional code, optional, as a diagnosis type (3)/other problem from the range B95–B98 *Bacterial, viral and other infectious agents* when a causative agent is identified.

For clinical information, see also Cellulitis in Appendix A.

Exception

It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganism infections. See also the coding standard *Drug-Resistant Microorganisms*.

See also the coding standard *Open Wounds*.

Example: The patient lacerated her left index finger at home while using a kitchen knife about three days prior to this visit. She presents to the emergency department with cellulitis. She is given a prescription for oral antibiotics.

Code	NACRS	Code title
S61.01	MP	Open wound of finger(s) without damage to nail, complicated
L03.00	OP	Cellulitis of finger
W26.0	OP	Contact with knife, sword or dagger
U98.0	OP	Place of occurrence, home

Example: Approximately 36 hours ago, a woman received a dog bite to her right hand when she intervened in an altercation between two dogs. She now presents with cellulitis spreading up her arm and is admitted to hospital for a course of intravenous antibiotics.

Code	DAD	Code title
L03.10	(M)	Cellulitis of upper limb
S61.91	(3)	Open wound of wrist and hand part, part unspecified, complicated
W54	(9)	Bitten or struck by dog
U98.9	(9)	Unspecified place of occurrence

Example: On a hiking trip in the woods, a young man fell down a ravine two days ago, sustaining minor lacerations to his lower leg. He presents to the emergency department with cellulitis and is treated with a wound debridement, topical dressing and a course of oral antibiotics.

Code	NACRS	Code title
S81.91	MP	Open wound of lower leg, part unspecified, complicated
L03.11	OP	Cellulitis of lower limb
W17	OP	Other fall from one level to another
U98.8	OP	Other specified place of occurrence

Chapter XIII — Diseases of the musculoskeletal system and connective tissue

Osteoarthritis

In effect 2006, amended 2008, 2009

DAD and NACRS directive statements

Classify arthrosis as **primary** when the physician/primary care provider documents that the arthrosis

- Is idiopathic; or
- Has "no known underlying cause"; or
- Is bilateral disease at the same anatomical site if not identified as secondary or post-traumatic.

Classify arthrosis as **secondary** when the physician/primary care provider documents that the arthrosis

- Is secondary; or
- Is known to be caused by another condition.

Classify arthrosis as **post-traumatic** when the physician/primary care provider documents a connection between the arthrosis and a previous injury.

Classify arthrosis as **unspecified** when the physician/primary care provider does not document the condition as bilateral, primary, secondary or post-traumatic according to the above (e.g., the documentation is osteoarthrosis with no further specification).

Example: A 53-year-old man with idiopathic osteoarthritis (OA) of the left knee is admitted electively for a total knee replacement.

Code	DAD	Code title
M17.1	(M)	Other primary gonarthrosis

Example: A 22-year-old man is admitted for a left total knee replacement due to OA documented as secondary to Ehlers-Danlos syndrome.

Code	DAD	Code title
M17.5	(M)	Other secondary gonarthrosis
Q79.6	(3)	Ehlers-Danlos syndrome

Example: A 75-year-old man is admitted electively for a left total knee replacement due to left knee OA, documented as secondary to a sports injury in the remote past.

Code	DAD	Code title
M17.3	(M)	Other post-traumatic gonarthrosis
T93.9	(3)	Sequelae of unspecified injury of lower limb (optional)
Y86	(9)	Sequelae of other accidents (optional)

Example: A 75-year-old woman is admitted electively for a total knee replacement. The diagnosis is recorded as “OA right knee.”

Code	DAD	Code title
M17.9	(M)	Gonarthrosis, unspecified

Rationale: All that is documented is “OA right knee”; therefore, assign unspecified arthrosis. Primary arthrosis cannot be assumed just because there is no documentation of a known cause.

Example: A 75-year-old woman with OA of both hips is scheduled for a right hip arthroplasty. She is admitted now for the right hip intervention. The left hip will be replaced in six months.

Code	DAD	Code title
M16.0	(M)	Primary coxarthrosis, bilateral

Rationale: Bilateral disease not specified as due to any other cause is presumed to be primary disease.

DAD and NACRS directive statement

When a patient who has had a previous unilateral joint replacement for osteoarthritis (OA) is admitted for treatment of the contralateral joint due to OA of the same type (primary, secondary, post-traumatic), select the appropriate code to indicate **bilateral** disease.

Clinical input has indicated that even though a joint has been replaced, the patient has not been cured and is still considered to have bilateral disease on subsequent admissions. Bilateral disease not specified as due to any other cause is presumed to be primary disease.

For clinical information, see also Osteoarthritis in Appendix A.

Example: A 53-year-old man with primary OA of both knees is admitted electively for arthroscopic debridement of the left knee. The OA in the right knee was treated five years ago with a total knee replacement.

Code	DAD	Code title
M17.0	(M)	Primary gonarthrosis, bilateral
Z96.61	(3)	Presence of artificial knee (optional)

Example: A 64-year-old man with primary OA of both hips had his left hip replaced a year ago. He is now admitted electively for a right hip arthroplasty.

Code	DAD	Code title
M16.0	(M)	Primary coxarthrosis, bilateral
Z96.60	(3)	Presence of artificial hip (optional)

Related interventions

Cortisone, a steroid, may be injected into the joint to relieve severe inflammation and swelling.

Select code 1.^^.35.^^ *Pharmacotherapy (local)*.

Viscosupplementation is a procedure in which a clear gel-like substance is injected into the knee. This substance lubricates the cartilage (much like oil lubricates an engine), reducing pain and allowing greater movement of the knee.

Select code 1.^^.35.^^ *Pharmacotherapy (local)*.

Surgical treatment for OA ranges from debridement (select code 1.^^.87.^^ *Excision partial*) to replacement of a joint with one or more prosthetic components (select code 1.^^.53.^^ *Implantation*).

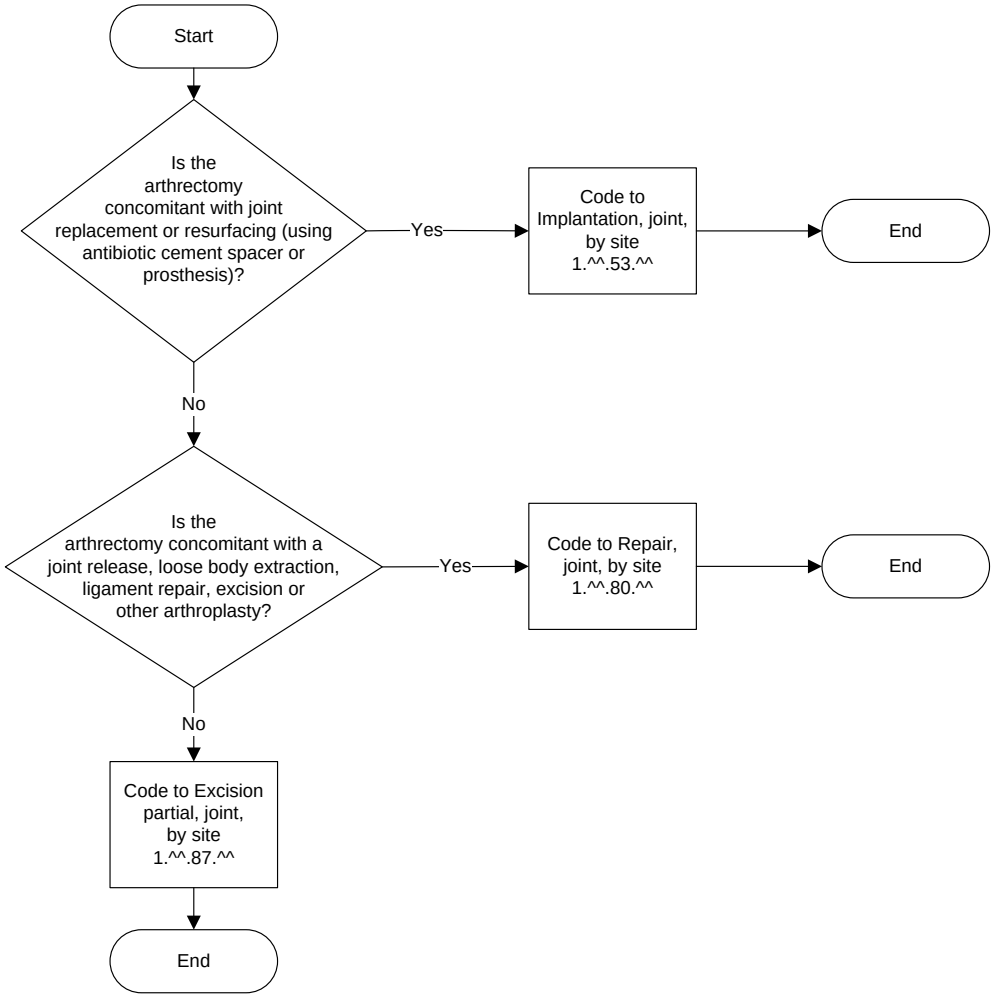
See also the coding standards *Selection of Interventions to Code for Ambulatory Care* and *Selection of Interventions to Code for Acute Inpatient Care*.

Arthrectomy and Arthroplasty

In effect 2001

DAD and NACRS directive statement

Assign a code for arthrectomy as a separate intervention only when it is not part of an arthroplasty or joint repair.



Fractures

In effect 2001, amended 2006, 2012

Pathological fractures

Pathological fractures, also known as “compression” or “spontaneous” fractures, occur in bones and joints weakened by pre-existing disease.

DAD and NACRS directive statements

When there is no known traumatic injury to account for a fracture or when the physician clearly states that the fracture is the result of an underlying disease (such as neoplasm, osteoporosis, Paget’s disease, endocrine disorder or genetic disorder like osteogenesis imperfecta), classify the fracture as pathological.

When a combination category is not available or when a dagger/asterisk convention is not applicable, assign separate codes for the pathological fracture and the underlying disease that precipitated the fracture.

- Sequence the code for the pathological fracture first, followed by the code for the underlying disease as a mandatory diagnosis type (3)/other problem.

Example: The patient is diagnosed with a pathological fracture of the femur due to Paget’s disease.

Code	DAD	NACRS	Code title
M84.45	(M)	MP	Pathological fracture, not elsewhere classified, pelvic region and thigh
M88.8	(3)	OP	Paget’s disease of other bones

DAD and NACRS directive statement

Apply the dagger/asterisk convention when coding a fracture in neoplastic disease.

See also the coding standard *Dagger/Asterisk Convention*.

Example: The patient was diagnosed with osteosarcoma of the leg two years ago. He is now admitted with a pathological fracture of the left tibia. He is treated with internal fixation of the tibia.

Code	DAD	Code title
C40.2†	(M)	Malignant neoplasm long bones of lower limb
M90.7*	(6)	Fracture of bone in neoplastic disease

Example: The patient is brought to hospital in acute distress due to collapsed vertebrae. She has known bone metastases. She had left breast cancer, which was treated three years ago with mastectomy.

Code	DAD	NACRS	Code title
C79.5†	(M)	MP	Secondary malignant neoplasm of bone and bone marrow
M49.5*	(6)	OP	Collapsed vertebra in diseases classified elsewhere
Z85.31	(3)	OP	Personal history of malignant neoplasm of left breast

DAD and NACRS directive statements

Assign a code from the combination category M80 *Osteoporosis with pathological fracture* for fractures documented as due to osteoporosis.

When a fracture is documented as traumatic and occurs in a patient with osteoporosis, assign a code from Chapter XIX — Injury, poisoning and certain other consequences of external causes.

- Assign an additional code from category M81 *Osteoporosis without pathological fracture* to identify the existing osteoporosis.

An osteoporotic pathological fracture is uniquely identified with a single code under the category M80 *Osteoporosis with pathological fracture*. The codes in this category explicitly state the causal relationship between the disease and the fracture.

Example: An 80-year-old man presents with a fractured hip due to osteoporosis with no known significant trauma.

Code	DAD	NACRS	Code title
M80.95	(M)	MP	Unspecified osteoporosis with pathological fracture, pelvic region and thigh

Example: A 70-year-old woman with known osteoporosis slips and falls down several stairs in her home. X-rays demonstrate a fracture of L1.

Code	DAD	NACRS	Code title
S32.000	(M)	MP	Fracture of lumbar vertebra, L1 level, closed
W10	(9)	OP	Fall on and from stairs and steps
U98.0	(9)	OP	Place of occurrence, home
M81.9	(3)	OP	Osteoporosis, unspecified

Rationale: Even though the patient has osteoporosis, a significant traumatic event was documented.

Stress fractures

Stress fractures, also known as “fatigue” or “march” fractures, occur most commonly in metatarsals, hips, heels and fibula/tibia. Long-distance runners, military personnel, people with cavus foot and those wearing shoes without proper shock absorption are most susceptible. This type of fracture occurs when overexertion causes a crack in otherwise healthy bone; it frequently is not diagnosed until after callus formation at the site of the fracture.

DAD and NACRS directive statement

When a stress fracture occurs in the vertebrae, assign M48.4– *Fatigue fracture of vertebra*.
For any other site, assign M84.3– *Stress fracture, not elsewhere classified*.

Example: A 45-year-old woman is admitted. On X-ray, it is discovered that she has a stress fracture located in the lumbar region of the vertebrae.

Code	DAD	NACRS	Code title
M48.46	(M)	MP	Fatigue fracture of vertebra, lumbar region

Example: A 25-year-old long-distance runner is admitted. On X-ray, it is discovered that he has a stress fracture located in his right fibula.

Code	DAD	NACRS	Code title
M84.36	(M)	MP	Stress fracture, not elsewhere classified, lower leg

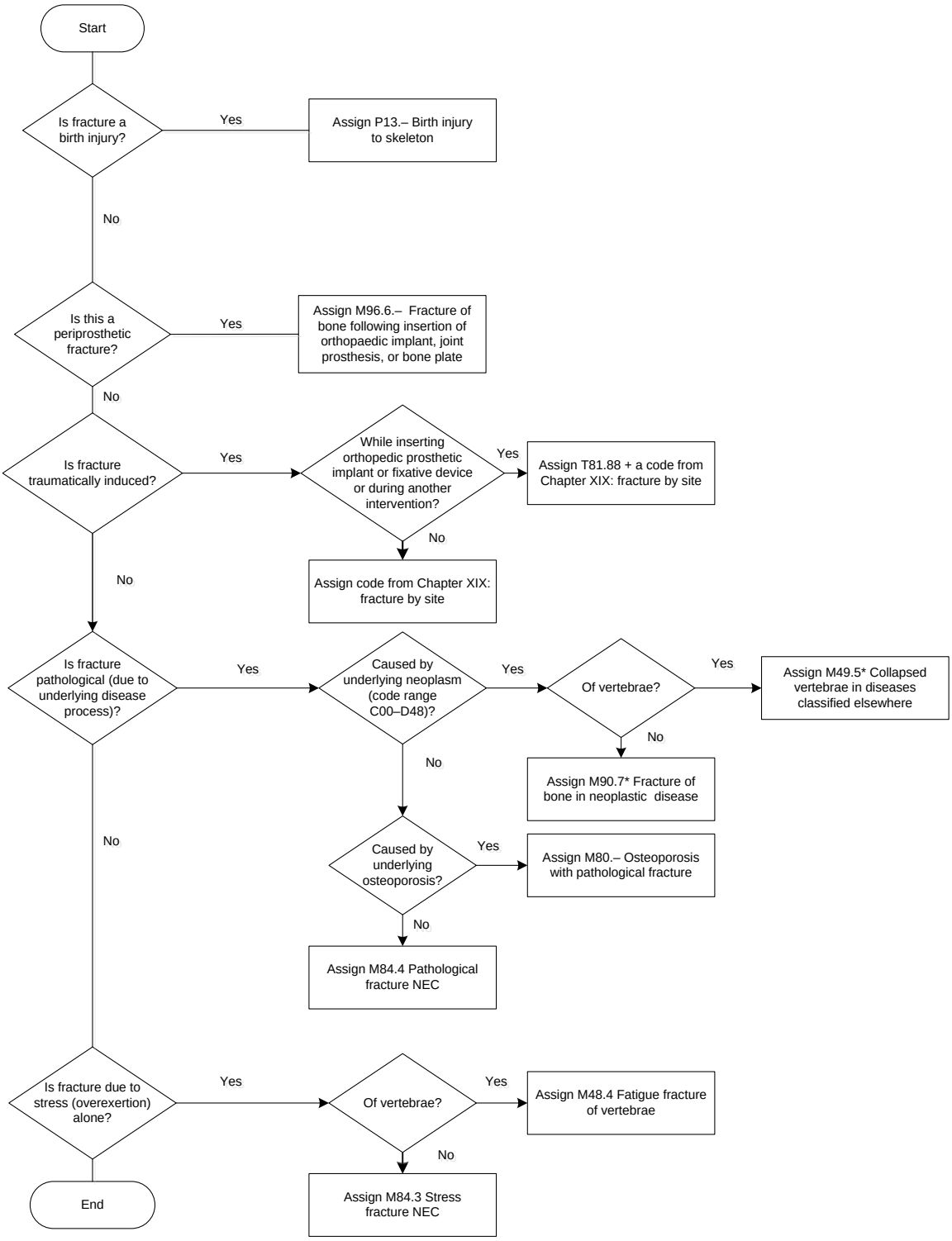
DAD and NACRS directive statement

Assign stress fractures in osteoporotic bone to category M80 *Osteoporosis with pathological fracture* (do not assign M84.3– *Stress fracture, not elsewhere classified*).

Example: A 65-year-old woman with osteoporosis of the vertebrae is found, on X-ray, to have stress fractures of T11–T12.

Code	DAD	NACRS	Code title
M80.98	(M)	MP	Unspecified osteoporosis with pathological fracture, other site

Fractures



Note

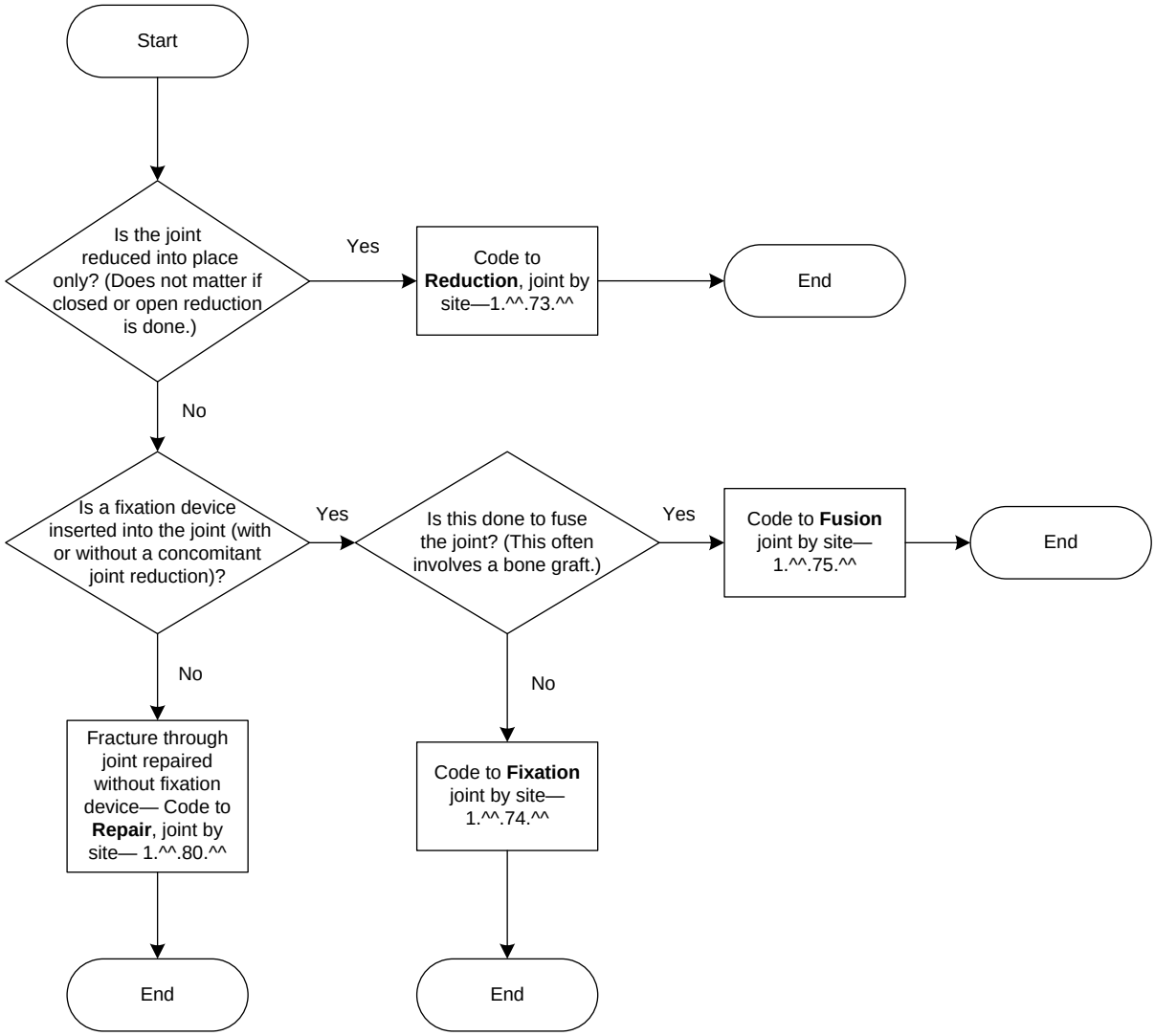
* These codes are manifestation codes and require the use of an additional code for the underlying disease (dagger code).

Joint Fracture Reduction, Fixation and Fusion

In effect 2001, amended 2002

DAD and NACRS directive statement

When an intervention is performed to amend a fracture and the fracture involves a portion of a bone that forms a joint, assign a CCI code where the anatomical site indicates a joint.



Note
This coding standard applies to all joints, including the spinal vertebrae.

Excision (of Lesion) of Bone, Soft Tissue and Skin

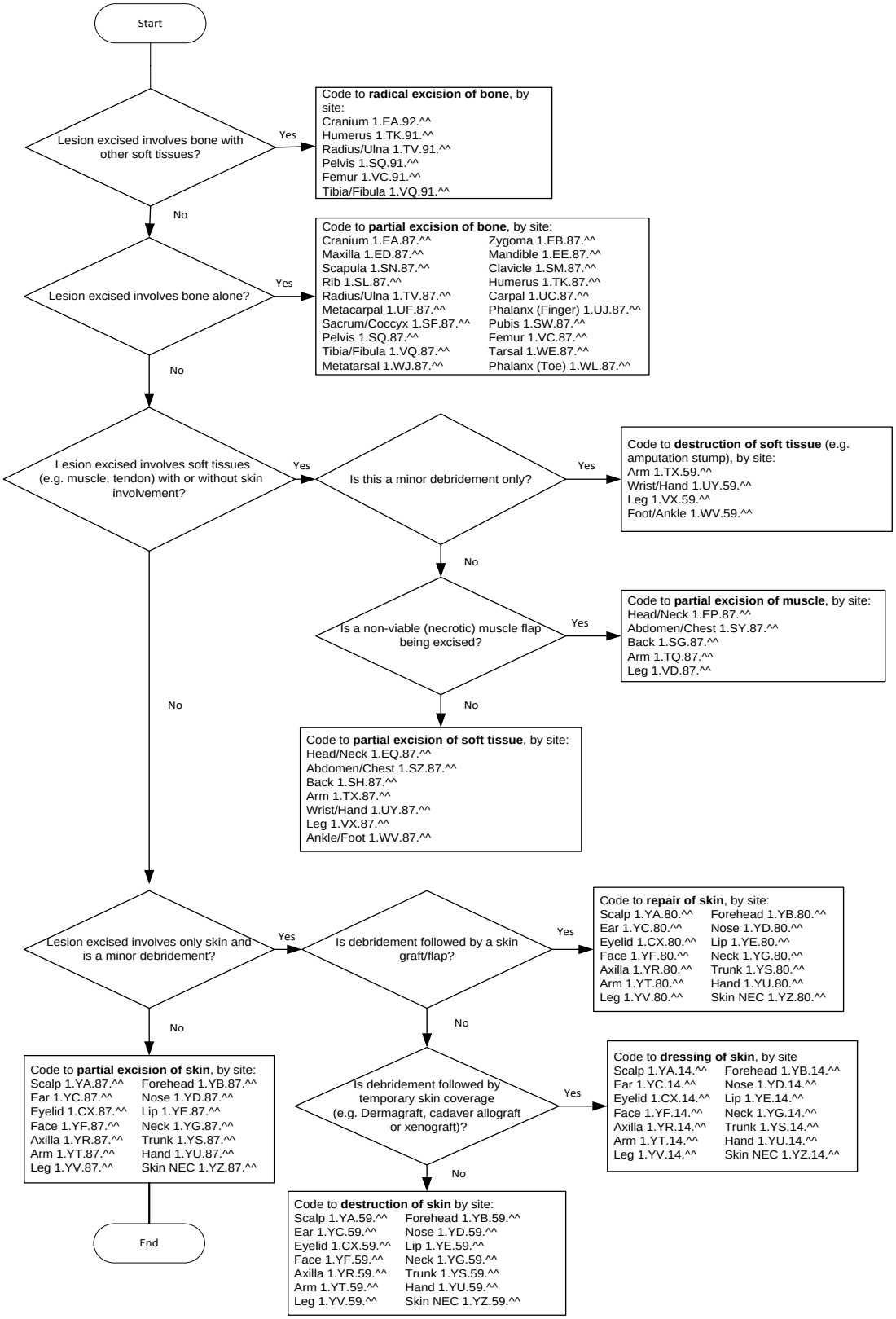
In effect 2001, amended 2006

DAD and NACRS directive statements

- When a lesion excision involves removal of soft tissue and bone, assign a CCI code with a generic intervention indicating **radical excision of bone**.
- When an intervention involves skin and soft tissue, assign a CCI code indicating the anatomical site of soft tissue.
- When the intent of a soft tissue excision of lesion is minor debridement only, assign a CCI code with a generic intervention indicating **destruction of soft tissue**.
- When the intent of a soft tissue excision of lesion is removal of the lesion, assign a CCI code with a generic intervention indicating **partial excision of soft tissue**.

In CCI, an excision confined to muscle alone is presumed to be a removal of a previously placed and nonviable muscle flap and is classified to partial excision of muscle by site. Any other excision of a muscle lesion is presumed to involve other soft tissues (such as the skin, subcutaneous tissues, fascia and tendon) and is classified accordingly.

Excision (of lesion) of bone, soft tissue and skin



Spinal Stenosis

In effect 2008

DAD and NACRS directive statements

- When the diagnosis is recorded as spinal or foraminal stenosis and the underlying cause is documented, assign a code for the underlying cause; do not assign M48.0– *Spinal stenosis*.
- When the final diagnosis is recorded as spinal or foraminal stenosis and the underlying cause is not documented, assign M48.0– *Spinal stenosis*.
- Assign an additional code from the category G55* *Nerve root and plexus compressions in diseases classified elsewhere* for any documented radiculopathy, including these terms:
  - Neuritis
  - Radiculitis
  - Sciatica
  - Nerve root compression
- Assign an additional code G99.2* *Myelopathy in diseases classified elsewhere* for documented myelopathy.
- Do not use category M99 *Biomechanical lesions, not elsewhere classified* for entry into the DAD or NACRS. See the note in ICD-10-CA at category M99 *Biomechanical lesions, not elsewhere classified*.

For clinical information, see also Spinal stenosis in Appendix A.

Example: The patient is diagnosed with spinal stenosis resulting from degeneration of the lumbar facet joints. He also has signs of radiculopathy in his lower limbs.

Code	DAD	NACRS	Code title
M47.26	(M)	MP	Other spondylosis with radiculopathy, lumbar region
G55.2*	(3)	OP	Nerve root and plexus compressions in spondylosis

Rationale: The patient's spinal stenosis was identified as being due to the degeneration of the facet joints (spondylosis). As the underlying cause was documented, the code M48.0– *Spinal stenosis* is not required.

Example: The patient is admitted for a foraminotomy to decompress his documented lumbosacral spinal stenosis. He also has documented sciatica. Final diagnosis is foraminal stenosis with sciatica.

Code	DAD	Code title
M48.07	(M)	Spinal stenosis, lumbosacral region
G55.3*	(3)	Nerve root and plexus compressions in other dorsopathies

Rationale: There was no physician documentation to identify the underlying cause of the patient's foraminal stenosis. In the presence of spinal stenosis, sciatica is classified to radiculopathy.

Note

When an underlying cause for the spinal stenosis is not documented, it is recommended that the physician be queried for clarification.

Chapter XIV — Diseases of the genitourinary system

See also the coding standard *Hypertension and Associated Conditions*.

For clinical information, see also Stages of chronic kidney disease (CKD) and Pelvic relaxation in Appendix A.

Stages of Chronic Kidney Disease (CKD)

In effect 2009

DAD and NACRS directive statement

When assigning a code from category N18 *Chronic kidney disease*, base the diagnosis code selection on clinical documentation of the stage of the disease, not the glomerular filtration rate (GFR).

- When the stage of chronic kidney disease (CKD) is not documented, assign N18.9 *Chronic kidney disease, unspecified*.

Note

The stages of CKD are based on a clinical diagnosis that includes monitoring the GFR over several months. Classification of CKD is, therefore, based on the clinical diagnosis of the stage of the disease and not a specific GFR value.

Example: A patient with advanced stage 3 CKD is admitted with worsening symptoms. Her GFR is noted to be 17 mL/min.

Code	DAD	NACRS	Code title
N18.3	(M)	OP	Chronic kidney disease, stage 3

Rationale: N18.3 is assigned based on documentation of stage 3. While the GFR of 17 mL/min is a value included under N18.4 *Chronic kidney disease, stage 4*, the stage as documented (stage 3) is used for code assignment.

Example: A patient is admitted with signs and symptoms of worsening kidney disease. The physician records the final diagnosis as “chronic renal failure.”

Code	DAD	NACRS	Code title
N18.9	(M)	MP	Chronic kidney disease, unspecified

Acute on Chronic Kidney Disease

In effect 2015

When acute kidney injury (meaning “acute renal failure” rather than a traumatic injury to the kidney) and chronic kidney disease (meaning “chronic renal failure” rather than a specific chronic condition of the kidney) occur together, they may be described as one clinical concept: acute on chronic renal failure (AoCRF). However, acute kidney injury and chronic kidney disease are two distinct and separate conditions that are classified separately.

DAD and NACRS directive statement

When “acute kidney injury” (acute renal failure) and “chronic kidney disease” (chronic renal failure) are documented and a code for acute kidney injury is assigned, assign a code for chronic kidney disease (N18.– or N08.3–*), mandatory, regardless of significance.

Note

Ensure that the “use additional code” instructions are followed at

- Category N18 *Chronic kidney disease* — “use additional code to identify underlying disease”; and
- The blocks *Glomerular diseases* (N00–N08) and *Renal tubulo-interstitial diseases* (N10–N16) — “use additional code to identify associated chronic kidney disease (N18.–).”

See also the coding standard *Use Additional Code/Code Separately Instructions*.

Note

The Canadian enhancement at N08.3–* *Glomerular disorders in diabetes mellitus* (E10–E14† with common fourth character .2) satisfies the requirement to assign a code for chronic kidney disease in a patient who has acute on chronic kidney disease with diabetes mellitus. Therefore, when N08.3–* is assigned, a code from category N18 is **not** required.

Example: The patient is diagnosed with acute tubular necrosis (ATN) following an abdominal aortic aneurysm (bypass) repair. The patient is on hemodialysis for end-stage renal disease. The patient is seen by a nephrologist, and his hemodialysis treatments are adjusted until his creatinine returns to baseline.

Prefix	Code	DAD	Cluster	Code title
6	N99.0	(2)	A	Postprocedural renal failure
	N17.0	(3)	A	Acute renal failure with tubular necrosis
	Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
	N18.5	(1)		Chronic kidney disease, stage 5

Rationale: Acute renal failure (ATN) and end-stage renal disease (chronic kidney disease) are documented. The codes for post-operative acute renal failure — N99.0, N17.0 and Y83.2 — are assigned; as well, N18.5 is assigned for the chronic kidney disease, mandatory, regardless of significance.

Example: The patient is admitted via the emergency department because she is feeling unwell. She has type 2 diabetes mellitus with chronic kidney disease and is on metformin. She has a sudden spike in her creatinine level. Her antidiabetic medication is changed and she is started on dialysis. Her creatinine returns to baseline. The dialysis is discontinued. She is discharged with a final diagnosis of acute on chronic renal failure due to metformin.

Code	DAD	Cluster	Code title
N17.9	(M)	A	Acute renal failure, unspecified
Y42.3	(9)	A	Insulin and oral hypoglycaemic [antidiabetic] drugs, causing adverse effects in therapeutic use
E11.23†	(3)		Type 2 diabetes mellitus with established or advanced kidney disease
N08.39*	(3)		Unspecified glomerular disorders in diabetes mellitus

Rationale: Acute renal failure and chronic kidney disease are documented. The codes for acute renal failure as an adverse effect in therapeutic use — N17.9 and Y42.3 — are assigned. The codes for chronic kidney disease with diabetes mellitus — E11.23 and N08.39 — are assigned, mandatory, regardless of significance.

N08.39 satisfies the requirement to assign a code for chronic kidney disease; therefore, a code from category N18 is not required.

Example: A patient with chronic diffuse sclerosing glomerulonephritis and stage 5 renal failure is admitted for an abdominal aortic aneurysm (bypass) repair. Her creatinine spikes above baseline post-operatively. She is seen in consultation by a nephrologist who diagnoses her with acute postprocedural renal failure. He recommends a specific treatment plan.

Prefix	Code	DAD	Cluster	Code title
6	N99.0	(2)	A	Postprocedural renal failure
	N17.9	(3)	A	Acute renal failure, unspecified
	Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
	N18.5	(3)		Chronic kidney disease, stage 5

Rationale: Acute renal failure and stage 5 renal failure (chronic kidney disease) are documented. The codes for post-operative acute renal failure — N99.0, N17.9 and Y83.2 — are assigned; as well, N18.5 is assigned for the chronic kidney disease, mandatory, regardless of significance.

Example: A patient with chronic renal failure secondary to chronic diffuse membranous glomerulonephritis presents with edema, elevated blood pressure and a spike above baseline of his creatinine level. He is admitted and started on diuretics, and his fluid intake and output are monitored.

Final diagnosis: Acute on chronic renal failure

Code	DAD	Code title
N17.9	M	Acute renal failure, unspecified
N18.9	3	Chronic kidney disease, unspecified
N03.2	3	Chronic nephritic syndrome, diffuse membranous glomerulonephritis

Rationale: Acute renal failure and chronic renal failure (chronic kidney disease) are documented. The code for acute renal failure, N17.9, is assigned. N18.9 is assigned for the chronic kidney disease, mandatory, regardless of significance; as well, N03.2 is assigned for the underlying cause per the "use additional code to identify underlying disease" note at category N18.

Continuous Ambulatory Peritoneal Dialysis (CAPD) Peritonitis

In effect 2001, amended 2002, 2003, 2006, 2009

DAD and NACRS directive statements

When peritonitis follows a dialysis procedure and is not attributable to the dialysis catheter (device), classify the infection to T80.2 *Infection following infusion, transfusion and therapeutic injection*.

When the physician documents a causal relationship indicating peritonitis due to a dialysis **catheter**, classify the peritonitis to T85.7 *Infection and inflammatory reaction due to other internal prosthetic device, implants and grafts*.

Assign an additional code from category K65 *Peritonitis*, mandatory, as a diagnosis type (3)/other problem to specify the infection.

See also the coding standards *Drug-Resistant Microorganisms*, *Post-Intervention Conditions* and *Complications of Devices, Implants or Grafts*.

An exit site infection at the site of the dialysis catheter for continuous ambulatory peritoneal dialysis (CAPD) may not be presumed to be the cause of peritonitis and does not always result in peritonitis. Physician documentation specifying a causal relationship between the two conditions is required to substantiate coding both conditions. The cause of peritonitis may be the introduction of bacteria into the peritoneum by the dialysis procedure, but it is not always related to an exit site infection; it is usually related to a breach in the patient's sterile technique. It is true, however, that if the patient has a chronic exit site infection, he or she will be more prone to episodes of peritonitis caused by the same organism. Pneumococcus and staphylococcus are the most common organisms.

Example: A patient on peritoneal dialysis has acute peritonitis (CAPD peritonitis). There is no documentation of an infection relating to the catheter.

Code	DAD	NACRS	Cluster	Code title
T80.2	(M)	MP	A	Infections following infusion, transfusion and therapeutic injection
K65.0	(3)	OP	A	Acute peritonitis
Y84.1	(9)	OP	A	Kidney dialysis as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of procedure

Example: A patient has peritonitis due to a peritoneal dialysis catheter exit site infection. The physician orders skin and peritoneal fluid cultures (positive for staphylococcus) to confirm the causative agent of the peritonitis.

Code	DAD	NACRS	Cluster	Code title
T85.7	(M)	MP	A	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts
K65.9	(3)	OP	A	Peritonitis, unspecified
B95.8	(3)	OP	A	Unspecified staphylococcus as the cause of diseases classified to other chapters (optional)
Y84.1	(9)	OP	A	Kidney dialysis as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of procedure

Menorrhagia as the Most Responsible Diagnosis (MRDx)

In effect 2006

Menorrhagia (uterine bleeding) can be related to a variety of causes (such as hormonal); in the great majority of cases, the cause is unknown or not fully explained. Menorrhagia can be the main reason a hysterectomy is performed.

Fibroids may produce no symptoms even when they are large. Symptoms depend on the number of fibroids, their size and their location in the uterus, as well as their status (whether they are growing or degenerating). Symptoms may include heavy or prolonged menstrual bleeding or bleeding between periods, pain, pressure or heaviness in the pelvic area during or between periods, need to urinate more frequently and swelling in the abdomen.

The Society of Obstetricians and Gynaecologists of Canada (SOGC) indicates that fibroids in and of themselves are not a reason for hysterectomy or embolization. The percentage of symptomatic fibroids is very low, and fibroids are often just an incidental finding on pathology. When it has been documented that the fibroid is the cause of the excessive uterine bleeding or pain, then the fibroid would be the most responsible diagnosis.

DAD-only directive statement

When a patient presents for a hysterectomy due to menorrhagia, select the MRDx based on the final diagnosis as stated by the attending physician. Do not assume that diagnoses listed on the pathology report are the underlying cause of the menorrhagia. These diagnoses may be incidental findings.

Example: A patient presents with menorrhagia, and a hysterectomy is performed. The pathology report shows uterine fibroids. The physician documents menorrhagia as the final diagnosis on the front sheet.

Code	DAD	Code title
N92.0	(M)	Excessive and frequent menstruation with regular cycle
D25.9	(3)	Leiomyoma of uterus, unspecified

Rationale: The leiomyomas (fibroids) were identified on the pathology report only and were not included in the final diagnosis recorded by the physician. It is optional to code and assign diagnosis type (3).

Chapter XV — Pregnancy, childbirth and the puerperium

For clinical information, see also Length of gestation and Trimesters in Appendix A.

See also the coding standard *Diabetes Mellitus*.

Recognizing that women typically give birth as inpatients, all of the directive statements and examples are shown for Discharge Abstract Database (DAD) abstracts. Obstetric cases with abortive outcomes have been identified as applicable to the DAD and the National Ambulatory Care Reporting System (NACRS).

Selection of the Sixth Digit in Obstetrical Coding

In effect 2001, amended 2006, 2007

The sixth digit that is applied to all codes in the range O10–O99 identifies the period (antepartum, intrapartum or postpartum) in which the patient is receiving care and whether or not the delivery occurs within that episode of care.

DAD-only directive statement

Select the sixth digit "1" — **Delivered** with or without mention of antepartum condition — when delivery occurs during the current episode of care and the condition occurred prior to or during delivery of the baby.

Example: The patient is admitted at 38 weeks gestation with gestational diabetes. She delivers a healthy baby boy and is discharged home.

Code	DAD	Code title
O24.801	(M)	Diabetes mellitus arising in pregnancy (gestational), delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

DAD-only directive statement

Select the sixth digit "2" — **Delivered** with mention of postpartum condition — when the delivery occurred during the current episode of care and the condition occurred after delivery of the baby.

Example: The patient is admitted at 39 weeks gestation. She delivers a healthy baby boy via spontaneous vaginal delivery. There is postpartum hemorrhage due to retained placenta. She is discharged home on postpartum day 4.

Code	DAD	Code title
O72.002	(M)	Third-stage haemorrhage, delivered, with mention of postpartum complication
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

DAD-only directive statement

Select the sixth digit "3" — **Antepartum** condition or complication — when the patient is admitted for management of an antepartum condition. The patient does not deliver during the current episode of care and is still pregnant on discharge.

Example: A patient at 14 weeks gestation presents to hospital with hyperemesis gravidarum. She is discharged home, undelivered.

Code	DAD	Code title
O21.003	(M)	Mild hyperemesis gravidarum, antepartum condition or complication

DAD-only directive statement

Select the sixth digit "4" — **Postpartum** condition or complication — when the patient is admitted for management of a postpartum condition or complication following delivery. The delivery occurred during a previous episode of care or outside the hospital, and the mother is now admitted for observation or care.

The postpartum period is six weeks from delivery unless specified otherwise in the documentation. In other words, if physician documentation states that a condition is a postpartum problem and it is more than six weeks after delivery, the condition is still classified as postpartum.

Example: This patient delivered a healthy baby boy via spontaneous vaginal delivery, with episiotomy, at 38 weeks gestation. She was discharged home on postpartum day 2. She now presents for readmission with dehiscence of the episiotomy.

Code	DAD	Code title
O90.104	(M)	Disruption of perineal obstetric wound, postpartum condition or complication

DAD and NACRS directive statement

Select the sixth digit "9" — **Unspecified** as to episode of care or not applicable — only when the outcome of the pregnancy is abortive. In these cases, assign the code from O10–O99 as an additional code to describe any obstetrical condition present with an abortion.

Example: A patient presents requesting a medical abortion because of known fetal anomalies. Ultrasound identified spina bifida with hydrocephalus.

Code	DAD	Code title
O04.9	(M)	Medical abortion, complete or unspecified, without complication
O35.039	(1)	Maternal care for (suspected) fetal spina bifida with hydrocephalus, unspecified as to episode of care, or not applicable

Allowable sixth-digit combinations

Multiple coding is commonly used with obstetrical cases because a patient often has more than one condition that affects the obstetrical experience. Different sixth digits may be used on the obstetric codes when a patient delivers and has both an antepartum or intrapartum condition *and* a postpartum condition. However, certain combinations of sixth digits are illogical for the same episode of care.

DAD-only directive statement

Assign only the following combinations of sixth digits on an abstract:

Sixth digit	Assign	Never assign
1	Alone or with "2"	With "3," "4" or "9"
2	Alone or with "1"	With "3," "4" or "9"
3	Alone	With any other sixth digit
4	Alone	With any other sixth digit
9	Alone	With any other sixth digit

Note

Certain obstetric conditions occur at only one point within an obstetric period. For example, placenta previa occurs only in the antepartum period (sixth digits 1, 3 or 9 only would apply). Other obstetric conditions, such as hypertension, may be present at any time throughout the pregnancy and persist into the puerperium (any sixth digit may apply).

Coders are reminded to read all inclusion and exclusion notes carefully. In some circumstances, ICD-10-CA has separate categories for conditions that occur either antepartum or postpartum (e.g., phlebothrombosis).

The following are examples of the correct usage of the sixth digits "1" and "2."

Example: The patient is admitted in labor. Twins are delivered. She develops subsequent postpartum hemorrhage on the second day followed by deep phlebothrombosis.

Code	DAD	Code title
O30.001	(M)	Twin pregnancy, delivered, with or without mention of antepartum condition
O72.202	(2)	Delayed and secondary postpartum haemorrhage, delivered with mention of postpartum complication
O87.102	(2)	Deep phlebothrombosis in the puerperium, delivered with mention of postpartum complication
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Example: The patient delivers by Cesarean section due to obstructed labor due to breech presentation of the baby. Prior to discharge, Cesarean wound dehiscence is diagnosed.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
O90.002	(2)	Disruption of caesarean section wound, delivered, with mention of postpartum complication
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

The sixth digit “3” — Antepartum condition or complication — must only be used alone.

Example: The patient is at 30 weeks gestation. She is admitted with gestational diabetes. She is monitored for three days and discharged home in good condition, undelivered.

Code	DAD	Code title
O24.803	(M)	Diabetes mellitus arising in pregnancy (gestational), antepartum condition or complication

The sixth digit “4” — Postpartum condition or complication — must only be used alone.

Example: The patient delivered a healthy baby boy two weeks ago. She was discharged home postpartum day 2. She is breastfeeding. She now presents with an abscess of the right breast.

Code	DAD	Code title
O91.104	(M)	Abscess of breast associated with childbirth, postpartum condition or complication

The sixth digit “9” — Unspecified as to episode of care or not applicable — must only be used alone.

Example: A patient was diagnosed with ovarian cancer at eight weeks gestation. She underwent a series of radiotherapy sessions to shrink the tumor. Following discussion with her radiation oncologist regarding the possible risk the radiation presented to her fetus, the patient opted to have a medical termination of the pregnancy. She now presents for a medical abortion.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication
O35.609	(1)	OP	Maternal care for (suspected) damage to fetus by radiation, unspecified as to episode of care, or not applicable

See also the coding standard *Pregnancy With Abortive Outcome*.

Sequencing Obstetrical Diagnosis Codes

In effect 2001, amended 2006, 2007

When selecting the MRDx in obstetrical cases, the diagnosis typing definition for most responsible diagnosis applies (see also the coding standard *Diagnosis Typing Definitions for DAD*). The following directives are provided to assist in applying the MRDx definition in certain obstetrical cases.

DAD-only directive statement

When an episode of care includes non-instrumental, spontaneous vaginal delivery of an infant but the mother was admitted for an antepartum condition that required treatment for five days or more before the birth, sequence the antepartum condition as the MRDx.

An antepartum condition that prolongs the stay prior to delivery by at least five days is considered to consume greater resources than the delivery itself when the delivery is a routine vaginal delivery.

Example: The patient is admitted with gestational hypertension. She is treated with bed rest and delivers a baby boy, manually assisted without episiotomy, on day 6 of admission. She has a first-degree laceration of the perineum, which is repaired.

Code	DAD	Code title
O13.001	(M)	Gestational [pregnancy-induced] hypertension, delivered, with or without mention of antepartum condition
O70.001	(1)	First degree perineal laceration during delivery, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

5.PC.80.JP Surgical repair, postpartum, of current obstetric laceration of pelvic floor, perineum, lower vagina or vulva

Rationale: O13.001 is selected as the MRDx, as it is most responsible for the patient's length of stay.

Example: The patient is admitted at term with pregnancy-induced hypertension. Labor is induced by intravenous oxytocin. She delivers a baby boy, manually assisted without episiotomy. A first-degree laceration of the perineum is repaired.

Code	DAD	Code title
O13.001	(M)	Gestational [pregnancy-induced] hypertension, delivered, with or without mention of antepartum condition
O70.001	(1)	First degree perineal laceration during delivery, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

5.PC.80.JP Surgical repair, postpartum, of current obstetric laceration of pelvic floor, perineum, lower vagina or vulva

5.AC.30.HA-I2 Induction of labour, using percutaneous injection of oxytocic agent

Rationale: Even though the antepartum condition in this example did not require a lengthy pre-delivery stay of five days or more, it can still be the MRDx. In this case, an induction was performed for the antepartum condition. The perineal tear was minor and consumed minimal resources.

DAD-only directive statements

D In cases within the expected length of stay where a Cesarean section or instrumentation (i.e., forceps or vacuum) has been used, assign the diagnosis stating the indication for the intervention as the MRDx.

D In cases where there is failed vacuum and/or forceps leading to subsequent Cesarean section, assign the underlying maternal or fetal condition that was the indication for the forceps or vacuum as the MRDx.

When a case is within an expected length of stay for an instrumental delivery, it is presumed that no other condition contributed to a greater consumption of resources than the condition that indicated the delivery method.

D **Example:** A primigravida patient is admitted with gestational diabetes. On day 1 of her admission, she goes into labor. After seven hours of labor, it is determined that she cannot deliver vaginally because of cephalopelvic disproportion. She is taken to the labor and delivery operative suite and delivers a healthy baby girl by Cesarean section.

Code	DAD	Code title
O65.401	(M)	Obstructed labour due to fetopelvic disproportion, unspecified, delivered, with or without mention of antepartum condition
O24.801	(1)	Diabetes mellitus arising in pregnancy (gestational), delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PB

Example: A primigravida patient is admitted with gestational hypertension and treated with bed rest. On day 7, she goes into spontaneous labor. After eight hours of labor, it is determined that she cannot deliver vaginally because of cephalopelvic disproportion. Signs of fetal distress (heart rate anomaly) are noted, and the mother's blood pressure continues to rise. She is taken to the labor and delivery operative suite and delivers a healthy baby girl by Cesarean section.

Code	DAD	Code title
O13.001		Gestational [pregnancy-induced] hypertension, delivered, with or without mention of antepartum condition
O65.401		Obstructed labour due to fetopelvic disproportion, unspecified, delivered, with or without mention of antepartum condition
O68.001		Labour and delivery complicated by fetal heart rate anomaly, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PB

Rationale: As will be true in many obstetrical cases, this patient's circumstances are unique and the above directives do not relate to her case. Selection of MRDx must be determined on the basis of the documentation of this case.

Example: The mother is fully dilated and the fetus is noted to be in left occipitotransverse position, station +1. Forceps are used in an attempt to rotate and deliver the fetal head. After the third contraction, and with no further fetal descent, it is decided to abandon the forceps and move to a primary lower uterine segment Cesarean section.

Code	DAD	Code title
O64.001	(M)	Obstructed labour due to incomplete rotation of fetal head, delivered, with or without mention of antepartum condition
O66.501	(1)	Failed application of vacuum extractor and forceps, unspecified, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.JW Cesarean section delivery, lower segment transverse incision, with use of forceps

Status: PB

Rationale: The Cesarean section is performed to address the obstructed labor due to malposition; therefore, O64.001 is selected as the MRDx. The indication for the Cesarean section does not become failed application of vacuum extractor and forceps. Forceps traction delivery is not captured separately; it is captured in the qualifier of the Cesarean section.

Intrauterine Death

In effect 2001, amended 2006

DAD-only directive statement

Classify late intrauterine fetal death — when the fetal demise occurs **at or after** 20 completed weeks of gestation — to O36.4– *Maternal care for intrauterine death*.

DAD and NACRS directive statement

Classify early intrauterine fetal death — when the fetal demise occurs **before** 20 completed weeks of gestation — with retention of the fetus to O02.1 *Missed abortion*.

Example: The patient noticed decreased fetal movement at 23 weeks gestation. On examination, no fetal heart rate could be detected. She now presents at 25 weeks gestation, in labor. She delivers a dead male fetus.

Code	DAD	Code title
O36.421		Maternal care for intrauterine death, second trimester, delivered, with or without mention of antepartum condition
Z37.100	(3)	Single stillbirth, pregnancy resulting from both spontaneous ovulation and conception

Example: An ultrasound examination diagnoses fetal demise at 19 weeks. The patient is sent home to await labor. Labor begins 10 days later, and she delivers a macerated male fetus weighing 150 grams.

Code	Code title
O02.1	Missed abortion

Rationale: Gestational age is determined at the time of fetal death.

Pregnancy With Abortive Outcome

For description of change, see Appendix C.

In effect 2001, amended 2004, 2006, 2009, 2012

See also the coding standard *Continuing Pregnancy After Abortion/Selective Fetal Reduction in Multiple Gestation*.

O03–O08 Pregnancy with abortive outcome

The primary axis is the type of abortion, with the fourth character indicating any associated complication(s).

Example: Spontaneous abortion, incomplete, without complication, treated by dilation and curettage

Code	DAD	NACRS	Code title
O03.4	(M)	MP	Spontaneous abortion, incomplete, without complication

5.PC.91.GA Interventions to uterus (following delivery or abortion), dilation and curettage

O04 Medical abortion

This is a broad category encompassing the diagnosis codes for both surgical and pharmacologically induced abortions; the diagnosis code does not indicate the method used to terminate the pregnancy.

DAD and NACRS directive statement

Classify all medical abortions (intended terminations of pregnancy), regardless of gestational age, fetal weight or outcome of the fetus (i.e., products of conception, stillborn or liveborn), to category O04 *Medical abortion*.

- When applicable, assign an additional code, mandatory, as a significant diagnosis type (1)/other problem from
  - Category O35 *Maternal care for known or suspected fetal abnormality and damage* to identify any fetal reason for the medical abortion (e.g., anencephalic fetus); and/or
  - Chapter XV — Pregnancy, childbirth and the puerperium (O10–O99) to identify any maternal medical illness as the reason for the medical abortion (e.g., maternal toxoplasmosis).

Note

An encounter for extraction/expulsion where fetal demise occurred **before** 20 weeks gestation is classified as a missed abortion, even when extraction/expulsion of the fetus occurs **after** 20 weeks.

Note

When a multiple pregnancy continues following a medical abortion, follow the direction in the coding standard *Continuing Pregnancy After Abortion/Selective Fetal Reduction in Multiple Gestation*.

Example: Medical abortion for unwanted pregnancy treated with a suction curettage at 10 weeks

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication

5.CA.89.GC Surgical termination of pregnancy, vaginal approach, aspiration and curettage

Rationale: Neither a fetal nor a maternal reason for medical abortion was documented; therefore, the case is classified to O04.9 only.

Medical abortion at or after 20 weeks resulting in a stillborn

A termination performed later in gestation is classified as a medical abortion on the mother's abstract as described above. A stillborn abstract is created per provincial/territorial direction.

Note
See Section 3: Additional Abstracting Information: **Stillborn Abstracting** in the *Discharge Abstract Database (DAD) Abstracting Manual* for the criteria for completing a stillborn abstract.

DAD and NACRS directive statement

When a medical abortion is performed at or **after** 20 weeks gestation and it results in a stillborn, assign P96.4 *Termination of pregnancy, affecting fetus and newborn* as the MRDx/main problem on the stillborn abstract.

- When applicable, assign additional code(s), mandatory, as diagnosis type (3)/other problem to describe any associated congenital anomaly

Note
When a medical abortion occurs at or **after** 20 weeks gestation, do not assign a code from category Z37 *Outcome of delivery* for a stillbirth on the mother's abstract. Direction for classifying a medical abortion at or **after** 20 weeks gestation resulting in a livebirth is addressed in the following section: Medical abortion resulting in a liveborn.

Mother's abstract

Example: An expectant mother presents at 26 weeks gestation. During her last prenatal visit, an ultrasound and amniocentesis were ordered. The results of the amniocentesis demonstrated that the fetus has trisomy 21. She has decided that she does not wish to carry this pregnancy to term. She is admitted for a medical termination of the pregnancy by vaginal insertion of prostaglandin.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication
O35.109	(1)	OP	Maternal care for (suspected) chromosomal abnormality in fetus, unspecified as to episode of care, or not applicable

5.CA.88.CK-I2 Pharmacological termination of pregnancy, per orifice approach, oxytocins

Rationale: A medical abortion was performed and the reason for the medical abortion was documented; therefore, the case is classified to O04.9 and a code for the fetal anomaly is assigned. The intent was to terminate the pregnancy; therefore, a delivery code from rubric 5.MD.50.^^ to 5.MD.60.^^ is not assigned.

Stillborn's abstract

Code	DAD	NACRS	Code title
P96.4	(M)	MP	Termination of pregnancy, affecting fetus and newborn
Q90.9	(3)	OP	Down's syndrome, unspecified

Rationale: A medical abortion was performed and the reason for the medical abortion was documented; therefore, the case is classified to P96.4 and a code for the fetal anomaly is assigned.

Mother's abstract

Example: A patient is admitted at 21 weeks for an unplanned pregnancy that she wishes to terminate. Dilation and evacuation is performed. The physician documents the diagnosis as "delivery of a stillborn."

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication

5.CA.89.GD Surgical termination of pregnancy, vaginal approach, dilation and evacuation [D & E]

Rationale: A medical abortion was performed; therefore, this case is classified to O04.9. Even though the physician documented "delivery of a stillborn," the intent was to terminate the pregnancy; therefore, a delivery code from rubric 5.MD.50.^^ to 5.MD.60.^^ is not assigned.

Stillborn's abstract

Code	DAD	NACRS	Code title
P96.4	(M)	MP	Termination of pregnancy, affecting fetus and newborn

Rationale: A medical abortion was performed; therefore, the case is classified to P96.4.

Medical abortion resulting in a liveborn

DAD-only directive statement

When a medical abortion performed at or **after** 20 weeks gestation results in a liveborn, assign

- On the mother's abstract, a code from
  - Category O04 *Medical abortion* as the MRDx/main problem; and
  - Category Z37 *Outcome of delivery* as a diagnosis type (3)/other problem to indicate that the abortion resulted in a liveborn; and
  - Category O35 *Maternal care for known or suspected fetal abnormality and damage* to identify any fetal reason for the medical abortion (e.g., anencephalic fetus); and/or
  - Chapter XV — Pregnancy, childbirth and the puerperium (O10–O99) to identify any maternal medical illness as the reason for the medical abortion (e.g., maternal toxoplasmosis).
- On the newborn's abstract
  - P96.4 *Termination of pregnancy, affecting fetus and newborn* as the MRDx/main problem; and
  - A code from category Z38 *Liveborn infants according to place of birth* as a diagnosis type (0); and
  - When applicable, a code to describe any associated congenital anomaly, mandatory, as a significant diagnosis type (1)/other problem.

Mother's abstract

Example: A patient presents at 20 weeks gestation requesting a therapeutic abortion. She is started on misoprostol intravenously. The fetus is successfully expelled. A heart beat and respirations are detected at birth.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication
Z37.000	(3)	OP	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.CA.88.HA-A2 Pharmacological termination of pregnancy, percutaneous approach [e.g. intravenous, injection into intraamniotic or extraamniotic sac], antacid treatment

Rationale: The medical abortion resulted in a liveborn; therefore, the case is classified to O04.9, and Z37.000 is assigned to show that the result was a liveborn. The intent was to terminate the pregnancy; therefore, a delivery code from rubric 5.MD.50.^^ to 5.MD.60.^^ is not assigned.

Newborn's abstract

The outcome of the intended termination was delivery of a liveborn fetus.

Code	DAD	NACRS	Code title
P96.4	(M)	MP	Termination of pregnancy, affecting fetus and newborn
Z38.000	(0)	OP	Singleton, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: The medical abortion resulted in a liveborn; therefore, the case is classified to P96.4, and Z38.000 is assigned to show that the result was a liveborn.

Mother's abstract

Example: A medical abortion is performed at 23 weeks gestation for fetal anencephaly. Labor is induced with intravenous Syntocinon. The fetus is born alive and survives for one hour.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication
O35.009	(1)	OP	Maternal care for (suspected) fetal anencephaly, unspecified as to episode of care, or not applicable
Z37.000	(3)	OP	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.CA.88.HA-I2 Pharmacological termination of pregnancy, percutaneous approach [e.g. intravenous, injection into intraamniotic or extraamniotic sac], oxytocins

Rationale: The medical abortion resulted in a liveborn. Therefore, the case is classified to O04.9, and Z37.000 is assigned to show that the result was a liveborn. The reason for the medical abortion was documented, so a code for the fetal anomaly is assigned. The intent was to terminate the pregnancy; therefore, a delivery code from rubric 5.MD.50.^^ to 5.MD.60.^^ is not assigned.

Newborn's abstract

The outcome of the intended termination was delivery of a liveborn fetus with anencephaly.

Code	DAD	NACRS	Code title
P96.4	(M)	MP	Termination of pregnancy, affecting fetus and newborn
Q00.0	(1)	OP	Anencephaly
Z38.000	(0)	OP	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: The medical abortion resulted in a liveborn. Therefore, the case is classified to P96.4, and Z38.000 is assigned to show that the result was a liveborn. The reason for the medical abortion was documented, so a code for the fetal anomaly is assigned.

Note

A liveborn resulting from a medical abortion **prior to** 20 weeks is considered pre-viable for the purposes of classification; therefore, a code from category Z37 *Outcome of delivery* is not assigned on the mother's abstract and a newborn abstract is not created.

Vital Statistics Act requirements for registration of a liveborn are not the same as those for classification of a newborn in the DAD. Consequently, liveborn registrations for Vital Statistics will not always match newborn data submitted to the DAD.

Mother's abstract

Example: A patient presents at 19 weeks gestation for a therapeutic abortion. She is started on misoprostol intravenously. The fetus is expelled. A heart beat is detected. The fetus expires seven minutes later.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication

5.CA.88.HA-A2 Pharmacological termination of pregnancy, percutaneous approach [e.g. intravenous, injection into intraamniotic or extraamniotic sac], antacid treatment

Rationale: A medical abortion prior to 20 weeks is considered pre-viable for the purposes of classification; therefore, a code from category Z37 is not assigned on the mother's abstract and a newborn abstract is not created.

O05 Other abortion

DAD and NACRS directive statement

Assign O05.– *Other abortion* for self-inflicted abortion or abortion following amniocentesis or trauma.

Example: A patient at 18 weeks gestation is driving her car when she is hit broadside by a man who runs a stop sign. She sustains a fractured (ischium) pelvis and subsequently goes on to spontaneously deliver a dead fetus.

Code	DAD	NACRS	Code title
S32.800	(M)	MP	Fracture of other and unspecified parts of lumbar spine and pelvis, closed
V43.5	(9)	OP	Car occupant injured in collision with car, pick-up truck or van, driver of car, traffic accident
O05.9	(1)	OP	Other abortion, complete or unspecified, without complication

O07 Failed attempted abortion

DAD and NACRS directive statement

When an intervention intended to terminate a pregnancy does not result in termination of the pregnancy, assign O07 *Failed attempted abortion*. To use this category, there must be a live fetus within the uterus at the time of discharge.

- Assign O07.4 *Failed attempted abortion, without complication* when no complication occurs within the same episode of care as the failed abortion.
- Assign O07.3 *Failed attempted abortion, complicated* when a complication occurs within the same episode of care as the failed abortion.

Note

When a complication follows a failed abortion, a code from category O08 *Complications following abortion and ectopic and molar pregnancy* is not assigned. The patient is pregnant at the time of discharge, so the codes for complication following abortion do not apply for this episode of care or any subsequent episode of care.

A readmission for a complication following a failed attempted abortion is classified to a code from O10–O99 because the patient is pregnant.

See also the coding standard *Complications Following Abortion and Ectopic and Molar Pregnancy*.

Example: The patient is admitted at 19 weeks gestation for a medical abortion. Prostin gel is inserted to initiate labor, but no labor ensues. The patient declines any further intervention and is discharged home.

Code	DAD	Code title
O07.4	(M)	Failed attempted abortion, without complication

5.CA.88.CK-I2 Pharmacological termination of pregnancy, per orifice approach, oxytocins

Example: The patient is admitted at 19 weeks gestation for a medical abortion. Prostin gel is inserted to initiate labor, but no labor ensues. The patient is taken to the operating room for a dilation and curettage (D & C). Blood is noted on the pad in the recovery room. After examination, it is determined that the patient is still pregnant, and she is taken back to the operating room for a second D & C.

Code	DAD	NACRS	Code title
O04.9	(M)	MP	Medical abortion, complete or unspecified, without complication

5.CA.89.GA Surgical termination of pregnancy, vaginal approach, dilation and curettage [D & C]

5.CA.88.CK-I2 Pharmacological termination of pregnancy, per orifice approach, oxytocins

5.CA.89.GA Surgical termination of pregnancy, vaginal approach, dilation and curettage [D & C]

Rationale: This was not a “failed abortion” because the patient was not pregnant at the time of discharge. Neither a fetal nor a maternal reason for medical abortion was documented; therefore, the case is classified to O04.9 only. The expected outcome for the first D & C performed during this episode of care was unsuccessful; however, because a failed intervention is classified in the same manner as one that is successful, an intervention code is assigned for both the unsuccessful and the successful D & Cs. See also the coding standard *Failed Interventions*. A diagnosis code is not assigned to show that the first D & C was unsuccessful.

Continuing Pregnancy After Abortion/Selective Fetal Reduction in Multiple Gestation

In effect 2001, amended 2006, 2008, 2009

When there is loss of one fetus or more, whether spontaneous or due to an intervention, the case is classified to category O31 *Complications specific to multiple gestation* and not to O00–O08 *Pregnancy with abortive outcome*.

DAD and NACRS directive statements

When a multiple pregnancy continues after an abortion/selective fetal reduction (any condition in O00–O08) of one fetus or more, classify this to O31.11– *Continuing pregnancy after spontaneous abortion of one fetus or more* or O31.12– *Continuing pregnancy after selective fetal reduction of one fetus or more*.

When a fetal anomaly or other condition is the reason for selective fetal reduction, assign an additional code as a comorbid diagnosis type for the fetal anomaly/other condition on both the selective fetal reduction and obstetrics delivered episodes.

Assign an additional code from O30 *Multiple gestation*, mandatory, as a comorbid diagnosis type

- On the abortive encounter, to describe the number of fetuses existing prior to the abortive outcome of one or more fetuses; and
- On the delivery encounter, to describe the number of live fetuses remaining in the pregnancy, when applicable (i.e., when there is more than one fetus at the time of delivery).

See also the coding standard *Multiple Gestation*.

Example: The patient presents with a twin pregnancy at 18 weeks gestation. She has some mild cramping and intermittent spotting. Despite bed rest, she spontaneously aborts one fetus.

Code	DAD	Code title
O31.113	(M)	Continuing pregnancy after spontaneous abortion of one fetus or more, antepartum condition or complication
O30.003	(1)	Twin pregnancy, antepartum condition or complication

Rationale: Continuing pregnancy after spontaneous abortion of one or more fetuses is classified to O31.11– rather than O03 *Spontaneous abortion*. The patient remains pregnant; therefore, this is an antepartum condition rather than an abortive outcome.

Example: The same patient is now at 37 weeks, 2 days gestation, presenting in labor. She delivers a healthy female baby at 05:45.

Code	DAD	Code title
O31.111	(M)	Continuing pregnancy after spontaneous abortion of one fetus or more, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: O30 *Multiple gestation* is not assigned because only a singleton fetus remains.

Example: A patient with a quadruplet multiple gestation pregnancy, assisted by in vitro fertilization, presents at 12 weeks for selective fetal reduction to a twin pregnancy, via ligation of the umbilical cords. The patient tolerates the procedure well and is discharged, retaining the reduced fetuses.

Code	DAD	NACRS	Code title
O31.123	(M)	MP	Continuing pregnancy after selective fetal reduction of one fetus or more, antepartum condition or complication
O30.203	(1)	OP	Quadruplet pregnancy, antepartum condition or complication

5.CA.90.FM Selective fetal reduction, using vascular occlusion
Extent: 2

Rationale: Selective fetal reduction is classified to O31.12– rather than O04 *Medical abortion*. The patient presented with quadruplet multiple gestation, so a code from category O30 *Multiple gestation* must be used to show the presenting status of the pregnancy. The fourth digit is selected to describe the number of fetuses existing prior to the selective fetal reduction.

Example: The same patient (who had selective fetal reduction at 12 weeks gestation) now presents at 38 weeks gestation with severe preeclampsia necessitating an emergency primary Cesarean section. She delivers healthy twin newborns. The previously reduced, retained fetuses are delivered as well.

Code	DAD	Code title
O14.101	(M)	Severe pre-eclampsia, delivered, with or without mention of antepartum condition
O31.121	(1)	Continuing pregnancy after selective fetal reduction of one fetus or more, delivered, with or without mention of antepartum condition
O30.001	(1)	Twin pregnancy, delivered, with or without mention of antepartum condition
Z37.201	(3)	Twins, both liveborn, pregnancy resulting from assisted reproductive technology (ART)

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PB

Rationale: O31.121 *Continuing pregnancy after selective fetal reduction of one fetus or more* covers the abortive outcome for these two fetuses. If another condition warrants assignment as MRDx, the code from O31.12– *Continuing pregnancy after selective fetal reduction of one fetus or more* does not have to be the MRDx.

Example: The patient is admitted at 19 weeks gestation for selective fetal reduction of one fetus of a twin pregnancy, due to fetus-to-fetus transfusion syndrome. The selective fetal reduction is accomplished via ligation of the umbilical cord.

Code	DAD	Code title
O31.123	(M)	Continuing pregnancy after selective fetal reduction of one fetus or more, antepartum condition or complication
O43.013	(1)	Fetus to fetus transfusion syndromes, antepartum condition or complication
O30.003	(1)	Twin pregnancy, antepartum condition or complication

5.CA.90.FM Selective fetal reduction, using vascular occlusion
Extent: 1

Rationale: Selective fetal reduction is classified to O31.12– rather than to O04 *Medical abortion*.

Example: The same patient (who had selective fetal reduction of one fetus at 19 weeks gestation) is now admitted at 38 weeks gestation in labor. She delivers a healthy newborn girl and the dead fetus.

Code	DAD	Code title
O31.121	(M)	Continuing pregnancy after selective fetal reduction of one fetus or more, delivered, with or without mention of antepartum condition
O43.011	(1)	Fetus to fetus transfusion syndromes, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: The delivery of the dead fetus is taken into consideration with the code O31.121. This is not a stillbirth, nor is it retained products of conception.

Complications Following Abortion and Ectopic and Molar Pregnancy

In effect 2001, amended 2003, 2012

ICD-10-CA makes a distinction between an episode of care in which the abortion or ectopic and molar pregnancy and any resulting complications are **treated together** (code from O00–O05 is MRDx/main problem) and an episode of care for a complication of the abortion or ectopic and molar pregnancy **treated previously** (category O08 is the MRDx/main problem). The inclusion terms provided at the subcategories of O08 should be referenced when assigning the fourth-character subcategories of O03–O05.

DAD and NACRS directive statement

When the episode of care is solely for the treatment of a complication, the abortion itself having been performed and completed in a previous episode of care, assign a code from category O08 *Complications following abortion and ectopic and molar pregnancy* as the MRDx/main problem.

Example: The patient had a spontaneous abortion and underwent a D & C in the first episode of care. She is brought to the emergency department two days after discharge because she has developed a fever. She is treated with antibiotics for endometritis.

Code	NACRS	Code title
O08.02	MP	Genital tract and pelvic infection following spontaneous abortion

Rationale: No other code is required because the abortion was performed during a previous episode of care.

DAD and NACRS directive statement

When the abortion and a complication occur during the same episode of care, select a code from O00–O05 as the MRDx/main problem.

- Assign an additional code, mandatory, from category O08 *Complications following abortion and ectopic and molar pregnancy* to identify associated complications with a code from O00–O02 or to provide further details with a code from O03–O05, per the “use additional code” instruction.

Example: Ruptured tubal pregnancy with shock (initial episode of care)

Code	DAD	NACRS	Code title
O00.1	(M)	MP	Tubal pregnancy
O08.30	(1)	OP	Shock following ectopic pregnancy

Rationale: The complication (shock) and the ruptured tubal pregnancy occurred during the same episode of care. O00.1 is assigned as the MRDx/main problem, and O08.30 is assigned to further specify the associated complication, per the “use additional code” instruction.

Example: Incomplete spontaneous abortion with perforation of uterus (initial episode of care)

Code	DAD	NACRS	Code title
O03.3	(M)	MP	Spontaneous abortion, incomplete, with other and unspecified complications
O08.62	(3)	OP	Damage to pelvic organs and tissues following spontaneous abortion

Rationale: The complication (perforation of uterus) and the spontaneous abortion occurred during the same episode of care. O03.3 (other and unspecified complication) is assigned as the MRDx/main problem, and O08.62 is assigned to further specify the associated complication, per the “use additional code” instruction.

Streptococcal Group B Infection/ Carrier in Pregnancy

In effect 2003, amended 2006, 2008

Infections due to group B streptococcus (GBS) in pregnant women are quite rare. Often, a low vaginal swab will identify GBS; however, the woman will have no symptoms and will simply be a carrier of the bacteria. Prophylactic antibiotic treatment may be given following premature rupture of membranes or during labor to ensure that the organism is not passed onto the baby during birth.

DAD-only directive statements

Assign O23.90– *Other and unspecified genitourinary tract infection in pregnancy* only when there is documented evidence of an active infection.

- When there is active infection, assign B95.1 *Streptococcus, Group B, as the cause of diseases classified to other chapters*, optional, as a diagnosis type (3) to identify the organism.

Assign Z22.38 *Carrier of other specified bacterial diseases*, optional, as a diagnosis type (3) to identify GBS carrier state.

When antibiotics are given for prophylaxis in a GBS carrier patient, assign Z29.2 *Other prophylactic chemotherapy*, optional, as a diagnosis type (3).

Example: The patient has a vaginal swab that is positive for GBS. On presentation, she has no symptoms. It is decided that no prophylactic treatment is necessary.

Code	DAD	Code title
Z22.38	(3)	Carrier of other specified bacterial diseases (optional)

Example: The vaginal swab comes back positive for GBS. There is no documentation indicating an active infection. The patient receives a course of antibiotics as a prophylactic measure.

Code	DAD	Code title
Z22.38	(3)	Carrier of other specified bacterial diseases (optional)
Z29.2	(3)	Other prophylactic chemotherapy (optional)

Example: A patient presents with a genitourinary tract infection due to GBS. She has a Cesarean section delivery of a female infant. There are no other documented complications of pregnancy or delivery.

Code	DAD	Code title
O23.901	(M)	Other and unspecified genitourinary tract infection in pregnancy, delivered, with or without mention of antepartum condition
B95.1	(3)	Streptococcus, group B, as the cause of diseases classified to other chapters (optional)
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Delivery in a Normal Case

In effect 2001, amended 2006, 2007, 2012

DAD-only directive statement

Assign a code from category Z37 *Outcome of delivery*, mandatory, for all deliveries.

- Select a code from subcategory Z37.0– *Single live birth* as the MRDx when a single, spontaneous vaginal delivery without any conditions complicating the pregnancy, childbirth or puerperium occurs.
- When any other code from Chapter XV — Pregnancy, childbirth and the puerperium applies to the case, assign the appropriate code from category Z37, mandatory, as a diagnosis type (3).

The following terms, when used in the absence of any other documentation to suggest otherwise, indicate a spontaneous delivery without complication:

- Spontaneous vertex delivery
- Left occiput anterior (LOA)
- Right occiput anterior (ROA)
- Single term liveborn
- Healthy mother delivered
- Occiput transverse position during labor that spontaneously rotates to OA at delivery
- Occiput posterior position during labor that spontaneously rotates to OA at delivery
- No fetal manipulation or instrumentation (e.g., forceps)
- Periurethral, first-degree or second-degree unsutured perineal lacerations
- Chorioamnionitis or funisitis as an incidental placental pathological finding only, without documentation of a diagnosis of fever or other symptoms of infection
- Nuchal cord (loose) or other cord entanglement, without mention of compression or intervention

Note

For the purposes of the classification, “slipping the cord over the head/body” of the infant or other simple manipulation of the cord during a delivery is not classified as an intervention.

The following presentations/positions are regarded as abnormal and are not considered normal cases. Code the listed condition when it requires care during pregnancy or is present during labor or at delivery:

- Breech presentation
- Brow presentation
- Compound presentation (nuchal arm/hand)
- Cord presentation
- Deep transverse arrest
- Face presentation
- Persistent occipitoposterior position (face-to-pubes, direct OP)
- Persistent occipitotransverse position
- Prolapsed arm
- Transverse/oblique lie
- Unstable lie

See also the coding standards *Maternal Care Related to the Fetus, Amniotic Cavity and Possible Delivery Problems*, *Obstructed Labor* and *Interventions Associated With Delivery*.

Example: The patient vaginally delivers a healthy newborn male, left OP presentation, without complication.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

Rationale: There is no mention of persistent OP, direct OP (face-to-pubes), fetal manipulation or instrumentation; therefore, spontaneous rotation of the fetal head to an OA position occurred prior to delivery.

Example: The patient vaginally delivers a healthy female baby in the breech position. An obstetrician is in attendance.

Code	DAD	Code title
O32.101	(M)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.56.AA Breech delivery, spontaneous breech delivery, without episiotomy, with spontaneous delivery of head

Rationale: Breech presentation is an abnormal presentation and is never considered to be a normal case. There is no mention of any special maneuvers or instrumentation to indicate that labor was obstructed; therefore, this is classified to O32.101.

Note

Certain obstetrical interventions do not preclude the use of a code from subcategory Z37.0– *Single live birth* as the MRDx (e.g., induction for convenience, artificial rupture of membranes and/or episiotomy). In a case where a Cesarean section is requested by a mother who has not had a previous Cesarean section, and it is done in the absence of any indications, a code from subcategory Z37.0– may still be used as the MRDx.

Example: A primigravida patient does not want a vaginal delivery, so she requests an elective Cesarean section. She has no complications of her pregnancy or delivery. The obstetrician performs a low-segment section with no forceps.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PC

Example: The patient had a Cesarean section delivery of her first child. The obstetrician has noted that she is a candidate for vaginal birth after Cesarean (VBAC), but the patient does not want a vaginal delivery and has requested an elective Cesarean section. She has no complications of her pregnancy or delivery. The obstetrician performs a low-segment section with no forceps.

Code	DAD	Code title
O34.201	(M)	Uterine scar due to previous Caesarean section, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: RC

Complicated Pregnancy Versus Uncomplicated Pregnancy

For description of change, see Appendix C.

In effect 2015, amended 2018

The purpose of this coding standard is to provide direction on determining whether or not a condition, when present during pregnancy, is classified as complicating the pregnancy when the classification is ambiguous and/or direction is not found within another coding standard.

Codes from Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99) are assigned for conditions related to or aggravated by the pregnancy; that is, conditions that "complicate" the pregnancy.

The coding standard also provides direction on when to assign Z33 *Pregnancy state, incidental*.

Note

This coding standard does not address conditions arising in the postpartum period.

Complicated pregnancy

As noted in the antepartum and intrapartum guidelines published by the Society of Obstetricians and Gynaecologists of Canada (SOGC), assisted reproductive technology and certain conditions, such as (pre-existing and gestational) diabetes mellitus and hypertension, are associated with an increased risk of adverse fetal outcome.

Advanced maternal age is not a condition complicating pregnancy per se. It is a risk factor — for both mothers and babies — because it is associated with a higher probability of developing pregnancy and labor complications; of requiring medical or surgical assistance during labor and delivery; and of resulting in adverse birth outcomes and birth defects. Maternal age is recorded on the abstract, and the appropriate codes are assigned for the conditions complicating the pregnancy.

A condition is classified as complicating the pregnancy when it is associated with an increased risk of adverse fetal outcome. The following conditions, when documented as currently present or existing during the antepartum or delivery episode of care, are always considered to complicate the pregnancy:

- Hypertensive disorders of pregnancy (O10–O16)
- Pre-existing diabetes mellitus or gestational diabetes (O24.–)
- Anemia (O99.0–)
- Hyperthyroidism (O99.2–)
- Vascular disease, such as cerebrovascular accident (CVA) or disease with potential clot formation (O22.– or O88.– or O99.4–)
- Renal disease, such as acute kidney injury, chronic kidney disease or compromised kidney function (O26.8– or O99.8–)
- Morbid obesity, so described (O99.2–)
- Cardiac disease, such as acute myocardial infarction, cardiomyopathy and coronary artery disease (O99.4–)
- ST segment elevation myocardial infarction (STEMI) (R94.30) and non-ST segment elevation myocardial infarction (NSTEMI) (R94.31) (O99.8–)

Note

For emergency department encounters, R94.30 and R94.31 may be used without a code from category I21 or I22 or without code I24.0; however, R94.30 and R94.31 must be used only for the purpose of indicating an emergency department discharge diagnosis documented as STEMI or NSTEMI. That is, when all that is documented on an emergency department record is the working diagnosis STEMI or NSTEMI, O99.8– *Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium* is assigned as the main problem and R94.30 or R94.31 is assigned as an other problem.

For inpatient and day surgery abstracts, R94.30 and R94.31 are reserved for the purpose of adding STEMI and NSTEMI information to acute myocardial infarction (AMI) or aborted myocardial infarction. These codes are to be used only when a code from category I21 *Acute myocardial infarction* or I22 *Subsequent myocardial infarction* or the code I24.0 *Coronary thrombosis not resulting in myocardial infarction* is assigned. R94.30 and R94.31 are not used with any other diagnosis.

For inpatient and day surgery cases, O99.4– *Diseases of the circulatory system complicating pregnancy, childbirth and the puerperium* is assigned as a significant diagnosis and I21.– *Acute myocardial infarction* or I22.– *Subsequent myocardial infarction* or I24.0 *Coronary thrombosis not resulting in myocardial infarction* and R94.30 or R94.31 are assigned as diagnosis type (3). O99.8– *Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium* is not assigned.

See also the coding standard *Acute Coronary Syndrome*.

A non-obstetrical condition, not listed above, is classified as complicating the pregnancy when the condition is present and significant (see the coding standard *Diagnosis Typing Definitions for DAD*) during the antepartum or delivery episode of care and there is concern for maternal or fetal well-being, as indicated by at least one of the following criteria:

- Requires admission to an obstetrical unit
- Requires the supervision of an obstetrician and/or neonatologist
- Requires an obstetrical and/or neonatology consultation or evaluation for the condition, except when initial assessment determines there is no concern for the pregnancy and/or no further obstetrical follow-up is required
- Requires continuous fetal evaluation and/or monitoring
- Requires a transfer to another facility for obstetrical and/or neonatal care

DAD and NACRS directive statement

When a condition complicates the pregnancy, as described above, classify the condition to a code from Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99) and assign a significant diagnosis type/main or other problem.

Example: A patient is admitted in labor at 38 weeks gestation. She delivers a healthy newborn male, vaginally, left occiput posterior presentation, without complication. It is noted in the progress notes that the patient has pre-existing hypertension, controlled by labetalol.

Code	DAD	Code title
O10.001	(M)	Pre-existing essential hypertension complicating pregnancy, childbirth and the puerperium, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Hypertension is one of the conditions always considered to complicate the pregnancy, as described above. Thus hypertension is classified to a code from Chapter XV and is assigned a significant diagnosis type. In this case, the hypertension is the only significant condition, so it qualifies as the MRDx.

Example: A 30-year old G1P2 is admitted at 37 + 5 weeks gestation for query labor. It is noted in the history and physical that the patient has type 1 diabetes mellitus and is on insulin. After 24 hours, no cervical changes or further contractions are noted. Discharge diagnosis is false labor.

Code	DAD	Code title
O47.103	(M)	False labour at or after 37 completed weeks of gestation, antepartum condition or complication
O24.503	(1)	Pre-existing type 1 diabetes mellitus in pregnancy, antepartum condition or complication

Rationale: It is mandatory to assign a code for diabetes mellitus whenever it is documented. Diabetes mellitus is one of the conditions always considered to complicate the pregnancy, as described above. Thus diabetes mellitus is classified to a code from Chapter XV and is assigned a significant diagnosis type.

Example: A patient is admitted at 36 weeks gestation with renal colic. Ultrasound shows bilateral hydronephrosis with 1.5 cm calculus in lower pole of the left kidney. On day 2 of admission, she passes the stone and is discharged.

Code	DAD	Code title
O26.803	(M)	Other specified pregnancy-related conditions, antepartum condition or complication
N13.2	(3)	Hydronephrosis with renal and ureteral calculus obstruction (optional)

Rationale: Renal disease is one of the conditions always considered to complicate the pregnancy, as described above. Thus renal disease is classified to a code from Chapter XV and is assigned a significant diagnosis type. An additional code to identify the specific renal condition is assigned, optionally.

Example: A primigravida patient is admitted at 37 weeks gestation for intravenous oxytocin induction of labor for gestational hypertension. She has a seizure following admission. A computerized tomography (CT) scan confirms a cerebral infarction with occlusion of the middle cerebral artery. She is taken to the operating room for an emergency Cesarean section and delivers a healthy female.

Code	DAD	Code title
O13.001	(M)	Gestational [pregnancy-induced] hypertension, delivered, with or without mention of antepartum condition
O99.401	(2)	Diseases of the circulatory system complicating pregnancy, childbirth and the puerperium, delivered, with or without mention of antepartum condition
I63.5	(3)	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PM

5.AC.30.HA-I2 Induction of labour, using percutaneous injection of oxytocic agent

Rationale: A cerebrovascular accident (stroke) is one of the conditions always considered to complicate the pregnancy, as described above. Thus a stroke is classified to a code from Chapter XV and is assigned a significant diagnosis type. An additional code to identify the specific (i.e., hemorrhagic, ischemic, unspecified) type of stroke is assigned, mandatory, per the "use additional code to identify specific condition" instruction at category O99.

DAD and NACRS directive statements

When a condition that complicates the pregnancy is classified to a code from O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium*, assign an additional code, mandatory, as a diagnosis type (3)/other problem, to identify the specific condition, per the "use additional code" instruction.

When two or more conditions that complicate the pregnancy are classified to different subcategories from O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium*, assign the code from the appropriate subcategory (O99.0–O99.8) for each complication, to the greatest level of specificity.

- Do not assign O99.8– as a flag to identify cases with multiple complications classifiable to O99.0–O99.7.

Example: A 38-year-old at 11 weeks gestation is found to be anemic. She is admitted for a work-up. The final diagnosis is "iron deficiency anemia requiring transfusion."

Code	DAD	Code title
O99.003	(M)	Anaemia complicating pregnancy, childbirth and the puerperium, antepartum condition of complication
D50.9	(3)	Iron deficiency anaemia, unspecified

Rationale: Anemia is one of the conditions always considered to complicate the pregnancy, as described above. Thus anemia is classified to a code from Chapter XV and is assigned a significant diagnosis type. An additional code to identify the specific type of anemia is assigned, mandatory, per the "use additional code to identify specific condition" instruction at category O99.

Example: A patient with gastroenteritis and dehydration is admitted for IV fluid rehydration. She is 36 weeks gestation on admission. During this episode of care, electronic fetal monitoring is done. It is documented in the discharge summary that the patient is advised to see her obstetrician in a week for follow-up.

Code	DAD	Code title
O98.803	(M)	Other maternal infectious and parasitic diseases complicating pregnancy, childbirth and the puerperium, antepartum condition or complication
A09.9	(3)	Gastroenteritis and colitis of unspecified origin
O99.203	(1)	Endocrine, nutritional and metabolic diseases complicating pregnancy, childbirth and the puerperium, antepartum condition or complication
E86.0	(3)	Dehydration

Rationale: Gastroenteritis and dehydration are not conditions associated with an increased risk of adverse fetal outcome. However, there is documentation of fetal monitoring and follow-up with an obstetrician, which is evidence of concern for maternal/fetal well-being. Therefore, the gastroenteritis and dehydration meet the criteria to classify both conditions to a code from Chapter XV, and both are assigned a significant diagnosis type. Additional codes to identify the specific conditions are assigned, mandatory, per the “use additional code to identify specific condition” instruction at categories O98 and O99.

Uncomplicated pregnancy

A condition is not classified as complicating the pregnancy when there is no associated risk of adverse fetal outcome and/or there is no concern for maternal or fetal well-being; that is, the condition does not meet any of the criteria for “complicated,” as described above (see Complicated pregnancy).

See also the coding standard *Delivery in a Normal Case*.

DAD and NACRS directive statements

When a condition does not complicate the pregnancy, as described above, classify the condition to the regular code.

When a code from Chapter XV is not assigned during the antepartum episode of care, assign Z33 *Pregnant state, incidental*, mandatory, as a diagnosis type (3)/other problem.

Example: A patient presents to the emergency department at 26 weeks gestation with redness, itching and mucopurulent discharge of her left eye. She is seen in consultation by an ophthalmologist. The final diagnosis is documented as “conjunctivitis.” She is discharged home with a prescription for antibiotic eye drops.

Code	NACRS	Code title
H10.9	MP	Conjunctivitis, unspecified
Z33	OP	Pregnant state, incidental

Rationale: Conjunctivitis is not a condition associated with an increased risk of adverse fetal outcome, nor is there any documentation to support concern for maternal or fetal well-being. The conjunctivitis is classified to the regular code. Z33 is assigned, mandatory, because a code from Chapter XV does not apply.

Example: A patient presents with right lower quadrant abdominal pain. She is 32 weeks gestation. She is admitted for further investigation. An ultrasound is done and an obstetrician is consulted. The obstetrician documents “pain is not obstetrical in nature.” The patient is discharged without a follow-up appointment, and the final diagnosis is “abdominal pain.”

Code	DAD	Code title
R10.30	(M)	Right lower quadrant pain
Z33	(3)	Pregnant state, incidental

Rationale: An obstetrician was consulted; however, the documentation supports the initial assessment, which determined that there was no concern for the pregnancy and that no further obstetrical follow-up was required. The abdominal pain is classified to the regular code. Z33 is assigned, mandatory, because a code from Chapter XV does not apply.

Example: A patient presents to the emergency department at 34 weeks gestation with a sore throat. It is noted on the chart that she has gestational diabetes mellitus. She is seen in consultation by an otolaryngologist. The final diagnosis is documented as "acute pharyngitis." She is discharged home with a prescription for antibiotics.

Code	NACRS	Code title
J02.9	MP	Acute pharyngitis, unspecified
O24.803	OP	Diabetes mellitus arising in pregnancy (gestational), antepartum condition or complication

Rationale: Pharyngitis is not a condition associated with an increased risk of adverse fetal outcome, nor is there any documentation to support concern for maternal or fetal well-being. Therefore, the acute pharyngitis is classified to the regular code. The patient also has gestational diabetes. It is mandatory to assign a code for diabetes mellitus whenever it is documented. Since diabetes mellitus is one of the conditions always considered to complicate a pregnancy, as described above, the diabetes mellitus is classified to a code from Chapter XV.

Example: A patient at 28 weeks gestation falls down the stairs at home and sustains a right Colles' fracture. She is admitted for an open reduction and internal fixation of the fracture.

Code	DAD	Code title
S52.500	(M)	Colles' fracture, closed
W10	(9)	Fall on and from stairs and steps
U98.0	(9)	Place of occurrence, home
Z33	(3)	Pregnant state, incidental

Rationale: Non-obstetrical trauma is classified to a code from Chapter XIX, per the exclusion note at the beginning of Chapter XV. Z33 is assigned, mandatory, because a code from Chapter XV does not apply.

Delivery With History of Cesarean Section

In effect 2003, amended 2005, 2006, 2012, 2015

DAD-only directive statements

When a delivery occurs during an episode of care and there is documentation of a previous Cesarean section, assign one of the following codes, mandatory:

- O75.701 *Vaginal delivery following previous caesarean section, delivered, with or without mention of antepartum condition*
- O66.401 *Failed trial of labour following previous caesarean, delivered, with or without mention of antepartum condition*
- O34.201 *Uterine scar due to previous Caesarean section, delivered, with or without mention of antepartum condition*

Ensure that the above codes never appear together on the same abstract, as they are mutually exclusive.

Exception
In cases of multiple gestation, O75.701 and O66.401 may appear together on the same abstract when one baby is born vaginally and another is born via Cesarean section due to an unexpected complication.

DAD-only directive statement

When a patient who is booked for a repeat Cesarean section is admitted early in labor and proceeds immediately to Cesarean section, assign O34.201 *Uterine scar due to previous Caesarean section, delivered, with or without mention of antepartum condition*.

Example: The patient had a previous Cesarean section. In this current pregnancy, the fetus is found to be in breech presentation; therefore, the mother is booked for a repeat Cesarean section. She presents in early labor prior to the planned date and proceeds immediately to Cesarean section.

Code	DAD	Code title
O34.201	(M)	Uterine scar due to previous Caesarean section, delivered, with or without mention of antepartum condition
O32.101	(1)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Uterine scar and breech presentation are both indications for the planned repeat Cesarean section; therefore, either qualifies as the MRDx.

Multiple Gestation

In effect 2008

DAD-only directive statement

Whenever there is multiple gestation, even when there are no other problems with the pregnancy or delivery, assign a code from category O30 *Multiple gestation*, mandatory.

Exception
A code from O30 *Multiple gestation* is optional for cases classifiable to O00–O08 *Pregnancy with abortive outcome*.

Example: Normal spontaneous vaginal delivery of twins at 38 weeks gestation

Code	DAD	Code title
O30.001	(M)	Twin pregnancy, delivered, with or without mention of antepartum condition
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Multiple gestation is always considered to be high risk or to have the potential to complicate pregnancy or delivery. These cases are not considered normal deliveries.

Example: A 19-year-old primigravida with known twin pregnancy is admitted for a planned Cesarean section due to frank breech presentation of one twin.

Code	DAD	Code title
O32.501	(M)	Maternal care for multiple gestation with malpresentation of one fetus or more, delivered with or without mention of antepartum condition
O32.101	(1)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
O30.001	(1)	Twin pregnancy, delivered, with or without mention of antepartum condition
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Even in cases where a complication specific to multiple gestation has been coded, an additional code from category O30 is assigned.

Maternal Care Related to the Fetus, Amniotic Cavity and Possible Delivery Problems

In effect 2001, amended 2007

DAD-only directive statements

Select a code from the range O32–O34 when

- The condition is noted prior to the onset of labor and a planned Cesarean section is performed;
- Interventions to correct a potentially obstructing factor (rotation, version) are performed prior to the onset of labor; or
- A malpresentation or malposition delivers via a **spontaneous** vaginal delivery (e.g., without any fetal manipulation or instrumentation) even if the malpresentation or malposition is not noted until after the onset of labor.

When labor has begun, but medical intervention is required due to malpresentation/malposition, disproportion or abnormality of maternal pelvic organs, assign a code from the range O64–O66 to classify as obstructed labor.

See also the coding standards *Delivery in a Normal Case* and *Obstructed Labor*.

Example: A 26-year-old primigravida with known twin pregnancy is admitted for Cesarean section due to breech presentation of one twin. She undergoes a lower-segment Cesarean section with successful delivery of twin boys.

Code	DAD	Code title
O32.501	(M)	Maternal care for multiple gestation with malpresentation of one fetus or more, delivered, with or without mention of antepartum condition
O32.101	(1)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
O30.001	(1)	Twin pregnancy, delivered with or without mention of antepartum condition
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Rationale: This mother was admitted for a planned Cesarean section and did not go into labor; hence code selection is from O32–O34 and not from O64–O66.

Example: A 26-year-old primigravida with known twin pregnancy is admitted in early labor. She progresses well until almost fully dilated, when it becomes apparent that twin A is in breech presentation. She undergoes a lower-segment Cesarean section with successful delivery of twin boys.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered with or without mention of antepartum condition
O30.001	(1)	Twin pregnancy, delivered with or without mention of antepartum condition
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Example: A 27-year-old multigravida is admitted for Cesarean section due to past history of two previous sections. A single live male is delivered.

Code	DAD	Code title
O34.201	(M)	Uterine scar due to previous Caesarean section, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: A 27-year-old G2P1 is admitted in active labor at 6 cm dilation. This patient has a history of a previous Cesarean section but wishes for a trial of labor in hopes of delivering vaginally. After several hours of labor, persistent OP is diagnosed and a Cesarean section is carried out.

Code	DAD	Code title
O64.001	(M)	Obstructed labour due to incomplete rotation of fetal head, delivered, with or without mention of antepartum condition
O66.401	(1)	Failed trial of labour following previous caesarean, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: A 27-year-old multigravida is admitted in active labor at 6 cm dilation. This patient has a history of a previous Cesarean section but wishes for a trial of labor. After two more hours of labor, she successfully delivers a female fetus vaginally.

Code	DAD	Code title
O75.701	(M)	Vaginal delivery following previous caesarean section, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: The patient presents to hospital in early labor. Fetal position is noted to be right OP. At full dilation, the position is noted to be direct OP. The mother is placed in stirrups in lithotomy position and encouraged to push. Spontaneous vaginal delivery occurs from a direct OP position.

Final diagnosis: POP, prolonged 1st and 2nd stage of labor

Code	DAD	Code title
O32.801	(M)	Maternal care for other malpresentation of fetus, delivered, with or without mention of antepartum condition
O63.001	(1)	Prolonged first stage (of labour), delivered, with or without mention of antepartum condition
O63.101	(1)	Prolonged second stage (of labour), delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: It is possible for a spontaneous vaginal delivery to occur from a direct OP position; however, this is not considered a normal delivery. There is no fetal manipulation or instrumentation to indicate obstruction; therefore, the correct code is O32.801.

Prolonged Pregnancy/Post-Dates Pregnancy

In effect 2012

For clinical information, see also Length of gestation in Appendix A.

DAD-only directive statement

When pregnancy has reached 42 completed weeks (42 + 0), assign a code from category O48 *Prolonged pregnancy*.

Example: The patient delivers a healthy newborn. The gestational age on the delivery record is recorded as 42 completed weeks.

Code	DAD	Code title
O48.001	(M)	Prolonged pregnancy, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: A documented gestation of 42 completed weeks is indicative of "prolonged pregnancy"; therefore, O48.001 is assigned.

DAD-only directive statement

When pregnancy has reached 41 completed weeks (41 + 0) and "post-dates" or "post-term" is documented as the indication for induction of labor, assign a code from category O48 *Prolonged pregnancy*.

Note

According to the definition, when the pregnancy has not reached 41 completed weeks, it is not post-term or post-dates; therefore, when the diagnosis is stated as "post-dates" or "post-term" and the gestation has not reached 41 completed weeks, the chart should be returned to the physician for verification of the diagnosis. When this is not possible, classify the case as documented.

Example: The patient is admitted for induction of labor. The delivery record documents the gestational age as 41 + 2, and the reason for induction is documented as “post-dates.”

Code	DAD	Code title
O48.001	(M)	Prolonged pregnancy, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: The gestation is more than 41 completed weeks and is documented as the reason for induction; therefore, O48.001 is assigned.

Example: The patient is admitted at 41 + 2 weeks gestation and spontaneously delivers a healthy newborn with no complications.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Although the gestation was more than 41 completed weeks, it was not an indication for an intervention.

Example: The patient is admitted for induction of labor. The delivery record documents the gestational age as 40 + 2, and the reason for induction is documented as “post-dates.”

Code	DAD	Code title
O48.001	(M)	Prolonged pregnancy, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: This case should be referred to the physician for clarification of the diagnosis. When this is not possible, classify the case as documented.

Premature Rupture of Membranes

In effect 2001, amended 2005, 2006, 2009, 2012

DAD-only directive statement

Assign a code from category O42 *Premature rupture of membranes* when there is **spontaneous** rupture of the amniotic sac more than one hour prior to the onset of labor. Select codes within the category O42 according to the length of time between rupture of the membranes and the onset of labor with a second axis of term or preterm gestational age at the time of rupture.

Note

To determine the onset of labor, use the time that is documented on the delivery record.

See also the coding standard *Interventions Associated With Delivery*.

Example: The patient presents to hospital at 35 weeks gestation with spontaneous rupture of membranes. She is not having any contractions or tightenings. Labor begins six hours after her premature rupture of membranes. She delivers a healthy baby boy two hours after her labor begins.

Code	DAD	Code title
O42.011	(M)	Premature rupture of membranes, onset of labour within 24 hours, preterm, delivered, with or without mention of antepartum condition
O60.101	(1)	Preterm spontaneous labour with preterm delivery, with or without mention of antepartum condition
O62.301	(1)	Precipitate labour, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

DAD-only directive statement

When delivery occurs more than 24 hours after premature rupture of membranes, assign as an additional code O75.601 *Delayed delivery after spontaneous or unspecified rupture of membranes, delivered with or without mention of antepartum condition*.

Example: A 24-year-old primigravida at 39 weeks gestation is admitted at 02:00 with documented rupture of membranes at 19:00 on the night before admission. She is observed for several hours as, due to the shortage of available staff, induction cannot be started until 18:00. Time of onset of labor is documented as 19:30, and a healthy male infant is delivered at 22:00. Membranes were ruptured for a total of 24.5 hours prior to the onset of labor.

Code	DAD	Code title
O42.121	(M)	Premature rupture of membranes, onset of labour after 24 hours, full term, delivered with or without mention of antepartum condition
O75.601	(1)	Delayed delivery after spontaneous or unspecified rupture of membranes, delivered with or without mention of antepartum condition
O62.301	(1)	Precipitate labour, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Preterm Labor

In effect 2001, amended 2006

DAD-only directive statement

When labor occurs **before** 37 completed weeks of pregnancy, assign a code from category O60 *Preterm labour and delivery*. Labor can be spontaneous or induced and can be followed by vaginal or surgical delivery.

See also the coding standards *Pregnancy With Abortive Outcome* and *Premature Rupture of Membranes*.

Example: The patient presents in spontaneous labor. She delivers a healthy baby girl at 36 weeks gestation.

Code	DAD	Code title
O60.101	(M)	Preterm spontaneous labour with preterm delivery, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Long Labor

In effect 2001, amended 2006, 2007, 2009

DAD-only directive statement

Assign a code from category O63 *Prolonged labour* when the length of time of a given stage of labor meets the following criteria:

O63.0– *Prolonged first stage*

- More than 18 hours for primipara
- More than 12 hours for multipara

O63.1– *Prolonged second stage*

- More than 2 hours for primipara
- More than 3 hours for primipara who has received an epidural anesthetic
- More than 1 hour for multipara
- More than 2 hours for multipara who has received an epidural anesthetic

O63.2– *Delayed delivery of second twin, triplet, etc.*

- Time lapse of more than 15 minutes between births

Note

To calculate the duration of labor, use the times as recorded on the delivery record.

Example: A primipara patient presents to hospital in labor. After 20 hours of labor, her obstetrician recommends proceeding to Cesarean section because her cervix remains at 6 cm dilation. She delivers a healthy baby girl by Cesarean section.

Code	DAD	Code title
O63.001	(M)	Prolonged first stage (of labour), delivered, with or without mention of antepartum condition
O62.101	(1)	Secondary uterine inertia, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: There was arrest of the active phase of labor (i.e., dilation reached 6 cm and then stopped); therefore, this is classified to secondary uterine inertia. Both conditions are present; therefore, both codes are assigned. Sequencing does not matter in this case; either one can be MRDx.

Example: A multipara patient presents to hospital in active labor, and an epidural anesthetic is administered. Upon examination, her cervix is 10 cm dilated and 100% effaced. She pushes for two hours and five minutes. Her obstetrician applies a vacuum. A healthy baby girl is delivered vaginally, assisted by low vacuum traction.

Code	DAD	Code title
O63.101	(M)	Prolonged second stage (of labour), delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Once the patient is 10 cm dilated, she is in the second stage.

Example: A primipara patient presents in labor at 38 weeks with a twin gestation. Following one hour of pushing, she successfully delivers a healthy baby boy (twin A). She continues to push and, 18 minutes later, her obstetrician applies a vacuum to facilitate the delivery of a healthy baby girl (twin B).

Code	DAD	Code title
O63.201	(M)	Delayed delivery of second twin, triplet, etc., delivered, with or without mention of antepartum condition
O30.001	(1)	Twin pregnancy, delivered, with or without mention of antepartum condition
Z37.200	(3)	Twins, both liveborn, pregnancy resulting from both spontaneous ovulation and conception

Precipitate Labor

In effect 2007, amended 2009

DAD-only directive statement

Assign O62.3– *Precipitate labour* when the total duration of labor is less than or equal to three hours or the physician documents rapid delivery or rapid second stage.

Note
To calculate the duration of labor, use the times as recorded on the delivery record.

Example: This 26-year-old female, gravida 4, is admitted at 41 + 2 weeks gestation for induction of labor due to post-dates. Induction with IV Syntocinon is started at 13:15 on the day of admission. Labor starts at 14:00, and she is fully dilated at 15:32. She begins pushing at 15:39 and delivers a live male infant at 16:13.

Code	DAD	Code title
O48.001	(M)	Prolonged pregnancy, delivered, with or without mention of antepartum condition
O62.301	(1)	Precipitate labour, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Obstructed Labor

For description of change, see Appendix C.

In effect 2001, amended 2002, 2007, 2018

DAD-only directive statement

Classify labor as obstructed when abnormalities occur that prevent a spontaneous vaginal delivery.

- Ensure there is documentation that the patient is in labor before assigning a code from the range O64–O66.
- Code obstructed labor when the physician states that labor was obstructed or when the alphabetical index leads to an obstructed labor code (e.g., shoulder dystocia, persistent occipitotransverse position).
- Look for documentation of obstructed labor when an unplanned Cesarean section is performed for maternal indications.

Note

Failure to progress NOS is not necessarily an indication that labor is obstructed. It is an inclusion term at O62.2– *Abnormalities of forces of labour, other uterine inertia*.

See also the coding standards *Maternal Care Related to the Fetus, Amniotic Cavity and Possible Delivery Problems* and *Delivery in a Normal Case*.

Example: Pregnancy at term delivered with obstructed labor due to transverse lie

Code	DAD	Code title
O64.801	(M)	Obstructed labour due to other malposition and malpresentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: A female infant is delivered vaginally with significant shoulder dystocia lasting for one minute. Apgars are 7 and 9.

Code	DAD	Code title
O66.001	(M)	Obstructed labour due to shoulder dystocia, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: The alphabetical index for shoulder dystocia leads to an obstructed labor code; therefore, O66.001 is assigned.

Example: Pregnancy at term delivered with obstructed labor due to breech presentation. An unplanned Cesarean section is performed.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Example: The patient is booked for Cesarean section due to breech presentation. She presents in spontaneous labor prior to the booked date and proceeds immediately to Cesarean section.

Code	DAD	Code title
O32.101	(M)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Cesarean section was planned prior to the onset of labor; therefore, maternal care for known or suspected breech presentation is selected.

Example: The patient is admitted for induction of labor due to post-dates. She is induced with IV oxytocin and labor begins. Shortly after labor begins, it is discovered that the fetus is in breech presentation. The physician gives the mother the option of proceeding with labor or having a Cesarean section. The mother opts for Cesarean section.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
O48.001	(1)	Prolonged pregnancy, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Breech presentation was not known prior to the onset of labor, and the Cesarean section was unplanned; therefore, obstructed labor due to breech presentation is selected.

DAD-only directive statement

When maternal care is administered for a potentially obstructing factor prior to commencement of labor, assign a code from the range O31–O34.

Example: A patient is known to have a breech presentation (diagnosed on ultrasound). She is admitted for Cesarean section (planned). She never goes into labor.

Code	DAD	Code title
O32.101	(M)	Maternal care for breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Note

An obstructed labor may sometimes end in a vaginal delivery.

DAD-only directive statement

When an obstructing factor is resolved by version and/or rotation at the time of delivery or by certain other maneuvers (e.g., Rubin, Wood's) and the result is a vaginal delivery, assign a code

- From the range O64–O66; and
- For the intervention leading to the resolution of the obstruction.

Note

Maternal positioning classified to rubric 5.MD.16.^^ *Maternal positions for delivery (assistance)* (e.g., McRoberts) may alleviate some obstructions; however, it is not mandatory to assign a code for these interventions. See also the coding standard *Selection of Interventions to Code for Acute Inpatient Care*.

Example: The patient is admitted in active labor at 37 weeks gestation. Labor is obstructed due to breech presentation. The physician successfully performs an external cephalic version, and the infant is born vaginally in cephalic presentation.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

5.LD.40.JA Version during labour, by external cephalic version

Example: Shoulder dystocia is noted during delivery. McRoberts with suprapubic pressure is performed followed by corkscrew maneuver (internal rotation of shoulder), which results in delivery of the posterior arm. The rest of the body follows.

Code	DAD	Code title
O66.001	(M)	Obstructed labour due to shoulder dystocia, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

5.MD.40.LH Version and/or rotation at time of delivery, corkscrew maneuver

Rationale: O66.001 is assigned because the alphabetical index for shoulder dystocia leads to an obstructed labor code. 5.MD.40.LH is assigned for the corkscrew maneuver, as it is mandatory per the direction in the coding standard *Selection of Interventions to Code for Acute Inpatient Care*. Although McRoberts (with suprapubic pressure) is also performed to resolve the obstruction, McRoberts (with or without suprapubic pressure) is classified to 5.MD.16.LL and is optional to assign.

Labor and Delivery Complicated by Fetal Stress

In effect 2001, amended 2006, 2012, 2015

The codes in category O68 *Labour and delivery complicated by fetal stress [distress]* identify the presence of possible indicators that the fetus may be in danger of developing asphyxia or acidemia. Delivery interventions may be based on the presence of these indicators. Fortunately, despite the pre-delivery concerns, the delivery most often results in a completely normal infant. Codes in the range O68.0– to O68.2– may be assigned on the mother's abstract even when the fetus is delivered with no substantial evidence of asphyxia or acidemia. O68.3– *Labour and delivery complicated by evidence of fetal asphyxia*, however, cannot be assigned without lab evidence that the condition is present.

DAD-only directive statement

When a diagnosis of fetal acidemia or fetal asphyxia has been substantiated by a documented abnormal acid–base balance (pH value for fetal acidemia as shown at category P20.– *Fetal acidaemia*), assign O68.3– *Labour and delivery complicated by evidence of fetal asphyxia*.

Note
When signs of fetal asphyxia are present prior to commencement of labor, assign a code from O36.3– *Maternal care for signs of fetal asphyxia*.

See also the coding standard *Fetal Acidemia*.

Example: The patient is admitted in active labor at 37 weeks gestation. During labor, a non-reassuring fetal heart rate is identified. Fetal scalp sampling indicates an arterial pH of 6.7. The obstetrician recommends an emergency Cesarean section for fetal distress.

Code	DAD	Code title
O68.301	(M)	Labour and delivery complicated by evidence of fetal asphyxia, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Postpartum Hemorrhage

For description of change, see Appendix C.

In effect 2001, amended 2006, 2007, 2012, 2018

"**Postpartum hemorrhage** describes an event rather than a diagnosis, and when encountered, its etiology must be determined."[1] Classification of postpartum hemorrhage (PPH) in ICD-10-CA is based on its etiology (cause). Blood loss that is the result of uterine atony or retained products during or following delivery is classified to category O72 *Postpartum haemorrhage*.

Blood loss occurring in the postpartum period due to causes other than the aforementioned, such as injury (e.g., tear of the uterine artery during Cesarean section, sulcus tear during vaginal delivery), is not classified to category O72 *Postpartum haemorrhage*.

Preventive measures (to avoid excessive postpartum blood loss) are part of the routine management of the third stage of labor and **are not** an indication that postpartum hemorrhage has occurred. These measures include administration of oxytocin and/or uterine massage to assist with contraction of the uterus.

Treatment measures (to control excessive blood loss) **are** an indication that postpartum hemorrhage has occurred. These measures include speculum examination, removal of clots, introduction of intrauterine Foley catheter, manual revision of uterus and administration of Hemabate.

When treatment measures are performed and there is no diagnosis of postpartum hemorrhage, the chart should be referred back to the physician for documentation.

DAD-only directive statement

Assign a code from category O72 *Postpartum haemorrhage* when at least one of the following criteria is met:

- Blood loss is excessive:
  - Vaginal delivery with >500 cc/ml blood loss during third stage of labor, in immediate postpartum period or after 24 hours following delivery.
  - Cesarean delivery with >1,000 cc/ml blood loss.
- Documentation indicates uterine atony following delivery, regardless of the amount of blood loss recorded.
- Physician documents postpartum hemorrhage, regardless of measures taken and/or the amount of blood loss recorded.

Selection of the code from category O72 *Postpartum haemorrhage* is based on etiology and time frame.

Etiology	Time frame	Code
Retained, trapped or adherent placenta with excessive bleeding	During the third stage of labor	O72.0– *Third-stage haemorrhage*
	Any time other than during the third stage of labor (regardless of time frame)	O72.2– *Delayed and secondary postpartum haemorrhage*
Uterine atony or unknown/not documented (i.e., PPH NOS), regardless of the amount of blood loss recorded	During the first 24 hours following the delivery	O72.1– *Other immediate postpartum haemorrhage*
	Between 24 hours and 6 weeks following delivery	O72.2– *Delayed and secondary postpartum haemorrhage*

Note
Retained, trapped or adherent placenta without excessive bleeding or physician documentation of hemorrhage that occurs anytime during or after the third stage of labor is classified to O73.– *Retained placenta and membranes, without haemorrhage*.

Note
Hemorrhage or excessive blood loss during the delivery process or immediately following the delivery that is secondary to an injury, including perineal lacerations, is classified as intrapartum hemorrhage, since the injury occurred prior to or during the delivery of the infant. It is classified to O67.8– *Other intrapartum haemorrhage*.

Example: The patient starts to hemorrhage during the third stage of labor due to retained placenta. She is taken to the operating room, where a manual removal of retained placenta is performed under general anesthetic.

Code	Code title
O72.002	Third-stage haemorrhage, delivered, with mention of postpartum complication

Rationale: A postpartum hemorrhage documented as due to retained placenta occurred during the third stage of labor; therefore, O72.002 is assigned.

Example: The patient delivers a healthy male baby by Cesarean section. The obstetrician documents that there is brisk bleeding and that the uterus appears atonic. Bimanual compression is performed and the patient is given 40 units of Syntocinon in 1 liter of Ringer lactate × 2 as well as an intramuscular dose of Hemabate. The estimated blood loss is recorded as 900 cc.

Code	Code title
O72.102	Other immediate postpartum haemorrhage, delivered, with mention of postpartum complication

Rationale: Uterine atony is documented; therefore, O72.102 is assigned regardless of the amount of blood loss.

Example: Approximately four hours following vaginal delivery, the patient starts to bleed very actively from her vagina. She is taken to the operating room for manual exploration of the uterus. Portions of placental and decidual tissue are found and removed. The estimated blood loss recorded is 600 cc.

Code	Code title
O72.202	Delayed and secondary postpartum haemorrhage, delivered, with mention of postpartum complication

Rationale: Excessive bleeding due to retained portions of placenta not occurring during the third stage of labor is classified to delayed and secondary hemorrhage.

Example: The patient delivered a healthy baby boy two weeks ago. She presents to hospital today with vaginal bleeding. She is taken to the operating room, where a D & C is performed. Retained products of conception are removed.

Code	DAD	Code title
O73.104	(M)	Retained portions of placenta and membranes, without haemorrhage, postpartum condition or complication

Rationale: Retained products of conception without excessive bleeding or physician documentation of hemorrhage is classified to O73.1– *Retained portions of placenta and membranes, without haemorrhage*.

Example: The patient delivers a healthy baby by vaginal delivery. The obstetrician documents estimated blood loss to be “approximately 500 cc.” There are no complications during the delivery.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Blood loss is not greater than 500 cc; therefore, this is not a postpartum hemorrhage. A code from O72 *Postpartum haemorrhage* is not assigned.

Example: The patient delivers a female infant via forceps secondary to arrest in the second stage of labor. During the delivery, a right mediolateral episiotomy is performed. The physician documents that the delivery was complicated by significant second-degree vaginal lacerations. The subsequent repair was complicated. Estimated blood loss was 1,000 cc, which in large part was due to the complicated vaginal lacerations.

Code	DAD	Code title
O70.101	(1)	Second degree perineal laceration during delivery, delivered, with or without mention of antepartum condition
O67.801	(1)	Other intrapartum haemorrhage, delivered, with or without mention of antepartum condition

Rationale: The amount of blood loss is documented as 1,000 cc, which justifies classifying this blood loss as a hemorrhage. The physician has documented the blood loss as due to the injury (second-degree vaginal lacerations); therefore, a code from category O72 *Postpartum haemorrhage* is not assigned. The hemorrhage is classified to O67.801 based on the following alphabetical index lookup: “hemorrhage, complicating delivery, due to, trauma.”

Complications of Anesthesia During Labor and Delivery

In effect 2001, amended 2006

DAD-only directive statement

Assign a code to classify complications arising from the administration of a general or local anesthetic, analgesic or other sedation during pregnancy or the puerperium on the basis of the stage of the pregnancy at the time of the administration of the agent.

Example: The patient receives an epidural anesthetic during labor and delivery. Within 24 hours, she complains of a headache. A diagnosis of post-epidural headache is made.

Code	Code title
O74.502	Spinal and epidural anesthesia-induced headache during labour and delivery, delivered, with mention of postpartum complication

Interventions Associated With Delivery

For description of change, see Appendix C.

In effect 2001, amended 2002, 2006, 2007, 2009, 2012, 2018

DAD-only directive statement

Assign an intervention code from the range 5.MD.50.^^ to 5.MD.60.^^, inclusive, for every delivery, including each delivery in a multiple gestation.

Exception
When the deliveries in a multiple gestation result in assignment of the same CCI code, assign the code only once.

Example: The patient spontaneously delivers a healthy female baby at 04:15. The physician has not yet arrived; however, nursing staff are in attendance.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.50.AA Manually assisted vaginal delivery (vertex), without episiotomy

Example: A 24-year-old mother delivers this tiny, preterm fetus in her bed without any health care personnel present.

5.MD.51.ZZ Unassisted spontaneous vaginal delivery, using approach/technique NOS

Example: Twin gestation at 36 weeks delivered by planned repeat lower-segment Cesarean section

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: RA

Example: A woman with a twin gestation is admitted fully dilated. The first twin is in vertex presentation and is successfully delivered with low forceps over a mediolateral episiotomy. The second twin is in breech presentation and requires a partial breech extraction.

5.MD.53.KL	Forceps traction and rotation delivery, low forceps (e.g. Pajot maneuver), with episiotomy (including midline or mediolateral)
5.MD.56.PA	Breech delivery, partial breech extraction [assisted breech delivery], with spontaneous delivery of head, with episiotomy

Rationale: The episiotomy is done only once. However, as it was done prior to the delivery of the first twin, both intervention codes selected should be with episiotomy. This allows for retrieval of all deliveries done with an episiotomy regardless of whether or not they were multiple births.

Induction and augmentation of labor

DAD-only directive statements

D When cervical ripening is performed by balloon catheter or insertion of Laminaria, assign, mandatory,

- 5.AC.24.CK-BD *Preparation by dilating cervix (for), labour, using per orifice (ripening) by balloon catheter*; and/or
- 5.AC.24.CK-W6 *Preparation by dilating cervix (for), labour, using per orifice insertion of laminaria*.

D When active labor does not begin spontaneously and requires initiation by artificial methods, assign a code, mandatory, from the rubric 5.AC.30.^^ *Induction of labour*. Code all methods that apply, including those that were initiated or performed prior to admission.

D When an intervention is required to ensure that labor continues to progress, whether active labor began spontaneously or was induced, assign a code, mandatory, from the rubric 5.LD.31.^^ *Augmentation of labour*. Code all methods that apply.

Exception

When an intravenous (IV) oxytocic agent is used to induce labor, any subsequent administration of an IV oxytocic agent is a continuation of the induction and is not considered to be augmentation. This direction applies regardless of whether the IV oxytocic agent was administered continuously or was stopped and restarted after labor began.

Note

To determine the onset of labor, use the time that is documented on the delivery record. This time is understood to be the start of active labor; the patient may be experiencing some contractions prior to this time (latent labor).

Note

Apply the Intervention Pre-Admit Flag to capture that induction of labor (5.AC.30.^^) or cervical ripening by balloon catheter (5.AC.24.CK-BD) and/or cervical ripening by insertion of Laminaria (5.AC.24.CK-W6) was performed prior to admission. See Group 11, Field 20 in the *DAD Abstracting Manual* for specific instructions for applying the flag for interventions initiated prior to admission.

Example: The patient presents to hospital at 42 weeks gestation with no signs of labor. The decision is made to induce her by performing an artificial rupture of membranes. She goes into labor and delivers a healthy baby girl.

5.AC.30.AP	Induction of labour, using artificial rupture of membranes

Example: The patient presents for outpatient antepartum assessment at 40 weeks gestation. Her pregnancy has been complicated by mild pregnancy-induced hypertension, and the physician opts to proceed with induction of labor at this time. Her cervix is unfavorable; therefore, Prepidil is inserted into the cervix and the patient is sent home. She presents to hospital later that day in labor and delivers via spontaneous vaginal delivery.

5.AC.30.CK-I2	Induction of labour, using per orifice (intra cervical/vaginal) administration of oxytocic agent

Note: Apply Intervention Pre-Admit Flag.

Rationale: It is mandatory to record induction of labor that is initiated or performed prior to admission. Using the Intervention Pre-Admit Flag identifies that the induction was performed prior to admission.

Example: The patient is given Prepidil on an outpatient basis to begin labor induction for post-dates. The patient is told to return when labor begins or in 12 hours if labor has not begun. The patient does not go into labor; therefore, she is admitted and IV Syntocinon induction is begun. She goes into labor and delivers a healthy baby boy.

5.AC.30.HA-I2	Induction of labour, using percutaneous injection of oxytocic agent
5.AC.30.CK-I2	Induction of labour, using per orifice (intra cervical/vaginal) administration of oxytocic agent

Note: Apply Intervention Pre-Admit Flag.

Rationale: Methods to induce labor are sometimes initiated on an outpatient basis. It is mandatory to code all methods used for induction, including those that are initiated or performed prior to admission. In this case one method is performed prior to admission and one after admission; each method is coded separately. Using the Intervention Pre-Admit Flag identifies that one method was performed prior to admission. **Note:** This is not a failed induction.

Example: The patient presents to hospital in spontaneous labor on May 13 and delivers a healthy baby girl. The admission note mentions that the patient had previously been admitted as an inpatient for oxytocin induction due to proteinuria and edema but was discharged home following a diagnosis of failed induction of labor.

Note: The pre-admission induction of labor is **not** captured on the subsequent admission for delivery.

Rationale: The pre-admission induction of labor was documented as failed; therefore, this patient's labor was spontaneous, not induced. The purpose of capturing pre-admission induction is to assist in distinguishing induced labor from spontaneous labor. Capturing the pre-admission induction on the delivery admission would tell the incorrect story of induced labor for this patient.

Example: The patient presents at 37 + 3 weeks gestation for a planned induction of labor for essential hypertension. IV oxytocin is started at a high dose, per protocol. She responds well to the oxytocin and it is stopped once active labor is achieved. She reaches 6 cm dilation and contractions become irregular. Oxytocin is restarted. Contractions remain irregular. Artificial rupture of membranes (AROM) is performed. She progresses to 9 cm dilation and with involuntary pushing she subsequently delivers a healthy male infant.

5.AC.30.HA-I2	Induction of labour, using percutaneous injection of oxytocic agent
5.LD.31.AP	Augmentation of labour, using artificial rupture of membranes

Rationale: Intravenous oxytocin is given to induce labor. It is restarted after labor ensues due to failure to progress. The oxytocin is a continuation of the induction and is not considered augmentation. Therefore, only 5.AC.30.HA-I2 is assigned for the oxytocin administered during this episode of care. 5.LD.31.AP is also assigned for the augmentation using AROM.

DAD-only directive statements

D When an induction of labor procedure is performed and no labor begins, and the patient is either discharged or has a Cesarean section, assign a code from O61 *Failed induction of labour*.

D When there is a failed induction and the patient proceeds to Cesarean section, sequence the indication for the induction before O61 *Failed induction of labour*.

Multiple attempts at induction during a single admission that eventually result in labor and vaginal delivery are not classified as failed induction.

Example: A primigravida patient with preeclampsia is admitted for induction of labor. She is given prostaglandin gel intravaginally and IV oxytocin. After five hours, no labor has ensued and, due to increasing concerns of rising blood pressure in the mother, she is taken to the operating room for a Cesarean section. The patient has no previous history of hypertension.

Code	DAD	Code title
O14.901	(M)	Pre-eclampsia, unspecified, delivered, with or without mention of antepartum condition
O61.001	(1)	Failed medical induction of labour, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PB

5.AC.30.CK-I2 Induction of labour, using per orifice (intra cervical/vaginal) administration of oxytocic agent

5.AC.30.HA-I2 Induction of labour, using percutaneous injection of oxytocic agent

Rationale: The Cesarean section is performed because of increasing concerns of rising blood pressure; therefore, preeclampsia is selected as the MRDx. The indication for the Cesarean section does not become failed medical induction of labor.

Example: A primigravida patient with preeclampsia is admitted for induction of labor. She is given prostaglandin gel intravaginally and IV oxytocin. Labor begins, but after eight hours she is not fully dilated and her blood pressure is continuing to rise. She is taken to the operating room for emergency Cesarean section. The patient has no previous history of hypertension.

Code	DAD	Code title
O14.901	(M)	Pre-eclampsia, unspecified, delivered, with or without mention of antepartum condition
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

5.MD.60.AA Cesarean section delivery, lower segment transverse incision, without instrumentation

Status: PB

5.AC.30.CK-I2 Induction of labour, using per orifice (intra cervical/vaginal) administration of oxytocic agent

5.AC.30.HA-I2 Induction of labour, using percutaneous injection of oxytocic agent

Rationale: Even though this patient was delivered by Cesarean section, induction did result in labor; thus this is not considered a failed induction.

Labor that has been induced, either surgically or medically, can at times require further augmentation — the same as labor that begins naturally. When this is the case, the codes for induction of labor and augmentation of labor may be used together on the same abstract.

Example: The patient presents to hospital at 42 weeks gestation with no sign of labor. The decision is made to induce her by performing an artificial rupture of membranes. At 5 cm dilation, her contractions slow and a Syntocinon drip is started.

5.AC.30.AP Induction of labour, using artificial rupture of membranes

5.LD.31.HA-I2 Augmentation of labour, using injection of oxytocic agent

Postpartum interventions

DAD-only directive statement

Assign a code from the block 5.PB.^^ to 5.PD.^^ *Postpartum interventions* when an intervention unique to obstetrics is performed from during the third stage of labor until 42 days after delivery.

The third stage of labor includes the time from delivery of the fetus to delivery of the placenta. The postpartum period includes the time from the third stage of labor to 42 days after delivery. Repairs of obstetrical lacerations are included in postpartum interventions, as are D & C procedures.

Example: During delivery of a healthy baby boy, the patient sustains a third-degree perineal laceration. The delivery physician repairs the obstetrical laceration in the labor and delivery unit before the patient is transferred to the obstetrical nursing unit.

5.PC.80.JQ	Surgical repair, postpartum, of current obstetric laceration of rectum and sphincter ani

Dilation and Curettage

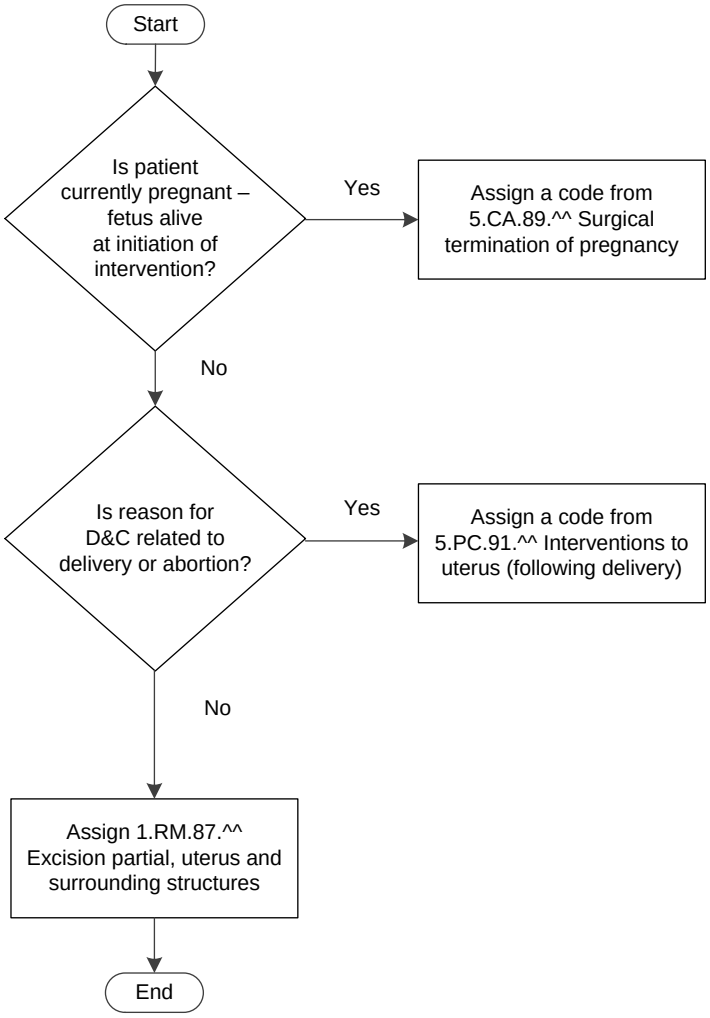
In effect 2001

The D & C intervention is the only intervention in CCI that is found in more than one section and in more than one rubric within Section 5.

DAD and NACRS directive statement

Assign the CCI code for dilation and curettage of the uterus based on the gravid status of the uterus.

See also the section Postpartum interventions in the coding standard *Interventions Associated With Delivery*.



Reference

1. Cunningham FG, Leveno KJ, Bloom SL, et al. Chapter 35 — Obstetrical hemorrhage. In: *Williams Obstetrics*. 23rd ed. 2010.

Chapter XVI — Certain conditions originating in the perinatal period

For the purposes of ICD-10-CA code assignment, the perinatal period is defined as commencing at 20 completed weeks of gestation and ending 28 completed days after birth.

Conditions that occur in the perinatal period or are documented as having their origin in the perinatal period (even though death or morbidity occurs later) are intended to be classified to Chapter XVI. Codes from this chapter take priority over code assignment from another chapter, regardless of the patient's age. However, there are some exceptions, such as the following:

- Certain infectious diseases acquired in utero or during birth are **not** classified to P35–P39 *Infections specific to the perinatal period*. These include
  - Congenital gonococcal infection (A54.–);
  - Congenital syphilis (A50.–);
  - Human immunodeficiency virus (HIV) disease (B24); and
  - Laboratory evidence of human immunodeficiency virus (HIV) (R75).
- Certain infectious diseases acquired **after** birth and within the perinatal period are not classified to P35–P39 *Infections specific to the perinatal period*. These include
  - Infections and parasitic diseases (A00–B99) (e.g., late-onset neonatal sepsis; see also the coding standard *Confirmed Sepsis and Risk of Sepsis in the Neonate*); and
  - Influenza (J09–J11).
- Certain conditions that may be diagnosed in the perinatal period are classified elsewhere. These include
  - Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99);
  - Endocrine, nutritional and metabolic diseases (E00–E90);
  - Injury, poisoning and certain other consequences of external causes (S00–T98);
  - Neoplasms (C00–D48);
  - Tetanus neonatorum (A33); and
  - Whooping cough (A37.–).

Note
The above list is not exhaustive. Coders are reminded to read and follow all notes at code, category, block and chapter headings, where guidance is provided regarding code assignment.

Low Birth Weight and/or Preterm Infant

For description of change, see Appendix C.

In effect 2001, amended 2005, 2006, 2012, 2015

Low birth weight may result from a preterm birth (less than 37 weeks of gestation) or occur in a term birth. Low birth weight increases the risk of infant death, physical and cognitive disabilities and chronic health problems later in life.

Similarly, preterm birth, regardless of birth weight, is a major determinant of neonatal mortality and morbidity and has long-term adverse consequences for health. Children who are born prematurely have higher rates of cerebral palsy, sensory deficits, learning disabilities and respiratory illnesses than children who are born at term. The morbidity associated with preterm birth often extends to later life, resulting in enormous physical, psychological and economic costs.[1]

See also Diagnosis type (0) — Newborn in the coding standard *Diagnosis Typing Definitions for DAD*.

DAD-only directive statements

D When birth weight is less than 2500 grams, assign, mandatory, as a significant diagnosis type, either

- P07.0 *Extremely low birth weight* for birth weight 999 grams or less; or
- P07.1 *Other low birth weight* for birth weight 1000–2499 grams.

D When fetal malnutrition is documented, assign, mandatory, as a significant diagnosis type P05.2 *Fetal malnutrition without mention of light or small for gestational age*.

D When intrauterine growth restriction (i.e., light or small for gestational age) is documented, assign, mandatory, as a significant diagnosis type a code from category P05.9– *Slow fetal growth, unspecified*.

D When the gestational age of the newborn is less than 37 completed weeks, assign, mandatory, as a significant diagnosis type, either

- P07.2 *Extreme immaturity*; or
- P07.3 *Other preterm infants*.

Note

This standard does not imply that low birth weight or prematurity must be selected as the MRDx. When a serious condition other than low birth weight or prematurity qualifies as the MRDx, that condition is selected as such.

Notes

- Use the gestational age recorded on the newborn's physical exam at birth record as the first source documentation. When the gestational age by physical assessment is not documented on the physical exam at birth record or the discharge/delivery summary, default to the gestational age by dates recorded on the labor and delivery record.
- Assignment of P07.2 *Extreme immaturity* and P07.3 *Other preterm infants* must align with the gestational age data element on the DAD abstract. According to the *Discharge Abstract Database (DAD) Abstracting Manual*, the gestational age of the newborn or neonate is based on the physical assessment at the time of birth, per the *Algorithm for the Estimation of Gestational Age, Canadian Perinatal Surveillance System, 2010*. See Group 18, Field 06 in the *Discharge Abstract Database (DAD) Abstracting Manual*.
- The gestational age recorded on the newborn's abstract may not match the gestational age on the mother's abstract, since the former reflects a physical assessment of the newborn while the latter reflects the weeks of pregnancy in the mother.
- Ensure P07.2 *Extreme immaturity* is assigned on a newborn or neonate abstract when the value recorded in the gestational age data element is less than 28.
- Ensure P07.3 *Other preterm infants* is assigned on a newborn or neonate abstract when the value recorded in the gestational age data element is between 28 and 37.

Sequencing low birth weight, fetal malnutrition, poor fetal growth and/or prematurity

Use the following table to determine the sequence of codes for low birth weight, fetal malnutrition, poor fetal growth and/or prematurity.

Associated conditions	Weight ≤999 grams	Weight 1000 to 2499 grams	Weight ≥2500 grams
Term infant ≥37 completed weeks gestation			
Fetal malnutrition	n/a	P07.1 P05.2	P05.2
Intrauterine growth restriction	n/a	P07.1 P05.9–	P05.9–
Nil	n/a	P07.1	n/a
Preterm infant ≥28 completed weeks but <37 completed weeks gestation			
Fetal malnutrition	P07.0 P05.2 P07.3	P07.1 P05.2 P07.3	P05.2 P07.3

Associated conditions	Weight ≤999 grams	Weight 1000 to 2499 grams	Weight ≥2500 grams
Intrauterine growth restriction	P07.0 P05.9– P07.3	P07.1 P05.9– P07.3	P05.9– P07.3
Nil	P07.0 P07.3	P07.1 P07.3	P07.3
Extremely preterm infant <28 completed weeks gestation			
Fetal malnutrition	P07.0 P05.2 P07.2	P07.1 P05.2 P07.2	P05.2 P07.2
Intrauterine growth restriction	P07.0 P05.9– P07.2	P07.1 P05.9– P07.2	P05.9– P07.2
Nil	P07.0 P07.2	P07.1 P07.2	P07.2

Example: A baby is born by Cesarean section at 33 weeks gestation with birth weight 1710 grams. The baby requires endotracheal intubation and is transferred to the intensive care unit. The discharge summary states that the newborn has respiratory failure secondary to respiratory distress syndrome.

Code	DAD	Code title
P22.0	(M)	Respiratory distress syndrome of newborn (RDS)
P07.1	(1)	Other low birth weight
P07.3	(1)	Other preterm infants
Z38.010	(0)	Singleton, born in hospital, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Rationale: Low birth weight is sequenced before a code for prematurity. Since there is another condition that qualifies as the MRDx, both low birth weight and prematurity are assigned diagnosis type (1).

Example: An infant is delivered vaginally at 38 weeks gestation with evidence of symmetrical growth restriction. Birth weight is 2400 grams.

Code	DAD	Code title
P07.1	(M)	Other low birth weight
P05.90	(1)	Symmetric intrauterine growth restriction [IUGR]
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Example: An infant is delivered by Cesarean section at 28 weeks gestation weighing 950 grams. Along with the prematurity, there is evidence of fetal growth restriction.

Code	DAD	Code title
P07.0	(M)	Extremely low birth weight
P05.99	(1)	Unspecified intrauterine growth restriction [IUGR]
P07.3	(1)	Other preterm infants
Z38.010	(0)	Singleton, born in hospital, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Example: An infant is delivered by Cesarean section at 28 weeks gestation weighing 1700 grams.

Code	DAD	Code title
P07.1	(M)	Other low birth weight
P07.3	(1)	Other preterm infants
Z38.010	(0)	Singleton, born in hospital, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Rationale: Low birth weight is sequenced before a code for prematurity. Since there is no other condition that qualifies as the MRDx, low birth weight becomes the MRDx.

Mother's abstract

Example: An obstetrical patient is admitted in active labor at 37 weeks gestation. She vaginally delivers a healthy newborn with a weight of 3110 grams. The discharge summary mentions that the newborn was assessed at physical examination as being closer to 36 weeks gestational age.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: The mother's record reflects a term delivery. Even though there is documentation of the gestational age of the newborn that reflects prematurity, do not assign O60.101 *Preterm spontaneous labour with preterm delivery, with or without mention of antepartum condition*.

Newborn's abstract

Example: The discharge summary of the newborn states that the baby was delivered, weighing 3110 grams, to a primigravida patient at 37 weeks gestation. The gestational age recorded on the newborn's physical examination is 36 weeks.

Code	DAD	Code title
P07.3	(M)	Other preterm infants
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: The gestational age is documented as 36 weeks on the newborn's physical examination. P07.3 is mandatory to assign as a significant diagnosis type. Use the gestational age documented on the newborn's physical exam at birth as the first source document when determining code assignment. In some circumstances, the mother's record will be coded as a term delivery and the baby's record will be coded as a preterm delivery.

Fetal Acidemia

In effect 2001, amended 2006, 2007, 2012, 2015

An arterial blood pH value of less than or equal to 7.00 and/or a base deficit greater than or equal to 12 mmol/L is indicative of fetal acidemia.

DAD-only directive statements

- When pH and/or base deficit values indicative of fetal acidemia (acidosis) are documented on the chart, assign a code from P20.– *Fetal acidaemia*.
- When a documented diagnosis of fetal asphyxia is substantiated by the pH and/or base deficit values, assign a code from P20.– *Fetal acidaemia*.
- When neonatal findings indicative of neonatal harm (such as hypoxic ischemic encephalopathy [HIE] and/or organ failure) are documented, give priority to the condition and sequence it before the code for acidemia.
- When a documented diagnosis of fetal asphyxia is **not** substantiated by the pH and/or base deficit values, assign P96.9 *Condition originating in the perinatal period, unspecified*.

Example: Electronic fetal monitoring during active labor shows late decelerations. The infant is delivered by emergency Cesarean section due to late decelerations during active labor. Umbilical cord blood gases show arterial pH of 6.5. The diagnosis is documented as asphyxia.

Code	DAD	Code title
P20.2	(M)	Fetal acidaemia first noted at birth
Z38.010	(0)	Singleton, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Rationale: The umbilical cord blood pH met the values for fetal acidemia; therefore, P20.2 is assigned.

Example: The mom presents in labor and fetal heart rate tracing is initially reassuring. Several hours into labor, the fetal heart rate becomes non-reassuring with loss of variability and decelerations. It is therefore decided to perform an emergency Cesarean section. The infant initially experiences breathing problems requiring resuscitation by the neonatology team. Apgar scores are 2 and 5 at one and five minutes, respectively. Arterial cord blood pH is 7.15. Final diagnosis is documented as perinatal asphyxia and severe metabolic acidosis.

Code	DAD	Code title
P96.9	(M)	Condition originating in the perinatal period, unspecified
Z38.010	(0)	Singleton, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Rationale: Fetal asphyxia is not substantiated by an arterial cord blood pH value of ≤7.0; therefore, P96.9 is assigned.

Example: A male infant is delivered vaginally with an absent heartbeat. Apgar score at one minute and at five minutes is 0. The fetal heart tracing had been reassuring throughout the entire course of labor. Extensive resuscitation ensues for 40 minutes, and the baby is eventually revived. Blood gases performed on umbilical cord blood reveal a pH of 5.0 and a base excess of -21. Throughout the day, the neurological status of the child is not reassuring and he begins having seizures. Kidney function is also non-reassuring. A Foley catheter is placed, and there is only 1 cc of urine output over the entire course of the day. Final diagnosis is documented as hypoxic ischemic encephalopathy (HIE), anuria.

Code	DAD	Code title
P91.6	(M)	Hypoxic ischaemic encephalopathy of newborn
P20.2	(1)	Fetal acidaemia first noted at birth
P96.0	(1)	Congenital renal failure
Z38.000	(0)	Singleton, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: HIE is indicative of neonatal harm and qualifies as the MRDx. HIE is manifested by convulsions; therefore, the convulsions are not coded separately. Fetal acidemia is substantiated by umbilical cord blood pH values; therefore, P20.2 is assigned.

Neonatal Jaundice

In effect 2002, amended 2006

DAD-only directive statement

Classify neonatal jaundice as the MRDx or significant diagnosis type only when there is documented evidence of jaundice and/or elevated bilirubin with associated treatment by phototherapy or exchange transfusion.

Example: A term infant is delivered vaginally. The physician documents “jaundice” and phototherapy is administered.

Code	DAD	Code title
P59.9	(M)	Neonatal jaundice, unspecified
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Example: A preterm infant is delivered at 35 weeks by Cesarean section. Birth weight is 2000 grams. The infant has hyperbilirubinemia that is treated with phototherapy.

Code	DAD	Code title
P07.1	(M)	Other low birth weight
P07.3	(1)	Other preterm infants
P59.0	(1)	Neonatal jaundice associated with preterm delivery
Z38.010	(0)	Singleton, born in hospital, delivered by caesarean, product of both spontaneous (NOS) ovulation and conception

Example: A term infant is delivered vaginally. The physician documents mild jaundice. No other abnormalities are noted. Phototherapy is not administered.

Code	DAD	Code title
Z38.000	(M)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception
P59.9	(0)	Neonatal jaundice, unspecified (optional)

Rationale: Jaundice that is documented but not actively treated (no phototherapy was administered) may be coded as a type (0) diagnosis only. Coding jaundice in this instance is optional.

Confirmed Sepsis and Risk of Sepsis in the Neonate

For description of change, see Appendix C.

In effect 2002, amended 2006, 2007, 2008, 2018

The neonatal period is the first 28 days of life. Neonatal sepsis is defined as an invasive bacterial infection occurring in the neonatal period. Neonatal sepsis can be divided into two groups: early-onset sepsis and late-onset sepsis.

- Early-onset neonatal sepsis (newborn sepsis) arises in a newborn and is acquired in utero or during birth. Newborn sepsis is clinically apparent within 6 hours of birth in more than 50% of cases; the majority present within the first 72 hours of life. Newborn sepsis is classified to P36.– *Bacterial sepsis of newborn*.
- Late-onset neonatal sepsis presents after 72 hours of age and includes nosocomial-acquired infections. Late-onset neonatal sepsis is classified to a code from Chapter I — Certain infectious and parasitic diseases, unless there is documentation to support that the sepsis was acquired in utero or during birth.

Risk factors for invasive neonatal infection include

- Preterm labor;
- Premature rupture of membranes;
- Signs of maternal infection;
- Multiple birth with delay in delivery of subsequent infant(s);
- Prolonged rupture of membranes;

- Maternal carriage of group B streptococcus infection; and
- Previous baby with invasive group B streptococcal disease.

Neonates who have one or more of the above risk factors may require additional resources, such as observation in a special care nursery and/or prophylactic antibiotic treatment (generally for two or three days) until sepsis can be definitively ruled out.

Confirmed sepsis

DAD-only directive statements

When sepsis has been confirmed in a neonate, assign

- A code from category P36.– *Bacterial sepsis of newborn* when the sepsis arises within the first 72 hours following birth; or
- A code from Chapter I – Certain infectious and parasitic diseases, when the sepsis arises **after the first 72 hours** following birth, unless there is physician documentation to indicate that the sepsis was acquired in utero or during birth.

Assign an additional code, optional, as a diagnosis type (0), from block P00–P04 *Fetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery* if the infection is a result of a maternal condition.

When the diagnosis is documented by the physician as “probable sepsis,” “presumed sepsis” “clinical sepsis” or “culture-negative sepsis” at the time of discharge, code the condition as confirmed sepsis.

Note

When any of the following descriptors for sepsis — “? sepsis,” “questionable sepsis,” “query sepsis,” “possible sepsis” or “rule out sepsis” — are documented on a neonatal record, return the record to the responsible physician/primary care provider for clarification prior to code assignment; these statements cannot be coded as sepsis.

The above stated requirement to return the record to the physician/primary care provider for clarification is an exception to the coding standard *Unconfirmed Diagnosis*. In the case of neonatal sepsis, seek clarification to determine whether the case should be classified as confirmed or probable sepsis versus a case of observation for a suspected condition.

Example: The mom has prolonged rupture of membranes with chorioamnionitis. The infant is delivered vaginally at term and admitted to the neonatal intensive care unit (NICU) for observation. Blood cultures are drawn and antibiotics are started. Blood cultures come back positive for streptococcus. Diagnosis is documented as streptococcal septicemia.

Code	DAD	Code title
P36.1	(M)	Sepsis of newborn due to other and unspecified streptococci
P02.7	(0)	Fetus and newborn affected by chorioamnionitis
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: The diagnosis of streptococcal septicemia is identified within the first 72 hours following birth. Therefore, it is appropriate to assign P36.1 as the MRDx.

Example: A 20-day-old neonate is admitted to hospital with sepsis and acute pyelonephritis due to *E. coli*. Intravenous antibiotics are initiated and the patient is admitted to the NICU.

Code	DAD	Code title
A41.50	(M)	Sepsis due to Escherichia coli [E.coli]
N10	(1)	Acute tubulo-interstitial nephritis
B96.2	(3)	Escherichia coli [E. coli] as the cause of diseases classified to other chapters

Rationale: The diagnosis of sepsis in a neonate is identified more than 72 hours following birth and there is no physician/primary care provider documentation to indicate the sepsis was acquired in utero or during birth; therefore, A41.50 is assigned.

Example: The infant is delivered vaginally at 37 weeks. The mom had premature rupture of membranes for greater than 24 hours prior to the delivery. The baby has a fever and is therefore admitted to NICU for two days for probable sepsis. He is started on a course of antibiotics for seven days. The result of a blood culture is negative.

Discharge diagnosis: Probable sepsis

Code	DAD	Code title
P36.9	(M)	Bacterial sepsis of newborn, unspecified
P01.1	(0)	Fetus and newborn affected by premature rupture of membranes
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: A prefix “Q” is not applied to the sepsis code in this case, as the diagnosis of “probable” in neonatal sepsis is an indication that the diagnosis was made by the physician/primary care provider on the basis of clinical findings only. A diagnosis of probable sepsis is classified as confirmed sepsis. Lab results are not used to either confirm or rule out neonatal sepsis.

Ruled-out sepsis

DAD-only directive statement

When neonatal sepsis is suspected but ruled out, classify the case as follows:

- When the neonate is observed **only** and prophylactic antibiotic treatment for sepsis is not initiated, assign Z03.8 *Observation for other suspected diseases and conditions* as a significant diagnosis type (M, 1, 2, W, X or Y).
- When the neonate is given prophylactic antibiotic treatment, assign Z29.2 *Other prophylactic chemotherapy* as a significant diagnosis type (M, 1, 2, W, X or Y).

Note

Z03.8 *Observation for other suspected diseases and conditions* is for use in limited circumstances on records of otherwise healthy newborns who are at risk for an abnormal condition, such as sepsis, but for whom it is determined, after examination and observation, that there is no need for further treatment or medical care.

Example: The infant is delivered vaginally at 38 weeks. The mom is noted to be group B streptococcus positive. The baby is observed in NICU for “possible sepsis,” as documented by the neonatologist. Blood cultures are negative, and the infant is discharged with his mom.

Code	DAD	Code title
Z03.8	(M)	Observation for other suspected diseases and conditions
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Example: The infant is delivered vaginally at 37 weeks. The mom had premature rupture of membranes. The physician documents “observe for sepsis.” Blood is drawn for culture, and the baby is given prophylactic antibiotics. Blood culture results are negative, and the infant is discharged with her mom.

Code	DAD	Code title
Z29.2	(M)	Other prophylactic chemotherapy
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: When antibiotics are given, assign Z29.2.

Example: The infant is delivered vaginally at 39 weeks after prolonged rupture of membranes. The infant is sent to the normal nursery, antibiotic therapy is not instituted, there is no documentation of suspected sepsis and the infant is discharged home on day 2.

Code	DAD	Code title
Z38.000	(M)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: Z03.8 is not assigned based on the presence of risk factors alone. In this example, no additional resources were utilized to either confirm or rule out sepsis.

Birth Trauma

In effect 2007

The process of birth is a blend of compression, contractions, torques and traction. When fetal size, presentation or neurologic immaturity complicates this event, such intrapartum forces may lead to tissue damage, edema, hemorrhage or fracture in the neonate. The use of obstetric instrumentation may further amplify the effects of such forces or may induce injury on their own.[2]

Most birth traumas are self-limiting and have a favorable outcome. Risk factors include

- Large-for-dates infants, especially ones larger than 4500 grams;
- Instrumental delivery, especially with mid-cavity forceps or vacuum;
- Vaginal breech delivery; and
- Abnormal or excessive traction during delivery.

DAD-only directive statements

When the following birth injuries occur, assign the appropriate code from block P10–P15 *Birth Trauma* as the MRDx or a diagnosis type (1):

- Intracranial laceration and hemorrhage
- Cerebral edema
- Cranial and spinal nerve injury
- Peripheral nerve injury
- Cephalhematoma that becomes infected or is severe enough to cause anemia, shock, hemolytic jaundice requiring phototherapy, meningitis or osteomyelitis
- Subgaleal hematoma (epicranial subaponeurotic hemorrhage)
- Superficial abrasion and laceration that requires sutures or becomes infected
- Fracture, including of the skull, long bones or clavicle
- Dislocation
- Intra-abdominal injury
- Sternomastoid injury

Assign an additional code, optional, as a diagnosis type (0) from block P00–P04 *Fetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery* to describe the maternal factor or intervention causing the birth trauma.

Note

The following birth injuries are not considered significant comorbidities and, if coded, must be assigned a diagnosis type (0) unless documentation supports that they have become complicated or require observation in a special care unit:

- Cephalhematoma NOS — rarely becomes complicated
- Chignon (artificial caput) due to vacuum — is of no consequence and resolves spontaneously within a few hours
- Caput succedaneum — does not usually become complicated and resolves within the first few days
- Superficial abrasions and lacerations — are usually of no consequence
- Monitoring injuries — have a low incidence of hemorrhage, infection or abscess
- Subcutaneous fat necrosis — is of no consequence and requires no treatment
- Subconjunctival hemorrhage — is of no consequence and requires no treatment

Example: A term male infant is delivered vaginally. There is significant shoulder dystocia resulting in fracture of the clavicle during delivery.

Code	DAD	Code title
P13.4	(M)	Fracture of clavicle due to birth injury
P03.1	(0)	Fetus and newborn affected by other malpresentation, malposition and disproportion during labour and delivery
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: Fractures are always considered a significant birth injury; therefore, fractured clavicle is selected as the MRDx.

Example: A term infant is delivered by operative vaginal delivery using forceps. On the newborn's physical examination report, the physician notes that there is cephalhematoma.

Code	DAD	Code title
Z38.000	(M)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception
P12.0	(0)	Cephalhaematoma due to birth injury
P03.2	(0)	Fetus and newborn affected by forceps delivery

Rationale: There is no indication that the cephalhematoma is complicated; therefore, if captured, it is assigned a diagnosis type (0).

Perinatal Stroke

For description of change, see Appendix C.

In effect 2018

The purpose of this coding standard is to provide direction on how to classify a diagnosis of "stroke" in the perinatal period.

For the purposes of ICD-10-CA code assignment, the perinatal period is defined as commencing at 20 completed weeks of gestation and ending 28 completed days after birth. See the introduction at the beginning of Chapter XVI — Certain conditions originating in the perinatal period.

The term "perinatal stroke" collectively refers to a nontraumatic stroke that occurred before birth (fetal or prenatal), during birth or within 28 days after birth. Confirmation of a perinatal stroke requires a computerized tomography (CT) or magnetic resonance imaging (MRI) scan.

The most common types of perinatal stroke are

1. Neonatal hemorrhagic stroke (NHS);
2. Neonatal arterial ischemic stroke (NAIS); and
3. Neonatal cerebral sinovenous thrombosis (nCSVT) (i.e., ischemic stroke).

From an ICD-10-CA classification perspective, a perinatal stroke equates to a nontraumatic stroke that **originated** in the perinatal period and is classified to Chapter XVI — Certain conditions originating in the perinatal period (P00–P96).

DAD and NACRS directive statements

Classify a hemorrhagic stroke originating in the perinatal period to a code from category P52.– *Intracranial nontraumatic haemorrhage of fetus and newborn*.

Classify an ischemic stroke originating in the perinatal period to P91.0 *Neonatal cerebral ischaemia*.

Note

A diagnosis of a stroke occurring in childhood (i.e., a stroke that did not originate in the perinatal period) is classified per the direction in the coding standard *Strokes: Hemorrhagic, Ischemic and Unspecified*.

Example: A 1-day-old term infant born via normal vaginal delivery shows symptoms of a stroke. CT scan confirms left basal ganglia hemorrhages. Final diagnosis: Perinatal stroke.

Code	DAD	Code title
P52.4	(M)	Intracerebral (nontraumatic) haemorrhage of fetus and newborn
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both

Rationale: A perinatal stroke is confirmed, and additional specificity from the CT scan describes the stroke as being due to hemorrhage; therefore, P52.4 is assigned.

Example: A term infant born by via normal vaginal delivery is having generalized seizures. A CT scan of the head is performed to assess intracranial status. The CT scan reveals an infarction in the left temporoparietal lobe. The final diagnosis is recorded by the physician as “cerebral infarction.”

Code	DAD	Code title
P91.0	(M)	Neonatal cerebral ischaemia
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both

Rationale: The physician’s documentation supports that a cerebral infarction originated in the perinatal period; therefore, P91.0 is assigned.

References

1. Beck S, Wojdyla D, Say L, et al. The worldwide incidence of preterm birth: A systematic review of maternal mortality and morbidity. *Bulletin of the World Health Organization*. 2010
2. Medscape. Birth trauma. 2015.

Chapter XVII — Congenital malformations, deformations and chromosomal abnormalities

Congenital Anomaly Syndromes and Specific Manifestations

In effect 2009

The causes of congenital anomalies are

- Chromosomal abnormalities (such as Down's syndrome);
- Genetic inheritance (such as cystic fibrosis);
- Environmental (exogenous) factors (such as fetal alcohol syndrome);
- Multiple factors; and
- Unknown causes.

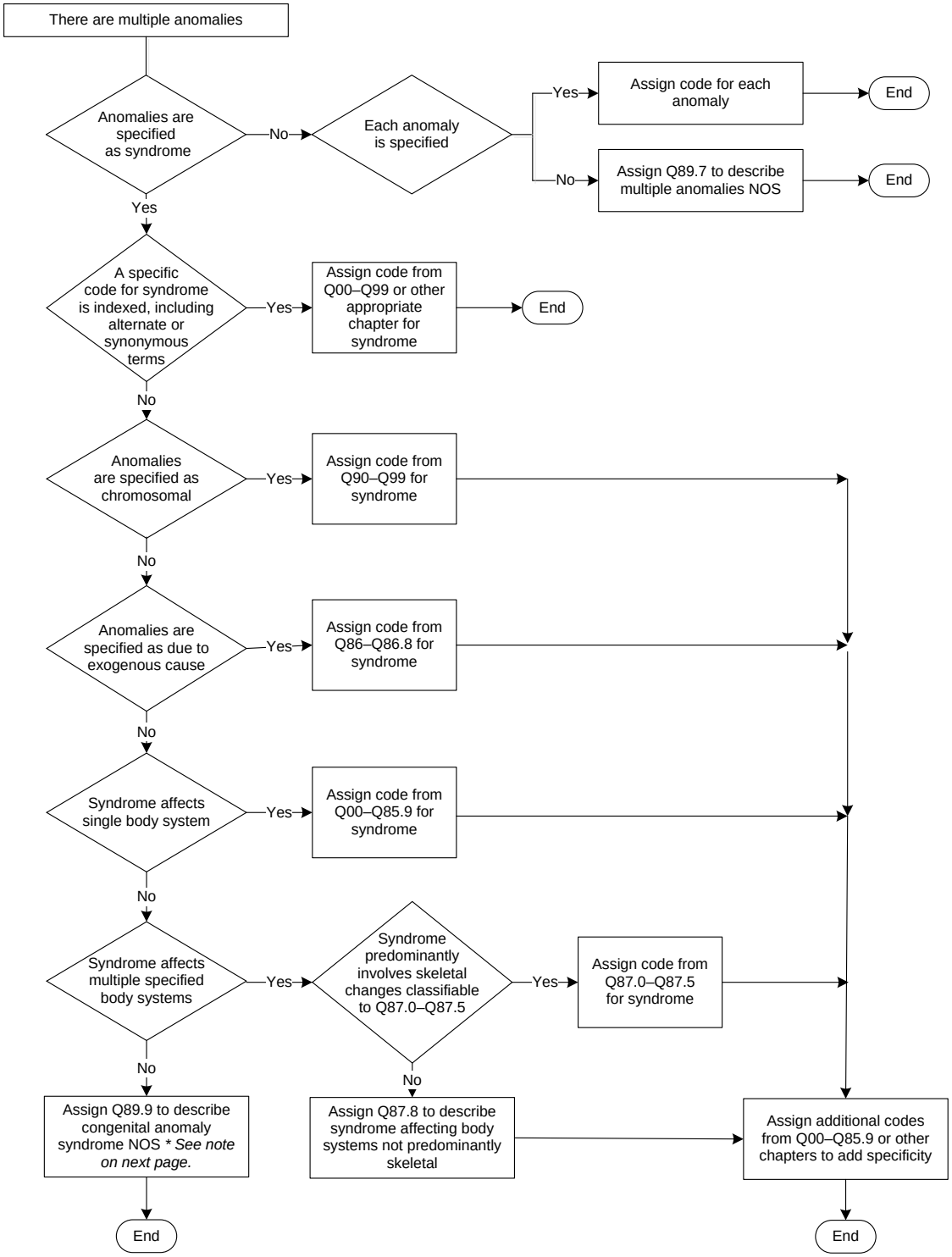
For the purposes of classification in ICD-10-CA, anomalies are generally classified according to their manifestations on structure, function or body metabolism. However, unless a specific code is provided elsewhere, separate categories are provided for anomalies where the cause is specified as chromosomal (Q99) or exogenous (Q86). Codes for congenital anomalies are found in Chapter XVII — Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99), categories within Chapter IV — Endocrine, nutritional and metabolic diseases (E00–E90) and categories within Chapter III — Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89).[1]

DAD and NACRS directive statement

When a patient is diagnosed with multiple congenital anomalies described as a syndrome that cannot be classified to a more specific code (see flowchart below), assign Q87.8 *Other specified congenital malformation syndromes, not elsewhere classified*.

- Assign additional codes from Q00–Q85.9 or other appropriate chapter to provide further specificity,
  - Mandatory, when the anomalies meet the criteria for significance; or
  - Optional, when the anomalies do not meet the criteria for significance.

Primary code selection for ICD-10-CA classification of multiple congenital anomalies



Note

Congenital anomaly syndrome NOS will rarely be seen in hospital documentation.

Example: The discharge diagnosis is Costello syndrome. The physician describes the patient as having the typical distinctive features of low-set ears, thick earlobes and lips, and cutis laxa of the hands and feet. The patient is also known to have a congenital heart defect.

Code	DAD	NACRS	Code title
Q87.8	(M)	MP	Other specified congenital malformation syndromes, not elsewhere classified
Q24.9	(3)	OP	Congenital malformation of heart, unspecified
Q17.4	(3)	OP	Misplaced ear
Q18.6	(3)	OP	Macrocheilia
Q17.8	(3)	OP	Other specified congenital malformations of ear
Q82.8	(3)	OP	Other specified congenital malformations of skin

Rationale: Research indicates that this syndrome is a genetic disorder affecting multiple systems. As there is not a more specific code for the syndrome, it is classified to Q87.8. In this example, additional codes are added optionally to provide specificity regarding the manifestations.

Example: A newborn is discharged with a final diagnosis of uniparental disomy 16. This baby has a number of congenital manifestations: ventricular septal defect (VSD), micrognathia, abnormal elbow, camptodactyly, micropenis, right-sided cryptorchidism and hypospadias. The baby was born at 34 weeks. He also has intrauterine growth restriction (IUGR), weighing 1,200 grams on admission. The baby is discharged after a stay of several weeks.

Code	DAD	Code title
Q99.8	(M)	Other specified chromosome abnormalities
P05.99	(1)	Unspecified intrauterine growth restriction [IUGR]
P07.1	(1)	Other low birth weight
P07.3	(1)	Other preterm infants
Q21.0	(0)	Ventricular septal defect
K07.09	(0)	Anomaly of jaw size, unspecified
Q68.8	(0)	Other specified congenital musculoskeletal deformities
Q68.1	(0)	Congenital deformity of hand
Q55.60	(0)	Hypoplasia of penis
Q53.1	(0)	Undescended testicle, unilateral
Q54.9	(0)	Hypospadias, unspecified
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: These multiple anomalies are described as due to a chromosomal anomaly that can be classified to Q99.–. The code Q87.8 is not assigned in this case.

Example: The diagnosis is KBG (Hermann-Pallister) syndrome. The physician documents this as a rare genetic disorder. The child has the typical facial dysmorphism, macrodontia of the upper central incisors and costovertebral skeletal anomalies.

Code	DAD	NACRS	Code title
Q87.0	(M)	MP	Congenital malformation syndromes predominantly affecting facial appearance
K00.2	(3)	OP	Abnormalities of size and form of teeth
Q76.4	(3)	OP	Other congenital malformations of spine, not associated with scoliosis

Rationale: References in the literature describe the condition as predominantly affecting facial appearance; therefore, this condition can be classified to a more specific code. Other manifestations may be coded separately and assigned diagnosis type (3)/other problem.

DAD and NACRS directive statement

When a patient presents solely for management of a specific manifestation of a congenital anomaly syndrome, assign a code for the manifestation as the MRDx/main problem.

- Assign an additional code, optional, as a diagnosis type (3)/other problem to describe the syndrome.

Example: A young male patient with Goldenhar syndrome and cleft palate is admitted for a revision of the cleft palate repair.

Code	DAD	Code title
Q35.9	(M)	Cleft palate, unspecified
Q87.0	(3)	Congenital malformation syndromes predominantly affecting facial appearance

Rationale: In the classification, there is a specific code to identify the Goldenhar syndrome. However, the cleft palate is the condition described as the reason for the patient's stay in hospital and is the MRDx.

Reference

1. Health Canada. *Congenital Anomalies in Canada: A Perinatal Health Report, 2002*. 2002.

Chapter XVIII — Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

Systemic Inflammatory Response Syndrome (SIRS)

In effect 2006, amended 2008, 2009, 2015

ICD-10-CA provides a separate category, R65 *Systemic inflammatory response syndrome [SIRS]*, to classify SIRS.

Underlying causes include infection, trauma (such as burns) and other insult (e.g., pancreatitis, ischemia).

SIRS of an infectious origin progresses through six stages of severity: infection → SIRS → sepsis → severe sepsis → multiple organ dysfunction syndrome (MODS) → septic shock.

The term “sepsis” means SIRS due to infectious origin; therefore, SIRS is inherent in the term “sepsis” and R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure* does not have to be assigned separately.

The term “severe sepsis” describes a patient who has progressed to at least one acute organ failure as a result of the systemic inflammatory response to infection. In such cases, additional codes to describe each documented acute organ failure associated with sepsis are assigned rather than R65.1 *Systemic inflammatory response syndrome of infectious origin with organ failure*. However, a patient with “severe sepsis” may progress very quickly to septic shock and ultimately death; in these cases, sufficient documentation may not be available to assign separate codes for each acute organ failure. A diagnosis of “severe sepsis” without further specification is classified to R65.1, and a code to identify the type of sepsis is also assigned.

For clinical information, see also Systemic inflammatory response syndrome in Appendix A.

See also the coding standard *Septicemia/Sepsis*.

DAD and NACRS directive statements

When SIRS of an **infectious origin** is present without organ failure, assign

- A code identifying the type of sepsis; and
- R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure*, optional, as a diagnosis type (3)/other problem.

When the diagnosis is stated as "severe sepsis" and there is no documentation of the specified acute organ failure, assign

- A code identifying the type of sepsis; and
- R65.1 *Systemic inflammatory response syndrome of infectious origin with acute organ failure*, mandatory, as a diagnosis type (1) or (2)/other problem.

When septic shock is documented, assign R57.2 *Septic shock*, mandatory, as an additional code.

Note

When the acute organ failure is specified in a diagnosis of "severe sepsis," the combination of codes assigned (a code for sepsis plus a code for the associated acute organ failure) equates to the code R65.1 *Systemic inflammatory response syndrome of infectious origin with acute organ failure*.

Notes

- Codes from category R65 *Systemic inflammatory response syndrome [SIRS]* are never assigned the MRDx/main problem.
- R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure* is allowed only as a diagnosis type (3)/other problem because SIRS is inherent in a diagnosis of sepsis.
- R65.1 *Systemic inflammatory response syndrome of infectious origin with organ failure* is assigned either a diagnosis type (1), (2) or (3)/other problem, depending on the circumstances of the case.
- R65.*2 Systemic inflammatory response syndrome of noninfectious origin without organ failure* and R65.3 *Systemic inflammatory response syndrome of noninfectious origin with organ failure* is assigned either a diagnosis type (1) or (2)/other problem because SIRS of a **noninfectious origin** is recognized as a separate condition in these cases.
- R65.9 *Systemic inflammatory response syndrome, unspecified* is not expected to appear on an abstract of an inpatient or ambulatory care case because the underlying cause (infectious origin or non-infectious origin) should be documented.

Example: The patient is diagnosed with SIRS due to *E. coli* and *Staphylococcus aureus* sepsis.

Code	DAD	NACRS	Code title
A41.50	(M)	MP	Sepsis due to Escherichia coli [E.coli]
A41.0	(1)	OP	Sepsis due to Staphylococcus aureus
R65.0	(3)	OP	Systemic inflammatory response syndrome of infectious origin without organ failure (optional)

Rationale: R65.0 is optional because a diagnosis of sepsis (without organ failure) includes SIRS.

Example: The patient presents to hospital with high fever and hypoxia.

Final diagnosis: Severe sepsis

Code	DAD	NACRS	Code title
A41.9	(M)	MP	Sepsis, unspecified
R65.1	(1)	OP	Systemic inflammatory response syndrome of infectious origin with acute organ failure

Rationale: R65.1 is assigned diagnosis type (1) because “severe sepsis” is documented and there is no documentation of the specific acute organ failure. Had the individual organ failure been known, individual codes to identify each specified organ failure would have been assigned as comorbidities and R65.1 would have been an optional diagnosis type (3). A41.9 is assigned in this case because the type of sepsis is not specified in the documentation.

Example: An 85-year-old woman presents to the emergency department with increasing shortness of breath, productive cough and progressive weakness. She acutely deteriorates in the emergency department and is emergently admitted to the intensive care unit (ICU) with a diagnosis of sepsis due to *Haemophilus influenzae*, pneumonia and respiratory failure. In the ICU, she is intubated, mechanically ventilated and started on broad-spectrum antibiotics.

Code	DAD	Code title
A41.3	(M)	Sepsis due to Haemophilus influenzae
J14	(1)	Pneumonia due to Haemophilus influenzae
J96.09	(1)	Acute respiratory failure, type unspecified
R65.1	(3)	Systemic inflammatory response syndrome of infectious origin with acute organ failure (optional)

Rationale: As the acute organ failure is specified and meets the criteria for significance, R65.1 is optional.

Example: A 35-year-old trauma patient is in ICU for several days and develops an *E. coli* urinary tract infection that progresses to *E. coli* septicemia. He continues to deteriorate with signs of acute renal failure and hepatic failure and goes into septic shock. Despite aggressive treatment, the patient dies.

Code	DAD	Code title
A41.50	(2)	Sepsis due to Escherichia coli [E.coli]
N17.9	(2)	Acute renal failure, unspecified
K72.9	(2)	Hepatic failure, unspecified
R57.2	(2)	Septic shock
N39.0	(2)	Urinary tract infection, site not specified
B96.2	(3)	Escherichia coli [E. coli] as the cause of diseases classified to other chapters
R65.1	(3)	Systemic inflammatory response syndrome of infectious origin with acute organ failure (optional)

Rationale: As the acute organ failure is specified and meets the criteria for significance, R65.1 is optional. Septic shock indicates the last stage of severity in the continuum of sepsis and is classified to R57.2. See also the coding standard *Septicemia/Sepsis*.

Whereas a diagnosis of sepsis (without organ failure) includes SIRS, the diagnosis of SIRS of a **noninfectious origin** identifies a separate condition in the patient. Therefore, SIRS of a noninfectious origin always requires two codes: one for the cause and one for the systemic response.

DAD and NACRS directive statements

When SIRS of a **noninfectious origin** is present without organ failure, assign

- A code identifying the cause (such as trauma, burn or pancreatitis); and
- R65.2 *Systemic inflammatory response syndrome of noninfectious origin without organ failure*, mandatory, as diagnosis type (1) or (2)/other problem.

When SIRS of a **noninfectious origin** is present with associated acute organ failure, assign

- A code identifying the cause (such as trauma, burn or pancreatitis); and
- R65.3 *Systemic inflammatory response syndrome of noninfectious origin with acute organ failure*, mandatory, as diagnosis type (1) or (2)/other problem.

Assign additional codes identifying the specific acute organ failure(s) according to diagnosis typing or main/other problem definitions.

Example: A 45-year-old woman is admitted to internal medicine with acute pancreatitis. She is transferred to the ICU four days later with signs of systemic reaction. The ICU physician documents SIRS; however, timely treatment prevents the patient from progressing to associated acute organ failure.

Code	DAD	Code title
K85.9	(M)	Acute pancreatitis, unspecified
R65.2	(2)	Systemic inflammatory response syndrome of noninfectious origin without organ failure

Rationale: R65.2 is assigned diagnosis type (2) because SIRS of a noninfectious origin in this example meets the definition of a post-admit comorbidity.

Example: A 52-year-old man is admitted to the burn ICU; his trunk was severely burned when his house burned down. He has 25% body surface area involved in the burn, with 15% of the body surface area having third-degree burns. The patient was sleeping in the basement at the time of the fire. A week after admission, the patient shows signs of SIRS with acute renal failure. The patient is started on dialysis.

Code	DAD	Code title
T21.3	(M)	Burn of third degree of trunk
T31.22	(1)	Burns involving 20–29% of body surface with 10–19% third degree burns
X00	(9)	Exposure to uncontrolled fire in building or structure
U98.0	(9)	Place of occurrence, home
R65.3	(2)	Systemic inflammatory response syndrome of noninfectious origin with acute organ failure
N17.9	(2)	Acute renal failure, unspecified

Rationale: R65.3 is assigned diagnosis type (2) because SIRS of a noninfectious origin in this example meets the definition of a post-admit comorbidity.

Vital Signs Absent (VSA)

In effect 2009

"Vital signs absent (VSA)" denotes that an individual is demonstrating no evidence of life, that is, he or she has no respirations, no pulse and no blood pressure, and the pupils are fixed and dilated (on neurological assessment). VSA is not a diagnosis per se, and cardiac arrest is not assumed to be the diagnosis. Do not confuse a statement of VSA with cardiac arrest.

DAD and NACRS directive statements

When vital signs absent (VSA) is the only documentation provided by the physician, without an underlying cause, assign R99 *Other ill-defined and unspecified causes of mortality*.

Assign, mandatory, codes to identify cardiac resuscitative intervention(s) undertaken.

Cardiac resuscitative interventions include

- Codes from rubric 1.HZ.30.^^ *Resuscitation, heart NEC*; and
- Codes from rubric 1.HZ.09.^^ *Stimulation, heart NEC*.

Notes

- On an inpatient chart, it is not expected that VSA would be documented without an underlying cause; therefore, it is not expected that the code R99 *Other ill-defined and unspecified causes of mortality* would be assigned on a DAD abstract.
- Cardiac arrest must be clearly documented as such before assigning a code from I46.0 *Cardiac arrest with successful resuscitation* or I46.9 *Cardiac arrest, unspecified*. A diagnosis of cardiac arrest cannot be assumed on the basis of administration of cardiocerebral resuscitation (CCR)/cardiopulmonary resuscitation (CPR) alone.
- CCR is chest compressions only, without artificial respiration.

See also the coding standard *Cardiac Arrest*.

Example: A 45-year-old obese woman has a non-witnessed collapse. Upon arrival at the scene, paramedics take over doing CPR, which was initiated by a bystander; CPR is continued by emergency staff on arrival at the hospital. The doctor assesses the patient after 10 minutes of CPR and documents the patient as VSA.

Code	NACRS	Code title
R99	MP	Other ill-defined and unspecified causes of mortality

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

1.GZ.31.CB-EP Ventilation, respiratory system NEC, non-invasive approach, manual hand assisted (e.g. ambu bag)

Extent: 0

Rationale: The physician documented that this patient was VSA. No underlying cause was documented.

Example: A previously healthy 45-year-old man is driving to work when, witnesses report, his car swerves suddenly for no apparent reason and veers off the highway. Paramedics arrive at the scene and begin CPR. Upon arrival at the emergency department, the patient is diagnosed as VSA. The patient sustained no visible injuries as a result of the motor vehicle crash.

Code	NACRS	Code title
R99	MP	Other ill-defined and unspecified causes of mortality

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

1.GZ.31.CB-EP Ventilation, respiratory system NEC, non-invasive approach, manual hand assisted (e.g. ambu bag)

Extent: 0

Rationale: The physician documented that this patient was VSA. No underlying cause was documented.

Example: This 16-year-old boy is the front seat passenger in a car involved in a non-collision motor vehicle crash. The driver is pronounced expired at the scene. The patient is VSA, but paramedics begin CCR at the scene. CCR is discontinued upon arrival at the emergency department. The physician documents that the patient is VSA. The following obvious injuries are documented: open fracture of base of skull, flail chest and open fracture of the shaft of the right femur. The coroner is notified. The patient will have a complete autopsy.

Code	NACRS	Code title
S02.101	MP	Fracture of base of skull, open
S22.500	OP	Flail chest, closed
S72.301	OP	Fracture of shaft of femur, open
V48.6	OP	Car occupant injured in noncollision transport accident, passenger, traffic accident

1.HZ.30.JN Resuscitation, heart NEC, by external manual compression with or without concomitant ventilation

Rationale: The physician documented that this patient was VSA. The patient suffered major trauma as a result of a motor vehicle crash. Codes are assigned for the documented injuries. No code is assigned for VSA.

Example: This 87-year-old woman is admitted to hospital for end-stage renal failure. On routine nursing rounds, the patient is found VSA. The attending physician is paged and arrives 30 minutes later to pronounce the patient expired.

Code	DAD	Code title
N18.5	(M)	Chronic kidney disease, stage 5

Rationale: In this example, the underlying cause is known; therefore, R99 is not assigned.

Chapter XIX — Injury, poisonings and certain other consequences of external causes

Adverse Reactions in Therapeutic Use Versus Poisonings

For description of change, see Appendix C.

In effect 2002, amended 2006, 2008, 2009, 2012, 2015, 2018

DAD and NACRS directive statements

- Classify an “adverse effect in therapeutic use” or a “poisoning” based on the criteria in the table below.
- Classify all poisonings as accidental unless there is clear documentation of intentional self-harm or undetermined intent.
- Classify poisonings from illicit drug use as accidental unless there is clear documentation of intentional self-harm or undetermined intent.
- When multiple drugs are involved in a poisoning, assign a code for each documented drug.
- When a compound drug (such as Tylenol #3, which is acetaminophen, codeine and caffeine) is involved in a poisoning, assign a code for each drug separately.

Note

It is mandatory to apply the diagnosis cluster to the set of codes that describes

- An adverse effect in therapeutic use (Y40–Y59); or
- An accidental overdose of drug or wrong drug given in error (X40–X44) that is a misadventure during surgical and medical care (Y60–Y69).

See also the coding standard *Diagnosis Cluster*.

Notes

- Only one code is required for multiple drugs classified to the same ICD-10-CA code.
- When a drug is documented using the brand name, use a Canadian drug reference to find the generic name(s) or active ingredients to further search the Table of Drugs and Chemicals.
- When the generic name(s) or active ingredients cannot be found in the Table of Drugs and Chemicals, assign a code from the general drug category to which the drug belongs (e.g., antibiotic, diuretic, analgesic or narcotic).

Adverse effect in therapeutic use	**Poisoning**
An adverse reaction may occur when a substance (drug, medicament or biological agent) is taken or administered correctly in therapeutic use. Correct administration of a substance in therapeutic use includes the following: • Correct substance given or taken • Correct dosage of a drug given or taken (includes prescribed and self-prescribed) • Two or more prescribed drugs taken in combination • Two or more self-prescribed drugs taken as recommended Generally, the following terms are used to describe adverse effects in therapeutic use. When these terms are used, but it is clear that a substance was used incorrectly, classify as a poisoning. • Allergic reaction (**Note:** In the case of an allergic reaction to a substance **not** in therapeutic use, see the coding standard *Allergic Reaction in Non-Therapeutic Use*) • Accumulative effect (toxicity) • Hypersensitivity • Iatrogenic reaction • Idiosyncratic reaction • Interaction between two medications • Paradoxical reaction • Synergistic reaction	A poisoning may occur when a substance (drug, medicament or biological agent) is taken incorrectly. Incorrect use includes the following: • Wrong drug given or taken • Wrong dosage of a drug • Self-prescribed drug taken in combination with a prescribed drug • Self-prescribed drug not taken as recommended • Any drug taken in combination with alcohol The following terms are used to describe a poisoning: • Drug overdose • Accidental ingestion • Intentional self-harm • Suicide attempt **Instructions for coding** Locate the poisoning codes from Chapter XIX and the external cause code (Accidental, Intentional Self-Harm or Undetermined Intent) from the Table of Drugs and Chemicals. Sequence the poisoning code first, followed by the manifestation code (when applicable), the external cause code and the place of occurrence code. **Note:** When a poisoning is also a misadventure during surgical and medical care (such as an accidental overdose of a drug or a wrong drug given in error within the health care setting), in addition to assigning the external cause code from X40–X44, assign an external cause code from category Y60–Y69 *Misadventures to patients during surgical and medical care*.

Adverse effect in therapeutic use	Poisoning
Instructions for coding Assign a code to describe the reaction/ manifestation. Sequence the reaction/ manifestation code first, followed by an external cause code (Y40–Y59) taken from the Table of Drugs and Chemicals under the column Adverse Effect in Therapeutic Use. Apply the diagnosis cluster, mandatory. When the specific reaction/manifestation is not documented, select the applicable code, either • T80.6 *Other serum reactions*; or • T80.9 *Unspecified complication following infusion, transfusion and therapeutic injection*; or • T88.7 *Unspecified adverse effect of drug or medicament*.	**Note:** No codes are assigned when there is **no harm** to the patient from an overdose of a drug or wrong drug given in error within the health care setting. **Note:** Do not apply the diagnosis cluster when classifying a poisoning **unless** the poisoning is also a misadventure during surgical and medical care and a code from Y60–Y69 is assigned. **Note:** The diagnosis type assigned for the manifestation resulting from a poisoning is based on the diagnosis typing definitions.

See also the coding standards *Allergic Reaction in Non-Therapeutic Use* and *Misadventures During Surgical and Medical Care*, as well as Opioid overdose in Appendix A.

Example: The patient presents to the emergency department with a rash. The physician documents that the patient had a CT scan two days ago with injection of contrast dye.

Final diagnosis: Allergic reaction to contrast dye

Code	NACRS	Cluster	Code title
L27.0	MP	A	Generalized skin eruption due to drugs and medicaments
Y57.5	OP	A	Xray contrast media causing adverse effect in therapeutic use

Rationale: This manifestation occurred from a substance taken correctly in therapeutic use; therefore, it is classified following the instruction in the above table for adverse effect in therapeutic use.

Example: The patient is diagnosed with gastritis due to aspirin. Documentation indicates that the patient takes aspirin once daily.

Code	NACRS	Cluster	Code title
K29.7	MP	A	Gastritis, unspecified
Y45.1	OP	A	Salicylates causing adverse effects in therapeutic use

Rationale: A manifestation occurring from a self-prescribed drug taken as directed is classified as an adverse effect in therapeutic use.

Example: The patient is newly diagnosed with cervical spondylosis. His physician prescribes "Painfree" (a nonsteroidal anti-inflammatory drug) 25 mg tablet to be taken once daily. The patient presents at emergency the following day complaining of nausea and vomiting that started 30 minutes after taking the first dose. The emergency physician notes the reaction and changes his medication.

Code	NACRS	Cluster	Code title
R11.3	MP	A	Nausea with vomiting
Y45.3	OP	A	Other nonsteroidal anti-inflammatory drugs [NSAID] causing adverse effects in therapeutic use

Rationale: This manifestation occurred from a substance taken correctly in therapeutic use; therefore, it is classified following the instruction in the above table for adverse effect in therapeutic use.

Example: Digoxin toxicity — patient experiences ventricular tachycardia

Code	DAD	NACRS	Cluster	Code title
I47.2	(M)	MP	A	Ventricular tachycardia
Y52.0	(9)	OP	A	Cardiac-stimulant glycosides and drugs of similar action causing adverse effects in therapeutic use

Rationale: Although physicians often record "digoxin toxicity" as a diagnosis, there is usually additional documentation indicating the specific manifestation of the toxicity. Classify the case to the more specific condition (see also the coding standard *Specificity*). When more specific documentation is not provided, assign T88.7 *Unspecified adverse effect of drug or medicament*.

Example: Following infusion of blood products while in the intensive care unit (ICU), the patient develops symptoms that are documented as a mild transfusion reaction.

Code	DAD	Cluster	Code title
T80.9	(3)	A	Unspecified complication following infusion, transfusion and therapeutic injection
Y44.6	(9)	A	Natural blood and blood products causing adverse effects in therapeutic use

Rationale: "Mild transfusion reaction" is an example of an adverse effect in therapeutic use in which the specific reaction/manifestation is not documented; therefore, T80.9 is assigned.

Example: Hematemesis due to taking Coumadin (prescribed) and aspirin (self-prescribed) in combination.

Code	DAD	NACRS	Code title
T45.5	(M)	MP	Poisoning by anticoagulants
T39.0	(1)	OP	Poisoning by salicylates
K92.0	(3)	OP	Haematemesis
X44	(9)	OP	Accidental poisoning by and exposure to other and unspecified drugs, medicaments and biological substances
X40	(9)	OP	Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
U98.9	(9)	OP	Unspecified place of occurrence

Rationale: Any combination of a prescribed drug taken with a self-prescribed drug is classified as a poisoning.

Example: The patient presents after her husband notes her to be quite drowsy. On review, it is noted that she took her regular prescribed dose of Ativan and consumed three glasses of wine.

Final diagnosis: Toxic effect from Ativan and alcohol consumption

Code	DAD	NACRS	Code title
T42.4	(M)	MP	Poisoning by benzodiazepines
T51.0	(1)	OP	Toxic effect of ethanol
R40.0	(3)	OP	Somnolence
X41	(9)	OP	Accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified
X45	(9)	OP	Accidental poisoning by and exposure to alcohol
U98.9	(9)	OP	Unspecified place of occurrence

Rationale: When a condition is the result of an interaction between alcohol and any drug, it is classified as a poisoning.

Example: A mother finds her 8-year-old son playing at home with candy-coated ibuprofen tablets. A count of the tablets shows that 10 are missing. He admits to swallowing the “candy.” He is taken to the emergency department, where his chief complaint is stomach ache.

Final diagnosis: Ibuprofen ingestion

Code	DAD	NACRS	Code title
T39.3	(M)	MP	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID]
R10.19	(3)	OP	Upper abdominal pain, unspecified
X40	(9)	OP	Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
U98.0	(9)	OP	Place of occurrence, home

Rationale: A manifestation occurring from accidental ingestion is classified as a poisoning.

Example: The patient is in a coma due to attempted suicide by drug overdose from a combination of heroin, Xanax, Valium and acetaminophen. He was found at home. The patient is admitted to the ICU for close monitoring of his level of consciousness; a central venous line is inserted for dialysis.

Code	DAD	NACRS	Code title
T40.1	(M)	MP	Poisoning by heroin
T42.4	(1)	OP	Poisoning by benzodiazepines
T39.1	(1)	OP	Poisoning by 4-Aminophenol derivatives
R40.29	(1)	OP	Coma, unspecified
X62	(9)	OP	Intentional self-poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified
X61	(9)	OP	Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified
X60	(9)	OP	Intentional self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
U98.0	(9)	OP	Place of occurrence, home

Rationale: When multiple drugs are classified to separate categories, a code must be assigned for each. The generic names for Xanax and Valium, as listed in the *Compendium of Pharmaceuticals and Specialties* (CPS), are alprazolam and diazepam, respectively, and both are classified in the Table of Drugs and Chemicals to T42.4.

Example: Drug overdose from Pamprin

Code	DAD	NACRS	Code title
T39.1	(M)	MP	Poisoning by 4-Aminophenol derivatives
T45.0	(1)	OP	Poisoning by antiallergic and antiemetic drugs
T50.2	(1)	OP	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics
X40	(9)	OP	Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
X44	(9)	OP	Accidental poisoning by and exposure to other and unspecified drugs, medicaments and biological substances
U98.0	(9)	OP	Place of occurrence, home

Rationale: Pamprin is a compound drug consisting of acetaminophen, pyrilamine maleate and pamabrom; therefore, each is coded separately. Since pamabrom is a diuretic and the generic name is not listed in the Table of Drugs and Chemicals, it is classified to the diuretic category. Pyrilamine and pamabrom are classified to the same external cause code; therefore, X44 is assigned only once.

Example: The patient presents in labor. An epidural is administered to the patient. When it is noted that the epidural is not working, it is discovered that penicillin G had been administered into the epidural space rather than the usual anesthetic mixture (incorrect IV bag). No treatment is given to the patient, other than close observation for signs and/or symptoms of an allergic reaction, which do not occur. The patient delivered a healthy newborn.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: There was no harm to the patient from the wrong drug being given; therefore, no codes are assigned. See also the coding standard *Misadventures During Surgical and Medical Care*.

Example: The patient is brought to hospital via ambulance after snorting fentanyl. The patient is unconscious. The final diagnosis is documented as “fentanyl overdose.”

Code	DAD	NACRS	Code title
T40.40	(M)	MP	Poisoning by fentanyl and derivatives
R40.29	(3)	OP	Coma, unspecified
X42	(9)	OP	Accidental poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified
U98.9	(9)	OP	Unspecified place of occurrence

Rationale: Fentanyl overdose is classified as a poisoning. Therefore, T40.40 is taken from the first column of the Table of Drugs and Chemicals, followed by the code for the manifestation. X42 is the external cause code, as taken from the Table of Drugs and Chemicals under the Accidental Poisoning column. Poisonings from illicit drug use are classified as accidental unless otherwise specified.

Example: The patient is admitted to hospital for confusion due to oxycodone that he takes, as prescribed, for ongoing back pain.

Code	DAD	NACRS	Cluster	Code title
R41.0	(M)	MP	A	Disorientation, unspecified
Y45.04	(9)	OP	A	Oxycodone causing adverse effects in therapeutic use

Rationale: The confusion is a manifestation of a substance taken correctly in therapeutic use. Therefore, R41.0 is assigned as the MRDx. Y45.04 is the external cause code taken from the Table of Drugs and Chemicals under the Adverse Effect in Therapeutic Use column to identify that R41.0 is due to the oxycodone taken, as prescribed, in therapeutic use.

Example: The patient is admitted with shingles and placed on acyclovir. Unfortunately, there is a transcription error in the medication orders, and a double dose of acyclovir is given. Creatinine level subsequently rises to more than 400. The patient is seen by the nephrology service and is diagnosed with acyclovir-induced crystal acute tubular necrosis. After six days of intravenous hydration and discontinuation of the acyclovir, renal function returns to normal and the patient is discharged home.

Code	DAD	Cluster	Code title
T37.5	(2)	A	Poisoning by antiviral drugs
N14.1	(3)	A	Nephropathy induced by other drugs, medicaments and biological substances
X44	(9)	A	Accidental poisoning by and exposure to other and unspecified drugs, medicaments and biological substances
Y63.8	(9)	A	Failure in dosage during surgical and medical care
U98.20	(9)	A	Place of occurrence, hospital

Rationale: When there is harm to the patient as the result of wrong dosage during care, it is classified as a poisoning and a misadventure. Application of a diagnosis cluster is mandatory for misadventures. Note that while there is an exclusion at Y63 for accidental overdose of drug or wrong drug given in error (X40–X44), this does not preclude using these two external codes on the same abstract. One indicates that there was an accidental poisoning and the other indicates that there was a misadventure. See also the coding standard *Misadventures During Surgical and Medical Care*.

Noncompliance with therapy

DAD and NACRS directive statement

Classify conditions resulting from noncompliance with therapy to a code describing the manifestation followed by Z91.1 *Personal history of noncompliance with medical treatment and regimen,* optional, as a diagnosis type (3)/other problem.

When a condition is documented as being due to noncompliance with therapy or self-directed discontinuance of a drug, it is neither a poisoning nor an adverse effect.

Example: A 17-year-old patient, who has had asthma for several years, develops status asthmaticus due to his failure to comply with his medication regimen.

Code	DAD	NACRS	Code title
J45.01	(M)	MP	Predominantly allergic asthma with stated status asthmaticus
Z91.1	(3)	OP	Personal history of noncompliance with medical treatment and regimen

Allergic Reaction in Non-Therapeutic Use

In effect 2009

DAD and NACRS directive statements

When a manifestation is documented as due to an allergy or allergic reaction to a substance (excluding substances in therapeutic use or allergy to food), search the alphabetical index for the manifestation.

When the index

- Provides the subterm “allergy” or “allergic,” assign the applicable code from A00–R99.
- Does not provide the subterm “allergy” or “allergic,” assign
  - T78.4 *Allergy, unspecified*; and
  - An additional code identifying the manifestation as a diagnosis type (3)/other problem; and
  - An external cause code (either X58 *Exposure to other specified factors*, when the causative agent is known, or X59.9 *Exposure to unspecified factor causing other and unspecified injury*, when the causative agent is unknown).

Note

Do not search the Table of Drugs and Chemicals to locate an external cause code when classifying an allergic reaction to a substance not used in therapeutic use. External cause codes found in the Table of Drugs and Chemicals are used only to describe an adverse effect in therapeutic use or a poisoning. See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Example: The patient presents to the emergency department and is diagnosed with allergic contact dermatitis after exposure to poison ivy.

Code	NACRS	Code title
L23.7	MP	Allergic contact dermatitis due to plants, except food

Rationale: Searching the alphabetical index as follows leads to the correct code:

Dermatitis

– due to

– – plants NEC (contact) L25.5

– – – allergic L23.7

An external cause code is not necessary.

(**Note:** Contact with poison ivy is classified as an allergic contact dermatitis.)

Example: The patient presents with localized swelling of the face. The final diagnosis is documented as an allergic reaction.

Code	DAD	NACRS	Code title
T78.4	(M)	MP	Allergy, unspecified
R22.0	(3)	OP	Localized swelling, mass and lump, head
X59.9	(9)	OP	Exposure to unspecified factor causing other and unspecified injury
U98.9	(9)	OP	Unspecified place of occurrence

Rationale: The manifestation is specified as swelling; however, the alphabetical index search does not provide a descriptor subterm for “allergic”; therefore, T78.4 *Allergy, unspecified* is assigned. If T78.4 were not assigned for this example, it would not be identified as an allergic reaction. X59.9 is assigned because the causative agent of the allergic reaction is unknown.

Example: The patient presents with lymph edema of her eyelids after applying a hair dye color treatment at home.

Final diagnosis: Hair dye allergy

Code	NACRS	Code title
T78.4	MP	Allergy, unspecified
H02.8	OP	Other specified disorders of eyelid
X58	OP	Exposure to other specified factors
U98.0	OP	Place of occurrence, home

Rationale: In this example, the causative agent is identified as hair dye. Even though “Dye NEC” can be found by searching the Table of Drugs and Chemicals, this is not an allergic reaction resulting from an adverse effect of a substance in therapeutic use; therefore, do not search the Table of Drugs and Chemicals for the external cause code. **Note:** If T78.4 were not assigned for this example, it would not be identified as an allergic reaction.

Current Versus Old Injuries

In effect 2001, amended 2002, 2006, 2012, 2015

Code assignment is based on physician documentation, which establishes how the coder searches the alphabetical index and determines when to apply the notes in the tabular listing. For some injuries, there are occurrences when the classification requires the coder to make a choice between classifying the injury as a current injury (Chapter XIX — Injury, poisoning and certain other consequences of external causes [S00–T98]) or an old injury (body system chapter, such as Chapter XIII — Diseases of the musculoskeletal system and connective tissue [M00–M99]).

This is an example from the alphabetical index:

Tear, torn (traumatic) (see also Wound, open) T14.1

– meniscus (knee) (**current injury**) S83.2–

– – **nontraumatic** (degenerative) M23.3–

– – **old** (anterior horn) (lateral) (medial) (posterior horn) M23.2–

This is an example from the tabular listing:

G56 Mononeuropathies of upper limb

Excludes: **current** traumatic nerve disorder — see nerve injury by body region

DAD and NACRS directive statement

When an injury is documented as being related to a traumatic event and the classification provides a choice of a condition being classified as current or old, select a code from either the body system chapter or Chapter XIX based on the time frames indicated below:

- A current injury is one that occurred within one year (365 days) before the date of the visit. Select a code from Chapter XIX.
- An old injury is one that occurred more than one year (365 days) before the date of the visit. Select a code from the body system chapter.
- When the date of injury is not specified (e.g., patient cannot remember the date, physician does not state an approximate date or injury is documented as "long ago") classify as an old injury. Select a code from the body system chapter.

First visit

Example: The patient falls while skiing on a commercial ski hill, twisting his knee. A week later, he presents to the emergency department because of continued pain and swelling. He is diagnosed with a tear of his medial meniscus and is discharged to await surgical booking.

Code	NACRS	Code title
S83.20	MP	Tear of medial meniscus of knee, current
W02.01	OP	Fall involving skis
U98.3	OP	Place of occurrence, sports and athletics area

Rationale: The injury is related to a traumatic event and, when searching the alphabetical index (lead term "Tear," subterm "meniscus"), the classification provides a choice between a current injury (S83.2–) and an old injury (M23.2–). Since there is documentation of the injury having occurred within one year, the tear of the meniscus is classified as a current injury.

Second visit

Example: The patient from the above example returns to the hospital for meniscectomy. It is now 21 days since the original injury.

Code	DAD	NACRS	Code title
S83.20	(M)	MP	Tear of medial meniscus of knee, current
W02.01	(9)	OP	Fall involving skis
U98.3	(9)	OP	Place of occurrence, sports and athletics area

Rationale: The injury is related to a traumatic event and, when searching the alphabetical index (lead term “Tear,” subterm “meniscus”), the classification provides a choice between a current injury (S83.2–) and an old injury (M23.2–). Since there is documentation of the injury having occurred within one year, the tear of the meniscus is classified as a current injury.

Example: Six months ago, the patient fell while skiing on a commercial ski hill, twisting her knee. At that time, she was seen in emergency and diagnosed with a partial tear of the medial meniscus. She was discharged with instructions to rest and ice the injured area. She now complains of pain in her knee with certain activity and is admitted for meniscectomy. The final diagnosis is torn posterior horn, medial meniscus.

Code	DAD	NACRS	Code title
S83.20	(M)	MP	Tear of medial meniscus of knee, current
W02.01	(9)	OP	Fall involving skis
U98.3	(9)	OP	Place of occurrence, sports and athletics area

Rationale: The injury is related to a traumatic event and, when searching the alphabetical index (lead term “Tear,” subterm “meniscus”), the classification provides a choice between a current injury (S83.2–) and an old injury (M23.2–). Since there is documentation of the injury having occurred within one year, the tear of the meniscus is classified as a current injury.

Example: The patient presents to hospital with right femoral nerve dysfunction. He was struck in the inguinal area with a hockey puck two months previously when playing a game in a hockey arena. The physician states that the patient obviously had an injury to his femoral nerve at the time he was struck by the hockey puck, as he has had numbness in the distribution of the nerve plus slight weakness of the quadriceps muscle ever since. The final diagnosis is femoral nerve dysfunction.

Code	DAD	NACRS	Code title
S74.18	(M)	MP	Other and unspecified injury of femoral nerve at hip and thigh level
W21.03	(9)	OP	Striking against or struck by hockey puck
U98.3	(9)	OP	Place of occurrence, sports and athletics area

Rationale: The injury is related to a traumatic event and, when searching the alphabetical index, there is no subterm for “nerve” under the lead term “Dysfunction.” The alphabetical index lookup “Disorder,” subterms “nerve,” “femoral” leads to G57.2 *Lesion of femoral nerve*. Referring to the tabular listing, the category G57 *Mononeuropathies of lower limb* “excludes current traumatic nerve disorder,” and the coder is directed to “see nerve injury by body region.” Since there is documentation of the injury having occurred within one year, the exclusion at G57 is applicable; therefore, the diagnosis of nerve dysfunction is classified as a current injury.

Example: This patient had a twisting and hyperflexion injury to her knee just more than a year ago. She initially had significant pain; this improved over time until a few months ago. She is admitted for surgery, which identifies a left knee lateral meniscal tear. Meniscectomy is performed.

Code	DAD	NACRS	Code title
M23.26	(M)	MP	Derangement of other and unspecified lateral meniscus due to old tear or injury

Rationale: The injury is related to a traumatic event and, when searching the alphabetical index (lead term “Tear,” subterm “meniscus”), the classification provides a choice between a current injury (S83.2–) and an old injury (M23.2–). Since there is documentation of the injury having occurred more than one year ago, the tear of the meniscus is classified as an old injury.

Note
Pay careful attention when injuries are **not related** to a traumatic event. For example, conditions described as "repetitive," "degenerative" and/or "from overuse" are unrelated to a traumatic event and thus must not be classified as traumatic injuries (either current or old).

Example: The patient is admitted for knee arthroscopy. The lateral compartment is evaluated, and a small tear in the lateral meniscus is found. This is identified as a degenerative horizontal tear.

Code	DAD	NACRS	Code title
M23.36	(M)	MP	Other derangement of other and unspecified lateral meniscus

Rationale: The tear is a nontraumatic injury, as it is documented as degenerative. When searching the alphabetical index (lead term "Tear," subterm "meniscus"), the classification provides the subterm "nontraumatic (degenerative)." Following this alphabetical index lookup, assign M23.36.

DAD and NACRS directive statement

When a patient presents with a condition that is a sequela/late effect resulting from a previous injury, assign a code for the current condition under investigation or treatment.

- Assign a code from T90–T98 *Sequelae of injuries, of poisoning and of other consequences of external causes*, optional, as a diagnosis type (3)/other problem to identify the current condition as a sequela of an injury.

Example: This patient suffers a stab wound to the palm of her left hand while cooking at home. She has loss of sensation in the ring and middle fingers. The procedure performed is neurolysis of common digital nerve.

Final diagnosis: Scarring of nerves of left hand

Code	DAD	NACRS	Code title
G56.8	(M)	MP	Other mononeuropathies of upper limb
T92.4	(3)	OP	Sequelae of injury of nerve of upper limb (optional)
Y86	(9)	OP	Sequelae of other accidents (optional)

Rationale: Scarring of the nerves in this example is a sequela of the stab wound. The alphabetical index (lead term "Scar, scarring") does not provide a subterm for "nerve," and L90.5 is specific to "scarring of the skin." Since L90.5 is not appropriate for this case, the coder must try different applicable lead terms to search the alphabetical index. Searching the lead term "Disorder," subterms "nerve," "specified NEC," "upper limb" leads to G56.8. On review of the tabular listing, while category G56 *Mononeuropathies of upper limb* "excludes: current traumatic nerve disorder — see nerve injury by body region," this exclusion is not applicable because the diagnosis "scarring of the nerve" is not describing a current or old injury but rather a sequela of an injury.

See also the coding standards *Sequelae* and *Admission for Follow-up Examination*.

Early Complications of Trauma

In effect 2001, amended 2006

DAD and NACRS directive statement

When a trauma complication, such as a hemorrhage or infection, follows medical/surgical procedures intended to repair the injured site, assign the appropriate code from the range of categories T80–T88 *Complications of surgical and medical care, not elsewhere classified*.

See also the coding standard *Post-Intervention Conditions*.

Example: The patient is seen at the hospital with a dehiscence of the surgically repaired open wound of his forearm.

Code	DAD	NACRS	Cluster	Code title
T81.3	(M)	MP	A	Disruption of operation wound, not elsewhere classified
Y83.8	(9)	OP	A	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The complication occurred following medical/surgical treatment and is therefore classified to T80–T88 *Complications of surgical and medical care*.

Note

In a patient with multiple traumas, shock may be assumed to be due to the trauma. Assign T79.4 *Traumatic shock* unless the physician clearly states another cause.

Example: A patient with severe multiple injuries experiences shock from the administration of anesthetic for interventions to repair the injuries.

Code	DAD	Cluster	Code title
T88.2	(2)	A	Shock due to anaesthesia
Y48.4	(9)	A	Anaesthetic, unspecified causing adverse effects in therapeutic use

Intracranial Injury NOS Versus Head Injury NOS

In effect 2008, amended 2009, 2012

For the purpose of the ICD-10-CA classification, a final diagnosis of “head injury” is classified as an intracranial injury (brain injury) when any of the following is documented within the encounter:

- Altered state of awareness
- Altered cognition
- Altered mentation
- Altered state of consciousness
- Glasgow Coma Scale score of 3 to 12

DAD and NACRS directive statements

When the final diagnosis is recorded as “head injury” and further documentation indicates a brain injury per the above criteria, assign a code from category S06 *Intracranial Injury*.

When the final diagnosis is recorded as “head injury” without further specification, assign S09.9 *Unspecified injury of head*.

See also the coding standard *Specificity*.

Example: The patient is injured in a fall from a horse. The final diagnosis is recorded as “head injury.” The history identifies that she was unconscious for 10 minutes immediately after the head injury.

Code	DAD	NACRS	Code title
S06.0	(M)	MP	Concussion
V80.0	(9)	OP	Animal-rider or occupant of animal-drawn vehicle injured by fall from or being thrown from animal or animal-drawn vehicle in noncollision accident

Rationale: As the documentation (loss of consciousness) provides further specificity, the final diagnosis of “head injury” is classified to category S06 *Intracranial Injury* and not S09.9 *Unspecified injury of head*.

Example: A 15-year-old girl walking down the sidewalk while talking on her cell phone strikes her head on a post. She complains of a headache. The final diagnosis is recorded as “minor head injury.” There is no documented Glasgow Coma Scale score.

Code	DAD	NACRS	Code title
S09.9	(M)	MP	Unspecified injury of head
W22.08	(9)	OP	Striking against or struck by other objects in non-sports
U98.4	(9)	OP	Place of occurrence, street and highway

Rationale: When there is no documented evidence to indicate a brain injury (per the criteria above), do not classify the diagnosis as an intracranial brain injury. A headache or sore head in the absence of other signs of neurological impairment is not classified as a brain injury.

Skull Fracture and Intracranial Injury[1]

In effect 2001

DAD and NACRS directive statement

For fractures of the skull associated with an intracranial injury, sequence the intracranial injury first, followed by an additional code for the fracture.

Example: The patient has a traumatic subarachnoid hemorrhage with closed fracture of base of skull. He suffers a brief loss of consciousness but has no other injuries.

Code	DAD	NACRS	Code title
S06.6	(M)	MP	Traumatic subarachnoid haemorrhage
S02.100	(1)	OP	Fracture of base of skull, closed

Open Wounds

In effect 2001, amended 2006

Open wounds include animal bites, cuts, lacerations, avulsions of skin and subcutaneous tissue, and puncture wounds with or without penetrating foreign body. They do not include traumatic amputations or avulsions that involve deeper tissue, such as a muscle.

See also the coding standard *Code Assignment for Multiple Superficial Injuries or Multiple Open Wounds*.

DAD and NACRS directive statement

Classify an open wound communicating with a fracture to the open fracture. Do not assign an additional code for the open wound.

Example: The patient suffers a large open wound of the thigh; a fracture of the shaft of the femur is visible in the wound.

Code	Code title
S72.301	Fracture of shaft of femur, open

DAD and NACRS directive statement

Classify an open wound as “complicated” when it includes any of the following:

- Delayed healing
- Delayed treatment
- Foreign body
- Major infection (except that following treatment)

Example: The patient has an open wound to his forearm due to being struck in the arm by a hockey stick while playing street hockey in his driveway. He delayed seeking treatment, and a significant infection has set in.

Code	DAD	NACRS	Code title
S51.91	(M)	MP	Open wound of forearm, part unspecified, complicated
W21.02	(9)	OP	Striking against or struck by hockey stick
U98.0	(9)	OP	Place of occurrence, home

Rationale: Both an infection and delayed treatment are present in this case.

DAD and NACRS directive statement

Once a wound has been definitively treated (cleansed and sutured), classify a subsequent infection at the site to T81.4 *Infection following a procedure, not elsewhere classified*. Do so regardless of the cause of infection.

See also the coding standards *Early Complications of Trauma* and *Post-Intervention Conditions*.

Example: A patient presents for treatment of a wound infection. He had suffered an open wound of his arm that was treated by cleansing and suturing one day previously

Code	DAD	NACRS	Cluster	Code title
T81.4	(M)	MP	A	Infection following a procedure, not elsewhere classified
Y83.8	(9)	OP	A	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Primary closure of a wound is not performed if the physician believes that the level of contamination from the injury is likely to result in an infection. This is a judgment call that is affected by many factors, including the length of time between injury and treatment. Since the patient's open wound was definitively treated (cleansed and sutured) and the patient now presents with a wound infection, this is classified as an infection following a procedure.

Fractures — Closed Versus Open

In effect 2001, amended 2006

DAD and NACRS directive statement

Classify a fracture not documented as closed or open as closed.

Example: Documentation of injury says only “fracture humerus.”

Code	Code title
S42.390	Fracture of unspecified part of humerus, closed

DAD and NACRS directive statement

Classify separately any **open** wound in the vicinity of a closed fracture

See also the coding standard *Open Wounds*.

An open fracture involves an open wound extending down into and exposing the fracture site, or a broken bone end extending through the skin surface. When an open wound occurs at the vicinity of a fracture without exposed bone, the fracture is considered closed.

Example: The patient sustains a closed fracture of the shaft of the femur, as well as a surface laceration of the thigh.

Code	Code title
S72.300	Fracture of shaft of femur, closed
S71.10	Open wound of thigh, uncomplicated

Treatment of Fractures

In effect 2001

DAD and NACRS directive statement

When a fracture site involves a joint, select the appropriate intervention code from the joint site, not from the bone site.

See also the coding standard *Joint Fracture Reduction, Fixation and Fusion*.

Example: Fixation of an intertrochanteric fracture of the femur with an intramedullary nail — open approach

1.VC.74.LA-LQ	Fixation, femur, open approach using intramedullary nail, no tissue used

Example: Fixation of a fracture of the neck of femur with an intramedullary nail — open approach

1.VA.74.LA-LQ	Fixation, hip joint, open approach using intramedullary nail, fixation device alone

Dislocations

In effect 2001

DAD and NACRS directive statements

Classify dislocations not indicated as closed or open as closed.

Classify a “fracture dislocation” of a site as a fracture.

Classify simple dislocation of vertebrae as follows:

- S13.1 *Dislocation of cervical vertebra*
- S23.1 *Dislocation of thoracic vertebra*
- S33.1 *Dislocation of lumbar vertebra*

For any multiple dislocations of a single type of vertebra, use the code only once.

Example: Dislocation of second and third cervical vertebrae

Code	Code title
S13.1	Dislocation of cervical vertebra

Injury to Blood Vessels

In effect 2001

DAD and NACRS directive statement

When there is an injury to blood vessels due to a fracture, open wound or other injury, assign an additional code to indicate the injury to the blood vessel.

See also the coding standard *Sequencing Multiple Injuries for Severity*.

Example: The patient sustains a closed fracture of shaft of femur with rupture of the common femoral artery.

Code	Code title
S72.300	Fracture of shaft of femur, closed
S75.0	Injury of femoral artery

Rationale: Sequencing will depend on the circumstances documented in the chart.

Significant Injuries

In effect 2006, amended 2008

DAD and NACRS directive statement

For classification purposes, consider the following types of injuries to be significant:

- Fractures
- Dislocations
- Amputations
- Second- and third-degree burns
- First-degree burns meeting the criteria for a significant diagnosis type or main/other problem
- Frostbite, superficial or with tissue necrosis
- Injuries to nerves, blood vessels, muscles/tendons and internal organs

DAD-only directive statement

Assign a diagnosis type (M), (1), (2), (W), (X) or (Y) to significant injuries.

This list is not intended to indicate a hierarchy of severity. See also the coding standard *Sequencing Multiple Injuries for Severity*.

Crush Injuries

In effect 2006

DAD and NACRS directive statements

Assign all significant injuries associated with a crush injury as comorbid conditions or a main/other problem.

- Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify the crush injury. When multiple body regions are involved in a crush injury, select the crush injury code from the category T04 *Crushing injuries involving multiple body regions*.

When crush syndrome is documented with compromised renal function, assign T79.5 *Traumatic anuria* as a comorbid diagnosis type or main/other problem.

See also the coding standard *Code Assignment for Multiple Types of Significant Injuries Involving Multiple Body Regions*.

Example: The patient has his hand crushed between two heavy objects in a hotel kitchen, sustaining open fractures of his second and third metacarpals.

Code	DAD	NACRS	Code title
S62.491	(M)	MP	Multiple fractures unspecified site of other metacarpal bones, open
S67.8	(3)	OP	Crushing injury of other and unspecified parts of wrist and hand
W23	(9)	OP	Caught, crushed, jammed or pinched in or between objects
U98.5	(9)	OP	Place of occurrence, trade and service area

Example: The patient sustains a closed Grade IV injury to his liver and a shattered spleen due to a crush injury to his abdomen when he is crushed against a wall by a van as it backs up.

Code	DAD	NACRS	Code title
S36.130	(M)	MP	Parenchymal liver disruption involving 25 to 75% hepatic lobe, or 1 to three segments (Grade IV) without open wound into cavity
S36.040	(1)	OP	Hilar vascular laceration resulting in completely shattered spleen (Grade V), without open wound into cavity
S38.1	(3)	OP	Crushing injury of other and unspecified parts of abdomen, lower back and pelvis
V03.0	(9)	OP	Pedestrian injured in collision with car, pick-up truck or van, nontraffic accident

Example: The patient is a passenger crushed in a train derailment accident; he sustains an open fracture of the shaft of the humerus, open fracture of three ribs, contusion of the heart with open thoracic wound, closed contusion of the liver and spleen, and closed fracture of the ilium.

Code	DAD	NACRS	Code title
S26.801	(M)	MP	Contusion and haematoma of heart with open wound into thoracic cavity
S42.301	(1)	OP	Fracture of shaft of humerus NOS, open
S22.401	(1)	OP	Multiple fractures of 2–4 ribs, open
S36.150	(1)	OP	Liver haematoma NOS, laceration NOS, injury to liver NOS, without open wound into cavity
S36.090	(1)	OP	Haematoma NOS, laceration NOS, injury to spleen NOS, without open wound into cavity
S32.300	(1)	OP	Fracture of ilium, closed
T04.7	(3)	OP	Crushing injuries of thorax with abdomen, lower back and pelvis with limb(s)
T06.8	(3)	OP	Other specified injuries involving multiple body regions
V81.7	(9)	OP	Occupant of railway train or railway vehicle injured in derailment without antecedent collision

Bilateral Injuries

In effect 2002, amended 2006, 2008

DAD and NACRS directive statement

When identical significant injuries occur bilaterally, classify the injuries using the same ICD-10-CA code twice.

Exception

Do not code identical burns of bilateral sites twice; the category T31 *Burns classified according to extent of body surface involved* encompasses this aspect.

Example: The patient has lacerations to his quadriceps muscles of both thighs because a sharp ceremonial sword fell from a museum display into his lap.

Code	DAD	NACRS	Code title
S76.10	(M)	MP	Laceration of quadriceps muscle and tendon
S76.10	(1)	OP	Laceration of quadriceps muscle and tendon
W26.0	(9)	OP	Contact with knife, sword or dagger
U98.28	(9)	OP	Place of occurrence, school and other institutions and public areas

Example: Closed fracture of shaft of femur, right and left

Code	Code title
S72.300	Fracture of shaft of femur, closed
S72.300	Fracture of shaft of femur, closed

Assign also

- External cause code; and
- Place of occurrence code.

DAD and NACRS directive statement

Classify bilateral fractures to bones of which there is only one in the body (e.g., mandible or maxilla) to one code indicating multiple fractures.

Example: Fracture of ramus (mandible), left side and right side

Code	Code title
S02.670	Multiple mandibular fracture sites, closed

Burns and Corrosions

In effect 2001, amended 2005, 2006, 2007

The term “burn” covers thermal burns, friction burns and scalds by non-caustic liquids and vapors. Also included are burns caused by electrical heating appliances, electricity, flame, hot objects, lightning and radiation. Corrosions are burns caused by caustic substances like acids or alkalis. Sunburns are classified in L55.

In ICD-10-CA, burns and corrosions are described as occurring in “degrees.” This terminology relates to the thickness of the burn. A first-degree burn is redness of the skin (erythema) only; it is also called a superficial burn. A second-degree burn involves epidermal loss and blistering; it is also called a partial thickness burn. Third-degree burns involve full thickness skin loss and/or deep necrosis of any underlying tissue.

Burns and corrosions of the external body surface are specified by site in categories T20–T25. Inclusion terms at each category level will help to ensure accurate code selection. Burns confined to the eye and internal organs are classified in block T26–T28.

Category T29 classifies burns and corrosions of multiple body regions; T30 is used to classify burns and corrosions of body region, unspecified. T31 and T32 are used to capture the extent of the body surface area involved in the burn or corrosion.

DAD and NACRS directive statement

Classify burns of varying degrees at one site to the deepest degree at that site.

Example: First-, second- and third-degree burns of the chest wall

Code	Code title
T21.3	Burn of third degree of trunk

Assign also

- Extent of the body surface involved;
- External cause code; and
- Place of occurrence code.

DAD and NACRS directive statement

Classify an evolving burn to the greatest degree to which it progresses.

Sometimes, a burn initially stated to be a second-degree burn may evolve; within a few days, the physician will change his documentation to say that the burn is a third-degree one. Code this burn to the degree it has evolved to, that is, to the third degree.

Example: The patient presents with second-degree burns to the left arm (10% body surface area) due to scalding with boiling water from a cooking pot while at home. Documentation reveals the burn evolved to third-degree burn.

Code	DAD	NACRS	Code title
T22.3	(M)	MP	Burn of third degree of shoulder and upper limb, except wrist and hand
T31.12	(1)	OP	Burns involving 10–19% body surface with 10–19% third degree burns
X12	(9)	OP	Contact with other hot fluids
U98.0	(9)	OP	Place of occurrence, home

DAD and NACRS directive statements

Classify burns described as “non-healing” or “necrotic” as current burns.

When a patient presents for burn treatment that includes grafting or debridement, classify the burn as a current burn.

When a patient presents for a complication of a burn that has healed, assign a code for the subsequent problem resulting from the burn, such as scar contractures.

When a patient presents for reconstructive surgery for a healed burn, assign Z42.– *Follow-up care involving plastic surgery*.

When a patient presents for change of burn dressings, assign as the MRDx/main problem Z48.0 *Attention to surgical dressings and sutures*.

- Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify the burn itself.

See also the coding standards *Current Versus Old Injuries* and *Admission for Follow-up Examination*.

Example: A patient suffered multiple burns to his body in a house fire seven months previously. He now presents for Z-plasty of a scar contracture of his right wrist. He also still has an area of non-healing, third-degree burn with necrosis of his left buttock, which accounts for less than 1% of body surface.

Code	DAD	NACRS	Code title
L90.5	(M)	MP	Scar conditions and fibrosis of skin
T95.2	(3)	OP	Sequelae of burn, corrosion and frostbite of upper limb (optional)
Y86	(9)	OP	Sequelae of other accidents (optional)
T21.3	(1)	OP	Burn of third degree of trunk
T31.01	(1)	OP	Burns involving less than 10% of body surface with less than 10% third degree burns
X00	(9)	OP	Exposure to uncontrolled fire in building or structure
U98.0	(9)	OP	Place of occurrence, home

DAD and NACRS directive statements

When failure or rejection of a xenograft or homograft occurs at a treated burn site, assign a code from category T86.84 *Failure and rejection of soft tissue (skin, muscle, fascia, tendon, mucosa) graft/flap*.

When rejection or failure of a patient's own grafted tissue (autograft) to a burn site occurs, assign T85.8 *Other complications of internal prosthetic devices, implants and grafts, not elsewhere classified*.

Extent of Body Surface Area Involved in Burn Injury

In effect 2001, amended 2006

DAD and NACRS directive statements

When a code from T20–T25 or T29 is assigned, assign a mandatory additional code, as a comorbid diagnosis type/other problem, from the category

- T31 *Burns classified according to extent of body surface involved*; or
- T32 *Corrosions classified according to extent of body surface involved*.

Ensure that the diagnosis type for T31.– or T32.– matches the diagnosis type of the code for the burn or corrosion in terms of pre-admit/post-admit comorbidity or other problem.

Select only one code from within the categories T31 and T32.

Categories T31 and T32 may both apply to a single case, but only one code from each category may be used.

Example: First- (5% body surface affected [BSA]), second- (10% BSA) and third- (15% BSA) degree burns of the trunk

Code	DAD	NACRS	Code title
T21.3	(M)	MP	Burn of third degree of trunk
T31.32	(1)	OP	Burns involving 30–39% of body surface with 10–19% third degree burns

Assign also

- External cause code; and
- Place of occurrence code.

Rationale: T31.32 is mandatory with T21.3. Diagnosis type for T31.32 is assigned a pre-admit comorbidity type. If the burn was a post-admit comorbidity, T31.32 would also be assigned a post-admit comorbidity diagnosis type. Only one code can be selected from T31.–.

Note

Burn diagrams that describe the patient's total injury may help coders to select the appropriate code from these categories.

Assignment of Most Responsible Diagnosis/Main Problem in Multiple Burns

In effect 2001, amended 2008

DAD and NACRS directive statements

- In the presence of multiple burns of several sites, select the burn site of the most severe degree as the MRDx/main problem.
- In the case of burns of multiple sites of the same degree, select the site with the larger body surface as the MRDx/main problem.
- All parameters remaining the same, select burns requiring grafting over burns not requiring grafting as the MRDx/main problem.

Example: Second-degree burns of forearm and palm of hand and first-degree burn of face

Code	DAD	NACRS	Code title
T22.2	(M)	MP	Burn of second degree of shoulder and upper limb, except wrist and hand
T23.2	(1)	OP	Burn of second degree of wrist and hand
T20.1	(1)	OP	Burn of first degree of head and neck

Assign also

- Extent of body surface involved;
- External cause code; and
- Place of occurrence code.

Rationale: Burn of the forearm is selected as the MRDx/main problem over the first-degree burn of the face due to greater severity; it is selected over the burn of the palm of hand due to larger body surface area.

Burns of Multiple Body Regions

In effect 2001

DAD and NACRS directive statements

When documentation of specific sites of burns is provided, assign separate codes for each burn site.

Assign T29.– *Burns and corrosions of multiple body regions* as a comorbid diagnosis type/other problem only when specific documentation of sites is not provided.

Assign T29.– *Burns and corrosions of multiple body regions*, optional, as a diagnosis type (3)/other problem, to facilitate data retrieval.

Example: Third-degree burn of left thigh and foot

Code	DAD	NACRS	Code title
T24.3	(M)	MP	Burn of third degree of hip and lower limb, except ankle and foot
T25.3	(1)	OP	Burn of third degree of ankle and foot
T29.3	(3)	OP	Burns of multiple regions, at least one burn of third degree mentioned

Assign also

- Extent of body surface involved;
- External cause code; and
- Place of occurrence code.

Sequencing Multiple Injuries for Severity

In effect 2001, amended 2006, 2008

DAD and NACRS directive statement

When there are multiple injuries, sequence the most severe (or life-threatening) first.

See also the coding standard *Diagnoses of Equal Importance*.

Example: The patient is admitted following a motor vehicle accident with third-degree burns of his head and neck (body surface area 11%) requiring extensive skin grafting, along with a lacerated muscle of the wrist requiring debridement and suturing, and traumatic amputation of two fingers.

Code	DAD	Code title
T20.3	(M)	Burn of third degree of head and neck
T31.12	(1)	Total body surface involved in burn (any degree) 10–19%, percentage that was third degree, 10–19%
S66.90	(1)	Laceration of unspecified muscle and tendon at wrist and hand level
S68.2	(1)	Traumatic amputation of two or more fingers alone (complete) (partial)

Assign also

- External cause code.

Rationale: Third-degree burns would be considered the most severe and life-threatening.

DAD and NACRS directive statement

When superficial (skin) injuries occur concomitantly with more severe injuries of the same body region, code only the more severe injuries.

Example: The patient presents with a fracture of the olecranon process. There are also multiple bruises and abrasions in the area.

Code	DAD	NACRS	Code title
S52.000	(M)	MP	Fracture of olecranon process of ulna, closed

Assign also

- External cause code; and
- Place of occurrence code.

DAD and NACRS directive statement

Classify significant injuries to the greatest level of specificity possible, even if this requires selecting more than one code from the same category.

See also the coding standards *Significant Injuries* and *Specificity*.

Exception

Do not assign the same diagnosis code more than once to capture multiple fractures located at the same site of a bone (e.g., fracture of shaft in two places) or for multiple/bilateral fractures of bones of which there is only one in the body (e.g., bilateral fractures of mandible). See also the coding standard *Bilateral Injuries*.

Example: The patient is admitted following open fracture of bones of his hand, specified as neck of first metacarpal and proximal phalanx of the thumb, and a closed fracture of the shaft of his third metacarpal.

Code	DAD	NACRS	Code title
S62.221	(M)	MP	Fracture of head and neck of first metacarpal bone, open
S62.501	(1)	OP	Fracture of proximal phalanx, open
S62.310	(1)	OP	Fracture of shaft of other metacarpal bone, closed

Assign also

- External cause code; and
- Place of occurrence code.

Rationale: The sites of each fracture are specified and therefore coded to the greatest level of specificity, even though the codes are from the same three-character category.

Code Assignment for Multiple Superficial Injuries or Multiple Open Wounds

For description of change, see Appendix C.

In effect 2006, amended 2008, 2018

DAD and NACRS directive statement

Use combination categories to describe multiple and/or bilateral superficial injuries or open wounds of the same body region or multiple body regions.

See also the coding standard *Open Wounds*.

Unlike significant injuries, multiple injuries classified in the categories listed in the tables below do not need to be classified individually. They may be captured individually to meet facility or provincial/territorial data reporting requirements.

Use just one code to identify multiple open wounds.

Choose from the following:

S01.7– of head

S11.7– of neck

S21.7– of thorax

S31.7– of lower back and pelvis

S41.7– of shoulder and upper arm

S51.7– of forearm

S61.7– of wrist and hand

S71.7– of hip and thigh

S81.7– of lower leg

S91.7– of ankle and foot

T01.– of multiple body regions (see fourth character for body site combinations)

Example: The patient sustains lacerations to his thumb, palm and middle finger following a construction site accident where his hand is caught in machinery.

Code	DAD	NACRS	Code title
S61.70	(M)	MP	Multiple open wounds of wrist and hand, uncomplicated
W31	(9)	OP	Contact with other and unspecified machinery
U98.6	(9)	OP	Place of occurrence, industrial and construction area

Rationale: The multiple open wounds are all classifiable to the category S61. Since these are not significant injuries, they can be captured using the combination code S61.70.

Use just one code to identify multiple superficial injuries.

Choose from the following:

S00.7– of head

S10.7– of neck

S20.7– of thorax

S30.7– of lower back and pelvis

S40.7– of shoulder and upper arm

S50.7– of forearm

S60.7– of wrist and hand

S70.7– of hip and thigh

S80.7– of lower leg

S90.7– of ankle and foot

T00.– of multiple body regions (see fourth character for body site combinations)

Code Assignment for Multiple Types of Significant Injuries Involving a Single Body Region

In effect 2001, amended 2006, 2008

DAD and NACRS directive statement

When there are two or more significant types of injuries involving a single body region, classify each injury to the greatest level of specificity indicated in the documentation and sequence in order of severity.

See also the coding standard *Significant Injuries*.

The following codes can be used as a flag to identify cases with multiple significant injuries. If used, they must be assigned diagnosis type (3):

S09.7 (3) Multiple injuries of head
Injuries classified to more than one of the categories (S02–S09.2)

S19.7 (3) Multiple injuries of neck
Injuries classified to more than one of the categories (S12–S18)

S29.7 (3) Multiple injuries of thorax
Injuries classified to more than one of the categories (S22–S29.0)

S36.7 (3) Multiple injuries of intra-abdominal organs
Injuries classified to more than one of the categories (S36.0–S36.9)

S37.7 (3) Multiple injuries of pelvic organs
Injuries classified to more than one of the categories (S37.0–S37.9)

S39.7 (3) Multiple injuries of intra-abdominal with pelvic organs
Injuries classified to more than one of the categories (S32–S39)

S49.7 (3) Multiple injuries of shoulder and upper arm
Injuries classified to more than one of the categories (S42–S48)

S59.7 (3) Multiple injuries of forearm
Injuries classified to more than one of the categories (S52–S58)

S69.7 (3) Multiple injuries of wrist and hand
Injuries classified to more than one of the categories (S62–S68)

S79.7 (3) Multiple injuries of hip and thigh

Injuries classified to more than one of the categories (S72–S78)

S89.7 (3) Multiple injuries of lower leg

Injuries classified to more than one of the categories (S82–S88)

S99.7 (3) Multiple injuries of ankle and foot

Injuries classified to more than one of the categories (S92–S98)

More than one type of significant injury occurring in the same body region is considered "multiple" injuries of that body region.

Example: The patient is admitted following a snowmobile accident where he was the driver. He sustains an open trochanteric fracture of the femur, a non-contiguous laceration of the gluteus maximus, and injury to several blood vessels and the sciatic nerve at the thigh level.

Code	DAD	NACRS	Code title
S72.191	(M)	MP	Unspecified trochanteric fracture, open
S74.00	(1)	OP	Laceration of sciatic nerve at hip and thigh level
S76.00	(1)	OP	Laceration of muscle and tendon of hip
S75.7	(1)	OP	Injury of multiple blood vessels at hip and thigh level
S79.7	(3)	OP	Multiple injuries of hip and thigh
V86.50	(9)	OP	Driver of snowmobile injured in nontraffic land accident

Rationale: These injuries are all considered significant for assignment of the multiple injuries code for a single body region. Since the documentation does not provide further specification of the blood vessel injuries, S75.7 is assigned.

DAD and NACRS directive statement

Ensure that the S–9.7 *Multiple injuries of . . .* codes are not assigned to identify multiple injuries when one significant injury occurs with one or more superficial wounds.

Example: The patient is admitted following a construction site accident where his hand is injured in machinery. He sustains a closed fracture of the distal phalanx of his index finger and lacerations of his thumb, palm and middle finger.

Code	DAD	NACRS	Code title
S62.610	(M)	MP	Fracture of distal phalanx of finger, closed
S61.70	(3)	OP	Multiple open wounds of wrist and hand, uncomplicated
W31	(9)	OP	Contact with other and unspecified machinery
U98.6	(9)	OP	Place of occurrence, industrial and construction area

Rationale: The multiple superficial injuries are captured using the combination code S61.70 (see also the coding standard *Code Assignment for Multiple Superficial Injuries or Multiple Open Wounds*). However, S69.7 *Multiple injuries of wrist and hand* is not assigned, since there is only one type of significant injury in this case.

Code Assignment for Multiple Types of Significant Injuries Involving Multiple Body Regions

In effect 2001, amended 2006, 2008

DAD and NACRS directive statement

Whenever there are two or more significant types of injuries involving multiple body regions, classify each injury to the greatest level of specificity indicated in the documentation and sequence injuries in order of severity.

See also the coding standards *Significant Injuries* and *Sequencing Multiple Injuries for Severity*.

T06.8 *Other specified injuries involving multiple body regions* can be used as a flag to identify cases with multiple significant injuries involving multiple body regions. If used, it must be assigned diagnosis type (3).

When T06.8 is assigned, a code from S–9.7 *Multiple injuries of . . .* is not required.

Example: The driver of a snowmobile injured in a traffic accident sustains multiple injuries to multiple body regions: a Le Fort 3 fractured maxilla, subdural hematoma with a 65-minute loss of consciousness, open wound of abdomen with contusion of the pancreas, laceration of duodenum and bile duct, closed fracture of C6 vertebra, and open fractures of upper end of humerus and of clavicle.

Code	DAD	NACRS	Code title
S06.5	(M)	MP	Traumatic subdural haemorrhage
S36.201	(1)	OP	Haematoma of pancreas (without pancreatic duct injury), with open wound into cavity
S36.421	(1)	OP	Laceration of duodenum with bile duct or duodenopancreatic complex injury, with open wound into cavity
S02.431	(1)	OP	Fracture of malar and maxillary bones, LeFort 3, unilateral, open
S12.210	(1)	OP	Fracture of C5–C7 vertebra, closed
S42.281	(1)	OP	Fracture of other part of upper end of humerus, open
S42.011	(1)	OP	Fracture of shaft of clavicle, open
T06.8	(3)	OP	Other specified injuries involving multiple body regions
V86.00	(9)	OP	Driver of snowmobile injured in traffic accident

Note

The code T06.8 may be assigned on any abstract where multiple codes begin with the letter “S” and the second character changes, because the second characters refer to the different body regions. For instance, S06 + S44 = multiple types of significant injury involving multiple body regions.

Neither superficial injuries (third character = “0”) nor open wounds (third character = “1”) are considered significant types of injury for the purposes of assigning this multiple injury code. However, certain open wounds or superficial injuries could qualify as comorbid conditions.

Coding Nonspecific Multiple Injuries for Emergency Department Visits

In effect 2001, amended 2002, 2006

NACRS-only directive statement

N When documentation does not permit assignment of specific injury codes for significant injuries, assign a multiple injury code as the main problem for emergency department visit abstraction.

See also the coding standard *Sequencing Multiple Injuries for Severity*.

N **Example:** A passenger of a car is injured when a bus strikes the vehicle she is riding in. She sustains severe multiple injuries to several body regions. She is transferred to a trauma center before the diagnostic work-up is completed.

Code	NACRS	Code title
T06.8	MP	Other specified injuries involving multiple body regions
V44.6	OP	Car occupant, passenger, injured in collision with heavy transport vehicle or bus, traffic accident

Post-Intervention Conditions

In effect 2009, amended 2012, 2015

Post-intervention condition code assignment

The code assignment for a post-intervention condition consists of

- A primary code that, when following the alphabetical index, classifies the condition or symptom to one of the following:
  - A code from T80–T88 *Complications of surgical and medical care, not elsewhere classified* (T-code);
  - A post-procedural disorder code found in most body system chapters (PP-code); or
  - The regular code (the usual code in the classification);
- An additional code to provide specificity, mandatory when available; and
- An external cause code to identify the nature of the post-intervention condition, mandatory.

Note

It is mandatory to apply a diagnosis cluster to the set of codes that describes a post-intervention condition. See also the coding standard *Diagnosis Cluster*.

Note

Diagnosis typing/problem definitions apply to post-intervention conditions. When a post-intervention condition does not meet the criteria for significance, it is optional to assign codes; however, when codes are assigned, the following directive statements apply.

DAD and NACRS directive statements

Classify a condition or symptom as a post-intervention condition when

- A condition or symptom that is not attributable to another cause arises during an uninterrupted, continuous episode of care within 30 days following an intervention (including transfers from one facility to another); **or**
- A cause/effect relationship is documented, regardless of timeline.

Assign a minimum of two codes:

- Either a T-code, PP-code or regular code upon following the alphabetical index; and
- One external cause code from either
  - Y60–Y69 *Misadventures to patients during surgical and medical care*; or
  - Y70–Y82 *Medical devices associated with adverse incidents in diagnostic and therapeutic use*; or
  - Y83–Y84 *Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*.

Note

The 30-day timeline does not apply when a patient has been discharged. This is considered an interruption in care (no longer a continuous episode of care).

On readmission, a condition must be clearly documented as post-procedural to be classified as a post-intervention condition.

Note
The 30-day timeline includes direct transfers between the same level of care at different facilities (such as acute to acute) and different levels of care at the same or different facilities (such as ambulatory care to acute). A direct transfer constitutes an uninterrupted, continuous episode of care, and the 30-day timeline rule still applies.

Example: The patient is admitted with a diagnosis of pneumonia. The history mentions that the patient had a radical hysterectomy eight days ago.

Code	DAD	Code title
J18.9	(M)	Pneumonia, unspecified

Rationale: The pneumonia is not classified as a post-intervention condition because there is no clear documentation by the physician that a cause/effect relationship exists between the pneumonia and the previous intervention. Once a patient has been discharged, the 30-day timeline is no longer in effect.

Note
When it is clear from the chart documentation that a condition or symptom occurring in the post-intervention period of 30 days is attributable to another cause, it is not classified as a post-intervention condition.
This includes

- A condition that represents a worsening of the very condition being treated;
- An exacerbation of a pre-existing condition; and
- A condition that is due to another cause, for example
  - A condition that is the result of an accident; or
  - An adverse effect of a drug, medicament or biological agent in therapeutic use.

Example: The patient is admitted with congestive heart failure (CHF) and subsequently has a cardiac catheterization performed during the admission. Five days later, while still an inpatient, the patient experiences acute respiratory failure. The physician documents that the respiratory failure is due to CHF.

Code	DAD	Code title
J96.09	(2)	Acute respiratory failure, type unspecified

Rationale: The respiratory failure has been documented as due to CHF; therefore, it is not classified as a post-intervention condition. It is due to another cause.

Example: A patient with known atrial fibrillation is admitted for coronary artery bypass surgery. On postoperative day 2, he has an episode of atrial fibrillation and is monitored in the cardiac care unit.

Code	DAD	Code title
I48.90	(1)	Atrial fibrillation, unspecified

Rationale: Atrial fibrillation was a known condition prior to surgery; therefore, it is not classified as a post-intervention condition. It is an exacerbation of a pre-existing condition and is assigned diagnosis type (1).

Example: On postoperative day 1, the patient gets out of the hospital bed without assistance and falls, resulting in a fractured hip.

Code	DAD	Code title
S72.090	(2)	Unspecified fracture of neck of femur, closed
W06	(9)	Fall involving bed
U98.20	(9)	Place of occurrence, hospital

Rationale: Although the injury occurred within 30 days following an intervention, the fracture is due to another cause (a fall); therefore, it is not classified as a post-intervention condition.

Example: The patient presents to the emergency department after a fall at home onto her colostomy bag. Blood from the blunt trauma to the stoma is present in the colostomy bag.

Code	NACRS	Code title
K91.40	MP	Haemorrhage from colostomy stoma
W19	OP	Unspecified fall
U98.0	OP	Place of occurrence, home

Rationale: A condition resulting from an accident is not classified as a post-intervention condition because it is due to another cause (an accident). Hemorrhage from colostomy is classified to K91.40 per the alphabetical index. Assigning an external cause code for the accident distinguishes a colostomy hemorrhage that is the result of an accident from one that is a post-intervention condition (cause/effect with the stoma itself).

Example: The patient trips and falls while at a private physiotherapy clinic and suffers a fracture of the femur at the lower end, where a bone plate and screws were in situ following a previous fracture repair. The final diagnosis is periprosthetic fracture.

Code	DAD	Code title
M96.68	(M)	Fracture of bone following insertion of other and unspecified orthopaedic implant
S72.490	(3)	Unspecified fracture of lower (distal) end of femur, closed
W01	(9)	Fall on same level from slipping, tripping and stumbling
U98.28	(9)	Place of occurrence, school and other institutions and public areas

Rationale: A condition resulting from an accident is not classified as a post-intervention condition because it is due to another cause (an accident). A periprosthetic fracture is classified to M96.6– per the classification. Assigning an external cause code for the accident distinguishes a periprosthetic fracture that is the result of an accident from one that is a post-intervention condition (cause/effect with the implant itself).

Example: The patient had a previous fracture of the left femoral neck with fixation using screws. In the nursing home, the patient experiences hip pain, and an X-ray confirms a displaced fracture of the femoral neck. The patient is admitted for hemiarthroplasty for management of this periprosthetic fracture.

Code	DAD	Cluster	Code title
M96.68	(M)	A	Fracture of bone following insertion of other and unspecified orthopaedic implant
S72.090	(3)	A	Unspecified fracture of neck of femur, closed
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: A periprosthetic fracture is classified to M96.6– per the classification. This condition is classified as a post-intervention condition (cause/effect with the implant itself), as it was not associated with an accident (external cause). M96.68 does not identify the site of the fracture; therefore, S72.090 is assigned to add this specificity.

Note

Complications of postoperative wounds (such as wound hemorrhage, wound dehiscence and wound infection) are always classified as post-intervention conditions because the relationship to the intervention is inherent in the diagnosis. There may be contributing factors; however, a wound complication cannot be said to be attributable to another cause (such as an accident).

Example: A patient who had a knee replacement eight days ago presents to the hospital with bleeding from the operative wound after bumping his knee. The diagnosis is wound hematoma.

Code	DAD	NACRS	Cluster	Code title
T81.0	(M)	MP	A	Haemorrhage and haematoma complicating a procedure, not elsewhere classified
Y83.1	(9)	OP	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Wound hematoma is classified as a post-intervention condition because a relationship to the intervention is inherent in the diagnosis. Assignment of an additional external cause code (W22.08) is not required in spite of the contributing external factors.

Note

When a condition arises following an intervention to administer a substance, the condition can be related to the substance that was administered or it can be related to the act of administering the substance. A condition that is related to the substance that was administered is an adverse effect in therapeutic use and is classified according to the standard *Adverse Reactions in Therapeutic Use Versus Poisonings*. A condition that is related to the act of administering the substance is a post-intervention condition.

Example: Following infusion of blood products while in ICU, the patient develops symptoms that are documented as a mild transfusion reaction.

Code	DAD	Cluster	Code title
T80.9	(3)	A	Unspecified complication following infusion, transfusion and therapeutic injection
Y44.6	(9)	A	Natural blood and blood products causing adverse effects in therapeutic use

Rationale: "Transfusion reaction" relates to the substance (blood product) that was administered and not to the act of administering the substance (transfusing); therefore, this is classified as an adverse effect in therapeutic use and not a post-intervention condition. Transfusion reaction without further specification is assigned to T80.9. Assigning an external cause code for the substance causing the adverse effect distinguishes a complication following transfusion that is the result of the substance from one that is a result of the intervention.

Example: The patient is seen in consultation for transfusion-related phlebitis of the forearm.

Code	DAD	Cluster	Code title
T80.1	(2)	A	Vascular complications following infusion, transfusion and therapeutic injection
I80.8	(3)	A	Phlebitis and thrombophlebitis of other sites
Y84.8	(9)	A	Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The phlebitis is related to the act of administering the substance and not to the substance that was administered; therefore, it is classified as a post-intervention condition.

Note

When a condition can reasonably be assumed to be unrelated to a particular intervention or to any intervention at all, it is not classified as a post-intervention condition. For example,

- It can reasonably be assumed that pneumonia would be unrelated to a diagnostic imaging intervention.
- It can reasonably be assumed that acquiring a communicable disease would be unrelated to any intervention at all.

Example: The patient is admitted with advanced breast cancer with metastases to lung, brain and bone. Additional diagnoses on admission include pulmonary embolism and MRSA cellulitis of chest wall. The patient's course in hospital is complicated by non–ST elevation myocardial infarction (MI) and CHF; these complications initially improve, but the patient subsequently deteriorates and expires on day 25. Multiple diagnostic imaging interventions, including ultrasound and magnetic resonance imaging (MRI), and palliative radiotherapy to the breast and lumbar spine were performed prior to the presentation of the MI and CHF.

Code	DAD	Code title
I21.4	(2)	Acute subendocardial myocardial infarction
R94.31	(3)	Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]
I50.0	(2)	Congestive heart failure

Rationale: Based on what we know about MI and CHF, the interventions that were performed and this patient's overall condition, it is reasonable to assume that the MI and CHF are unrelated to the diagnostic imaging interventions or radiation therapy. Additionally, there is no mention in the documentation of such a relationship. Therefore, these conditions are not classified as post-intervention conditions.

Note

When post-intervention conditions related to **obstetrical cases** are classified to Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99), the directives pertaining to post-intervention conditions do not apply.

Example: The patient delivers by Cesarean section for obstructed labor due to breech presentation of the baby. Prior to discharge, Cesarean wound dehiscence is diagnosed.

Code	DAD	Code title
O64.101	(M)	Obstructed labour due to breech presentation, delivered, with or without mention of antepartum condition
O90.002	(2)	Disruption of caesarean section wound, delivered, with mention of postpartum complication
Z37.000	(3)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: Cesarean wound dehiscence is classified to Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99). The directives for post-intervention conditions do not apply.

Example: The patient is admitted with a diagnosis of complete spontaneous abortion attributed to recent amniocentesis.

Code	DAD	Code title
O05.9	(M)	Other abortion, complete or unspecified, without complication

Rationale: Abortion following amniocentesis is classified to Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99). The directives for post-intervention conditions do not apply.

Example: A patient at 28 weeks gestation is admitted with a fracture of the humerus following a motor vehicle accident. Following open reduction internal fixation, there is disruption of the wound that prolongs the stay.

Code	DAD	Cluster	Code title
T81.3	(2)	A	Disruption of operation wound, not elsewhere classified
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: While this is an obstetrical patient, disruption of an operation wound from an open reduction internal fixation is not classified to Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99); it is classified to T80–T88 *Complications of surgical and medical care, not elsewhere classified*, and the directives for post-intervention conditions apply.

Example: A patient with postpartum hemorrhage due to retained products one day following delivery is taken to the operating room for a dilation and curettage (D & C), during which there is a tear to the cervix that is repaired with a suture.

Code	DAD	Cluster	Code title
T81.2	(2)	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S37.611	(3)	A	Laceration of uterus, with open wound into cavity
Y60.0	(9)	A	Unintentional cut, puncture, perforation or haemorrhage during surgical operation

Rationale: While this is an obstetrical patient, tear of the cervix during D & C following delivery is not classified to Chapter XV — Pregnancy, childbirth and the puerperium (O00–O99); it is classified to T80–T88 *Complications of surgical and medical care, not elsewhere classified*, and the directives for post-intervention conditions apply.

Searching the alphabetical index for the primary code for a post-intervention condition

Searching the alphabetical index

Step 1: Locate the lead term.

a. Misadventure — Condition or circumstance meets the criteria for a misadventure.
Search the lead term "Misadventure" and the applicable subterm and assign the code per the classification. See also the coding standard *Misadventures During Surgical and Medical Care*. **END**

b. Select interventions Group A — Condition is related to (associated with) one of the following interventions:

- **Artificial fertilization** (N98)
- **Immunization (includes vaccination)** (T88.0, T88.1)
- **Infusion, transfusion, therapeutic injection (includes dialysis, extracorporeal circulation and perfusion)** (T80)

Search the lead term "Complication, complications (from) (of)" and a subterm denoting the specific intervention and assign the code per the classification. **END**

c. All others — Search the specific condition or symptom. **GO TO STEP 2.**

Step 2: Look for a subterm denoting "post-procedural."

a. No post-procedural subterm — There is no post-procedural subterm. **GO TO STEP 3.**

b. Single subterm — When a single subterm denoting post-procedural exists, assign the code per the classification. **END**

c. Two or **more subterms —** When there are two or more post-procedural subterms,

- One leading to a code specific to one of the select interventions listed in Group B at Step 3a; and
- One leading to a code from category T81 *Complications of procedures, not elsewhere classified*,

assign the code specific to the select intervention in Group B when the condition is attributed (due to) or clearly related to/associated with the outcome of the intervention; otherwise, assign the code from category T81 *Complications of procedures, not elsewhere classified*. **END**

Step 3: Assign a regular code or a code for a select intervention.

a. Select interventions Group B — Condition is attributed (due to) or clearly related to/associated with the outcome of one of the following select interventions:

- **Amputation** (T87.3–, T87.4–, T87.5–, T87.6–)
  – The condition is directly related to the amputation stump itself.

- **Device, implant or graft** (T82–T85)
  – The condition is directly related to the in situ device, implant or graft itself.
- **Lumbar puncture** (G97.1)
  – The condition is directly related to the effects of cerebrospinal fluid loss.
- **Mastoidectomy** (H95.0, H95.1)
  – The condition is directly related to the post-mastoidectomy cavity.
- **Reattached extremity/body part** (T87.0–, T87.1–, T87.2–)
  – The condition is directly related to the reattached limb itself.
- **Stoma** (J95.0–, K91.4–, K91.6–, N99.5–)
  – The condition is directly related to the established (healed) stoma.

Search the lead term “Complication, complications (from) (of)” and a specific subterm for the select intervention and assign the code per the classification. **END**

b. All others — Assign the regular code per the classification. END

Example: Surgical sponge left in operative wound

Misadventure (prophylactic) (therapeutic) (see also Complications) T88.9
– during
– – procedure (surgical or medical) T81.9
– – – foreign body accidentally left in body cavity or operation wound T81.5–

Rationale: The condition meets the criteria of a misadventure; thus search the lead term “Misadventure” and the applicable subterm and select T81.5–.

Example: Deltoid bursitis following administration of vaccine

Complication, complications (from) (of)
– vaccination T88.1

Rationale: The condition is related to one of the Group A select interventions (Step 1b); thus search the lead term “Complication, complications (from) (of)” and a subterm denoting the specific intervention and select T88.1.

Example: Wound infection following mastectomy six weeks previously

Infection

– postoperative wound T81.4 (select this T-code)

Rationale: There is a single subterm denoting post-procedural; thus T81.4 is selected.

Example: Abdominopelvic abscess three days following surgery

Abscess (embolic) (infective) (metastatic) (multiple) (pyogenic) (septic) L02.9

– abdominopelvic K65.0

– postoperative (any site) T81.4 (select the T-code)

Rationale: There is a single subterm denoting post-procedural; therefore, T81.4 is selected. Note that the post-procedural subterm takes precedence over the regular code that specifies the site of the abscess.

Example: Extensive pelvic adhesions following radical oophorectomy two years ago

Adhesions, adhesive (postinfective)

– pelvic (peritoneal)

– – female N73.6

– – – postprocedural N99.4 (select this PP-code)

– postoperative

– – pelvic peritoneal (female) (male) N99.4 (select this PP-code)

Rationale: There are **two** subterms denoting post-procedural, but since each leads to the same code, it is equivalent to a single subterm; thus N99.4 is selected.

Example: Postoperative pleural effusion occurring on day 2 following hepatectomy

Effusion

– pleura, pleurisy, pleuritic, pleuropericardial J90 (select the regular code)

Rationale: There is no subterm denoting post-procedural and the intervention is not one of the identified Group B select interventions (Step 3a); therefore, select J90.

Example: Postoperative pleural effusion occurring on day 2 following coronary artery bypass graft (CABG)

Effusion

– pleura, pleurisy, pleuritic, pleuropericardial J90 (select the regular code)

Rationale: There is no subterm denoting post-procedural. The intervention is one of the Group B select interventions (Step 3a); however, the pleural effusion is not directly related to the in situ graft itself; therefore, select J90.

Example: Streptococcal sepsis diagnosed three days following formation of tracheostomy stoma

Sepsis (generalized) (see also Infection) A41.9

– due to device, implant or graft (see also Complications, by site and type, infection or inflammation) T85.7

– postprocedural T81.4 (select the T-code)

– Streptococcus, streptococcal A40.9

– tracheostomy stoma J95.01

– – site of current (healing) surgical wound T81.4

Rationale: There are two or more post-procedural subterms in the index lookups:

1. Sepsis — postprocedural (T81.4); and
2. Sepsis — tracheostomy stoma (J95.01).

Since sepsis is not directly related to the outcome of tracheostomy (an established [healed] stoma), T81.4 is selected.

Example: Vertigo following lumbar puncture

Vertigo R42

Complication, complications (from) (of)

– lumbar puncture G97.1 (select G97.1)

Rationale: There is no subterm denoting post-procedural under the lead term “vertigo.” Since the condition is directly related to the outcome of the Group B select intervention lumbar puncture (effects of cerebrospinal fluid loss), search using the lead term “Complication, complications (from) (of)” and a specific subterm for the select intervention.

Note

Do not classify a post-intervention condition arising in a neonate to Chapter XVI — Certain conditions originating in the perinatal period (P00–P96). Post-intervention conditions in a neonate are classified in the same manner as other post-intervention conditions.

Example: A newborn with congenital diaphragmatic hernia has hernia repair with simple closure at eight days of age. Five days following surgery, the baby develops pleural effusion that requires a thoracentesis.

Code	DAD	Cluster	Code title
J90	(2)	A	Pleural effusion, not elsewhere classified
Y83.4	(9)	A	Other reconstructive surgery as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The pleural effusion arose during an uninterrupted, continuous episode of care within the 30-day timeline; therefore, it is classified as a post-intervention condition. There is no subterm denoting post-procedural for pleural effusion, and hernia repair is not a select intervention; therefore, the regular code is selected. The subterm for fetus or newborn (P28.8) is not selected, as the pleural effusion is not considered a naturally occurring respiratory condition originating in the perinatal period.

Example: A patient is diagnosed with streptococcal sepsis three days following left-side oophorectomy for ovarian malignancy.

Code	DAD	Cluster	Code title
T81.4	(2)	A	Infection following a procedure, not elsewhere classified
A40.9	(3)	A	Streptococcal sepsis, unspecified
Y83.6	(9)	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Streptococcal sepsis arose during an uninterrupted continuous episode of care within the 30-day timeline and is not attributable to another cause; therefore, it is classified as a post-intervention condition. In the alphabetical index, a single subterm denoting post-procedural exists under the lead term “Sepsis”; therefore, T81.4 is assigned. An additional code, A40.9, is mandatory to further specify the type of infection.

Example: The patient is admitted for a mechanical valve replacement. As the incision is being closed, she arrests on the operating table. An open cardiac massage is performed but is unsuccessful, and the patient dies in the operating room.

Code	DAD	Cluster	Code title
I46.9	(2)	A	Cardiac arrest, unspecified
Y83.1	(9)	A	Surgical operation with implant of artificial internal device, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Cardiac arrest is classified as a post-intervention condition because it occurred during an uninterrupted, continuous episode of care within the 30-day timeline and is not attributable to another cause. On searching the alphabetical index for cardiac arrest, there is no subterm denoting post-procedural, and the cardiac arrest is not directly related to the in situ device; therefore, the regular code I46.9 is assigned.

Example: A patient has an abdominal hysterectomy and is discharged home. She returns to hospital with a wound infection.

Code	DAD	NACRS	Cluster	Code title
T81.4	(M)	MP	A	Infection following a procedure, not elsewhere classified
Y83.6	(9)	OP	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Wound infection is classified as a post-intervention condition because a relationship to the intervention is inherent in the diagnosis. The alphabetical index leads to T81.4.

Example: The patient presents to hospital for lysis of extensive pelvic adhesions due to previous radical oophorectomy.

Code	DAD	NACRS	Cluster	Code title
N99.4	(M)	MP	A	Postprocedural pelvic peritoneal adhesions
Y83.6	(9)	OP	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The pelvic adhesions are classified as a post-intervention condition because there is a documented cause/effect relationship. A single subterm denoting post-procedural exists under the lead term “Adhesions”; therefore, N99.4 is assigned.

Example: The patient has a tonsillectomy and is discharged without any apparent problems. She returns to the hospital the next day complaining of significant pain. The physician prescribes ibuprofen for the “postoperative pain” and advises the patient to return if there are any further problems.

Code	NACRS	Cluster	Code title
R52.0	MP	A	Acute pain
Y83.6	OP	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

Rationale: On readmission, cause/effect must be clearly documented. In this example, the physician has described the pain as postoperative, thereby establishing the relationship. This example also illustrates that a symptom that meets the definition equally qualifies as a post-intervention condition. On searching the alphabetical index for pain, there is a single subterm denoting post-procedural; therefore, R52.0 is assigned.

Example: The patient has a relatively uneventful postoperative course following single-lung transplantation for primary pulmonary hypertension; however, on postoperative day 32 of the admission, she develops pleural effusion requiring thoracentesis. CT scans are suspicious for fungal lung infection, but no definite infectious cause is documented. The discharge summary reads, in part, “post-transplant pleural effusion of undetermined cause.”

Code	DAD	Cluster	Code title
J90	(2)	A	Pleural effusion, not elsewhere classified
Y83.0	(9)	A	Surgical operation with transplant of whole organ or tissue as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Although the pleural effusion arose after 30 days, it is documented as having a cause/effect relationship and, therefore, is classified as a post-intervention condition. On searching the alphabetical index for pleural effusion, there is no subterm denoting post-procedural, and transplant is not a select intervention; therefore, the regular code J90 is assigned.

Example: On day 5 following surgery for pinning of a fracture of the femur, this elderly patient is transferred from Hospital A to Hospital B to be closer to family. On postoperative day 10 in Hospital B, the patient develops atelectasis requiring fiber optic bronchoscopy to aspirate secretions.

Code	DAD	Cluster	Code title
J98.10	(2)	A	Atelectasis
Y83.1	(9)	A	Surgical operation with implant of artificial internal device, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The atelectasis is classified as a post-intervention condition at Hospital B because it arose within 30 days of the intervention during an uninterrupted, continuous inpatient episode of care and is not attributable to another cause. On searching the alphabetical index for atelectasis, there is no subterm denoting post-procedural, and the atelectasis is not directly related to the in situ device itself; therefore, the regular code J98.10 is assigned.

Example: The patient has an inguinal hernia repair and develops nausea and vomiting following surgery, which settles quickly on its own.

Code	DAD	NACRS	Cluster	Code title
R11.3	(3)	OP	A	Nausea with vomiting
Y83.4	(9)	OP	A	Other reconstructive surgery as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Although nausea and vomiting do not meet the criteria for significance in this example, when codes are assigned to describe a post-intervention condition, the directive statements related to post-intervention condition code assignment apply.

Example: Two days following elective surgery for graft replacement of an abdominal aortic aneurysm, the patient develops respiratory failure requiring ventilator support.

Code	DAD	Cluster	Code title
J95.2	(2)	A	Acute pulmonary insufficiency following nonthoracic surgery
Y83.2	(9)	A	Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Per the alphabetical index, respiratory failure following surgery is classified to a code in category J95 based on whether it is acute or chronic and, if it is acute, whether the surgery was thoracic surgery or nonthoracic surgery. The documentation does not specify acute respiratory failure; however, it was of abrupt onset and in need of decisive, prompt treatment, as compared with respiratory failure that persists or recurs over a long period of time with little or no change, which is considered chronic. Repair of an abdominal aortic aneurysm is nonthoracic surgery, so J95.2 is selected. While the code title says "acute pulmonary insufficiency," respiratory failure is included here per the exclusion at J96 and the alphabetical index lookup.

Residual codes

Always follow the alphabetical index to locate the appropriate code. Residual codes (.8 codes) in the body system chapters and the injury chapter are used primarily to classify unique conditions that exist only as a result of an intervention and thus are not classifiable elsewhere. It is important that only conditions classified to these codes per the alphabetical index or tabular listing be assigned to these codes.

Note

When a condition does not have a subterm denoting post-procedural, do not default to a residual T-code (e.g., T81.88 *Other complications of procedures, not elsewhere classified*) or residual PP-code (e.g., K91.8 *Other postprocedural disorders of digestive system, not elsewhere classified*). In these circumstances, assign the regular code, unless the condition is directly related to a select intervention identified in the section Searching the alphabetical index for the primary code for a post-intervention condition.

Note

Since residual categories primarily capture conditions that are not classifiable elsewhere, an additional code is typically not assigned. See also the section Assignment of additional codes for specificity in this standard.

Example: The patient presents to hospital for management of afferent loop syndrome.

Code	DAD	NACRS	Cluster	Code title
K91.8	(M)	MP	A	Other postprocedural disorders of digestive system, not elsewhere classified
Y83.9	(9)	OP	A	Surgical procedure, unspecified, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Afferent loop syndrome is a unique post-intervention condition that is specifically indexed and classified to a residual (.8) code. It is found in the alphabetical index as follows:

Syndrome (see also Disease)
– afferent loop NEC K91.8

An additional code to identify the nature of this post-procedural disorder is not assigned, as there is no other place in the classification where afferent loop syndrome is classified. This unique condition is classified to K91.8.

Example: A patient in ICU develops ventilator-associated pneumonia four days after being intubated and started on mechanical ventilation.

Code	DAD	Cluster	Code title
J95.88	(2)	A	Other postprocedural respiratory disorders
J18.9	(3)	A	Pneumonia, unspecified
Y84.8	(9)	A	Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Ventilator-associated pneumonia is not a unique post-intervention condition, but it is specifically indexed and classified to a residual (.8) code. It is found in the alphabetical index as follows:

Pneumonia
– ventilator-associated (VAP) J95.88

There is a “use additional code” instruction at J95.88 to identify the specific type of pneumonia, and J18.9 is assigned.

Assignment of additional codes for specificity

DAD and NACRS directive statement

When a post-intervention condition is classified to a code that does not fully describe the condition, assign an additional code (when available), mandatory, as a diagnosis type (3)/other problem to provide more detail regarding the nature of the condition.

Note

The following do not qualify as additional codes for specificity:

- Symptoms associated with the post-intervention condition;
- Situations where codes or clinical concepts are mutually exclusive; and
- Any additional or subsequent post-intervention condition(s). Additional and subsequent post-intervention conditions are conditions in and of themselves and are subject to diagnosis typing/problem definitions.

See also the coding standard *Underlying Symptoms or Conditions*.

Note
An additional code is assigned when required and when available whether or not a "use additional code" instruction exists at the code.

Example: A patient seen in the cardiology clinic is started on antibiotics for symptoms related to subacute infective endocarditis. On referral to hospital for admission, the patient's condition is described as prosthetic valve endocarditis.

Code	DAD	Cluster	Code title
T82.6	(M)	A	Infection and inflammatory reaction due to cardiac valve prosthesis
I33.0	(3)	A	Acute and subacute infective endocarditis
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The alphabetical index leads to T82.6 for infection due to or resulting from a heart valve prosthesis. This code does not identify the type of infection associated with the prosthesis; therefore, I33.0 is assigned to add this specificity.

Example: Post–spinal tap headache treated with blood patch

Code	DAD	NACRS	Cluster	Code title
G97.1	(2)	OP	A	Other reaction to spinal and lumbar puncture
R51	(3)	OP	A	Headache
Y84.4	(9)	OP	A	Aspiration of fluid as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The alphabetical index leads to G97.1, which does not specify the type of reaction to the spinal tap; therefore, R51 is assigned to add this specificity.

Example: A patient presents for treatment of a wound infection. He had suffered an open wound of his arm that was treated by cleansing and suturing one day previously.

Code	DAD	NACRS	Cluster	Code title
T81.4	(M)	MP	A	Infection following a procedure, not elsewhere classified
Y83.8	(9)	OP	A	Other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: T81.4 does not specify the type of infection; however, an additional code is not available to describe a wound infection.

Example: A patient is readmitted for closed reduction of a dislocated left total hip replacement with no preceding trauma.

Code	DAD	Cluster	Code title
T84.031	(M)	A	Mechanical complication of hip prosthesis, instability
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: The alphabetical index leads to T84.031 for dislocation, hip, prosthesis. While the code title identifies the mechanical complication as instability, it is not specific to dislocation. However, adding a code from category S73.0 *Dislocation of hip* is not appropriate because these codes relate to mutually exclusive concepts. One code (T84.031) is for a problem with the components of the artificial hip (prosthesis) and the other (S73.0–) is for a problem with the bones that make up the natural hip.

Assignment of external cause code

DAD and NACRS directive statements

When more than one post-intervention condition of the same nature is related (attributable) to the same intervention episode, assign the external cause code only once.

When there are post-intervention conditions associated with separate intervention episodes, assign an external cause code for each episode, even when it means repeating the external cause code.

Note

A post-intervention condition "of the same nature" pertains to the external cause code. The post-intervention conditions are

- All misadventures (Y60–Y69);
- All adverse incidents associated with medical devices (Y70–Y82); or
- All abnormal reactions/later complications (Y83–Y84). Note that Y83–Y84 includes both abnormal reactions and later complications.

Example: The patient is admitted for an abdominal hysterectomy. On postoperative day 2, she experiences urinary retention and atelectasis requiring further treatment and monitoring.

Code	DAD	Cluster	Code title
R33	(2)	A	Retention of urine
J98.10	(2)	A	Atelectasis
Y83.6	(9)	A	Removal of other organ (partial) (total), as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: A single external cause code is assigned because both conditions are of the same nature (abnormal reactions) and are related to the same intervention episode.

Example: The patient is admitted for removal and replacement of an infected knee prosthesis that was implanted six months ago. Following the revision procedure, the patient develops deep vein thrombosis, which prolongs the stay by more than one week.

Code	DAD	Cluster	Code title
T84.54	(M)	A	Infection and inflammatory reaction due to knee prosthesis
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
T81.7	(2)	B	Vascular complications following a procedure, not elsewhere classified
I80.2	(3)	B	Phlebitis and thrombophlebitis of other deep vessels of lower extremities
Y83.1	(9)	B	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: These post-intervention conditions are related to separate intervention episodes. An external cause code is assigned for each intervention episode, even though it is the same Y83 code (both the original intervention and the revision are classified to implant of a device). Repeating the identical external cause code indicates that there were multiple intervention episodes of this type (implant of device) that resulted in a post-intervention condition.

DAD and NACRS directive statement

When different types of interventions are performed during the same intervention episode and it is unclear to which intervention the post-intervention condition is related (attributable), select the (.9) unspecified subcategory for the external cause code.

Example: The patient undergoes an abdominal hysterectomy with anterior and posterior (A & P) repair. On postoperative day 2, she experiences urinary retention and atelectasis requiring treatment and monitoring.

Code	DAD	Cluster	Code title
R33	(2)	A	Retention of urine
J98.10	(2)	A	Atelectasis
Y83.9	(9)	A	Surgical procedure, unspecified as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: It is unclear from the documentation whether the urinary retention and atelectasis are related to the A & P repair (Y83.4) or to the hysterectomy (Y83.6); therefore, the unspecified code Y83.9 is assigned.

See also Y83–Y84 Inclusion List in Appendix B and the following coding standards:

- *Diagnosis Cluster*
- *Complications of Devices, Implants or Grafts*
- *Early Complications of Trauma*
- *Misadventures During Surgical and Medical Care*
- *Occlusion Following Coronary Artery Bypass Grafts (CABGs)*
- *Rejection/Failure of Transplanted Organs, Grafts and Flaps*

Rejection/Failure of Transplanted Organs, Grafts and Flaps

For description of change, see Appendix C.

In effect 2002, amended 2006, 2018

DAD and NACRS directive statements

When the source of an organ or tissue is another person (homograft) or animal (xenograft) and a complication of the organ, graft or flap is failure or absolute rejection, assign a code from the category T86 *Failure and rejection of transplanted organs and tissues*.

Do not use category T86 when the original source of the graft or flap is the patient's own body (autograft).

Note

For rejection/failure and complications of grafts for treatment of burns, see also the coding standard *Burns and Corrosions*.

Example: The patient is admitted with kidney transplant (homograft) rejection.

Code	DAD	Cluster	Code title
T86.100	(M)	A	Kidney transplant rejection
Y83.0	(9)	A	Surgical operation with transplant of whole organ as the cause of abnormal reaction of the patient, or later complication, without mention of misadventure at the time of the procedure

Example: The patient is seen in hospital for management of necrosis of a myocutaneous breast flap.

Code	DAD	NACRS	Cluster	Code title
T85.8	(M)	MP	A	Other complications of internal prosthetic devices, implants and grafts, not elsewhere classified
R02	(3)	OP	A	Gangrene, not elsewhere classified
Y83.2	(9)	OP	A	Surgical operation with anastomosis, bypass or graft, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Category T86 is not used when a flap is sourced from the patient's own body.

DAD and NACRS directive statements

When a condition is documented as affecting the transplanted organ or tissue but it cannot be classified as either failure or rejection, assign a code for the condition and assign an additional code from category Z94 *Transplanted organ and tissue status*, optional, as a diagnosis type (3)/other problem.

When it is unclear from the documentation whether the condition is a result of failure/rejection or a disease process, seek clarification from the physician.

Certain conditions, such as pre-existing chronic hepatitis C virus infection, may affect the transplanted organ and not be a result of the transplant itself. Other conditions, such as cancer arising in a transplanted organ or tissue, may be due to long-term immunosuppression of the patient. These are not classified as failure or rejection of the transplanted organ.

Example: The patient had a liver transplant due to damage from chronic hepatitis C virus infection two years ago. He has developed hepatitis C infection damage in his transplanted liver.

Code	Code title
B18.2	Chronic viral hepatitis C
Z94.4	Liver transplant status (optional)

Example: The patient develops renal cell carcinoma in a transplanted kidney five years post-transplant.

Code	Code title
C64	Malignant neoplasm of kidney, except renal pelvis
Z94.0	Kidney transplant status (optional)

Complications of Devices, Implants or Grafts

In effect 2001, amended 2002, 2006, 2008, 2012

Internal devices, implants and grafts used for diagnostic and therapeutic purposes may themselves fail to perform as intended or may produce undesirable effects. When a problem with the product or a problem that is caused by the product is the result of **intrinsic (internal) forces**, it is considered a post-intervention condition. When a problem with the product or a problem that is caused by the product is the result of **extrinsic (external) forces** (V01–X59 *Accidents*), it is not considered a post-intervention condition. This coding standard addresses the code assignment for a variety of circumstances that are encountered for patients with internal devices, implants and grafts and is organized by circumstances involving intrinsic (internal) forces and those involving extrinsic (external) forces (V01–X59 *Accidents*).

See also the coding standards *Occlusion Following Coronary Artery Bypass Grafts (CABGs)*, *Rejection/Failure of Transplanted Organs, Grafts and Flaps* and *Post-Intervention Conditions*.

There are three major categories in which to classify complications of internal devices:

Mechanical complications	Infection/inflammation	Other complications
Breakdown (mechanical) Broken (device) (e.g. fractured) Displacement Leakage Malfunction Malposition Obstruction Perforation Protrusion Retention (retained)*	Assign an additional code to identify any documented septicemia, mandatory. See also the coding standard *Septicemia/Sepsis*. Assign an additional code, optional, to identify the organism, as applicable.	Embolism Fibrosis Hemorrhage Pain Stenosis Stricture Thrombosis Assign an additional code, mandatory, to identify the specific complication.

Notes

- * An intact device that was intended (expected) to be left in the body (e.g., an intrauterine device [IUD]) that is described as retained is classified as a mechanical complication. It is not classified as a foreign body.
- * An intact device that was **not** intended (expected) to be left in the body (such as a guidewire) that is retained following a procedure is classified to T81.5– *Foreign body accidentally left in body cavity or operation wound following a procedure*. See the coding standard *Misadventures During Surgical and Medical Care*.

Intrinsic forces: Complications excluding malfunction and breakage

Complications involving intrinsic (internal) forces are ones that arise from within; that is, they are not attributable to an external force. Extrinsic (external) forces include events classified to V01–X59 *Accidents*. Events due to extrinsic forces and malfunction and breakage due to intrinsic forces are addressed separately.

DAD and NACRS directive statement

When a complication of an internal device, implant or graft (excluding malfunction and breakage) is attributed to intrinsic forces, assign

- A code from categories T82–T85 for the specific complication:
  - T82.– *Complications of cardiac and vascular prosthetic devices, implants and grafts*;
  - T83.– *Complications of genitourinary prosthetic devices, implants and grafts*;
  - T84.– *Complications of internal orthopaedic devices, implants and grafts*; or
  - T85.– *Complications of other internal devices, implants and grafts*;

  And
- An external cause code from the range Y83–Y84 *Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*.

Example: The patient is admitted for revision of his total hip replacement prosthesis due to loosening and displacement of the hardware.

Code	DAD	Cluster	Code title
T84.030	(M)	A	Mechanical complication of hip prosthesis, loosening
Y83.1	(9)	A	Surgical operation with implant of artificial internal device, as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Loosening and displacement are considered a "mechanical complication." Y83.1 is assigned, as the loosening and displacement of the device is not documented as being related to malfunction or breakage or associated with an extrinsic force (V01–X59 *Accidents*).

Example: The patient develops staphylococcal septicemia, documented as due to infection from a PICC line.

Code	DAD	Cluster	Code title
T82.701	(M)	A	Bloodstream infection and inflammatory reaction due to central venous catheter
A41.2	(3)	A	Sepsis due to unspecified staphylococcus
Y84.8	(9)	A	Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: When an infective process is attributable to a device, a code for "infection and inflammatory reaction" is assigned. Y84.8 is assigned, as the infective process is not related to malfunction or breakage or associated with an extrinsic force (V01–X59 *Accidents*).

Example: The patient has pain in his right hip due to a hip prosthesis. No dislocation or displacement is identified on X-rays.

Code	DAD	NACRS	Cluster	Code title
T84.8	(M)	MP	A	Other complications of internal orthopaedic prosthetic devices, implants and grafts
M25.55	(3)	OP	A	Pain in joint, pelvic region and thigh
Y83.1	(9)	OP	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: Pain that is directly attributable to a device, implant or graft is assigned to "other complications." Y83.1 is assigned, as the pain is not related to malfunction or breakage or associated with an extrinsic force (V01–X59 *Accidents*).

Example: The patient presents for removal of retained IUD.

Code	DAD	NACRS	Cluster	Code title
T83.3	(M)	MP	A	Mechanical complication of intrauterine contraceptive device
Y84.8	(9)	OP	A	Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: A medical device intended (expected) to be in the body that is described as retained is classified as a mechanical complication. It is not classified as a foreign body. Y84.8 is assigned in this case, as the mechanical complication is not related to malfunction or breakage or associated with an extrinsic force (V01–X59 *Accidents*).

Intrinsic forces: Malfunction or breakage

Complications involving intrinsic (internal) forces are ones that arise from within; that is, they are not attributable to an external force. Extrinsic (external) forces include events classified to V01–X59 *Accidents* and are addressed in another directive box below.

DAD and NACRS directive statement

When an internal device unexpectedly malfunctions or breaks, and the malfunction/breakdown is attributed to an intrinsic force, assign

- A code for mechanical complication from the applicable category T82–T85; and
- An external cause code from the range Y70–Y82 *Medical devices associated with adverse incidents in diagnostic and therapeutic use*.

Note

External cause codes from the range Y70–Y82 *Medical devices associated with adverse incidents in diagnostic and therapeutic use* are assigned exclusively for unexpected malfunctioning or breakage of a device.

Example: The patient presents for urgent replacement of pacemaker lead due to fracture of the right ventricular lead.

Code	DAD	Cluster	Code title
T82.1	(M)	A	Mechanical complication of cardiac electronic device
Y71.2	(9)	A	Cardiovascular devices associated with adverse incidents, prosthetic and other implants, materials and accessory devices

Rationale: A broken device (fractured lead) is classified as a mechanical complication. When a broken (or malfunctioning) device is not associated with an extrinsic force (V01–X59 *Accidents*), the external cause code is selected from Y70–Y82.

Example: This 85-year-old gentleman has an implanted defibrillator to control ventricular tachycardia that goes off while he is walking home. It continues to go off more than six times prior to admission. The doctor's final diagnosis is ventricular tachycardia due to malfunctioning defibrillator. The malfunctioning defibrillator is replaced.

Code	DAD	NACRS	Cluster	Code title
T82.1	(M)	MP	A	Mechanical complication of cardiac electronic device
Y71.2	(9)	OP	A	Cardiovascular devices associated with adverse incidents, prosthetic and other implants, materials and accessory devices.
I47.2	(1)	OP		Ventricular tachycardia

Rationale: The defibrillator failed to perform properly (malfunctioned). When a malfunctioning (or broken) device is not associated with an extrinsic force (V01–X59 *Accidents*), the external cause code is selected from Y70–Y82.

Extrinsic forces: Mechanical complication

Complications involving extrinsic (external) forces are ones that include events classified to V01–X59 *Accidents*.

DAD and NACRS directive statement

When a mechanical complication (of any type) of an internal device is attributed to an extrinsic force, assign

- A code for mechanical complication from the applicable category T82–T85; and
- An external cause code from the range V01–X59 *Accidents*.

Note

Do not classify a mechanical complication of a device that is attributed to an extrinsic force as a post-intervention condition. This includes not assigning a diagnosis cluster.

Example: The patient falls off her chair at home and dislocates her hip prosthesis.

Code	DAD	NACRS	Cluster	Code title
T84.031	(M)	MP		Mechanical complication of hip prosthesis, instability
W07	(9)	OP		Fall involving chair
U98.0	(9)	OP		Place of occurrence, home

Rationale: The mechanical complication of the hip prosthesis was the result of an extrinsic force (fall). The external cause code describing the extrinsic force (V01–X59 *Accidents*) is assigned (W07). As this is not a post-intervention condition, no diagnosis cluster is assigned.

Example: In the nursing home, the patient trips on his urinary catheter line and accidentally pulls out the catheter, which results in a laceration to the urethra.

Code	DAD	NACRS	Cluster	Code title
T83.0	(M)	MP		Mechanical complication of urinary (indwelling) catheter
S37.311	(3)	OP		Laceration of urethra, with open wound into cavity
W49	(9)	OP		Exposure to other and unspecified inanimate mechanical forces
U98.1	(9)	OP		Place of occurrence, residential institution

Rationale: The laceration of the urethra by the catheter is a mechanical complication (all injuries caused by a device are mechanical complications). The external cause code describing the extrinsic force (inanimate mechanical force) is assigned (W49). As this is not a post-intervention condition, no diagnosis cluster is assigned.

Example: During his hospital admission, a patient intentionally pulls out his inflated Foley catheter, which results in an injury to the urethra causing bleeding and clots. Following his injury, the patient is monitored for urethral bleeding for three days.

Code	DAD	NACRS	Cluster	Code title
T83.0	(2)	MP		Mechanical complication of urinary (indwelling) catheter
S37.391	(3)	OP		Injury NOS of urethra, with open wound into cavity
W49	(9)	OP		Exposure to other and unspecified inanimate mechanical forces
U98.20	(9)	OP		Place of occurrence, hospital

Rationale: The injury to the urethra by the catheter is a mechanical complication (all injuries caused by a device are mechanical complications).The external cause code describing the extrinsic force (inanimate mechanical force) is assigned (W49). As this is not a post-intervention condition, no diagnosis cluster is assigned.

Misadventures During Surgical and Medical Care

In effect 2006, amended 2008, 2009, 2012, 2015

This coding standard addresses the assignment of an external cause code from the range Y60–Y69 *Misadventures to patients during surgical and medical care*.

An injury or an adverse event that causes harm during the provision of surgical and medical care is classified as a misadventure in ICD-10-CA and identified using external cause codes from the range Y60–Y69 *Misadventures to patients during surgical and medical care*.

When an adverse event occurs but there is no associated harm, no codes are assigned. CIHI's clinical administrative databases are not incident reporting systems that collect data on the occurrence of any and all events related to patient safety. To submit codes to CIHI's clinical administrative databases, there must be an injury or harm from an adverse event.

This coding standard addresses

- Applying the definition for misadventure;
- Basic code assignment for misadventures; and
- Particular requirements related to three specific types of misadventures — hemorrhage, puncture/laceration/perforation and foreign body.

See also the coding standards *Post-Intervention Conditions* and *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Misadventure code assignment

Code assignment for a misadventure consists of all of the following:

- A primary code from one of seven specific categories or blocks
  - N98 Complications associated with artificial fertilization; or
  - T20–T32 Burns and corrosions; or
  - T36–T50 Poisoning by drugs, medicaments and biological substances; or
  - T66 Unspecified effects of radiation or a code for the specific effect; or
  - T80 Complications following infusion, transfusion and therapeutic injection; or
  - T81 Complications of procedures, not elsewhere classified; or
  - T88 Other complications of surgical and medical care, not elsewhere classified

  (Locate the correct primary code by searching the alphabetical index lead term "Misadventure" and the applicable subterm.)
- An additional code for specificity when applicable.
- An external cause code from the misadventures block Y60–Y69.

DAD and NACRS directive statement

Misadventure code assignment, as described above, applies only when there is documentation of

- An injury during the provision of care; or
- Harm that resulted from an adverse event during the provision of care.

Note

No codes are assigned when there is no harm to the patient from an adverse event.

Note

Direction for when to assign a significant diagnosis type/main or other problem specific to the following types of misadventures is located within subsections of this standard. Refer to these when applicable.

- Intraoperative hemorrhage;
- Puncture/laceration/perforation during a procedure; and
- Foreign body accidentally left following a procedure.

Note

A misadventure may be apparent at the time of the provision of care, or it may be identified following the provision of care.

Example: The patient is admitted for right oophorectomy; after the patient leaves the operating room, it becomes apparent that a left oophorectomy was inadvertently performed. This is confirmed on diagnostic imaging, and the physician progress notes outline the discussion with the patient. The patient returns to the operating room and a right oophorectomy is performed.

Code	DAD	Cluster	Code title
T88.8	(2)	A	Other specified complications of surgical and medical care, not elsewhere classified
Y65.5	(9)	A	Performance of inappropriate operation during surgical and medical care

Rationale: Code assignment for a misadventure applies (i.e., harm resulted from an adverse event during the provision of care). The performance of an incorrect operation resulted in harm (normal ovary removed, diseased ovary remains).

Example: The patient presents in labor. An epidural is administered to the patient. When it is noted that the epidural is not working, it is discovered that penicillin G was administered into the epidural space rather than the usual anesthetic mixture (incorrect IV bag). No treatment is given to the patient, other than close observation for signs and/or symptoms of an allergic reaction, which do not occur. The patient delivered a healthy newborn.

Code	DAD	Code title
Z37.000	(M)	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Rationale: An adverse event is documented (wrong drug given) but there is no harm to the patient; therefore, no codes are assigned. See also the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.

Example: The patient is admitted with shingles and placed on acyclovir. There is a transcription error in the medication orders, and a double dose of acyclovir is given. Creatinine level subsequently rises to more than 400. The patient is seen by the nephrology service and is diagnosed with acyclovir-induced crystal acute tubular necrosis. After six days of intravenous hydration and discontinuation of the acyclovir, renal function returns to normal and the patient is discharged home.

Code	DAD	Cluster	Code title
T37.5	(2)	A	Poisoning by antiviral drugs
N14.1	(3)	A	Nephropathy induced by other drugs, medicaments and biological substances
Y63.8	(9)	A	Failure in dosage during other surgical and medical care
X44	(9)	A	Accidental poisoning by and exposure to other and unspecified drugs, medicaments and biological substances
U98.20	(9)	A	Place of occurrence, hospital

Rationale: An adverse event (poisoning — double dose of a drug) that resulted in harm (acyclovir-induced crystal acute tubular necrosis) occurred during the provision of medical care; therefore, code assignment for a misadventure applies. Note that while there is an exclusion at Y63 for accidental overdose of drug or wrong drug given in error (X40–X44), this does not preclude using these two external codes on the same abstract. One describes that there was an accidental poisoning, and the other describes that there was a misadventure.

Example: The patient experiences a burn to the chest wall as a result of radiation therapy for lung cancer. The documentation reveals that the exposure time was inadvertently prolonged. Cold compresses are applied to relieve the patient's discomfort.

Code	NACRS	Cluster	Code title
T21.0	OP	A	Burn of unspecified degree of trunk
T31.00	OP	A	Burns involving less than 10% of body surface with 0% or unspecified third degree burns
Y63.2	OP	A	Overdose of radiation given during therapy

Rationale: Code assignment for a misadventure applies (i.e., harm resulted from an adverse event during the provision of care). A burn is documented as being due to prolonged exposure time.

Example: The patient experiences a burn to the chest wall as a result of radiation therapy for lung cancer during the current episode of care.

Code	DAD	Cluster	Code title
T21.0	(2)	A	Burn of unspecified degree of trunk
T31.00	(2)	A	Burns involving less than 10% of body surface with 0% or unspecified third degree burns
Y65.8	(9)	A	Other specified misadventures during surgical and medical care

Rationale: Code assignment for a misadventure applies (i.e., injury during the provision of care). A burn is documented as resulting from radiation therapy.

Example: The patient is admitted in acute renal failure and is put on fluid restriction; however, intravenous fluids are given to the patient in error, which leads to fluid overload.

Code	DAD	NACRS	Cluster	Code title
T80.8	(2)	OP	A	Other complications following infusion, transfusion and therapeutic injection
E87.7	(3)	OP	A	Fluid overload
Y65.8	(9)	OP	A	Other specified misadventures during surgical and medical care

Rationale: In this example, code assignment for a misadventure applies (i.e., harm resulted from an adverse event during the provision of care). Fluid overload (harm to the patient) is documented as being due to accidental administration of fluids.

Example: Three days following mitral valve replacement, the patient develops fluid overload. Management of this condition prolongs the stay.

Code	DAD	Cluster	Code title
E87.7	(2)	A	Fluid overload
Y83.1	(9)	A	Surgical operation with implant of artificial internal device as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Rationale: In this example, fluid overload is not classified as a misadventure because there is no documentation that the fluid overload was the result of any adverse event during the provision of care. Therefore, the fluid overload is classified as an abnormal reaction/later complication (Y83.1).

Example: The patient sustains multiple rib fractures associated with chest compressions during cardiopulmonary resuscitation.

Code	DAD	NACRS	Cluster	Code title
T81.88	(2)	OP	A	Other complications of procedures, not elsewhere classified
S22.490	(3)	OP	A	Multiple fractures of unspecified number of ribs, closed
Y65.8	(9)	OP	A	Other specified misadventures during surgical and medical care

Rationale: Code assignment for a misadventure applies (i.e., injury during the provision of care). The rib fractures are documented as being due to the performance of cardiopulmonary resuscitation.

Example: The patient has laparoscopic oophorectomy for an ovarian cyst. Postoperatively, she reports an area of numbness along her left lateral thigh, which the surgeon diagnoses as postoperative sensory neurapraxia secondary to position compression at the time of her surgery.

Code	DAD	NACRS	Cluster	Code title
T81.88	(2)	OP	A	Other complications of procedures, not elsewhere classified
S74.28	(3)	OP	A	Other and unspecified injury of cutaneous sensory nerve at hip and thigh level
Y65.8	(9)	OP	A	Other specified misadventures during surgical and medical care

Rationale: Code assignment for a misadventure applies (i.e., injury during the provision of care). The nerve injury is documented as being due to position compression at the time of surgery.

Example: Following hip replacement surgery, this patient has femoral palsy that is documented as being secondary to a retractor used during the surgery. The femoral palsy affects the recovery period and extends the length of stay.

Code	DAD	Cluster	Code title
T81.88	(2)	A	Other complications of procedures, not elsewhere classified
S74.18	(3)	A	Other and unspecified injury of femoral nerve at hip and thigh level
Y65.8	(9)	A	Other specified misadventures during surgical and medical care

Rationale: Code assignment for a misadventure applies (i.e., injury during the provision of care). The nerve injury is documented as being secondary to a retractor used during surgery.

Example: The patient presents for laparoscopic oophorectomy due to a left hemorrhagic ovarian cyst. During insertion of the camera, an old clot is seen within the lumen of the trocar. The camera and trocar are removed and the trocar is passed off the field. The clot appears to be the result of a poorly cleaned trocar. A new trocar is inserted and the abdomen inspected. An incident report is filed and antibiotics initiated due to concern for potential infection from the contaminated port.

Code	DAD	Code title
N83.2	(M)	Other and unspecified ovarian cysts

Rationale: Misadventure code assignment does not apply because no harm to the patient is documented from the adverse event (use of a contaminated instrument).

Intraoperative hemorrhage

While a hemorrhage that occurs intraoperatively is considered a misadventure (Y60–Y69), the hemorrhage must meet select criteria to assign a significant diagnosis type. A hemorrhage that occurs postoperatively is not a misadventure; it is classified as a later complication (Y83–Y84).

DAD and NACRS directive statement

When intraoperative blood loss/hemorrhage meets one of the criteria for significance described below, assign

- T81.0 *Haemorrhage and haematoma complicating a procedure, not elsewhere classified* as **a significant diagnosis type/main or other problem**; and
- An external cause code from category Y60 *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care*.

Note

Blood loss/hemorrhage occurring intraoperatively meets the criteria for significance when it

- Is described by the physician as substantial, massive, torrential or difficult to control, or using similar terminology; or
- Requires consultation by another surgeon/specialty; or
- Requires an intervention for control of bleeding; or
- Requires postoperative monitoring and/or investigation impacting length of stay.

Note

Do not assign T81.0 *Haemorrhage and haematoma complicating a procedure, not elsewhere classified* and an external cause code from category Y60 *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care* when

- Documentation does not indicate there is an intraoperative hemorrhage, regardless of amount of blood loss documented; and
- Intraoperative blood loss is a direct result of disease or trauma (e.g., bleeding ulcers, bleeding varices or ruptured aneurysm).

Note

Do not assume that administration of blood or blood products during surgery or that anemia following surgery is an indication that a hemorrhage has occurred. Blood or blood products are often given during surgery to prevent anemia or after surgery to treat anemia in patients where significant blood loss is expected. See also the coding standard *Acute Blood Loss Anemia*.

Example: The patient is admitted to hospital for an abdominal hysterectomy. During the intervention, a hemorrhage occurs that is documented on the operative report as being substantial and with an estimated blood loss of 800 cc. The hemorrhage is controlled and the patient stabilized; the intervention is completed without further incident.

Code	DAD	Cluster	Code title
T81.0	(2)	A	Haemorrhage and haematoma complicating a procedure, not elsewhere classified
Y60.0	(9)	A	Unintentional cut, puncture, perforation or haemorrhage during surgical operation

Rationale: The hemorrhage occurred intraoperatively and the physician describes the hemorrhage as “substantial”; therefore, T81.0 meets the criteria for significance and is assigned a significant diagnosis type.

Example: The patient sustains a traumatic abdominal aortic disruption with significant blood loss as a result of a single gunshot wound to the abdomen following a hunting accident. The aorta is repaired with a tube graft, and the patient receives 20 units of packed red blood cells during the intervention. Despite aggressive resuscitation, the patient continues to have significant hemorrhage from the abdomen and dies.

Code	DAD	Code title
S35.0	(M)	Injury of abdominal aorta
W33	(9)	Rifle, shotgun and larger firearm discharge
U98.9	(9)	Other specified place of occurrence

Rationale: The intraoperative blood loss is a direct result of the traumatic aortic injury; therefore, do not assign T81.0.

Puncture/laceration/perforation during a procedure

While any puncture/laceration/perforation during a procedure is considered a misadventure (Y60–Y69), the puncture/laceration/perforation must meet select criteria to assign a significant diagnosis type.

DAD and NACRS directive statement

When a puncture/laceration/perforation during a procedure meets **one of** the criteria for significance described below assign

- T81.2 *Accidental puncture and laceration during a procedure, not elsewhere classified* as **a significant diagnosis type/main or other problem**; and
- An external cause code from category Y60 *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care*.

Note

An accidental puncture/laceration/perforation during a procedure meets the criteria for significance when it

- Requires consultation by another surgeon/specialty; or
- Requires a return to the operating room; or
- Requires repair or removal of the damaged organ, which would not have otherwise been repaired/removed; or
- Is a dissection during cardiac catheterization/angioplasty that requires stenting for repair; or
- Is a reason for readmission to hospital; or
- Requires postoperative monitoring and/or investigation impacting length of stay; or
- Requires an additional different intervention.

Note

For the purposes of assigning an additional code to identify the site of the laceration/puncture/perforation from Chapter XIX — Injury, poisoning and certain other consequences of external causes (S00–T98), select the sixth character "with open wound into cavity."

See also the coding standards *Post-Intervention Conditions* and *Assignment of Additional Codes for Specificity*.

Note

Do not assign T81.2 when a laceration occurs to a diseased organ that is being removed as part of the original planned surgery.

Example: The patient has a cholecystectomy during which a tear in the gallbladder occurs with spillage of gallstones. Routine removal with cleanup of gallstones is done.

Nil Do not code the tear to the gallbladder. It is being removed as part of the surgery.

Example: A 54-year-old patient is admitted for cancer of the sigmoid colon. During colectomy, laceration of the splenic capsule is noted and a splenectomy is required.

Code	DAD	Cluster	Code title
C18.7	(M)		Malignant neoplasm of sigmoid colon
T81.2	(2)	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S36.091	(3)	A	Haematoma NOS, laceration NOS, injury to spleen NOS, with open wound into cavity
Y60.0	(9)	A	Unintentional cut, puncture, perforation or haemorrhage during surgical operation

Rationale: The splenic laceration meets the criteria for significance because it required removal of an organ that would not have otherwise been removed; therefore, T81.2 is assigned a significant diagnosis type. The sixth character “with open wound” is selected for the additional code S36.091.

Example: The patient presents for lysis of abdominal adhesions. During the procedure, an intraoperative laceration to the kidney occurs, requiring an intraoperative consult to ensure viability of the organ. The kidney is subsequently repaired with suturing.

Code	DAD	NACRS	Cluster	Code title
K66.0	(M)	MP		Peritoneal adhesions
T81.2	(2)	OP	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S37.011	(3)	OP	A	Laceration of kidney (without urinary extravasation), with open wound into cavity
Y60.0	(9)	OP	A	Unintentional cut, puncture, perforation or haemorrhage during surgical operation

Rationale: T81.2 meets the criteria for significance because the laceration was repaired. Even if it had not been repaired, it would have met the criteria for significance because there was an intraoperative consult. The sixth character “with open wound” is selected for the additional code S37.011.

Example: The patient sustains an intraoperative laceration to the bowel during laparoscopic tubal ligation. The surgeon places two sutures in the bowel for repair with no further consequences or monitoring.

Code	DAD	NACRS	Cluster	Code title
Z30.2	(M)	MP		Sterilization
T81.2	(2)	OP	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S36.511	(3)	OP	A	Laceration of colon, with open wound into cavity
Y60.0	(9)	OP	A	Unintentional cut, puncture, perforation or haemorrhage during surgical operation

Rationale: T81.2 meets the criteria for significance because the laceration was repaired. The sixth character “with open wound” is selected for the additional code S36.511.

Example: During colonoscopy in day surgery, a polypectomy of the large intestine is performed, and an inadvertent puncture is made in the large intestine. Four clips are applied, and India ink is used to mark the area. The physician documents that the patient will be admitted as an inpatient overnight because of the perforation to the bowel. Pathology report reveals benign neoplasm of large intestine.

Code	DAD	NACRS	Cluster	Code title
D12.6	(M)	MP		Benign neoplasm of colon, unspecified
T81.2	(2)	OP	A	Accidental puncture and laceration during a procedure, not elsewhere classified
S36.511	(3)	OP	A	Laceration of colon, with open wound into cavity
Y60.4	(9)	OP	A	Unintentional cut, puncture, perforation or haemorrhage during endoscopic examination

Rationale: T81.2 meets the criteria for significance on the day surgery abstract because the puncture was repaired. Even if it had not been repaired, it would have met the criteria for significance because it required postoperative monitoring impacting the length of stay. The sixth character “with open wound” is selected for the additional code S36.511.

Foreign body accidentally left following a procedure

A foreign body that is accidentally left following a procedure must meet select criteria to be assigned a significant diagnosis type.

DAD and NACRS directive statement

When an intact device not intended to remain in the body is inadvertently left behind following a procedure and one of the criteria for significance as described below is met, assign

- A code from subcategory T81.5– *Foreign body accidentally left in body cavity or operation wound following a procedure* as **a significant diagnosis type/main or other problem**; and
- An external cause code from category Y61 *Foreign object accidentally left in body during surgical or medical care*.

Note

A foreign body accidentally left following a procedure meets the criteria for significance when it

- Requires a return to the operating room for its removal; or
- Is a reason for readmission to hospital; or
- Requires an additional intervention for its removal; or
- Requires postoperative monitoring and/or investigation impacting length of stay.

Note

When an intact device that was intended (expected) to be left in the body (such as an IUD) is described as retained, it is classified as a mechanical complication. See the coding standard *Complications of Devices, Implants or Grafts*.

Example: The patient has a left hip replacement performed. The operative report documents that after closure of the wound and while the patient is still in the operating room, one small surgical sponge is noted to be missing in the sponge count. Intraoperative X-ray confirms a sponge marker within the acetabulum; therefore, the patient is fully reprepped and draped, and the incision is reopened to remove the sponge.

Code	DAD	NACRS	Cluster	Code title
T81.57	(2)	OP	A	Foreign body accidentally left in body cavity or operation wound following a procedure, without mention of any complication
Y61.0	(9)	OP	A	Foreign object accidentally left in body during surgical operation

Rationale: The sponge was inadvertently left behind following the procedure and it meets one of the criteria for significance. It required an additional intervention for its removal. T81.57 is selected, as no complication subsequent to the foreign body has been documented.

Example: The patient has a central line insertion, and the guidewire used to introduce the catheter is inadvertently left behind in the superior vena cava. Under ultrasound guidance, the guidewire is removed using a gooseneck snare inserted into the internal jugular vein by the radiologist.

Code	DAD	NACRS	Cluster	Code title
T81.57	(2)	OP	A	Foreign body accidentally left in body cavity or operation wound following a procedure without mention of any complication
Y61.6	(9)	OP	A	Foreign object accidentally left in body during aspiration, puncture and other catheterization

Rationale: The guidewire was inadvertently left behind following the procedure and it meets one of the criteria for significance. An additional intervention was required for its removal. T81.57 is selected, as no complication subsequent to the foreign body has been documented.

Reference

1. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Volume 2, 2nd Edition*. 2004.

Chapter XX — External causes of morbidity and mortality

External Cause Codes

In effect 2001

See also Y83–Y84 Inclusion List in Appendix B.

DAD and NACRS directive statement

Assign an external cause code from V01–Y98, mandatory, as a diagnosis type (9)/other problem with any condition classifiable to S00–T98.

Example:

Code	DAD	NACRS	Code title
S88.1	(M)	MP	Traumatic amputation at level between knee and ankle
W58	(9)	OP	Bitten or struck by crocodile or alligator

DAD and NACRS directive statement

When an external cause can be attributed to any condition classifiable to chapters I to XVIII, assign an additional code from V01–Y98 as a diagnosis type (9)/other problem.

Example:

Code	DAD	NACRS	Cluster	Code title
K29.0	(M)	MP	A	Acute haemorrhagic gastritis
Y45.3	(9)	OP	A	Other nonsteroidal anti-inflammatory drugs [NSAID] causing adverse effects in therapeutic use

Place of Occurrence

In effect 2001, amended 2006

DAD and NACRS directive statement

For any accident or poisoning classifiable to W00–Y34, excluding Y06 and Y07, assign a code from U98.– *Place of occurrence*, mandatory, as a diagnosis type (9)/other problem.

Example: A 4-year-old child ingests approximately 10 candy-coated ibuprofen tablets at home.

Code	DAD	NACRS	Code title
T39.3	(M)	MP	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID]
X40	(9)	OP	Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
U98.0	(9)	OP	Place of occurrence, home

Type of Activity

In effect 2001, amended 2006

DAD and NACRS directive statement

With any external cause code from V01–Y98, assign a code from U99.– *Activity*, optional, as a diagnosis type (9) /other problem to indicate the activity of the injured person at the time the event occurred.

Example: The patient falls off a ladder at work and sustains a fracture to his distal humerus.

Code	DAD	NACRS	Code title
S42.490	(M)	MP	Fracture of unspecified part of lower end of humerus, closed
W11	(9)	OP	Fall on and from ladder
U98.5	(9)	OP	Place of occurrence, trade and service area
U99.2	(9)	OP	While working for an income (optional)

Chapter XXI — Factors influencing health status and contact with health services

Pre-Treatment Assessment

In effect 2002, amended 2007, 2008

DAD and NACRS directive statements

Assign Z01.8 *Other specified special examination* to describe an encounter for a pre-treatment assessment.

When a significant condition diagnosed during the pre-treatment assessment requires further treatment or investigation, assign a code for the significant condition as the MRDx/main problem.

- Assign Z01.8 *Other specified special examination*, **mandatory**, as a diagnosis type (3)/other problem.

Assign an additional code to describe the underlying reason for the assessment, optional, as diagnosis type (3)/other problem.

Example: A woman visits the pre-admission clinic for a pre-treatment assessment for carpal tunnel release, which is scheduled for two weeks from now.

Code	NACRS	Code title
Z01.8	MP	Other specified special examinations
G56.0	OP	Carpal tunnel syndrome (optional)

2.ZZ.02.ZZ Assessment (examination), total body, general NEC (e.g. multiple reasons)

Status: P1

First visit

Example: A patient visits the oncology clinic for a pre-chemotherapy assessment for treatment of breast cancer.

Code	NACRS	Code title
Z01.8	MP	Other specified special examinations
C50.99	OP	Malignant neoplasm of breast, part unspecified, unspecified side (optional)

2.ZZ.02.ZZ Assessment (examination), total body, general NEC (e.g. multiple reasons)

Status: P1

Interim visit

Example: The same patient attends the cancer clinic for an interim assessment during the course of her chemotherapy treatment following mastectomy. She is scheduled to receive her fifth chemotherapy treatment the next day. There is no documentation of the outcome of the assessment.

Code	NACRS	Code title
Z51.88	MP	Other specified medical care NEC
C50.99	OP	Malignant neoplasm of breast, part unspecified, unspecified side (optional)

2.ZZ.02.ZZ Assessment (examination), total body, general NEC (e.g. multiple reasons)

Status: N1

Rationale: This is not a pre-treatment assessment; therefore, Z01.8 is not assigned. It is also not a follow-up visit. This is an interim assessment. As the patient has no condition necessitating a change in the treatment plan, assign Z51.88. (If a condition was found, assign a code for the condition as the main problem.)

Example: A morbidly obese patient is seen in the day surgery unit for esophagogastroduodenoscopy as a pre-treatment assessment of her gastrointestinal tract prior to undergoing gastric bypass surgery; there are no unexpected findings.

Code	DAD	NACRS	Code title
Z01.8	(M)	MP	Other specified special examinations
E66.8	(3)	OP	Other obesity (optional)

2.NK.70.BA-BL Inspection, small intestine, using endoscopic per orifice approach (or via stoma) and gastroscope

Example: A patient presents for coronary angiography via the femoral artery as a pre-treatment assessment prior to undergoing lung transplant due to emphysema. The X-ray reveals that the patient has severe three-vessel coronary artery disease (CAD), amenable to bypass.

Code	DAD	NACRS	Code title
I25.10	(M)	MP	Atherosclerotic heart disease of native coronary artery
Z01.8	(3)	OP	Other specified special examinations (mandatory)
J43.9	(3)	OP	Emphysema, unspecified (optional)

3.IP.10.VX Xray, heart with coronary arteries, of left heart structures using percutaneous transluminal arterial (retrograde) approach

Status: DX
Location: FY

Rationale: When a condition is found during a pre-treatment assessment, the condition is coded as the MRDx/main problem. The underlying reason for the encounter is coded as a **mandatory** diagnosis type (3)/other problem.

Admission for Observation

For description of change, see Appendix C.

In effect 2002, amended 2003, 2006, 2007, 2009, 2018

The purpose of this coding standard is to provide direction for code assignment when a patient presents for investigation of a sign, symptom and/or abnormal finding (e.g., positive screening test) for which there is documentation to support that the patient is being investigated to rule out a **specific suspected** condition. When there is no documentation that the patient is being investigated to rule out a specific suspected condition, see the coding standard *Underlying Symptoms or Conditions*.

Codes from Z03 are assigned as the MRDx/main problem when a patient is investigated for a suspected condition and is considered to have no disease/problem. These patients will have a sign, symptom and/or abnormal finding (e.g., positive screening test); however, after investigation, it will have been determined that the condition for which they are being examined has been ruled out and there is no documentation to support that further investigation is required. See also the coding standards *Screening for Specific Diseases* and *Unconfirmed Diagnosis*.

DAD and NACRS directive statements

Assign a code from category Z03 *Medical observation and evaluation for suspected diseases and conditions* as the MRDx/main problem when a patient with a sign, symptom and/or abnormal finding is investigated for a suspected condition and **all** of the following criteria are met:

- The suspected condition is ruled out/not found; and
- There is no documentation to support that further investigation is required; and
- Another underlying condition is not identified.

Assign an additional code for the sign, symptom or abnormal finding, optional, as a diagnosis type (3)/other problem based on the facility's data needs.

When a patient is investigated for a suspected condition and the suspected condition **is found**, assign a code for the identified underlying condition as the MRDx/main problem.

Assign an additional code for the sign, symptom or abnormal finding, optional, as a diagnosis type (3)/other problem based on the facility's data needs.

When a patient is investigated for a suspected condition and the suspected condition **is not found** and there is documentation to support that further investigation is required, assign a code for the sign, symptom or abnormal finding as the MRDx/main problem.

When a patient is investigated for a suspected condition and **an underlying condition that is not the suspected condition is identified**, assign a code for the underlying condition as the MRDx/main problem.

Note

Do not assign codes from category Z03 *Medical observation and evaluation for suspected diseases and conditions* as a diagnosis type (3)/other problem.

Note

Repeat screening is not synonymous with further investigations required. Therefore, the fact that the patient is scheduled to return for a repeat screening test (such as a prostate-specific antigen [PSA] test in six months or a mammogram in one year) following observation does not limit the use of a code from category Z03.

Note

A fecal immunochemical test (FIT) and fecal occult blood test (FOBT) are screening tests for colorectal cancer. Therefore, a patient with a positive result who is admitted for an endoscopy is considered to be under observation for suspected colorectal cancer. There is no requirement for colorectal cancer to be documented as a suspected condition that is being ruled out.

Example: The patient presents with an elevated PSA test and undergoes biopsy of the prostate for suspected prostate malignancy. After investigation, no evidence of neoplasm or other pathology is detected, and no further action is required at this time.

Code	DAD	NACRS	Code title
Z03.1	(M)	MP	Observation for suspected malignant neoplasm

Rationale: The patient is seen for investigation of an abnormal finding (elevated PSA) to rule out malignancy. The suspected condition (malignancy) is ruled out, there is no documentation to support that further investigation is required and another underlying condition is not identified. Therefore, Z03 is assigned as the MRDx/main problem.

Example: The patient presents for colonoscopic examination due to a positive FIT. The final diagnosis is recorded as “normal examination; patient will be seen again in 3–5 years.”

Code	DAD	NACRS	Code title
Z03.1	(M)	MP	Observation for suspected malignant neoplasm

Rationale: The patient is seen for investigation of an abnormal finding (positive screening FIT). A patient with a positive FIT (or FOBT) who is admitted for a colonoscopy is considered to be under observation for suspected colorectal cancer. The suspected condition (malignancy) is ruled out, there is no documentation to support that further investigation is required and another underlying condition is not identified. Therefore, Z03 is assigned as the MRDx/main problem.

A repeat screening colonoscopy in 3 to 5 years is not synonymous with further investigation required and does not limit the use of Z03.

Example: The patient presents for observation of obstructive sleep apnea due to increased snoring. Sleep apnea is ruled out.

Code	DAD	Code title
Z03.8	(M)	Observation for other suspected diseases and conditions

Rationale: The patient is seen for investigation of a symptom (snoring) for a specific suspected condition (sleep apnea). Sleep apnea is ruled out, there is no documentation to support that further investigation is required and another underlying condition is not identified. Therefore, Z03 is assigned as the MRDx.

Example: The patient presents for a colonoscopy due to rectal bleeding. The physician documents “rule out malignancy.” The physician notes diverticulosis in the colon during examination. Post-operative diagnosis is recorded as “normal colonoscopy to terminal ileum.”

Code	DAD	NACRS	Code title
Z03.1	(M)	MP	Observation for suspected malignant neoplasm

Rationale: The patient presents with a symptom (rectal bleeding) to rule out malignancy. The suspected condition (malignancy) is ruled out, and the physician documents the final diagnosis as “normal colonoscopy.” Therefore, Z03 is assigned as the MRDx/main problem. The diverticulosis is noted during the examination and is an incidental finding. A code for an incidental finding is optional.

Example: The patient presents for a colonoscopy due to rectal bleeding. The physician notes diverticulosis in the colon during examination. Post-operative diagnosis is recorded as “normal colonoscopy to terminal ileum.”

Code	DAD	NACRS	Code title
K62.5	(M)	MP	Haemorrhage of anus and rectum

Rationale: The patient presents with a symptom (rectal bleeding). There is no documentation of a suspected condition; therefore, the directives for this coding standard do not apply. See the coding standard *Underlying Symptoms or Conditions*.

The diverticulosis is noted during the examination and is an incidental finding. A code for an incidental finding is optional.

Example: The patient has been having gross hematuria. He presents for a biopsy of the bladder for suspected bladder malignancy. A cystoscopic biopsy is performed. The pathology results come back positive for adenocarcinoma of the bladder.

Code	DAD	NACRS	Code title
C67.9	(M)	MP	Malignant neoplasm of bladder, unspecified

Rationale: The patient presents for investigation of a symptom (gross hematuria) for suspected bladder malignancy. The suspected condition is found. Therefore, assign a code for the identified underlying condition (malignancy) as the MRDx/main problem. Z03 is not assigned because the suspected condition is confirmed.

Example: The patient presents for colonoscopy to rule out malignancy due to ongoing rectal bleeding, melena and weight loss. Investigation of the colon demonstrates a normal examination. The physician documents that the patient will be brought back in a few weeks for an EGD to further investigate the cause of the symptoms.

Code	DAD	NACRS	Code title
K62.5	(M)	MP	Haemorrhage of anus and rectum
K92.1	(1)	OP	Melaena
R63.4	(1)	OP	Abnormal weight loss

Rationale: The patient is seen for investigation of signs and symptoms (rectal bleeding, melena and weight loss) for suspected malignancy. The examination is normal and the documentation supports that further investigation is required. When there is documentation to support that further investigation is required, codes for the signs and symptoms are assigned. Z03 is not assigned because the three criteria have not been met.

Example: The patient presents for colonoscopic examination due to a positive FIT. During colonoscopy, a polyp is found in the sigmoid colon and removed. Diverticulosis is noted during examination. Pathology confirms a tubular adenoma.

Code	DAD	NACRS	Code title
D12.5	(M)	MP	Benign neoplasm of sigmoid colon

Rationale: The patient presents with an abnormal finding (positive screening FIT). A patient with a positive FIT who is admitted for a colonoscopy is considered to be under observation for suspected colorectal cancer. The suspected condition is not found. Other conditions are identified. When an underlying condition that is not the suspected condition is identified, assign a code for the underlying condition as the MRDx/main problem when it meets the criteria for significance.

The diverticulosis is noted during the examination and is an incidental finding. A code for an incidental finding is optional. Z03 is not assigned because the three criteria have not been met.

Example: The patient presents for colonoscopic examination due to a positive FIT. The final diagnosis is recorded as “first-degree bleeding internal hemorrhoids.”

Code	DAD	NACRS	Code title
K64.0	(M)	MP	First degree haemorrhoids

Rationale: The patient is seen for investigation of an abnormal finding (positive screening FIT). A patient with a positive FIT who is admitted for a colonoscopy is considered to be under observation for suspected colorectal cancer. The suspected condition (malignancy) is not found and the final diagnosis is recorded as “first-degree bleeding internal hemorrhoids” (another condition is found and is identified as the final diagnosis). Z03 is not assigned because the three criteria have not been met.

Example: The patient presents for endoscopic examination due to “RUQ pain, rectal bleeding and a family history of colorectal cancer.” The physician documents “R/O malignancy.” An EGD is performed and gastric biopsies reveal chronic gastritis. During colonoscopy, a polyp is removed from the rectum. The polyp is confirmed on pathology to be a tubular adenoma. Final diagnosis is recorded as “gastritis and rectal polyp.”

Code	DAD	NACRS	Code title
D12.8	(M)	MP	Benign neoplasm of rectum
K29.5	(1)	OP	Chronic gastritis, unspecified

Rationale: The patient presents with signs and symptoms to rule out malignancy. The final diagnosis is recorded as “gastritis and rectal polyp.” The suspected condition is not found. Other underlying conditions are identified. When an underlying condition that is not the suspected condition is identified, assign a code for the underlying condition as the MRDx/main problem when it meets the criteria for significance. Z03 is not assigned because the three criteria have not been met.

Since the polyp is excised (definitive therapeutic intervention), D12.8 is the MRDx/main problem. See also the coding standard *Diagnoses of Equal Importance*.

Example: A mother finds her child next to an empty pill bottle. She is uncertain how many tablets were in the bottle. After observation in the emergency department, it is determined that the child has not swallowed any pills.

Code	NACRS	Code title
Z03.6	MP	Observation for suspected toxic effect from ingested substance

Rationale: Poisoning was suspected because evidence (an empty pill bottle) was found beside the child. At the end of the episode of care, poisoning is ruled out. There is no documentation to support that further investigation is required and no other underlying condition is found. Therefore, a code from Z03 is assigned as the main problem.

Example: A newborn, delivered vaginally, is monitored in the special care nursery for investigation because the mother used morphine during most of her pregnancy. The outcome of the investigation is negative, but the stay is extended by two days due to additional monitoring in the special care nursery.

Code	DAD	Code title
Z03.8	(M)	Observation for other suspected diseases and conditions
Z38.000	(0)	Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: This is an otherwise healthy newborn who is kept in hospital for an extended period of time for observation to rule out a suspected condition. The suspected condition is implied (addiction) as there is a risk (mother used morphine). After examination and observation, the suspected condition is ruled out and it is determined that there is no need for further treatment or medical care. Z03.8 *Observation for other suspected diseases and conditions* is assigned as the MRDx in this circumstance.

Admission for observation following accident or alleged assault or abuse

DAD and NACRS directive statement

When the purpose of the encounter is for examination and observation after an accident, alleged rape, sexual assault or physical abuse and, following examination/observation,

- An injury classifiable to categories S00–T19 is documented, assign a code for the specified injury as the MRDx/main problem.
- No injury is documented, assign a code from category Z04 *Examination and observation for other reasons* as the MRDx/main problem.

Example: A patient involved in a motor vehicle accident is brought to the emergency department for examination and observation. Following X-rays, it is determined that the patient suffered no injuries. She is discharged.

Code	NACRS	Code title
Z04.1	MP	Examination and observation following transport accident

Rationale: No external cause code is assigned, as there were no injuries.

Example: A young woman presents to the emergency department after waking up in bed without her clothes. She has no memory of what occurred the night before because of alcohol intoxication. She is concerned that she was sexually assaulted and is requesting an examination. Following examination, there is no physical evidence of any sexual assault and no documented injuries.

Final diagnosis: Sexual assault, rape kit completed

Code	NACRS	Code title
Z04.4	MP	Examination and observation following alleged rape and seduction

Rationale: The purpose of this ambulatory visit was examination following an alleged rape. When there are no documented injuries, Z04.4 is assigned as the main problem.

Example: A patient presents to hospital for examination following an attack. She was walking home from the cinema when she was grabbed around the neck from behind. She became unconscious and does not recall the subsequent events. She awoke from this attack partially clothed. Upon examination, she is found to have a torn hymen and perineal bruising, indicating that a sexual assault occurred. She also has significant bruising around her neck.

Code	DAD	NACRS	Code title
S31.400	(M)	MP	Open wound of vagina and vulva, uncomplicated
S30.28	(1)	OP	Contusion of other external genital organs
S10.9	(1)	OP	Superficial injury of neck, part unspecified
Y05	(9)	OP	Sexual assault by bodily force

Rationale: Z04.4 is not assigned as the MRDx/main problem in this example because specified injuries were found. The external cause code identifies that the injuries occurred as a result of a sexual assault.

Admission for Follow-Up Examination

In effect 2002, amended 2003, 2006, 2007, 2008, 2012, 2015

"Follow-up" is a term used to describe an episode of care for routine investigations following treatment for a disease, condition or injury. In these circumstances, the patient is exhibiting no signs or symptoms related to the previous disease, condition or injury; the episode of care is strictly to assess post-treatment status. Periodic examinations to determine if there is recurrence of a previously treated condition are examples of follow-up.

Documentation of follow-up is classified in ICD-10-CA according to the purpose and outcome of the examination.

DAD and NACRS directive statements

When the purpose of the examination is to assess the status of a previously treated condition or injury (a personal history classifiable to categories Z85–Z88) and **the outcome indicates no need for further treatment**, select the appropriate code from one of the following as the MRDx/main problem:

- Z08 *Follow-up examination after treatment for malignant neoplasm*; or
- Z09 *Follow-up examination after treatment for conditions other than malignant neoplasms*.
  - In either case, assign an additional code indicating a personal history of the condition, optional, as a diagnosis type (3)/other problem, unless identified as mandatory elsewhere in the coding standards.

When the examination reveals that the original condition has recurred or identifies another related condition, assign

- A code for the condition as the MRDx/main problem; and
- An additional code from Z08 or Z09, **mandatory**, as a diagnosis type (3)/other problem.

See also the coding standards *Personal History of Primary Malignant Neoplasms of Breast, Lung and Prostate*, *Personal and Family History of Malignant Neoplasm* and *Recurrent Malignancies*.

Example: A male patient is admitted for a cystoscopy for follow-up of bladder cancer that was previously treated by radiation therapy. There is no recurrence of the malignancy. Trabeculation of bladder is noted.

Code	DAD	NACRS	Code title
Z08.1	(M)	MP	Follow-up examination after radiotherapy for malignant neoplasm
Z85.5	(3)	OP	Personal history of malignant neoplasm of urinary tract (optional)
N32.8	(3)	OP	Other specified disorders of bladder (optional)

2.PM.70.BA Inspection, bladder, using endoscopic per orifice approach

Rationale: Trabeculation of the bladder is neither a recurrence nor a related condition. It is optional to code; if coded, it is a diagnosis type (3)/other problem.

Example: A patient is admitted for a cystoscopy for follow-up of bladder cancer that was previously treated by radiation therapy. Carcinoma of the bladder is detected.

Code	DAD	NACRS	Code title
C67.9	(M)	MP	Malignant neoplasm of bladder, unspecified
Z08.1	(3)	OP	Follow-up examination after radiotherapy for malignant neoplasm
Z85.5	(3)	OP	Personal history of malignant neoplasm of urinary tract

2.PM.70.BA Inspection, bladder, using endoscopic per orifice approach

Rationale: The examination revealed a recurrence of bladder carcinoma; therefore, it is **mandatory** to assign a code for the bladder cancer, an additional code for the follow-up examination and also Z85.5 to denote a personal history of bladder cancer, per the coding standard *Recurrent Malignancies*.

Example: A 45-year-old patient with a history of kidney stones presents to hospital. Four years ago, she underwent extracorporeal shock wave lithotripsy (ESWL) and has been stone-free since. A stone analysis done at that time showed them to be made of calcium oxalate. She is on magnesium supplement prophylaxis to prevent the formation of any more stones. At this visit to the stone clinic, she has no complaints. Her 24-hour urine tests and abdominal ultrasound are negative.

The patient will continue to be under surveillance in the stone clinic and is asked to continue her magnesium supplement. She will be seen again in 12 months.

Code	DAD	NACRS	Code title
Z09.8	(M)	MP	Follow-up examination after other treatment for other conditions
Z87.4	(3)	OP	Personal history of diseases of the genitourinary system (optional)

First visit

Example: A construction worker presents to the emergency department with a foreign body in his right eye. A small metallic piece is removed from his right cornea using an external approach. The client is instructed to return for follow-up in a week.

Code	NACRS	Code title
T15.0	MP	Foreign body in cornea
W44	OP	Foreign body entering into or through eye or natural orifice
U98.6	OP	Place of occurrence, industrial and construction area

Second visit

Example: The construction worker returns to the emergency department. During this visit, it is found that his right cornea has completely healed, and the client is discharged home with no further instructions.

Code	NACRS	Code title
Z09.8	MP	Follow-up examination after other treatment for other conditions
Z87.8	OP	Personal history of other specified conditions

Example: A 72-year-old gentleman presents with increasing anemia. The patient has a history of a right hemicolectomy for colon cancer that was performed one year previously. He undergoes colonoscopy that is documented as normal. The patient is scheduled to be seen in follow-up for an esophagogastroduodenoscopy (EGD) to further evaluate the anemia.

Code	DAD	NACRS	Code title
D64.9	(M)	MP	Anaemia, unspecified
Z85.0	(3)	OP	Personal history of malignant neoplasm of digestive organs (optional)

Rationale: This is not a routine investigation for follow-up. This patient has a sign (anemia) that is being investigated. A follow-up exam does not include patients who are exhibiting a sign or symptom.

DAD and NACRS directive statement

When the sole purpose of the encounter is to receive a **specific intervention or service**, select the appropriate code from one of the following as the MRDx/main problem:

Z39.2 *Routine postpartum follow-up*

Z42 *Follow-up care involving plastic surgery*

Z47 *Other orthopaedic follow-up care*

Z48 *Other surgical follow-up care*

- Assign an additional code, optional, as a diagnosis type (3)/other problem to describe the underlying disease or injury for which specific follow-up care is required.

Note

Categories Z40–Z54 *Persons encountering health services for specific procedures and health care* are intended to indicate a reason for care. They may be used for patients who have already been treated for a disease or injury but who are receiving follow-up or prophylactic care; convalescent care; or care to consolidate the treatment in order to deal with residual states, ensure that the condition has not recurred or prevent recurrence.[1]

Category Z48 *Other surgical follow-up care* is used to describe encounters solely for the purpose of receiving a specific intervention related to previous treatment. This includes dressing changes and wound checks, which may include reassurance that healing is progressing as expected.

Example: A woman presents to the emergency department for a dressing change (medicated) on the weekend. She had a mastectomy for breast cancer the week before and is scheduled the following week for chemotherapy.

Code	NACRS	Code title
Z48.0	MP	Attention to surgical dressings and sutures
C50.99	OP	Malignant neoplasm of breast, part unspecified, unspecified side (optional)

1.YS.14.JA-H1 Dressing, skin of abdomen and trunk, using medicated dressing (optional)

Example: A young man presents to the fracture clinic for removal of a cast that was put on six weeks ago after a non-displaced fracture of the ankle due to a fall on ice.

Code	NACRS	Code title
Z47.8	MP	Other specified orthopaedic follow-up care

1.WA.38.JA-FQ Management of external appliance, ankle joint, of cast

Example: A patient presents to the emergency department after recent surgery because the wound is red and draining. The doctor assesses the wound and tells the patient to continue with her antibiotics, as prescribed by the surgeon. Final diagnosis is recorded as “postoperative concern.”

Code	NACRS	Code title
Z48.8	MP	Other specified surgical follow-up care

Rationale: The patient underwent surgery and required reassessment to ensure the wound was healing as expected; no condition or complication was found.

Admission for Convalescence

For description of change, see Appendix C.

In effect 2008, amended 2009

Convalescence is the stage of recovery following an attack of disease, a surgical operation or an injury. For classification purposes, it describes the intermediate recovery phase after treatment until a patient is ready to be discharged home/place of residence. It includes maintenance of homeostasis, wound management, routine postoperative monitoring, physiotherapy, and prevention and early detection of complications. Often patients are transferred from one hospital to another to complete this phase of care to allow them to be closer to home or to manage beds within a health region. These patients are given the routine daily care they would normally receive if all of their care occurred in the original facility. In some circumstances, an admission from day surgery to inpatient care may constitute an admission for convalescence.

Z54 *Convalescence* does not include

- Care provided to manage the original condition;
- Care provided to treat a complication;
- Patients who are admitted solely for rehabilitation; and
- Patients who have been **discharged** and who return for specific care (such as attention to drainage devices, dressing changes or examinations for reassurance).

See also the coding standards *Admission for Follow-up Examination* and *Acute Coronary Syndrome (ACS)*.

DAD-only directive statement

When a patient is transferred from one hospital to another or admitted from day surgery to inpatient care **solely** for the purpose of receiving care in the recovery phase following treatment of an illness or injury or following a surgical intervention, assign a code from category Z54 *Convalescence* as the MRDx.

- Assign an additional code, mandatory, as a diagnosis type (3) to indicate the condition for which convalescence is required.

Exception

The above directive statement does not apply to jurisdictions (British Columbia, Yukon, the Northwest Territories and Nunavut) that submit **one** acute inpatient abstract to the Discharge Abstract Database (DAD) for a patient who is admitted to an inpatient bed directly from the day surgery unit of the reporting facility. See Section 3: Additional Abstracting Information: **Day Surgery Abstracting, Patients Admitted Directly From Day Surgery to Acute Care** in the *Discharge Abstract Database (DAD) Abstracting Manual* for further instructions.

Example: The physician documents that the patient is being admitted for convalescence following surgery to treat a fracture of the femur after falling out of bed at home. The patient is transferred from Hospital A to Hospital B to be closer to family. The patient is discharged home on day 3.

Code	DAD	Code title
Z54.0	(M)	Convalescence following surgery
S72.900	(3)	Fracture of femur, part unspecified, closed
W06	(9)	Fall involving bed
U98.0	(9)	Place of occurrence, home

Inpatient admission to Hospital B

Example: The patient is admitted to Hospital A with ST elevation myocardial infarction. The patient is immediately transferred to day surgery in Hospital B for primary percutaneous coronary intervention (PCI), after which he is admitted as an inpatient to Hospital B with a diagnosis of STEMI.

Code	DAD	Code title
I21.3	(M)	Acute transmural myocardial infarction of unspecified site
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: This case is not classified to convalescence (or to follow-up surgical care), as the care the patient is receiving is still being directed toward the acute condition.

Return admission to Hospital A

Example: The same patient is transferred back to Hospital A for continued treatment following the myocardial infarction and PCI.

Code	DAD	Code title
I21.3	(M)	Acute transmural myocardial infarction of unspecified site
R94.30	(3)	Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

Rationale: The purpose of the transfer is to receive continuing care directed toward the condition itself. The patient is not being transferred **solely** for the purpose of convalescence; therefore, Z54 is not assigned.

Admission following day surgery

Example: The patient is admitted to day surgery for **elective** coronary angiography. Over the last several months, he has noted that his angina has been increasing in frequency and duration. The patient is known to have CAD. During the intervention, it is noted that the patient has a 90% stenosis of the left anterior descending (native) artery that is amenable to coronary angioplasty. A PCI with stent insertion is performed. The patient is then admitted overnight as an inpatient for observation.

Diagnosis: Unstable angina, coronary artery disease

Code	DAD	Code title
Z54.0	(M)	Convalescence following surgery
I25.10	(3)	Atherosclerotic heart disease of native coronary artery
I20.0	(3)	Unstable angina

Rationale: The reason for admission is to monitor the patient for any complications following the surgical intervention rather than to receive continuing care for CAD. When the sole purpose of the admission is for postoperative monitoring, this is included at category Z54.

Note: This example does not apply to B.C., Yukon, the Northwest Territories or Nunavut.

DAD-only directive statement

When a patient presents solely for the purposes of receiving routine **care** following delivery outside the hospital, assign Z39.0 *Postpartum care and examination immediately after delivery* as the MRDx.

Example: A patient is transferred from another facility for postpartum care following a Cesarean section. She receives routine obstetrical care and is discharged home two days later.

Code	DAD	Code title
Z39.0	(M)	Care and examination immediately after delivery

Rationale: Z39.0 includes routine postpartum care in uncomplicated cases.

Screening for Specific Diseases

For description of change, see Appendix C.

In effect 2003, amended 2006, 2008, 2018

Screening is performed to enable early detection/diagnosis of a disease, such as cancer, by testing a person who does not yet have recognized symptoms or obvious signs of the condition. Screening does not include examination of individuals who have previously been treated for a condition. Ideally, screening detects a condition before it becomes serious and when it is usually easily treatable or preventable.

Some examples of screening programs include

- Mammography to detect breast cancer for women who, because of age and/or family history, have risk factors;
- Pap tests for all women who are or have ever been sexually active;
- Prostate-specific antigen (PSA) tests to detect prostate cancer because of age and/or family history;
- Fecal occult blood tests (FOBTs) or fecal immunochemical tests (FITs), colonoscopy or sigmoidoscopy, or double contrast barium enema to detect colon cancer for all persons older than age 50 and persons younger than 50 who have risk factors (such as family history); and
- Tuberculin skin tests to detect tuberculosis for certain populations, such as health care workers, correctional institution workers and immigrants.

Note
For direction on code assignment when the episode of care is to further investigate a positive screening test, see the coding standard *Admission for Observation*.

DAD and NACRS directive statements

When a patient undergoes a screening examination and no sign of disease is found, assign a code from category Z11, Z12 or Z13 as the MRDx/main problem.

When the condition or a sign of the condition for which the patient is screened is found, assign a code

- For the condition or sign as the MRDx/main problem; and
- From Z11, Z12 or Z13, **mandatory**, as a diagnosis type (3)/other problem.

Assign an additional code, optional, as a diagnosis type (3)/other problem to identify any circumstances indicating the reason for the screening test (such as family history).

Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify any incidental findings noted at the time of the exam.

Example: A 52-year-old female patient with no signs or symptoms of breast disease comes to the breast clinic for a mammogram. No abnormalities are found.

Code	NACRS	Code title
Z12.3	MP	Special screening examination for neoplasm of breast

Example: A 60-year-old female patient with no signs or symptoms of breast disease comes to the breast clinic for a mammogram. A suspicious area is found in the upper-outer quadrant; the patient will be booked for a breast biopsy.

Code	NACRS	Code title
R92	MP	Abnormal findings on diagnostic imaging of breast
Z12.3	OP	Special screening examination for neoplasm of breast

Rationale: The screening revealed a sign of the condition; therefore, R92 is the main problem. Z12.3 is **mandatory** to show that the condition was discovered on screening.

Example: A 60-year-old female patient detects a lump in her right breast on self-examination. She is referred for mammography by her family physician. The mammogram confirms a lesion in her breast.

Code	NACRS	Code title
N63	MP	Unspecified lump in breast

Rationale: As the patient presented with a sign of breast cancer, the mammogram in this case does not qualify as a screening test.

Example: A patient with no known complaint is admitted as a day surgery patient for a screening colonoscopy due to a family history of colon cancer. No abnormalities are detected.

Code	DAD	NACRS	Code title
Z12.1	(M)	MP	Special screening examination for neoplasm of intestinal tract
Z80.0	(3)	OP	Family history of malignant neoplasm of digestive organs (optional)

Example: A patient with no known complaint is admitted as a day surgery patient for a screening colonoscopy due to a family history of colon cancer. Internal hemorrhoids are noted.

Code	DAD	NACRS	Code title
Z12.1	(M)	MP	Special screening examination for neoplasm of intestinal tract
Z80.0	(3)	OP	Family history of malignant neoplasm of digestive organs (optional)
K64.8	(3)	OP	Other specified haemorrhoids (optional)

Example: A patient with no known complaint presents for a screening colonoscopy due to a family history of colon cancer. Upon examination, a lesion is noted and biopsied, which is shown to be adenocarcinoma of the sigmoid colon.

Code	DAD	NACRS	Code title
C18.7	(M)	MP	Malignant neoplasm of sigmoid colon
Z12.1	(3)	OP	Special screening examination for neoplasm of intestinal tract
Z80.0	(3)	OP	Family history of malignant neoplasm of digestive organs (optional)

Rationale: The screening revealed malignancy; therefore, C18.7 is the MRDx/ main problem and Z12.1 is **mandatory** to show that the condition was discovered on screening.

Example: A patient with a positive family history for colon cancer undergoes a screening colonoscopy. An adenomatous polyp is found in the sigmoid colon. Polypectomy is performed.

Code	DAD	NACRS	Code title
D12.5	(M)	MP	Benign neoplasm of sigmoid colon
Z12.1	(3)	OP	Special screening examination for neoplasm of intestinal tract
Z80.0	(3)	OP	Family history of malignant neoplasm of digestive organs (optional)

Rationale: The screening revealed neoplastic disease; therefore, D12.5 is the MRDx/main problem and Z12.1 is **mandatory** to show that the condition was discovered on screening.

Note: The patient is being screened for neoplastic disease (malignant or benign), which is found. Adenomatous polyps in the colon have the potential to be malignant; therefore, this is not an incidental finding.

Prophylactic Organ Removal

In effect 2001, amended 2006, 2015

DAD and NACRS directive statement

Select a code from the category Z40 *Prophylactic surgery* when a patient is admitted for surgical removal of non-diseased organs or tissue related to risk of or treatment for malignancy.

Example: A patient is admitted for prophylactic bilateral orchidectomy due to advanced cancer of the prostate.

Code	DAD	Code title
Z40.08	(M)	Prophylactic removal of other organ
C61	(3)	Malignant neoplasm of prostate

1.QM.89.^^ Excision total, testis
Location: B

Rationale: This patient is being admitted for bilateral orchidectomy to reduce the risk of metastases; therefore, Z40.08 is assigned.

Example: A patient with a personal history of breast cancer (left breast, no residual disease) elects to have a right total simple mastectomy to remove the non-diseased breast.

Code	DAD	Code title
Z40.00	(M)	Prophylactic removal of breast
Z85.31	(3)	Personal history of malignant neoplasm of left breast

1.YM.89.^^ Excision total, breast
Location: R

Rationale: This patient is being admitted for surgical removal of non-diseased breast tissue due to the risk of malignancy; therefore, Z40.00 is assigned. It is mandatory to assign a code from Z85 in this example.

See also the coding standards *Personal and Family History of Malignant Neoplasms* and *Personal History of Primary Malignant Neoplasms of Breast, Lung and Prostate*.

Coding of NACRS Visits for Rehabilitative Services

In effect 2002, amended 2008, 2012

NACRS-only directive statements

- Assign a code from category Z50 *Care involving use of rehabilitation procedures* as the main problem when rehabilitation is a reason for the NACRS visit.
- When a person is referred solely for physical therapy (care involving use of rehabilitation procedures), assign Z50.1 *Other physical therapy* as the main problem.
- Assign an additional code, optional, as an other problem to identify the underlying disorder.

These codes apply to patients who have already been treated for a disease or injury who are receiving care involving rehabilitation procedures.

See also the coding standard *Selection of Interventions to Code for Ambulatory Care*.

Example: A woman with multiple sclerosis visits the rehabilitation clinic for physiotherapy.

Code	NACRS	Code title
Z50.1	MP	Other physical therapy
G35	OP	Multiple sclerosis (optional)

1.ZX.12.JA Therapy, multiple body sites, using other technique NEC

Example: A patient with a history of recent stroke with ongoing aphasia attends the rehabilitation clinic for a scheduled speech therapy session.

Code	NACRS	Code title
Z50.5	MP	Speech therapy
R47.0	OP	Dysphasia and aphasia
I69.4	OP	Sequelae of stroke, not specified as haemorrhage or infarction (optional)

6.RA.30.BR Therapy, voice, for breath control

Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy

For description of change, see Appendix C.

In effect 2001, amended 2006, 2007, 2008, 2009, 2012, 2015, 2018

DAD and NACRS directive statements

When a patient previously diagnosed with a malignancy has an encounter solely for the administration of radiation therapy, assign

- Z51.0 *Radiotherapy session* as the MRDx/main problem; or
- Z51.0 *Radiotherapy session* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and that condition meets the criteria for MRDx/main problem.

When a patient previously diagnosed with a malignancy has an encounter solely for the administration of chemotherapy to treat the malignancy or neoplasm-related conditions, assign

- Z51.1 *Chemotherapy session for neoplasm* as the MRDx/main problem; or
- Z51.1 *Chemotherapy session for neoplasm* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and that condition meets the criteria for MRDx/main problem.

Assign an additional code to identify the malignant condition, **mandatory**, as a diagnosis type (3)/other problem for radiation therapy visits and chemotherapy visits.

Assign a CCI code, mandatory, for any radiation therapy or chemotherapy interventions to treat the malignancy or neoplasm-related conditions.

See also the coding standards *Selection of Interventions to Code for Ambulatory Care* and *Selection of Interventions to Code for Acute Inpatient Care*.

CCI codes for systemic chemotherapy for neoplastic disease (e.g., drugs where the agent component of the qualifier begins with “M”) are classified within rubric 1.ZZ.35.^^ *Pharmacotherapy, total body*. For example, the antineoplastic drug vincristine administered by injection is classified to 1.ZZ.35.HA-M3. These procedures need be assigned only once.

Note

Z51.0 *Radiotherapy* session and Z51.1 *Chemotherapy session for neoplasm* must not be assigned as a diagnosis type (2) or diagnosis type (3).

Chemotherapy and radiation therapy are interventions; therefore, a CCI code is assigned. Z51.0 *Radiotherapy session* and Z51.1 *Chemotherapy session for neoplasm* are diagnosis codes and are assigned only when the patient is admitted solely for administration of radiation therapy or chemotherapy, respectively.

Note

Admissions for brachytherapy should not be confused with admissions for radiation therapy. See also the coding standard *Brachytherapy*.

When a patient presents for a radiation therapy or chemotherapy intervention and it is cancelled due to contraindication, see also the coding standard *Cancelled Interventions*.

Example: Encounter for IV vincristine chemotherapy session for active left main bronchus malignancy

Code	DAD	NACRS	Code title
Z51.1	(M)	MP	Chemotherapy session for neoplasm
C34.01	(3)	OP	Malignant neoplasm of left main bronchus

1.ZZ.35.HA-M3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using plant alkaloid and other natural product

Rationale: The patient is admitted solely for administration of chemotherapy. Therefore, Z51.1 is assigned as the MRDx/main problem. An additional code to identify the malignancy is assigned as a diagnosis type (3)/other problem, mandatory. It is mandatory to assign a CCI code for the chemotherapy to treat the malignancy or neoplasm-related conditions.

Example: A patient with malignant neoplasm of the breast presents solely for administration of the drug pamidronate for the treatment of her generalized bone loss due to malignancy.

Code	DAD	NACRS	Code title
Z51.1	(M)	MP	Chemotherapy session for neoplasm
M85.80	(3)	OP	Other specified disorders of bone density and structure, multiple sites
C50.99	(3)	OP	Malignant neoplasm of breast, part unspecified, unspecified side

1.ZZ.35.HA-N5 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using drug for treatment of bone disease

Rationale: The patient is admitted solely for administration of chemotherapy. The chemotherapy is directed at the bone loss. The bone loss in this case is a neoplasm-related condition; therefore, Z51.1 (not Z51.2) is assigned as the MRDx/main problem. An additional code to identify the malignancy is assigned as a diagnosis type (3)/other problem, mandatory. It is mandatory to assign a CCI code for the chemotherapy to treat the malignancy or neoplasm-related conditions.

Example: Encounter for radiation therapy session for carcinoma of the left lower lobe of lung.

Code	DAD	NACRS	Code title
Z51.0	(M)	MP	Radiotherapy session
C34.31	(3)	OP	Malignant neoplasm of lower lobe, left bronchus or lung

1.GT.27.JA Radiation, lung NEC, using external beam

Rationale: The patient is admitted solely for administration of radiation therapy. Therefore, Z51.0 is assigned as the MRDx/main problem. An additional code to identify the malignancy is assigned as a diagnosis type (3)/other problem, mandatory. It is mandatory to assign a CCI code for the radiation therapy.

Example: A patient with recurrent Hodgkin's lymphoma who previously underwent dexamethasone, high-dose cytarabine and cisplatin (DHAP) chemotherapy for stem cell mobilization and harvesting is now admitted for BiCNU (carmustine), etoposide, ara-C (cytarabine), melphalan (BEAM) chemotherapy and autologous stem cell reinfusion.

Code	DAD	Code title
C81.9	(M)	Hodgkin lymphoma, unspecified

1.LZ.19.HH-U7-A Transfusion, circulatory system NEC of stem cells using autologous transfusion

1.ZZ.35.HA-M3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using plant alkaloid and other natural product

1.ZZ.35.HA-M2 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using antimetabolite

1.ZZ.35.HA-M1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using alkylating agent.

Rationale: The MRDx is C81.9 because the patient is not admitted solely for administration of chemotherapy. Chemotherapy is an intervention. Therefore, a CCI code is assigned for each chemotherapy agent administered to treat the malignancy. A code from category Z51 *Other medical care* is not assigned.

Example: A patient with acute myeloblastic leukemia (AML) is admitted for post-remission mitoxantrone, etoposide and cytarabine (MEC) consolidation therapy. During the admission the patient develops febrile neutropenia with severe enterocolitis, and blood cultures are positive for coagulase-negative staphylococcus. General surgery service is consulted and recommends conservative management with intravenous (IV) antibiotics, bowel rest, total parenteral nutrition (TPN) and vigilant observation, which significantly prolongs the patient's length of stay.

Code	DAD	Cluster	Code title
A04.8	(M)		Other specified bacterial intestinal infections
B95.7	(3)		Other staphylococcus as the cause of diseases classified to other chapters
Z51.1	(1)		Chemotherapy session for neoplasm
A04.8	(2)	A	Other specified bacterial intestinal infections
D70.0	(2)	A	Neutropenia
Y43.3	(9)	A	Other antineoplastic drugs causing adverse effect in therapeutic use
C92.0	(3)		Acute myeloblastic leukaemia (AML)

1.ZZ.35.HA-M4 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using cytotoxic antibiotic and related substance

1.ZZ.35.HA-M3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using plant alkaloid and other natural product

1.ZZ.35.HA-M2 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], antineoplastic and immunomodulating agents, using antimetabolite

1.LZ.35.HH-C6 Pharmacotherapy (local), circulatory system NEC, percutaneous infusion approach of parenteral nutrition

Rationale: The patient is admitted solely for administration of chemotherapy for a malignancy. During the admission, complications arise that meet the criteria for MRDx. Therefore, Z51.1 *Chemotherapy session for neoplasm* is assigned as a diagnosis type (1); mandatory CCI codes for MEC consolidation therapy (chemotherapy) and TPN are assigned.

DAD and NACRS directive statements

When a patient previously diagnosed with a non-malignant condition has an encounter solely for the administration of chemotherapy, assign

- Z51.2 *Other chemotherapy* as the MRDx/main problem; or
- Z51.2 *Other chemotherapy* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and meets the criteria for MRDx/main problem.

Assign an additional code to identify the disease/condition, **mandatory**, as a diagnosis type (3)/other problem.

Assign a CCI code, mandatory, for any chemotherapy interventions classified to 1.^^.35.^^-M^ *Pharmacotherapy using antineoplastic and immunomodulating agents*.

NACRS-only directive statement

Assign a CCI code, mandatory, for any chemotherapy interventions performed during a clinic visit.

Note

Z51.2 *Other chemotherapy* must not be assigned as a diagnosis type (2) or diagnosis type (3). Z51.2 *Other chemotherapy* is assigned only when the patient is admitted solely for administration of chemotherapy to treat a condition other than a malignant neoplasm or neoplasm-related condition.

Example: A patient with bursitis of the elbow is seen in the emergency department for administration of IV indomethacin therapy to treat that condition.

Code	NACRS	Code title
Z51.2	MP	Other chemotherapy
M70.3	OP	Other bursitis of elbow

Rationale: The patient is admitted solely for the administration of IV indomethacin therapy to treat a condition other than a malignant neoplasm or neoplasm-related condition. Therefore, Z51.2 *Other chemotherapy* is assigned as the main problem. An additional code to identify the condition (M70.3) is assigned, mandatory, as an other problem.

Example: A patient with AIDS is seen in ambulatory care solely for administration of antiretroviral pharmacotherapy.

Code	NACRS	Code title
Z51.2	MP	Other chemotherapy
B24	OP	Human immunodeficiency virus [HIV] disease

Rationale: The patient is admitted solely for the administration of antiretroviral pharmacotherapy to treat a condition other than a malignant neoplasm or neoplasm-related condition. Therefore, Z51.2 *Other chemotherapy* is assigned as the main problem. An additional code to identify the condition (B24) is assigned, mandatory, as an other problem.

DAD-only directive statement

When chemotherapy or radiation therapy is given during the admission in which the definitive surgical treatment occurs, code the malignancy as the MRDx.

Note
When chemotherapy or radiation therapy is administered during the episode of care in which the malignancy is diagnosed or during which the definitive surgery occurs, a code from category Z51 *Other medical care* is not assigned. A code from category Z51 *Other medical care* is assigned only when the patient is admitted solely for administration of chemotherapy or radiation therapy. Chemotherapy and/or radiation therapy is captured with a CCI intervention code.

Example: A patient with cancer of the right lower lobe of the lung is admitted for lobectomy. He is started on intravenous chemotherapy before discharge.

Code	DAD	Code title
C34.30	(M)	Malignant neoplasm of lower lobe, right bronchus or lung

1.GR.89.QB Excision total, lobe of lung, using open thoracic approach
Location: RH

1.ZZ.35.HA-M0 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal] using antineoplastic agent NOS

Rationale: The patient is admitted for a surgical intervention (lobectomy). Therefore, the malignancy is captured as the MRDx. During the admission, the patient also receives intravenous chemotherapy to treat the malignancy or neoplasm-related condition and a CCI code is assigned for the chemotherapy, mandatory.

Admission for Insertion of a Vascular Access Device (VAD)

In effect 2001, amended 2006, 2007, 2009

DAD and NACRS directive statements

When a patient is admitted solely for insertion of a vascular access device (VAD) for treatment of an existing condition, assign Z51.4 *Preparatory care for subsequent treatment, not elsewhere classified* as the MRDx/main problem.

Classify any encounter that is solely for adjustment or removal (without replacement) of an implanted VAD to Z45.2 *Adjustment and management of vascular access device* as the MRDx/main problem.

Assign an additional code to identify the disease/condition, mandatory, as a diagnosis type (3)/other problem.

Exception

Insertion of a VAD for the purpose of hemodialysis is classified to Z49.0 *Preparatory care for dialysis*.

Note

When there is a change to or removal of a VAD due to a complication, do not assign Z51.4 *Preparatory care for subsequent treatment, not elsewhere classified*. Select an appropriate code from Chapter XIX — Injury, poisoning and certain other consequences of external causes. See also the coding standards *Post-Intervention Conditions* and *Complications of Devices, Implants or Grafts*.

Example: A patient presents for insertion of a PICC line for future administration of antineoplastic agents to treat leukemia.

Code	DAD	NACRS	Code title
Z51.4	(M)	MP	Preparatory care for subsequent treatment, not elsewhere classified
C95.9	(3)	OP	Leukaemia, unspecified

1.IS.53.GR-LF Implantation of internal device, vena cava (superior and inferior) non-tunnelled central venous catheter using percutaneous transluminal venous approach

Location: PI

Example: A patient presents for removal of a Broviac catheter after completing chemotherapy for carcinoma of the lung. No further treatment is planned.

Code	DAD	NACRS	Code title
Z45.2	(M)	MP	Adjustment and management of vascular access device
Z85.119	(3)	OP	Personal history of malignant neoplasm of bronchus and lung, unspecified side

1.IS.55.GR-LF Removal of device, vena cava (superior and inferior), of central venous catheter using percutaneous transluminal approach

Admission for Blood Transfusion

In effect 2001, amended 2007, 2012, 2015

DAD and NACRS directive statement

When a patient is admitted solely for the purpose of a blood transfusion session, assign

- Z51.3 *Blood transfusion (without reported diagnosis)* as the MRDx/main problem; and
- An additional code to identify the disease/condition, optional, as a diagnosis type (3)/other problem.

Example: A patient with thalassemia major is admitted every six weeks for a blood transfusion.

Code	DAD	NACRS	Code title
Z51.3	(M)	MP	Blood transfusion (without reported diagnosis)
D56.9	(3)	OP	Thalassaemia, unspecified

Rationale: The patient is admitted solely for the purpose of a blood transfusion; therefore, Z51.3 is assigned as the MRDx/main problem.

Example: A patient with leukemia is admitted for further assessment of the disease. During hospitalization, she receives a blood transfusion as part of her treatment.

Code	DAD	Code title
C95.9	(M)	Leukaemia, unspecified

Rationale: As the patient was not admitted solely to receive a blood transfusion, Z51.3 is not assigned.

Palliative Care

For description of change, see Appendix C.

In effect 2008, amended 2009, 2012, 2018

Palliative care is part of the continuum of patient care, not necessarily a formal organizational designation.

Documentation to support coding palliative care may include

- Palliative care consultation with initiation of a palliative care treatment plan; or
- Physician documentation such as “palliative patient,” “palliative situation,” “end-of-life care,” “comfort care,” “supportive care” or “compassionate care.”

Palliative patients typically fall into one of the following three categories:

Known palliative patient admitted for the sole purpose of palliative care

- No life-sustaining/curative treatment is given for reversible or irreversible (palliative) conditions.

Known palliative patient admitted for treatment of one or more reversible conditions

- Life-sustaining/curative treatment is given for reversible conditions (such as pneumonia, blood clot, sepsis, electrolyte imbalance or dehydration), but not for irreversible conditions.
- It is assumed that palliative care is part of the treatment plan and qualifies as a significant diagnosis type.
- These patients are often expected to go home; however, they may deteriorate, and the focus of care may change to that described in the first category above.

Patient not known to be palliative prior to arrival at the facility

- These patients initially receive investigation and/or treatment but are subsequently changed to a palliative care plan.

Notes

- Palliative care does not have to be provided in a designated palliative care bed/unit or be managed by a palliative care team.
- Do not resuscitate (DNR) orders alone do not constitute palliative care; there must be documentation of palliative care. While DNR orders are part of a palliative care plan, they may also be present in non–palliative care cases.
- "Pain control" alone does not constitute palliative care. While pain control is part of a palliative care plan, it may also be provided to patients who are not receiving palliative care.
- Acute conditions (such as pneumonia or dehydration) may be treated as part of the palliative care treatment plan.
- Medical assistance in dying is not the same as palliative care. See also the coding standard *Medical Assistance in Dying*.

DAD and NACRS directive statements

- Assign Z51.5 *Palliative care* as a significant diagnosis type/main or other problem whenever there is physician documentation of palliative care.
- Assign additional code(s), **mandatory**, to describe the palliative condition(s).
- When palliative care is documented as a known component of the patient's care plan prior to arrival at the facility, assign prefix 8, **mandatory**.

Note

Prefix 8 is restricted for use with Z51.5 *Palliative care*.

For more information about prefix 8, see Group 10, Field 02 in the *Discharge Abstract* Database (DAD) Abstracting Manual and data element 43 in the National Ambulatory *Care Reporting System (NACRS) Abstracting Manual*.

Example: A patient known to be on a palliative care plan with end-stage lung cancer is seen in the emergency department following a questionable fall at home. The emergency department physician documents the final diagnosis as pneumonia/pleural effusion. The patient's condition deteriorates and she develops respiratory arrest and expires in the emergency department two hours after presentation to hospital.

Prefix	Code	NACRS	Code title
	J18.9	MP	Pneumonia, unspecified
	J90	OP	Pleural effusion, not elsewhere classified
8	Z51.5	OP	Palliative care
	C34.99	OP	Malignant neoplasm bronchus or lung, unspecified, unspecified side

Rationale: Palliative care is documented as a known component of the patient's care plan prior to arrival at the facility; therefore, Z51.5 is assigned with prefix 8, mandatory.

Example: A patient with advanced adenocarcinoma of the right upper lung is admitted to the day surgery unit to have a PICC line put in for palliative chemotherapy.

Prefix	Code	NACRS	Code title
	Z51.4	MP	Preparatory care for subsequent treatment, not elsewhere classified
8	Z51.5	OP	Palliative care
	C34.10	OP	Malignant neoplasm of upper lobe, right bronchus or lung

Rationale: Palliative care is a known component of the patient's care plan prior to arrival at the facility; therefore, Z51.5 is assigned with prefix 8, mandatory.

Example: A patient with multiple myeloma falls from his bed at home and sustains a fracture of the humerus. The documentation indicates that the patient is on a palliative care plan.

Prefix	Code	NACRS	Code title
	S42.300	MP	Fracture of shaft of humerus NOS, closed
	W06	OP	Fall involving bed
	U98.0	OP	Place of occurrence, home
8	Z51.5	OP	Palliative care
	C90.0	OP	Multiple myeloma

Rationale: Palliative care is a known component of the patient's care plan prior to arrival at the facility; therefore, Z51.5 is assigned with prefix 8, mandatory.

DAD-only directive statements

When a known palliative patient is admitted to the hospital for the sole purpose of receiving palliative care, assign

- Z51.5 *Palliative care* as the MRDx; and
- Additional code(s), **mandatory**, to describe the palliative condition(s).

When a known palliative care patient is admitted for treatment of reversible condition(s), assign

- Z51.5 as a diagnosis type (1), (W), (X) or (Y); and
- The reversible condition as the MRDx, unless palliative care subsequently consumes the majority of the length of stay; and
- Additional code(s), **mandatory**, to describe the palliative condition(s).

When a patient is **not** known to be palliative at the time of admission and subsequently changes to a palliative care plan, assign

- The condition that is investigated or treated as the MRDx, unless palliative care subsequently consumes the majority of the length of stay (at least 24 hours in a short-stay admission).

Note

Z51.5 *Palliative care* must not be assigned a diagnosis type (2) or diagnosis type (3).

Note

Do not assign palliative care as the MRDx on an obstetrical or newborn abstract. When palliative care is documented in these cases, assign Z51.5 *Palliative care* as a diagnosis type (1).

Example: A patient is admitted to hospital for end-of-life care because of amyotrophic lateral sclerosis. On admission, an IV is started to maintain hydration. Pain control is monitored and medication adjusted as necessary. The patient dies three days after admission.

Prefix	Code	DAD	Code title
8	Z51.5	(M)	Palliative care
	G12.20	(3)	Amyotrophic lateral sclerosis

Rationale: The documentation indicates that the patient is admitted for the sole purpose of receiving palliative care. The palliative condition is mandatory to assign and, in this case, G12.20 meets the definition of diagnosis type (3). Prefix 8 is assigned with Z51.5 in this case because palliative care is documented as a known component of the patient's care plan prior to arrival at the facility.

Example: A 68-year-old patient, who is on the Palliative Care Registry due to end-stage chronic obstructive pulmonary disease (COPD), is admitted with pneumonia. The patient is admitted to a palliative care bed, and all documentation describes treatment for the pneumonia. The patient's condition improves during the admission, and he is discharged home in a satisfactory condition.

Prefix	Code	DAD	Code title
	J44.0	(M)	Chronic obstructive pulmonary disease with acute lower respiratory infection
	J18.9	(1)	Pneumonia, unspecified
8	Z51.5	(1)	Palliative care

Rationale: The documentation indicates that the patient is admitted for treatment of pneumonia in COPD, which is classified in the usual manner. Z51.5 is assigned diagnosis type (1) because it is assumed that palliative care is part of the treatment plan for a known palliative care patient, and it is assigned a significant diagnosis type. Prefix 8 is assigned with Z51.5 in this case because palliative care is documented as a known component of the patient's care plan prior to arrival at the facility.

Example: A known palliative care patient presents for treatment of dehydration. The patient has cancer of the lung with advanced secondary malignancy of the brain. She is admitted to the medical ward to receive hydration therapy and discharged home the following day.

Prefix	Code	DAD	Code title
	E86.0	(M)	Dehydration
8	Z51.5	(1)	Palliative care
	C34.99	(3)	Malignant neoplasm bronchus or lung, unspecified, unspecified side
	C79.3	(3)	Secondary malignant neoplasm of brain and cerebral meninges

Rationale: The documentation indicates that this palliative care patient is admitted for the purpose of receiving treatment for dehydration. In the case of a **known** palliative care patient, it is assumed that palliative care is part of the treatment plan, and Z51.5 is assigned a significant diagnosis type. Prefix 8 is assigned with Z51.5 in this case because palliative care is documented as a known component of the patient's care plan prior to arrival at the facility. C34.99 and C79.3 are mandatory to assign to identify the palliative condition; in this example, they meet the definition of diagnosis type (3).

Example: A patient with ovarian cancer is receiving palliative care through a community program. She is admitted to hospital on January 4 for IV antibiotics to treat pneumonia. She deteriorates on January 6, and the family is consulted. A decision is made to give comfort measures only. She dies peacefully on January 10.

Prefix	Code	DAD	Code title
8	Z51.5	(M)	Palliative care
	J18.9	(1)	Pneumonia, unspecified
	C56.9	(3)	Malignant neoplasm of ovary, not specified whether unilateral or bilateral

Rationale: The documentation indicates that the patient is admitted for management of an acute reversible condition; however, her condition deteriorated, and palliative care is responsible for the greatest length of stay. C56.9 is mandatory to assign to identify the palliative condition; in this example, it meets the definition of diagnosis type (3). Prefix 8 is assigned with Z51.5 in this case because palliative care is documented as a known component of the patient's care plan prior to arrival at the facility.

Example: A patient is admitted for investigation of gastric symptoms. The following day, gastroscopy and biopsy reveal linitis plastica. The physician discusses the prognosis (incurable cancer) with the patient. A DNR order is written, a palliative care consultation is initiated and the treatment plan is changed to palliative care. The patient dies in hospital 20 days following orders of palliative care.

Code	DAD	Code title
Z51.5	(M)	Palliative care
C16.9	(1) or (W)	Malignant neoplasm stomach unspecified

Rationale: This patient was diagnosed during the admission with an irreversible condition, and palliative care became the treatment plan consuming the greatest length of stay and resources. Prefix 8 is not assigned in this case because palliative care is not documented as a known component of the patient's care plan prior to arrival at the facility.

Example: A patient is admitted on January 1 for treatment of congestive heart failure (CHF). The patient is given medication for the CHF. By January 8, the CHF is worsening and the physician discusses the poor prognosis with the patient and family. The patient agrees to comfort care, and all aggressive treatment measures are stopped. The patient wishes to die at home and is therefore discharged home on January 10 with palliative care measures in place.

Code	DAD	Code title
I50.0	(M)	Congestive heart failure
Z51.5	(1) or (W)	Palliative care

Rationale: Z51.5 *Palliative care* did not meet the definition of MRDx, as it did not consume the greatest length of stay and resources. Diagnosis type (1) or (W) is assigned because there was a change in the treatment plan. Prefix 8 is not assigned in this case because palliative care is not documented as a known component of the patient's care plan prior to arrival at the facility.

Example: An 84-year-old gentleman is found unresponsive at home on June 8 at 16:45. The ambulance is called, and the patient is intubated and ventilated. Upon admission to hospital, further examination and investigation reveal that the patient suffered a hemorrhagic cerebrovascular accident. The physician discusses the diagnosis and poor prognosis with the family. The physician recommends that the treatment plan be changed to palliative care because nothing further can be done for the patient. The family agrees to the palliative care treatment plan. The patient is extubated at 19:00 and transferred to a palliative care room, where he is kept comfortable with administration of IV morphine and scopolamine. He dies on June 9 at 08:45.

Code	DAD	Code title
I61.9	(M)	Intracerebral haemorrhage, unspecified
Z51.5	(1) or (W)	Palliative care

Rationale: Palliative care is documented following admission, and it constitutes a treatment change; therefore, Z51.5 qualifies as a diagnosis type (1) or (W). When palliative care is initiated after admission, it must account for the majority of the stay and for at least 24 hours to qualify as the MRDx. It is not the MRDx in this case because the patient was in hospital for less than 24 hours. Prefix 8 is not assigned in this case because palliative care is not documented as a known component of the patient's care plan prior to arrival at the facility.

Example: A 50-year-old woman with known non–small cell cancer of the right lung is admitted on June 17 with a diagnosis of pneumonia. The physician writes that her prognosis is poor. The patient dies on June 19.

Code	DAD	Code title
J18.9	(M)	Pneumonia, unspecified
C34.90	(3)	Malignant neoplasm of right bronchus or lung unspecified

Rationale: Palliative care cannot be assumed based on the diagnosis of cancer alone. Z51.5 is assigned only when there is documentation of palliative care.

Medical Assistance in Dying

For description of change, see Appendix C.

In effect 2018

Medical assistance in dying (MAID) was decriminalized in Canada with the enactment of legislation (Bill C-14) in June 2016.

The legislation makes it legal for “a competent adult who clearly consents to the termination of life” and who “has a grievous and irremediable medical condition (including an illness, disease or disability) that causes enduring suffering that is intolerable and whose death has become reasonably foreseeable” to request medical assistance in dying.[2]

MAID data can be used to inform future health policy, evaluate the responses of Canada’s health systems to this new health care service, enable health research on patient trajectories at the end of life and support a better understanding of patient and provider experiences with the provision of this new health care service.

The purpose of this coding standard is to provide direction on the classification of MAID using ICD-10-CA and CCI codes. It addresses code assignment for a variety of circumstances that are encountered for patients who request MAID.

Medical assistance in dying and palliative care

MAID is not the same as palliative care. Palliative care is part of the continuum of end-of-life care and is the provision of “comfort care,” “supportive care” or “compassionate care” when it is determined that it is futile to continue life-sustaining or curative treatment for a patient with an irreversible or terminal condition. MAID, however, is assisting the patient to end his or her life because the condition cannot be alleviated by means acceptable to the patient.

Z51.5 *Palliative care* is not assigned to flag a MAID case. Z51.5 *Palliative care* is assigned only when palliative care is a known component of the patient’s care plan prior to arrival at the facility or when it is a component of the care plan during the episode of care.

See also the coding standard *Palliative Care*.

MAID consultation

Typically, at least one consultation occurs during an encounter for MAID. The consultation may be to discuss the initial request for MAID or it may be a repeat consultation to further discuss the process and/or to confirm the decision to proceed with MAID. A CCI code is assigned for each MAID-related consultation performed during an episode of care. The applicable status attribute is applied to denote whether it is the initial or a repeat consultation.

Note

The initial consultation may be performed at another facility prior to the current episode of care. When it is known this occurred, any MAID-related consultation performed following the initial consultation is a repeat consultation, regardless of when and where the initial consultation was performed.

DAD and NACRS directive statement

Assign 2.ZZ.02.PM *Assessment (examination), total body for assistance in dying*, mandatory, for each consultation that occurs during the episode of care.

Apply, mandatory, the applicable status attribute:

U Initial consultation; or

V Repeat consultation.

Note

When the consultation occurs during an episode of care and MAID is not performed during that episode of care, a code for the underlying condition for which MAID was requested is assigned as a significant diagnosis type with prefix J.

Z51.81 *Assistance in dying* is assigned only when MAID is performed during that episode of care.

Example: A patient with cancer of the esophagus, who is on a palliative care plan at home, is admitted to the palliative care unit. He requests MAID on the day following his admission. In the presence of family, the physician discusses the treatment options available and goes over the MAID process and procedure. On day 11, prior to performing the MAID intervention, the physician, in the presence of family, confirms that the patient wants to proceed with MAID. The patient shares with the physician that he has changed his mind; he prefers to let nature take its course. The patient expires peacefully three days later.

Prefix	Code	DAD	Code title
8	Z51.5	(M)	Palliative care
J	C15.9	(1)	Malignant lesion oesophagus unspecified
	Z53.2	(3) Mandatory	Procedure not carried out because of patient's decision for other and unspecified reasons

Intervention episode 1
2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: U Initial consultation

Intervention episode 2
2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

Rationale: The patient requested MAID after admission; however, he changed his mind. Z51.81 is not assigned because MAID was not performed during this episode of care. Z51.5 is assigned as the MRDx because palliative care consumes the majority of the length of stay. Z53.2 is assigned as a diagnosis type (3), mandatory, to denote that the patient requested MAID but changed his mind. (See the coding standard *Cancelled Interventions*.) C15.9 is assigned as a diagnosis type (1) and prefix J is assigned to denote that cancer of the esophagus is the underlying condition that led the patient to request MAID. 2.ZZ.02.PM is assigned twice, once for the initial consultation and once for the repeat consultation.

Example: A patient with terminal glioblastoma multiforme, who is on a palliative care plan at home, is admitted for further investigations to evaluate his status. He requests MAID on day 4 of his admission. In the presence of family, the physician discusses the treatment options available and goes over the MAID process and procedure. On day 6, the nurse finds the patient unresponsive. The physician is called and pronounces the patient expired.

Prefix	Code	DAD	Code title
8	Z51.5	(M)	Palliative care
J	C71.9	(1)	Malignant neoplasm of brain unspecified

Intervention episode 1

2.ZZ.02.PM Assessment (examination), total body for assistance in dying

Status: U Initial consultation

Rationale: The patient requested MAID after admission; however, he expired prior to MAID being performed. Z51.81 is not assigned because MAID was not performed during this episode of care. Z51.5 is assigned as the MRDx, and C71.9 is assigned as a diagnosis type (1) and prefix J is assigned to denote that glioblastoma multiforme is the underlying condition that led the patient to request MAID. 2.ZZ.02.PM is assigned once for the initial consultation.

Example: A patient with ovarian cancer and multiple metastases (lung, ascites, liver and brain) is transferred from Hospital A to the Hospital B clinic for MAID. The physician goes over the procedure with the patient and confirms that she wants to proceed with MAID. Midazolam, lidocaine, propofol and cisatracurium are administered intravenously.

Prefix	Code	NACRS	Code title
	Z51.81	(MP)	Assistance in dying
J	C56.9	(OP)	Malignant neoplasm of ovary, not specified whether unilateral or bilateral
J	C78.09	(OP)	Secondary malignant neoplasm of lung, unspecified side
J	C78.6	(OP)	Secondary malignant neoplasm of retroperitoneum and peritoneum
J	C78.7	(OP)	Secondary malignant neoplasm of liver and intrahepatic bile duct
J	C79.3	(OP)	Secondary malignant neoplasm of brain and cerebral meninges

Intervention episode 1

1.ZZ.35.HA-P7 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using hypnotic and sedative agent

Intervention episode 1

1.ZZ.35.HA-P1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using anesthetic agent

Intervention episode 1

1.ZZ.35.HA-N3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using muscle relaxant

Intervention episode 1

7.SC.08.PM Other ministration, personal care for assistance in dying

Mode: DI Administered by health care provider

Intervention episode 1
2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

Rationale: The patient is admitted for planned MAID; therefore, Z51.81 is assigned as the main problem. C56.9, C78.09, C78.6, C78.7 and C79.3 are assigned as other problems and prefix J is assigned to denote that ovarian cancer with multiple metastases is the underlying condition that led the patient to request MAID. A CCI code is assigned for each pharmaceutical agent administered to facilitate death with 7.SC.08.PM. 7.SC.08.PM is assigned to denote that the MAID intervention was performed during this episode of care. **Note:** 1.ZZ.35.HA-P1 is assigned once for lidocaine and propofol because these two agents are classified to the same agent qualifier (P1). 2.ZZ.02.PM is assigned for the consultation. The initial consultation was performed at Hospital A; therefore, status attribute V is applied to 2.ZZ.02.PM to denote that this is a repeat consultation.

Planned admission for medical assistance in dying

When a patient requests MAID, there is a legislated waiting period before the MAID can be performed. This waiting period may be spent at home or at a facility that does not perform MAID. When the waiting period is over, the patient may be admitted for planned performance of MAID. The following directive statements apply in this circumstance.

DAD and NACRS directive statement

Assign Z51.81 *Assistance in dying* as the MRDx/main problem when a patient has an encounter for planned medical assistance in dying **and** it results in death.

- Assign an additional code to identify each condition for which MAID was requested, mandatory, as a diagnosis type (1)/other problem.
- Assign prefix J, mandatory, to each code denoting the underlying condition.

Note
Do not apply prefix J to Z51.81.

Prefix J is assigned to identify the underlying condition(s) for which MAID was requested or performed. See Group 10, Field 01 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 43 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

DAD and NACRS directive statements

Assign a code from rubric 1.ZZ.35.^^ *Pharmacotherapy, total body*, mandatory, for each agent administered for MAID; and

Assign 7.SC.08.PM *Other ministration, personal care for assistance in dying*, mandatory.

- Apply, mandatory, the applicable mode attribute:

  DI Administered by health care provider; or

  SD Administered by self (patient).

Note

When the specific pharmaceutical agents administered to perform MAID are not noted in the documentation (i.e., a MAID cocktail was administered or nothing is documented about the agents administered), assign the following code:

1.ZZ.35.HA-T9 *Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], various systemic agents, using pharmacological agent NEC*

Note

Anesthetization is inherent in the MAID intervention. When anesthesia such as propofol is administered during a MAID intervention, it is used as a means to perform MAID rather than to achieve anesthesia. It is mandatory to record the intervention episode start date when a MAID intervention is performed, and it is mandatory to record anesthetic technique when an intervention episode start date is recorded. Therefore, enter anesthetic technique 8 — No anaesthetic or pre-admission interventions on the abstract when a MAID intervention is performed. See Group 11, Field 12 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 53 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Example: A patient with end-stage chronic obstructive pulmonary disease (COPD) is admitted from home for planned MAID. In the presence of family, the physician goes over the procedure with the patient and confirms that she wants to proceed with MAID. Midazolam, lidocaine, propofol and cisatracurium are administered intravenously.

Prefix	Code	DAD	Code title
	Z51.81	(M)	Assistance in dying
J	**J44.9**	(1)	Chronic obstructive pulmonary disease, unspecified

Intervention episode 1

1.ZZ.35.HA-P7 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using hypnotic and sedative agent

Intervention episode 1

1.ZZ.35.HA-P1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using anesthetic agent

Intervention episode 1

1.ZZ.35.HA-N3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using muscle relaxant

Intervention episode 1

7.SC.08.PM Other ministration, personal care for assistance in dying
Mode: DI Administered by health care provider

Intervention episode 1

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

Rationale: The patient is admitted for planned MAID; therefore, Z51.81 is assigned as the MRDx. J44.9 is assigned as a diagnosis type (1) and prefix J is assigned to denote that end-stage COPD is the underlying condition that led the patient to request MAID. A CCI code is assigned for each pharmaceutical agent administered to facilitate death with 7.SC.08.PM. 7.SC.08.PM is assigned to denote that the MAID intervention was performed during this episode of care. **Note:** 1.ZZ.35.HA-P1 is assigned once for lidocaine and propofol because these two agents are classified to the same agent qualifier (P1). 2.ZZ.02.PM is assigned for the consultation.

Example: A patient with previously diagnosed cancer of the esophagus is admitted from home to the clinic for MAID. He is on a palliative care plan at home while he waits for MAID. The physician goes over the procedure with the patient and confirms that he wants to proceed with MAID. Midazolam, lidocaine, propofol and cisatracurium are administered intravenously.

Prefix	Code	NACRS	Code title
	Z51.81	(MP)	Assistance in dying
J	**C15.9**	(OP)	Malignant lesion oesophagus unspecified
8	**Z51.5**	(OP)	Palliative care

Intervention episode 1

1.ZZ.35.HA-P7 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using hypnotic and sedative agent

Intervention episode 1

1.ZZ.35.HA-P1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using anesthetic agent

Intervention episode 1

1.ZZ.35.HA-N3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using muscle relaxant

Intervention episode 1

7.SC.08.PM Other ministration, personal care for assistance in dying

Mode: DI Administered by health care provider

Intervention episode 1

2.ZZ.02.PM Assessment (examination), total body for assistance in dying

Status: V Repeat consultation

Rationale: The patient is admitted for planned MAID; therefore, Z51.81 is assigned as the main problem. C15.9 is assigned as an other problem and prefix J is assigned to denote that esophageal cancer is the underlying condition that led the patient to request MAID. Z51.5 with prefix 8 is assigned because the patient is on a known palliative care plan prior to

arrival at the facility. A CCI code is assigned for each pharmaceutical agent administered to facilitate death with 7.SC.08.PM. 7.SC.08.PM is assigned to denote that the MAID intervention was performed during this episode of care. **Note:** 1.ZZ.35.HA-P1 is assigned once for lidocaine and propofol because these two agents are classified to the same agent qualifier (P1). 2.ZZ.02.PM is assigned for the consultation.

Medical assistance in dying performed during episode of care

When a patient requests MAID during an episode of care, the legislated waiting period may be spent in an acute care inpatient bed or in a palliative care bed. This extends the length of stay. The following directive statements apply in this circumstance.

DAD-only directive statement

Assign a code to identify each condition for which MAID was requested, mandatory, as a significant diagnosis type.

- Assign prefix J, mandatory, to each code denoting the underlying condition.

Note

Do not apply prefix J to Z51.81.

Prefix J is assigned to identify the underlying condition(s) for which MAID was requested or performed. See Group 10, Field 01 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 43 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Assign Z51.81 *Assistance in dying* as a diagnosis type (1) when MAID is performed during the episode of care **and** it results in death.

Note

Z51.81 *Assistance in dying* must not be assigned as a diagnosis type (2) or a diagnosis type (3).

DAD-only directive statements

D Assign a code from rubric 1.ZZ.35.^^ *Pharmacotherapy, total body*, mandatory, for each agent administered for MAID; and

D Assign 7.SC.08.PM *Other ministration, personal care for assistance in dying*, mandatory.

- Apply, mandatory, the applicable mode attribute:

  DI Administered by health care provider; or

  SD Administered by self (patient).

Note

When the specific pharmaceutical agents administered to perform MAID are not noted in the documentation (i.e., a MAID cocktail was administered or nothing is documented about the agents administered), assign the following code:

1.ZZ.35.HA-T9 *Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], various systemic agents, using pharmacological agent NEC*

Note

Anesthetization is inherent in the MAID intervention. When anesthesia such as propofol is administered during a MAID intervention, it is used as a means to perform MAID rather than to achieve anesthesia. It is mandatory to record the intervention episode start date when a MAID intervention is performed, and it is mandatory to record anesthetic technique when an intervention episode start date is recorded. Therefore, enter anesthetic technique 8 — No anaesthetic or pre-admission interventions on the abstract when a MAID intervention is performed. See Group 11, Field 12 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data element 53 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Example: The patient is admitted, immobile and in uncontrollable pain, with multiple sclerosis. He is on subcutaneous morphine for pain. He also has congestive heart failure. He requests MAID on day 3 of his 13-day length of stay. In the presence of family, the physician discusses the treatment options available and goes over the MAID process and procedure. On day 13, prior to performing the MAID intervention, the physician, in the presence of family, confirms that the patient wants to proceed with MAID. Midazolam, lidocaine, propofol and rocuronium are administered intravenously.

Prefix	Code	DAD	Code title
J	G35	(M)	Multiple sclerosis
	Z51.81	(1)	Assistance in dying
	I50.0	(3)	Congestive heart failure

1.ZZ.35.HA-P7 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using hypnotic and sedative agent

1.ZZ.35.HA-P1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using anesthetic agent

1.ZZ.35.HA-N3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using muscle relaxant

7.SC.08.PM Other ministration, personal care for assistance in dying
Mode: DI Administered by health care provider

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: U Initial consultation

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

Rationale: The patient requested MAID after admission and MAID was performed during this episode of care. Therefore, Z51.81 is assigned as a diagnosis type (1). G35 is assigned as the MRDx and prefix J is assigned to denote that multiple sclerosis is the underlying condition that led the patient to request MAID. I50.0 is assigned as a diagnosis type (3), optionally. While the congestive heart failure may have been a contributing factor in the patient's request for MAID, it was not the underlying condition that led the patient to request MAID, and there is no documentation to support that the congestive heart failure otherwise met the criteria for significance.

A CCI code is assigned for each pharmaceutical agent administered to facilitate death with 7.SC.08.PM. 7.SC.08.PM is assigned to denote that the MAID intervention was performed during this episode of care. **Note:** 1.ZZ.35.HA-P1 is assigned once for lidocaine and propofol because these two agents are classified to the same agent qualifier (P1). 2.ZZ.02.PM is assigned twice, once for the initial consultation and once for the repeat consultation.

Example: A patient is admitted with amyotrophic lateral sclerosis (ALS). He also has type 2 diabetes mellitus with end-stage kidney disease. He is seen by a nephrologist who recommends the patient be started on hemodialysis. The patient refuses dialysis. On day 15, the patient requests MAID. He would like to proceed with MAID before his ALS progresses any further. On day 17, the patient is transferred to palliative care. On day 20, the patient asks to see the physician again about his request for MAID. On day 27, in the presence of family, the physician confirms the patient wants to proceed with MAID. Midazolam, lidocaine, propofol and rocuronium are administered intravenously.

Prefix	Code	DAD	Code title
J	G12.20	(M)	Amyotrophic lateral sclerosis
	Z51.81	(1)	Assistance in dying
	E11.23	(1)	Type 2 diabetes mellitus with established or advanced kidney disease
	N08.35	(3)	Glomerular disorders in diabetes mellitus, chronic kidney disease, stage 5
	Z51.5	(1)	Palliative care

1.ZZ.35.HA-P7 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using hypnotic and sedative agent

1.ZZ.35.HA-P1 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], nervous system agents, using anesthetic agent

1.ZZ.35.HA-N3 Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], musculoskeletal system agents, using muscle relaxant

7.SC.08.PM Other ministration, personal care for assistance in dying
Mode: DI Administered by health care provider

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: U Initial consultation

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

2.ZZ.02.PM Assessment (examination), total body for assistance in dying
Status: V Repeat consultation

Rationale: The patient requested MAID after admission and MAID was performed during this episode of care. Therefore, Z51.81 is assigned as a diagnosis type (1). G12.20 is assigned as the MRDx and prefix J is assigned to denote that ALS is the underlying condition that led the patient to request MAID. E11.23 is assigned as a diagnosis type (1) and N08.35 is assigned as a diagnosis type (3) because the patient was seen in consultation by a nephrologist. While the type 2 diabetes mellitus and end-stage kidney disease may have been contributing factors in the patient's request for MAID, the ALS was the underlying condition that led the patient to request MAID.

A CCI code is assigned for each pharmaceutical agent administered to facilitate death with 7.SC.08.PM. 7.SC.08.PM is assigned to denote that the MAID intervention was performed during this episode of care. **Note:** 1.ZZ.35.HA-P1 is assigned once for lidocaine and propofol because these two agents are classified to the same agent qualifier (P1). 2.ZZ.02.PM is assigned three times, once for the initial consultation and twice for the two repeat consultations.

Note

See the coding standard *Adverse Reactions in Therapeutic Use Versus Poisoning* for direction on classifying an adverse effect in therapeutic use resulting from administration of agents to perform MAID. Do not apply prefix J to the codes that denote the adverse effect in therapeutic use.

Apply the diagnosis cluster to the set of codes that denote the adverse effect in therapeutic use, per the direction in the coding standard. Do not apply the diagnosis cluster to Z51.81 *Assistance in dying* or to the code(s) for the underlying condition(s) for which MAID was requested or performed.

Boarder Babies and Boarder Mothers

In effect 2001, amended 2006, 2008

DAD-only directive statement

When a mother is admitted for early postpartum care and her healthy newborn is also admitted as a "boarder baby," assign one of the following codes as the MRDx on the infant's abstract:

- Z76.2 *Health supervision and care of other healthy infant and child* when supervision and care for the healthy infant is carried out by the nursing staff.
- Z76.3 *Healthy person accompanying sick person* when the mother provides all care for the infant herself.

Infant's abstract

Example: A healthy male infant is admitted with his mother, who requires early postpartum care. The infant receives care and supervision from the nursing staff.

Code	DAD	Code title
Z76.2	(M)	Health supervision and care of other healthy infant and child

Infant's abstract

Example: A healthy male infant is admitted with his mother, who requires early postpartum care. The infant rooms with his mother, who provides all care for the infant.

Code	DAD	Code title
Z76.3	(M)	Healthy person accompanying sick person

DAD-only directive statement

When a baby is ill and a mother is admitted in order to provide care and supervision for her sick infant, assign Z76.3 *Healthy person accompanying sick person* as the MRDx on the mother's abstract.

Mother's abstract

Example: Due to distance and family circumstances, the healthy mother of a sick infant is admitted to care for her breastfeeding baby.

Code	DAD	Code title
Z76.3	(M)	Healthy person accompanying sick person
Z39.1	(3)	Care and examination of lactating mother (optional)

Rationale: This code is applicable to any healthy person whose only reason to be in hospital is to accompany a sick person. In this case, it applies to a healthy mother. In this case, Z39.1 may be added as an optional diagnosis type (3) to describe the breastfeeding component.

Homelessness

For description of change, see Appendix C.

In effect 2018

"Whether as a cause or a consequence of ill health, homelessness has emerged as a fundamental health issue for Canadians. Homelessness affects a significant number of Canadians of all ages and is associated with a high burden of illness, yet the health care system may not adequately meet the needs of homeless people."[3] Tracking health care usage by homeless individuals is important to understanding initiatives aimed at reducing homelessness.

The Canadian Observatory on Homelessness explains that "homelessness encompasses a range of physical living situations," including living on the streets or in places not intended for human habitation (e.g., sidewalks, parks, cars); staying in overnight shelters; and staying in temporary accommodations (e.g., motels, rooming houses, with friends/family, couch surfing, temporary housing for immigrants and refugees during settlement).[4]

DAD and NACRS directive statement

Assign Z59.0 *Homelessness* as a diagnosis type (3)/other problem, mandatory, for patients who are homeless on admission.

Documentation of homelessness is not limited to physician documentation. The intent is to assign a code for homelessness when it is noted on routine review of the record, not to conduct an exhaustive search of all ancillary documentation for reference to homelessness. Homelessness on admission may be documented at any point during the patient's episode of care.

Example: A 60-year-old patient is admitted with bronchitis. Documentation indicates that this patient resides in a men's shelter.

Code	DAD	NACRS	Code title
J40	(M)	MP	Bronchitis, not specified as acute or chronic
Z59.0	(3)	OP	Homelessness

Rationale: As there is documentation of homelessness on admission, it is mandatory to assign Z59.0.

Note
For more information on homeless/transient patients, see Group 03, fields 03 and 06 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data elements 04 and 06 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Personal and Family History of Malignant Neoplasms

In effect 2001, amended 2002, 2006, 2007, 2008, 2015

DAD and NACRS directive statement

Use the following criteria to determine when to assign a code from Z85 *Personal history of malignant neoplasm*.

- The malignancy has been completely eradicated or excised **and** no further treatment (including adjuvant therapy) is being directed to the primary site.

Note
Codes from the category Z80 *Family history of malignant neoplasm* and Z85 *Personal history of malignant neoplasm* are never recorded as the MRDx/main problem.

Note

Z85 *Personal history of malignant neoplasm* is mandatory only in certain circumstances.

See the following coding standards:

- *Acquired Absence of Breast and Lung Due to Primary Malignancy*
- *Personal History of Primary Malignant Neoplasm of Breast, Lung and Prostate*
- *Primary and Secondary Neoplasms*
- *Recurrent Malignancies*

Example: A woman presents to the emergency department for a dressing change (medicated) on the weekend. She had a mastectomy for breast cancer the week before and is scheduled for chemotherapy.

Code	NACRS	Code title
Z48.0	MP	Attention to surgical dressings and sutures
C50.99	OP	Malignant neoplasm of breast, part unspecified, unspecified side (optional)

1.YS.14.JA-H1 Dressing, skin of abdomen and trunk, using medicated dressing (optional)

Rationale: Z85.– is not assigned because the patient is still undergoing treatment. See also the coding standard *Admission for Follow-up Examination*.

Example: A patient who had a radical prostatectomy five years ago presents for management of bone metastases.

Code	DAD	NACRS	Code title
C79.5	(M)	MP	Secondary malignant neoplasm of bone and bone marrow
Z85.4	(3)	OP	Personal history of malignant neoplasm of genital organs (mandatory)

Rationale: When a patient is diagnosed with a secondary malignancy it is mandatory to assign an additional code to identify the primary site. Z85.4 is selected because the patient has completed treatment directed toward the primary site. See also the coding standard *Primary and Secondary Neoplasms*.

DAD and NACRS directive statement

Assign a code from Z80 *Family history of malignant neoplasm*, optional, as diagnosis type (3)/other problem to denote a reason for an examination or prophylactic surgery.

Example: The patient has an extremely strong maternal family history of breast malignancy. She is admitted for prophylactic bilateral simple total mastectomies.

Code	DAD	Code title
Z40.00	(M)	Prophylactic removal of breast
Z80.3	(3)	Family history of malignant neoplasm of breast (optional)

1.YM.89.^^ Excision total, breast (approach coded with qualifiers)

Location: B

Example: The patient has a strong family history of colon cancer. She is admitted for an elective colonoscopy to screen for the disease. No disease is found at this time.

Code	DAD	NACRS	Code title
Z12.1	(M)	MP	Special screening examination for neoplasm of intestinal tract
Z80.0	(3)	OP	Family history of malignant neoplasm of digestive organs (optional)

2.NM.70.BA-BJ Inspection, large intestine, using endoscopic per orifice approach (or via stoma) and colonoscope

See also the coding standards *Prophylactic Organ Removal* and *Screening for Specific Diseases*.

Personal History of Primary Malignant Neoplasms of Breast, Lung and Prostate

In effect 2015

DAD and NACRS directive statement

Assign a code from Z85.11– *Personal history of malignant neoplasm of bronchus and lung* **or** Z85.3– *Personal history of malignant neoplasm of breast* **or** Z85.4 *Personal history of malignant neoplasm of genital organs*, mandatory, as a diagnosis type (3)/other problem when **all** of the following criteria are met:

- There is a history of primary malignancy of the breast, lung or prostate; and
- The previous malignancy has been completely excised or eradicated; and
- There is no further treatment (including adjuvant therapy) directed to the primary site; and
- The current episode of care relates to a follow-up examination, prophylactic organ removal or reconstructive surgery.

Note
Codes from the category Z85 *Personal history of malignant neoplasm* are never recorded as the MRDx/main problem.

See also the coding standards *Acquired Absence of Breast and Lung Due to Primary Malignancy*, *Admission for Follow-up Examination*, *Personal and Family History of Malignant Neoplasms*, *Prophylactic Organ Removal*, *Recurrent Malignancies* and *Primary and Secondary Malignant Neoplasms*.

Example: A patient with a personal history of primary breast cancer, left breast (no residual disease), elects to have a right total simple mastectomy to remove the non-diseased breast.

Code	DAD	NACRS	Code title
Z40.00	(M)	MP	Prophylactic removal of breast
Z85.30	(3)	OP	Personal history of malignant neoplasm of right breast

Rationale: It is mandatory to assign a code from Z85 *Personal history of malignant neoplasm* for this example as all four criteria are met. The patient has a history of primary malignancy of the breast; the previous malignancy has been completely excised; there is no further treatment directed to the primary site; and the current episode of care relates to prophylactic organ removal.

Example: The patient had an excision of the left upper lobe of lung for primary malignancy two years ago. The patient is seen for a follow-up bronchoscopy; the examination is negative.

Code	DAD	NACRS	Code title
Z08.0	(M)	MP	Follow-up examination after surgery for malignant neoplasm
Z85.111	(3)	OP	Personal history of malignant neoplasm of left bronchus and lung

Rationale: It is mandatory to assign a code from Z85 *Personal history of malignant neoplasm* for this example as all four criteria are met. The patient has a history of primary malignancy of the lung; the previous malignancy has been completely excised; there is no further treatment directed to the primary site; and the current episode of care relates to a follow-up examination.

Example: The patient completed radiotherapy of the prostate for primary malignancy six months ago. The patient is seen for a follow-up endoscopic examination of the prostate; the exam is negative.

Code	DAD	NACRS	Code title
Z08.1	(M)	MP	Follow-up examination after radiotherapy for malignant neoplasm
Z85.4	(3)	OP	Personal history of malignant neoplasm of genital organs

Rationale: It is mandatory to assign a code from Z85 *Personal history of malignant neoplasm* for this example as all four criteria are met. The patient has a history of primary malignancy of the prostate; the previous malignancy has been completely eradicated; there is no further treatment directed to the primary site; and the current episode of care relates to a follow-up examination.

Example: A patient with a history of previous total mastectomy of left breast for primary breast cancer presents for left breast reconstruction with breast implant.

Code	DAD	NACRS	Code title
Z42.1	(M)	MP	Follow-up care involving plastic surgery of breast
Z85.31	(3)	OP	Personal history of malignant neoplasm of left breast

Rationale: It is mandatory to assign a code from Z85 *Personal history of malignant neoplasm* for this example as all four criteria are met. The patient has a history of primary malignancy of the breast; the previous malignancy has been completely excised; there is no further treatment directed to the primary site; and the current episode of care relates to reconstructive surgery.

Example: A patient with a history of right breast cancer treated with total mastectomy one year ago is admitted for prophylactic removal of the left breast due to risk of malignancy. The patient will continue to receive tamoxifen therapy for the right breast cancer for another six months.

Code	DAD	NACRS	Code title
Z40.00	(M)	MP	Prophylactic removal of breast
C50.90	(3)	OP	Malignant neoplasm of right breast, part unspecified

Rationale: All of the criteria have not been met. The patient is receiving adjuvant therapy (tamoxifen) for the right breast cancer; therefore, the code Z85.30 *Personal history of malignant neoplasm of right breast* is not assigned.

References

1. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems (ICD-10), Tenth Revision, Volume 1*. 2010.
2. Department of Justice, Government of Canada. About the proposed legislation. Accessed August 3, 2017.
3. The Homeless Hub. Health. Accessed June 1, 2017.
4. Canadian Observatory on Homelessness. *Canadian Definition of Homelessness*. 2012.

Appendix A — Resources

General coding standards for CCI

Definitions of flaps and grafts

When direct closure of a wound is not possible, there are several options available to the surgeon to repair a defect, whether surgically or traumatically created. Although some clinicians use the terms “flap” and “graft” interchangeably, the classification clearly distinguishes between the two. The following definitions of terms commonly used to describe a flap or a graft of skin and soft tissue have been prepared to help with selection of the correct CCI qualifier, to obtain national coding consistency.

Skin and soft tissue terminology

Dermis

The dermis is the layer of skin below the epidermis. It is made up of dense vascular connective tissue and consists of two layers: the papillary layer or *stratum papillare* and the reticular layer or *stratum reticulare*.

Epidermis

The epidermis is the outermost, nonvascular, layer of the skin. It is made up of five layers, beginning with the deepest layer and moving to the surface: basal layer or *stratum basale*; spinous layer or *stratum spinosum*; granular layer or *stratum granulosum*; clear layer or *stratum lucidum*; and horny layer or *stratum corneum*.

Skin

The skin is the body’s largest organ. It is the body’s outer, protective covering. It is composed of the dermis and the epidermis. In CCI, the skin is classified to anatomy site (Y) Skin and Subcutaneous Tissue and Breast.

Soft tissue

Soft tissue is the tissue that connects and supports other body structures. It includes connective tissue — tendons, ligaments, fascia, fibrous tissue and fat — and muscles, nerves and blood vessels. In CCI, soft tissue is classified to the alphabetical character that denotes the specific anatomy site. An example is (EQ) Soft Tissue of Head and Neck.

Subcutaneous tissue

Subcutaneous tissue is the layer below the dermis. It is composed of adipose cells, loose connective tissue and larger blood vessels and nerves. It is also known as the hypodermis.

Interventions

Tissue qualifier

The tissue qualifier is a component of the CCI code. It is one character, positioned in field six of the CCI code. When an intervention may commonly involve a sequence of associated concomitant actions in order to reach its goal, this will be described — when possible — by a single code. For example, qualifiers provide options that describe the excision of (a lesion of) an anatomy site with a concomitant repair involving a graft or a flap to close the surgical defect. The qualifier selected describes the concomitant repair.

Excision

In CCI, an excision is classified to Excision partial (87), Excision partial with reconstruction (88), Excision total (89), Excision total with reconstruction (90), Excision radical (91) or Excision radical with reconstruction (92). The “deepest site” rule applies to excisions. An excision of a lesion of the skin that extends into the soft tissue is classified to excision of soft tissue of the anatomy site. An example is 1.EQ.87.^^ *Excision partial, soft tissue of head and neck*.

Wide excision

A wide excision, also known as a wide local excision, is removal of the lesion along with a margin of normal-appearing tissue that surrounds the lesion. In CCI, a wide excision is classified to Excision partial (87).

Wedge excision

A wedge excision is removal of a triangular-shaped piece of tissue, which includes the lesion as well as a small amount of normal-appearing tissue that surrounds the lesion. In CCI, a wedge excision is classified to Excision partial (87).

Procurement

Procurement is retrieval of tissue from one (donor) site to repair a defect at another (local or distant recipient) site. It is also known as “harvesting.” In CCI, procurement is classified to Procurement (58).

Flaps

Advancement flap

An advancement flap is a local flap that is moved to the site of the defect using a sliding technique. The CCI tissue qualifier for an advancement flap is “E.”

Flap

A flap is tissue procured that includes the blood and nerve supply. It is usually cut on three sides, leaving the fourth side attached to the blood and nerve supply of the procurement site. When it is completely excised from the procurement site, microvascular anastomosis is required to attach it to the recipient site.

Free flap

A free flap is tissue that is raised on its vascular pedicle, procured from one site and reattached at a distant site. These flaps include vessels — at least one vein and one artery — to maintain a blood supply and must be joined at the recipient site by microvascular anastomosis to allow revascularization. A free flap may also be referred to as composite free flap, fasciocutaneous flap, fibular flap, interpositional intestinal flap, island flap or random flap. The CCI tissue qualifier for a free flap is “F.”

Island flap

An island flap is also known as a free flap. An island flap (vascular pedicle) includes vessels — at least one vein and one artery — and is procured from one site and reattached using microvascular anastomosis at a distant site. The CCI tissue qualifier for an island flap is “F.”

Local flap

A local flap is tissue that is procured in the immediate vicinity of the defect where the “repair” is needed. When direct closure of a wound is impossible due to its size or shape a local flap may be used. It is usually cut on three sides, leaving the fourth side attached to the blood and nerve supply of the donor site to maintain blood and nerve supply to the recipient site. Examples of local flaps include a V-Y advancement flap, a transposition flap, a Z-plasty and a rotation flap. The most frequent types of tissue used for local flaps are skin, mucosa and omentum. The CCI tissue qualifier for a local flap is “E.”

Musculocutaneous or myocutaneous flap

A musculocutaneous or myocutaneous flap is tissue composed of skin and muscle. Blood and nerve supply of the donor site are maintained to the recipient site. An example of a musculocutaneous or myocutaneous flap is a pedicled flap. The CCI tissue qualifier for a musculocutaneous or myocutaneous flap is “G.”

Pedicled (distant or regional) flap

A pedicled flap is tissue that is procured from a site, usually distant from the defect, which remains attached to the donor site to maintain blood and nerve supply to the recipient site. It is prepared like a local flap but it is not procured in the immediate vicinity where the repair is needed. It elevated and often split and/or “tunnelled” in order to reach the recipient. The pedicled flap remains attached at its base (pedicle) carrying its own blood supply. When the flap has been set into the recipient defect site and the new blood and nerve supply have been well-established, the pedicle may be divided. This usually takes about three weeks. A pedicled flap may also be referred to as a composite flap, a myocutaneous flap, a regional flap, a muscle rotation flap, a muscle transposition flap, a latissimus dorsi myocutaneous flap (LDM) or a trans rectus abdominis muscle flap (TRAM). The CCI tissue qualifier for a pedicled flap is “G.”

Rotation flap

A rotation flap is a type of local flap. The width or length and the mobility of the flap are increased by using curved incisions and counter-incisions. The tissue is rotated and stretched to repair the defect. The CCI tissue qualifier for a rotation flap is “E.”

Transposition flap

A transposition flap is a type of local flap. The tissue is stretched and repositioned to repair the defect. The CCI tissue qualifier for a transposition flap is “E.”

V-Y advancement flap

A V-Y advancement flap is a type of local flap. The length of the flap is increased by making an incision shaped like a “V.” The tissue is then stretched and sutured into the defect in the shape of a “Y.” The CCI tissue qualifier for a V-Y advancement flap is “E.”

Z-plasty

A Z-plasty is a transposition local flap that combines components of an advancement flap and a rotation flap. Two triangular flaps are created by the “Z” incision and are transposed or rotated so that the apex of each flap fits into the defect at the base of the opposite flap. This technique redistributes the tension on the wound and results in a less noticeable scar. The scar is broken up into smaller units, camouflaging a wound that crosses relaxed skin tension lines or Langer

lines that correspond to collagen fibers within the dermis. For example, a Z-plasty is often used to repair a linear wound that crosses the vermillion border or the medial canthus. The CCI tissue qualifier for a Z-plasty is “E.”

Grafts

Autograft

An autograft is tissue, without vascular supply, procured from and used to repair a defect in the patient’s own body. An autograft may be described as a full-thickness or split-thickness skin, fat, fascia, cartilage, bone or nerve graft. It may also be called autologous tissue in the source documentation. The CCI tissue qualifier for an autograft is “A.”

Full thickness

A full-thickness graft is procurement of the epidermis and the full depth of the dermis. The CCI tissue qualifier for a full-thickness autograft is “A.”

Graft

A graft is tissue procured that does not include the blood and nerve supply. It includes the epidermis and some or all of the dermis.

Homograft

A homograft is an organ or tissue procured from another human being that is used promptly after procurement or after preservation in a tissue bank. A homograft may also be referred to as allograft, allogeneic organ or homologous tissue.

Split thickness

A split-thickness graft is procurement of the epidermis and some of the dermis. It is described as “thin,” “intermediate” or “thick” depending on the thickness of the dermis procured. The CCI tissue qualifier for a split-thickness autograft is “B.”

Synthetic tissue graft

A synthetic tissue graft is man-made material that is used to replace tissue and often also encourages tissue regeneration or healing. It includes materials such as bone paste and Marlex mesh. Synthetic tissue may be used to reinforce repairs such as that of a hernia.

Xenograft

A xenograft is an organ or tissue procured from an animal source (e.g., porcine valves, bovine bone tissue). A xenograft may also be referred to as heterograft, heterologous graft or heteroplastic graft.

Chapter I — Certain infectious and parasitic diseases

Drug-resistant microorganisms

What is methicillin resistant *Staphylococcus aureus* (MRSA)?

Staphylococcus aureus, often referred to simply as “staph,” is a bacterium commonly found on the skin of healthy people. Occasionally, staph can get into the body and cause an infection. This infection can be minor (such as pimples, boils, and other skin conditions) or serious (such as blood infections or pneumonia). Methicillin is an antibiotic commonly used to treat staph infections. Although methicillin is very effective in treating most staph infections, some staph bacteria have developed resistance to methicillin and can no longer be killed by this antibiotic. These resistant bacteria are called methicillin-resistant *Staphylococcus aureus*, or MRSA. They can be found on the skin, in the nose, and in blood and urine.

MRSA infection usually develops in hospital patients who are elderly or very sick, or who have an open wound (such as a bedsore) or a tube (such as a urinary catheter) going into their body. Although MRSA is resistant to many antibiotics and often difficult to treat, a few antibiotics can still successfully cure MRSA infections.

What is vancomycin-resistant enterococcus (VRE)?

Enterococcus is a common, gram-positive bacterium. The most common infections caused by enterococci are urinary tract infections, wound infections, bacteremia, endocarditis and meningitis. Enterococci also frequently colonize open wounds and skin ulcers.

Vancomycin is the antibiotic used for the treatment of serious infections caused by enterococci. Like with MRSA, patients can be either “colonized” or “infected” with vancomycin-resistant enterococci (VRE) and both are sources for nosocomial infection. The most frequent sites for colonization are in the stool, perineum, anus, axilla, umbilicus, wounds, Foley catheters and colostomy sites.

VRE can be spread directly by patient-to-patient contact or indirectly via hands of personnel, contaminated environmental surfaces or patient care equipment. Treatment of VRE infection is difficult due to a very limited range of antibiotics available. Those people found to be harmlessly colonized by VRE need no special treatment and over a period of time these people become spontaneously clear of VRE.

What is the difference between colonization and infection?

Colonization means that MRSA or VRE is present on or in the body without causing illness. Patients will have no signs or symptoms of infection caused by the organism. A microbiology report may indicate the presence of MRSA or VRE, but the patient will not have an actual infection, however, they are carriers. Treatment of carriers without symptoms of infection is not usually necessary, but they may sometimes be treated with special antibiotic ointments to the nose and/or washing with special antibacterial preparations.

On the other hand, if a patient has a MRSA or VRE infection it means that MRSA or VRE is making the person sick.

What is decolonization?

Decolonization is the elimination of MRSA carrier state through use of infection control measures and/or antibiotics. This decreases the risk of transmission to high-risk individuals (immunocompromised or otherwise highly susceptible persons) or to others in an outbreak situation.

Chapter IV — Endocrine, nutritional and metabolic diseases

Diabetes mellitus

Diabetes mellitus is a chronic disease in which the body does not make, or does not properly use, insulin. Insulin is the hormone that helps the body use the energy from sugar, starches and other foods. Glucose is a form of sugar produced when the body digests carbohydrates (sugars and starches). Glucose is the body's major fuel for the energy it needs. When insulin is absent or ineffective, the blood glucose (blood sugar) level increases and the patient becomes hyperglycemic.

ICD-10-CA alphabetical index lead term "diabetes, diabetic" provides look-ups for complications and conditions associated with diabetes mellitus or considered to be diabetes-related. Combination codes are typically located in the alphabetical index under secondary terms such as "with," "due to" and "in" diabetes. In the tabular listing, conditions with diabetes are referred to as "complications."

Therefore, the cause-and-effect relationship does not have to be specifically documented to classify cases to a diabetes mellitus with complication code.

Two major coding conventions apply when classifying diabetes mellitus: the dagger and asterisk convention and the “code separately” instruction.

The dual axis is used to classify diabetes mellitus and the specific complication of or condition associated with diabetes mellitus. The dagger code denotes that the etiology or underlying cause is diabetes mellitus and the asterisk code denotes the manifestation or specific complication of or condition associated with diabetes mellitus.

The conditions listed under the “code separately” instruction are typically the focus of the episode of care when a patient with diabetes mellitus presents with one of the listed conditions. These conditions are not subject to the asterisk code sequencing rules and are allowed as the most responsible diagnosis (MRDx) or main problem when appropriate.

Diabetes mellitus is classified to the block E10 to E14 in ICD-10-CA. The first axis (three-character category level) identifies the type of diabetes.

Type 1 diabetes mellitus (E10.–)

The cause of type 1 diabetes is unknown. It is the result of an autoimmune process in which the body’s immune system attacks and destroys the insulin producing cells of the pancreas. The failure of the beta cells to produce insulin prevents glucose from entering the cells of the body to provide fuel. When glucose cannot enter the cells, it builds up in the blood and the body’s cells literally starve to death. People with type 1 diabetes must take daily insulin injections and regularly monitor their blood sugar levels.

Type 1 diabetes can cause different problems, but there are three key complications:

1. **Hypoglycemia** (low blood sugar; sometimes called an insulin reaction) occurs when blood sugar drops too low.
2. **Hyperglycemia** (high blood sugar) occurs when blood sugar is too high, and can be a sign that diabetes is not well controlled.
3. **Ketoacidosis** (diabetic coma) is loss of consciousness due to untreated or under-treated diabetes.

Type 2 diabetes mellitus (E11.–)

Type 2 diabetes mellitus, which is related to insulin resistance (lack of the ability of the body to respond to insulin appropriately), is the most common form of diabetes. In type 2 diabetes, either the body does not produce enough insulin or the cells ignore the insulin. When glucose builds up in the blood instead of going into cells, it can cause the cells to be starved for energy. Over time, high blood glucose levels may result in hyperglycemia and other complications such as accelerated atherosclerosis, neuropathy, nephropathy and retinopathy.

"Although most type 2 diabetics are treated with diet, exercise and oral drugs, some patients intermittently or persistently require insulin to control hyperglycemia and prevent non-ketotic hyperglycemic-hyperosmolar coma (NKHHC)."[1] Treatment by insulin is not an indicator of the type of diabetes. Type 2 diabetes is considered as insulin **requiring** diabetes if the patient needs insulin therapy, while type 1 diabetes mellitus is considered as insulin **dependent** diabetes.

Other specified diabetes mellitus (E13.–)

Other specified types, previously called secondary diabetes, are caused by other illness or medications that result in destruction of pancreatic beta cells or development of peripheral insulin resistance. The most common are diseases of the pancreas that destroy the pancreatic beta cells (e.g., hemochromatosis, pancreatitis, cystic fibrosis, pancreatic cancer), hormonal syndromes that interfere with insulin secretion (e.g., pheochromocytoma) or cause peripheral insulin resistance (e.g., acromegaly, Cushing syndrome, pheochromocytoma), and diabetes induced by drugs (e.g., phenytoin, glucocorticosteroids, estrogens).[2] Genetic research has provided new insights into the pathogenesis of MODY (maturity-onset diabetes of young), which was formerly included as a form of type 2 diabetes. A review of the literature shows that other specified types of diabetes may account for 1% to 2% of all diagnosed cases of diabetes.

Just as patients with type 2 diabetes do not become type 1 diabetics, or vice versa, patients with a type of diabetes classifiable to **E13.–** do not become type 1 or type 2 diabetics.

Diabetes mellitus in pregnancy (O24.5–O24.8)

This pregnancy-related form of diabetes occurs when high levels of hormones cause cells to become less sensitive to insulin. Gestational diabetes occurs in about 2%–5% of all pregnancies, and disappears when pregnancy is over. Women who have had gestational diabetes are at increased risk for later developing type 2 diabetes mellitus.

Borderline diabetes — A misnomer

According to Diabetes Canada, “borderline” diabetes doesn’t exist, although the term seems to be used quite frequently. In general, it appears to be a common expression meaning that a person has mild diabetes, or perhaps that the treatment is only diet and exercise. Another misunderstanding about being “borderline” may be the assumption that blood glucose levels are just slightly elevated in a diabetic.[3]

Impaired glucose tolerance (IGT) [R73.0 *Abnormal Glucose Tolerance Test*]

A diagnostic statement of IGT indicates a prediabetic state, which is associated with insulin resistance and closely related to type 2 diabetes. It occurs when the blood glucose level is higher than normal, but not high enough to be classified as diabetes. IGT is detected through the same oral glucose tolerance test that is used to detect diabetes. People with IGT have a 1 in 3 chance of developing type 2 diabetes within 10 years, but this can be minimized through healthy eating and physical activity.

Complications of diabetes

Diabetic complications can be classified broadly as micro-vascular or macro-vascular disease. Microvascular complications include neuropathy, nephropathy and vision disorders (e.g., retinopathy, glaucoma, cataract and corneal disease). Macrovascular complications include conditions such as heart disease and stroke.

Common microvascular complications of diabetes mellitus

Diabetic nephropathy

Diabetic nephropathy is kidney damage, usually due to changes in small blood vessels leading to the filtering system of the kidney or to the smaller blood vessels within the filtering system itself, caused by a persistently high blood sugar level from diabetes. The damaged nephrons allow proteins that normally would stay in the blood to pass into the urine.

Diabetic nephropathy is the most common cause of kidney failure. There are no symptoms in the early stages of diabetic nephropathy. A small amount of protein in the urine (microalbuminuria) is the first sign of kidney damage. As damage to the kidneys progresses, larger amounts of protein spill into the urine (macro-albuminuria) and blood pressure rises. When damage to the blood vessels continues over time, kidney failure develops.

End-stage kidney disease is complete (or nearly total) and permanent kidney failure. The body begins to fill up with waste products and excess water. This condition — uremia — if left untreated can lead to seizures or coma and ultimately death.[4]

Related intervention

The treatment for end-stage kidney disease is either kidney transplant or dialysis. Dialysis is a way of detoxifying the blood with an artificial kidney (dialyzer). Dialysis is classified to 1.PZ.21.^^ *Dialysis, urinary system NEC*. The qualifier denotes the type of dialysis performed: hemodialysis versus peritoneal dialysis. It is mandatory to assign a CCI code for dialysis whenever it is performed during an episode of care, regardless of who performs it or in which location it is performed.

Diabetic retinopathy

Retinopathy is the non-inflammatory impairment of the retina. Diabetic retinopathy occurs when the small blood vessels in the retina become swollen, often leaking fluid, or when new tiny blood vessels grow that block the retina. Diabetic retinopathy is a common cause of blindness in adults.

Additionally, new tiny blood vessels may form across the retina (neo-vascularization). These blood vessels are extremely fragile and may break and bleed easily, resulting in the formation of fibrous (scar) tissue around them. This causes the vision to be obscured and may ultimately cause retinal detachment (where scar tissue pulls the retina away from where it should be). This often causes the sudden loss of sight in one eye.

Related intervention

The treatment for retinopathy is usually a form of laser treatment called pan-retinal laser photocoagulation, which is normally done under local anesthetic. In this form of laser treatment, bursts of a laser beam directed at the retina can destroy the new, abnormal blood vessels and prevent the retina detaching. It has been shown to reduce severe visual loss significantly if treatment is undertaken early. In CCI, this is coded to 1.CN.59.LA-AG *Destruction, retina, using laser*.

Diabetic neuropathy

Diabetic neuropathy is the loss of the function of peripheral nerves in people with diabetes. There are many theories as to why patients with diabetes develop this condition. It may be due to the nerves having increased levels of glucose (sugar), which leads to dysfunction of the normal pathways that utilize the glucose for energy. Another possibility is that the blood supply to the nerves is compromised, which causes them not to function properly.

The symptoms of diabetic neuropathy can include increased but abnormal sensations such as pain or burning, or decreased sensation like numbness. Diabetic neuropathy typically affects the longest nerves first, and so it is most common in the feet. Loss of pain and/or temperature sensation can predispose the patient with diabetes to foot ulcers — they can bump their foot and not even realize there is an open wound until the wound has already become infected.

Many other nerves can be affected in patients with diabetes. The nerves that make the eyes move may be affected so a diabetic may develop double vision. The optic nerve can be affected with subsequent loss of vision.

The autonomic nervous system can over-function or under-function. This can cause patients with diabetes to have too much or too little sweating, incontinence or retention of urine, diarrhea or constipation, sexual problems (including erectile dysfunction), problems with the pupils reacting to light changes and even fainting spells.

Peripheral circulatory complications

Diabetic vascular disease refers to hardening of the arteries throughout the body because of diabetes. Peripheral arterial disease (PAD) is hardening and narrowing of the arteries (atherosclerosis) that supply blood to the arms, legs and other parts of the body. It results in reduced blood flow to those parts of the body. The arteries in the legs are most often affected. As an artery is narrowed by atherosclerosis, the leg muscles do not get enough blood, especially during increased activity when more blood is required. The main symptom of peripheral arterial disease in the leg is a tight or squeezing pain in the calf, foot, thigh or buttock that occurs during exercise (such as walking up a hill or a flight of stairs, running, or simply walking a few steps). This pain is called intermittent claudication.

Related interventions

PAD treatment may consist of a minimally invasive procedure called **angioplasty and stenting** [1.KG.50.^^ *Dilation, arteries of leg NEC*]. In an angioplasty, a long, thin, flexible tube called a catheter is inserted into a tiny incision above an artery in the leg and is guided through the arteries to the blocked area. Once there, a special balloon attached to the catheter is inflated and deflated several times. The balloon pushes the plaque in the artery against the artery walls, widening the vessel. A tiny mesh-metal tube called a stent may then be placed into the narrowed area of the artery to keep it open. The stent remains permanently in the artery.

Bypass surgery creates a detour around any narrowed or blocked sections of the artery [1.KG.76.^^ *Bypass, arteries of leg NEC*]. The blood then flows, bypassing the blocked part of the artery. Sometimes the blockage itself can be removed with a procedure called an **endarterectomy** [1.KG.57.^^ *Extraction, arteries of leg NEC*]. **Amputations** [generic intervention 93] of the lower extremity may also be performed in patients with advanced multiple diabetic complications.

Macrovascular complications of diabetes mellitus

Chronic hyperglycemia or persistent high glucose levels allow glucose to react with certain components of the blood. When this happens, the by-products of these reactions tend to attach themselves on the wall of the major blood vessels. The lumen (space) of the blood vessel narrows down and this decreases the blood flow to the various organs. Since larger

blood vessels are involved these complications are referred to as macro-vascular complications. The common macro-vascular complications are cardiac and cardiovascular complications and cerebral vascular diseases.

Diabetic cataracts

Cataracts in a patient with diabetes are not assumed to be “diabetic” unless specified as such.

Diabetic cataracts occur at a younger age and progress more rapidly to a mature opacity. Young people with type 1 diabetes occasionally develop snowflake or metabolic cataracts. Poor control of the diabetes may be a predisposing factor. True diabetic cataracts are characterized by bilateral white punctate or snowflake anterior and posterior subcapsular opacities of the lens. This condition is usually preceded by a sudden and progressive myopia. It is due to an increased accumulation of sorbitol, fructose and glucose in the lens. These opacities may lessen or resolve with improved glycemic control.

E10.35† *Type 1 diabetes mellitus with diabetic cataract* is only assigned when the physician documents this type of cataract. It may be recorded as “diabetic cataract” or “cataract due to diabetes.”

Diabetes mellitus and hyperglycemia

In simple terms, “diabetes control” means keeping blood glucose levels within — or close to — the normal range. Glucose is the major source of energy for the body’s cells. When glucose can’t be transferred into cells from the bloodstream, glucose builds up in the blood. Hyperglycemia is the medical term for having too much sugar in the blood. Patients with diabetes are hyperglycemic when their blood glucose is not well controlled. Hence, a positive glucose tolerance test (R73.0 *Abnormal glucose tolerance test*) or unspecified hyperglycemia (R73.9 *Hyperglycaemia, unspecified*) must not be coded on cases being classified to the range E10–E14. Marked hyperglycemia may lead to a coma, a critical situation requiring immediate hospitalization.

Hyperglycemia in hospitalized people with diabetes contributes to increased mortality and morbidity by increasing the susceptibility to infection and lengthening hospital stays.

Hypoglycemia in diabetes mellitus

Hypoglycemia, as defined by Diabetes Canada, is when blood glucose levels drop too low. Symptoms may include sweating, trembling, hunger, dizziness, moodiness, confusion and blurred vision. A low blood glucose level can occur when the blood glucose drops below a certain level (usually less than 4 mmol/L). Not eating enough food, missing or delaying a meal, exercising without taking the necessary precautions, taking too much insulin or drinking alcohol causes hypoglycemia. Severe low blood glucose may cause confusion, disorientation and/or seizures.

Hypoglycemia can also be called insulin shock or insulin reaction. Severe hypoglycemia is dangerous. Very low blood sugar seriously affects the brain's ability to reason or use good judgment. If the blood sugar levels continue to plummet to a dangerously low level, the brain is seriously impaired and consciousness is usually lost. Permanent brain changes and death can result if emergency treatment for advanced hypoglycemia is not given.

Coma in diabetes mellitus

Diabetic coma — Hypoglycemia

When blood sugars become too low a loss of consciousness can result. This can advance to coma. Hypoglycemia starves the brain of glucose energy and this lack of energy can cause symptoms ranging from headache and mild confusion to loss of consciousness, seizure and coma. Severe hypoglycemia is dangerous. Very low blood sugar seriously affects the brain's ability to reason or use good judgment.

Diabetic coma — Hyperglycemia — Associated with diabetic ketoacidosis (DKA) or diabetic hyperosmolar syndrome (DHS)

Diabetic coma is a life-threatening condition. Either diabetic ketoacidosis or diabetic hyperosmolar syndrome can lead to diabetic coma. If blood sugar levels become too high, this can also result in a loss of consciousness. In some cases, this can advance to coma.

Diabetic ketoacidosis (DKA) is characterized by hyperglycemia, metabolic acidosis and increased circulating total body ketone concentration caused by the buildup of by-products of fat metabolism. DKA occurs mainly in those who have type 1 diabetes mellitus. Sometimes, it can occur in those who have type 2 diabetes mellitus.

Hyperosmolar hyperglycemic nonketotic coma (HHNC) is characterized by hyperglycemia, hyperosmolarity and an absence of significant ketosis. HHNC most commonly develops in patients with diabetes who have some concomitant illness that leads to a reduced fluid intake for example an infection like pneumonia and urinary tract infection (UTI).

When a patient with diabetes presents with hyperglycemia hyperosmolality that has not advanced to coma it must be classified to E1–.64 *Type ~ diabetes mellitus with poor control, so described*. When not documented as diabetes mellitus with poor control (or similar terminology), the chart must be sent back to the physician to document the appropriate terminology to support the clinical picture. When hyperosmolality and dehydration are documented, assign E87.0 *Hyperosmolality and hypernatraemia* and E86.0 *Dehydration* and apply the appropriate diagnosis type per the diagnosis typing definitions.

Diabetes mellitus and multiple complications

Diabetic ulcers

Neuropathy and peripheral artery disease occur very commonly in the patient with diabetes and are often encountered together. These two entities are mainly responsible for ulcers in patients with diabetes. A diabetic foot ulcer is an open sore that most commonly occurs on the bottom of the foot. People who use insulin are at a higher risk of developing a foot ulcer, as are patients with diabetes-related kidney, eye and heart disease. Being overweight and using alcohol and tobacco also play a role in the development of foot ulcers.

Ulcers form due to a combination of factors, such as lack of feeling in the foot, poor circulation, foot deformities, irritation (such as friction or pressure), and trauma. Vascular disease can complicate a foot ulcer, reducing the body's ability to heal and increasing the risk for an infection. Elevations in blood glucose can reduce the body's ability to fight off a potential infection and also slow the healing process.

A diabetic foot ulcer may be documented as neuropathic, ischemic or neuro-ischemic.[1]

A diabetic foot is an infection, ulceration and/or destruction of deep tissues associated with neurological abnormalities and various degrees of peripheral vascular disease in the lower limb. It is a syndrome in which the patient has several pathological processes with tissue ischemia that may ultimately lead to tissue breakdown. There may be associated ulceration and gangrene and the patient has a higher risk for amputation.[5]

Due to the interrelatedness of the many diabetic complications and associated factors, diabetic foot is classified to subcategory E1–.7– *Type ~ diabetes mellitus with multiple complications*. The specific code is selected based on whether the foot ulcer is with or without gangrene.

Decubitus ulcers, otherwise known as pressure ulcers or bedsores, are skin ulcers that develop on areas of the body where the blood supply has been reduced because of prolonged pressure. Diabetes is not the cause of decubitus ulcers but rather a risk factor that may cause the problem to worsen and healing to become difficult. Therefore, when associated with diabetes mellitus, per the "use additional code" instruction at category L89 *Decubitus [pressure] ulcer and pressure area*, a code from E1–.68 *Type ~ diabetes mellitus with other specified complication, not elsewhere classified* is assigned to classify any associated diabetes mellitus.

Glycemic control in patients with diabetes has a direct impact on progression of the angiopathy and tissue perfusion. Therefore, healing of any ulcer is dependent on diabetic complications present in the patient.

Diabetes mellitus in pregnancy

Dr. Ian Blumer, in his book *Diabetes for Canadians for Dummies*, states “Gestational diabetes is defined as diabetes diagnosed during pregnancy. The great majority of the time it resolves as soon as the baby is born.” Changing hormones and weight gain are part of a healthy pregnancy. But both changes make it hard for the body to keep up with its need for insulin.

Causes of gestational diabetes

- The body needs more energy than usual during pregnancy so more insulin is required to move glucose into the cells to provide energy.
- The placenta produces other hormones during pregnancy and some of these hormones can block the action of insulin in the body, causing “insulin resistance” to develop.
- Though insulin requirement is greater in all women during pregnancy, for some, the pancreas is not able to produce enough insulin for the body’s needs, so high levels of glucose remain in the blood stream and this is called gestational diabetes.
- It usually takes many weeks before the amount of insulin produced is not enough, so gestational diabetes does not appear until the middle of pregnancy.

Other problems in pregnancy associated with diabetes mellitus

Most women with gestational diabetes can safely have a full-term pregnancy and have a normal labor, but there may be some pregnancy-associated problems due to the diabetes.

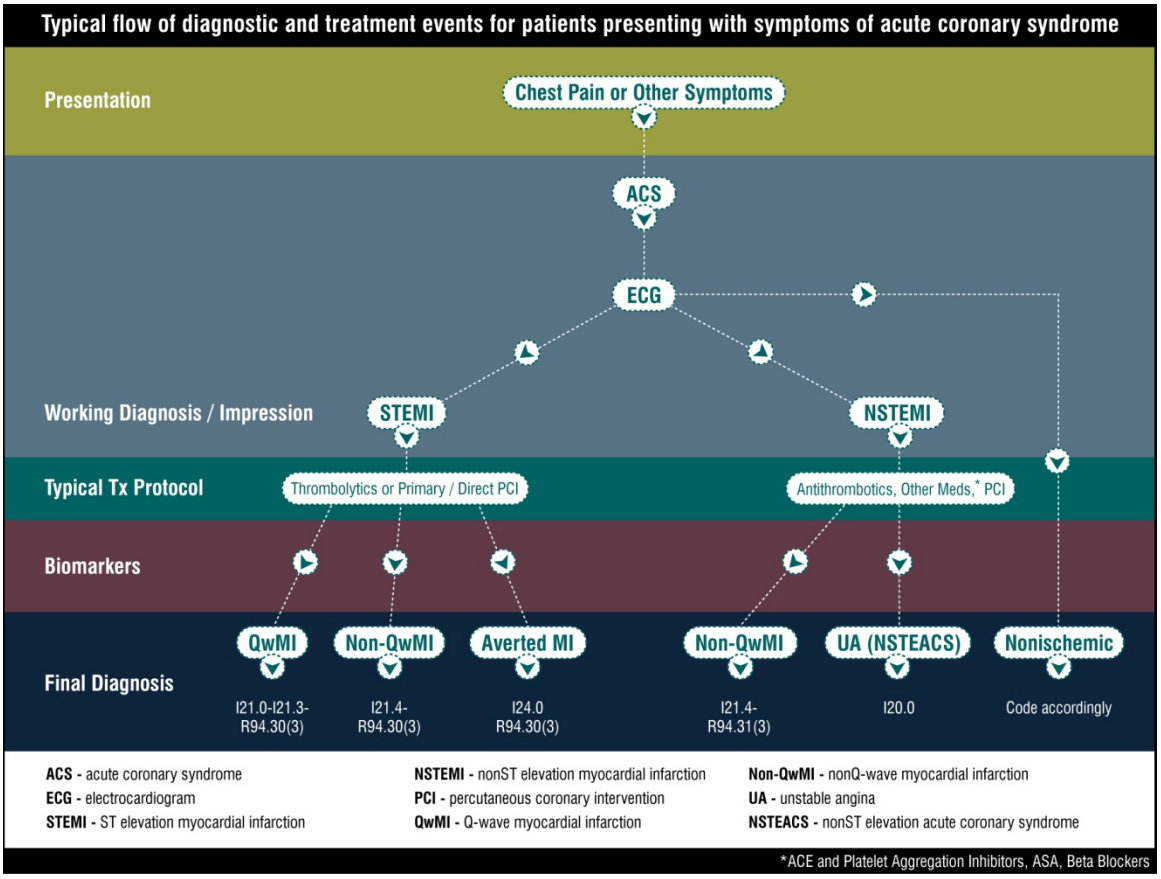
- Pregnancy induced hypertension (PIH) also known as preeclampsia — high blood pressure caused by pregnancy is fairly common when a mother has diabetes. It usually goes away soon after the birth of the baby.
- Infections, such as bladder infections are also fairly common during pregnancy, but are more common when the mother has diabetes.
- If the mother’s blood sugar is not well controlled during the pregnancy there is an increased risk of miscarriage or still birth.

Chapter IX — Diseases of the circulatory system

Acute coronary syndrome (ACS) and related interventions

Acute coronary syndrome is a spectrum of conditions which includes:

- ST elevation myocardial infarction [STEMI]
- Non-ST elevation myocardial infarction [NSTEMI]
- Unstable angina



This schema **is not intended to provide direction for code assignment in cases where the documentation is lacking**. When documentation is lacking, the coder must seek clarification from the physician or assign a code from the appropriate “unspecified” category. The typical flow of events is a patient presenting with symptoms of acute coronary syndrome leads to a **working** diagnosis of one of the following:

ST-segment elevation myocardial infarction [STEMI]

When the ECG shows ST elevation, a diagnosis of myocardial infarction (MI) is virtually inevitable. However, prompt treatment (e.g., percutaneous coronary intervention [PCI] or thrombolytic therapy) can alter the final outcome or type of MI. A patient presenting with an ECG with documented ST-segment elevation (STEMI) can have one of the following potential outcomes:

- Evolution to Q-wave [transmural] myocardial infarction
- Evolution to non-Q-wave [subendocardial] myocardial infarction
- Aborted or averted myocardial infarction

Non-ST-segment elevation myocardial infarction [NSTEMI]

When there is no ST elevation on the ECG, while Q-waves can develop, typically the potential outcomes include

- Evolution to a less-damaging non Q-wave [subendocardial] myocardial infarction
- A final diagnosis of unstable angina

Sometimes the final diagnosis is referred to as non-ST-elevation acute coronary syndrome (NonSTEACS or NSTEACS). When NonSTEACS or NSTEACS is the final diagnosis, the documentation must be reviewed for further confirmation to determine if the patient has had an NSTEMI or unstable angina.

In NSTEMI, myocardial infarction is confirmed by the presence of cardiac biomarkers such as troponin or CK-MB. Cardiac biomarkers are enzymes, proteins or hormones found in the blood that confirm necrosis to myocardial cells has occurred.

NSTEMI is a myocardial infarction identified by either elevated cardiac biomarkers or ECG changes **without** ST-segment elevation. The ECG findings may include changes such as ST depression or T-wave inversion or the ECG may be normal. The high sensitivity of the newer biomarkers enables detection of small areas of myocardial necrosis that may not show up on ECG.[6]

Acute coronary syndrome spectrum

The lack of blood supply to the heart results in a continuum of acute events ranging from myocardial ischemia to injury to infarction. The most common cause of this diminished blood flow is coronary atherosclerosis — plaque formation within the coronary arteries.

Myocardial ischemia appears at the onset, and the subendocardial region is the first to be affected, since this layer of the heart is farthest from the blood supply. When ischemia is severe it results in injury to the myocardial cells. Subendocardial injury is manifested on ECG by ST-segment depression, and transmural injury is manifested by ST-segment elevation. Myocardial infarction describes necrosis or death of myocardial cells. A myocardial infarction can be either nontransmural (partial thickness) or transmural (full thickness).

Elevation of biomarkers is expected in both types of infarction. In the absence of elevated biomarkers, ST- and T-wave abnormalities are interpreted as due to ischemia or injury rather than infarction.

Diagnosis is non-Q-wave or Q-wave infarction

Non-Q-wave infarction is thought to result from persistence of thrombus with greater plaque disruption than in unstable angina. However, occlusion is usually short-lived (less than an hour), and the distal myocardial territory is usually supplied by collaterals; therefore, necrosis is confined to the subendocardium.

Q-wave infarction is believed to develop as a result of larger plaque fissures, when spontaneous thrombolysis, resolution of vasoconstriction and presence of collateral circulation are absent. The result is fixed, persistent and complete thrombotic occlusion, with abrupt cessation of myocardial perfusion lasting more than an hour and resulting in transmural necrosis.[6]

Diagnosis is unstable angina

Stable angina refers to chest discomfort that is predictable and has a stable course. Angina becomes unstable when there is a change in frequency and when it occurs during increasingly less physical activity, lasts longer or becomes more severe in nature. In the clinical spectrum of coronary artery disease, the syndrome of unstable angina falls between stable angina and acute myocardial infarction.[6] **Unstable angina** corresponds to an acute change in the morphology of a high-risk plaque, with overlying thrombus formation that only partially occludes the vessel and hence results in no more than intermittent ischemia. The thrombus may be quickly broken down by spontaneous lysis; therefore, the symptoms can disappear as quickly as they appear.

Diagnosis is aborted myocardial infarction

An aborted or averted myocardial infarction is diagnosed when myocardial ischemia does not result in significant myocardial necrosis. When a patient presents with ST-segment elevation on an ECG, rapid and effective reperfusion improves the likelihood of successful myocardial salvage or preservation and the myocardial infarction is aborted or averted.[7]

Diagnosis is non-cardiac or non-ischemic

Conditions such as pulmonary embolism or pericarditis may initially present with symptoms similar to ACS including slightly elevated biomarkers. Investigations may include echocardiography or CT scan to confirm the diagnosis. Final diagnosis may be cardiac (e.g., pericarditis) or non-cardiac (e.g., esophagitis, pulmonary embolism).

ICD-10-CA codes

While effective with v2018, NSTEMI is an inclusion term at I21.4 *Acute subendocardial myocardial infarction* to capture when the documentation supports that the NSTEMI evolved to a non-Q-wave myocardial infarction, the international version of the ICD does not include the terminology STEMI. In order to maintain international comparability, ICD-10-CA has retained the integrity of category I21 *Acute myocardial infarction* and category I22 *Subsequent myocardial infarction*. Effective April 1, 2007 category R94.3 *Abnormal results of cardiovascular function studies* was expanded to 5 characters to capture **working diagnoses** of STEMI or NSTEMI. Codes from I21 *Acute myocardial infarction* are used to capture **final diagnoses** recorded as STEMI or NSTEMI.

R94.30 Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]

R94.31 Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]

ST depression

T waves

R94.38 Other and unspecified abnormal results of cardiovascular function studies

Abnormal:

- electrocardiogram [ECG] [EKG] not elsewhere classified
- electrophysiological intracardiac studies
- phonocardiogram
- vectorcardiogram

Percutaneous coronary intervention (PCI)

A PCI is an intervention performed on the coronary arteries via a percutaneous approach but usually refers to a coronary angioplasty, previously described as a percutaneous transluminal coronary angioplasty (PTCA). PCI is the treatment of choice in treating ST-segment elevation myocardial infarctions when immediate access to cardiac catheterization laboratories is possible.[8] When immediate access is not possible, or PCI is not indicated, thrombolytic therapy has become the standard of care.[9]

At 1.IJ.50.^^ *Dilation, coronary arteries*, a mandatory status attribute exists to distinguish PCI that are considered primary/direct from those that are not. A primary PCI is one performed as the first intervention for STEMI within 12 hours of presentation to hospital with no thrombolytic therapy prior to PCI.

Thrombectomy devices (e.g., Pronto extraction catheter, Export aspiration catheter, Rescue catheter) may be used in cases of acute myocardial infarction where a large thrombus burden exists. The aspiration catheters are designed to reduce the thrombus before proceeding to angioplasty.

Atherectomy devices (e.g., Rotablator, rotational atherectomy catheter, laser) may be used for extraction of plaque from a coronary artery. These devices either remove plaque or pulverize it before proceeding to angioplasty.

When a thrombectomy or atherectomy is performed concomitantly with a dilation, select the appropriate code from the rubric 1.IJ.50.^^ *Dilation, coronary arteries*. When a thrombectomy is performed "without" a dilation, select the appropriate code from rubric 1.IJ.57.^^ *Extraction, coronary arteries*.

It is expected that codes from rubric 1.IJ.57.^^ *Extraction, coronary arteries* will be used rarely as most times dilation is performed **with** atherectomy and thrombectomy.

Drug-eluting stents (DES) may be used for the treatment of symptomatic ischemic disease in discrete de novo lesions. Common coatings for these stents include paclitaxel (e.g., Taxus stent), sirolimus (e.g., Cypher stent), zotarolimus (e.g., Endeavor stent), or everolimus (e.g., Xience stent). Drug-eluting balloons (DEB) may be used for the prevention and/or treatment of in-stent restenosis. The most common DEB currently in use is the Pantera Lux which is coated with paclitaxel.

When a drug-eluting stent or balloon is employed in a PCI intervention, an additional code from rubric 1.IL.35.^^ *Pharmacotherapy, (local) vessels of heart* is assigned, mandatory as per direction in these standards.

Thrombolytic therapy

Thrombolytic therapy has become the standard of care for treating STEMI patients when immediate access to PCI is not available. Thrombolytic therapy — also called thrombolysis, fibrinolysis or lytics — involves the administration of clot-busting drugs to dissolve thrombus in the affected coronary artery or arteries and restore blood flow to the heart muscle. Thrombolytic therapy reduces mortality and limits infarction size in patients with acute myocardial infarction associated with ST-segment elevation.

Patients without ST-segment elevation generally have temporary, incomplete or partial occlusions and do not benefit from thrombolytic therapy.

Thrombolytic agents include anistreplase, streptokinase, urokinase, tissue plasminogen activator (TPA), alteplase, reteplase, tenecteplase and TNKase (TNK).

Strokes

A stroke is the sudden death of brain cells in a localized area due to inadequate blood flow. A stroke occurs when blood flow is interrupted to part of the brain. Without blood to supply oxygen and nutrients, and to remove waste products, brain cells quickly begin to die. Depending on the region of the brain affected, a stroke may cause paralysis, speech impairment, loss of memory and reasoning ability, coma or death. A stroke is also sometimes called a brain infarct or a cerebrovascular accident (CVA) lasting more than 24 hours. A transient ischemic attack (TIA), by contrast, is defined arbitrarily as a similar neurological deficit lasting less than 24 hours. In the past, the defined time limit for a TIA was one hour but the time limit was expanded for practical purposes.[10]

A stroke involves either an ischemic or a hemorrhagic event, which causes damage to the brain. Cerebral thrombosis and cerebral embolism are caused by blood clots that block an artery supplying the brain, either in the brain itself or in the neck. Subarachnoid hemorrhage and intracerebral hemorrhage occur when a blood vessel bursts around or in the brain.

Cerebral thrombosis occurs when a blood clot, or thrombus, forms within the brain itself, blocking the flow of blood through the affected vessel. Clots most often form due to “hardening” (atherosclerosis) of brain arteries.

Cerebral embolism occurs when a blood clot from elsewhere in the circulatory system breaks free. If it becomes lodged in an artery supplying the brain, either in the brain or in the neck, it can cause a stroke.

Intracerebral hemorrhage affects vessels within the brain itself, while subarachnoid hemorrhage affects arteries at the brain’s surface, just below the protective arachnoid membrane.

Comorbid conditions and life style choices predispose patients undergoing any kind of surgery to a stroke event. It is impossible to determine which factor caused the event. Researchers have identified five risk factors for stroke following coronary artery bypass graft. They are age; history of hypertension, diabetes and previous stroke; and the presence of carotid bruit.

Studies have shown that stroke complicates the postoperative course in 1% to 6% of patients undergoing coronary revascularization. This may be due to a predisposition (risk factors) or it may be due to a piece of plaque that becomes loose before or after surgery, traveling to the brain and precipitating the stroke. Because these patients are almost always at risk for a stroke anyway, the most that can be said with any certainty is that the stroke is a postoperative event. Since you can never know if this is a complication of the surgical procedure or a natural progression (possibly expedited) of a disease process culminating in a sudden acute event, a postoperative stroke is not classified to I97.8 *Other postprocedural disorders of circulatory system, not elsewhere classified*.

DAD and NACRS Stroke Strategy Performance Improvement Projects (340, 640) and DAD Alpha FIM® Project 740

The Stroke Special Projects capture specific information on patients who have been diagnosed with an acute/current stroke, as well as other conditions (cited below) that — while from an ICD-10-CA classification perspective are not classified as hemorrhagic (I60, I61), ischemic (I63) or unspecified (I64) stroke — are monitored as part of the stroke strategy. Note: In the obstetrical population, a hemorrhagic, ischemic or unspecified stroke is classified to O99.4– and it is mandatory to assign an additional code — one of I60.–, I61.–, I63.– or I64 — as diagnosis type (3)/other problem to specify the type of acute/current stroke that complicated the pregnancy, childbirth or puerperium.

These other conditions include the following:

- **Transient ischemic attack (TIA)** (also referred to as a mini-stroke) (G45.0, G45.1, G45.2, G45.3, G45.8, G45.9) and **transient retinal artery occlusion** (H34.0). Note: In the obstetrical population, a TIA is classified to O99.30– and it is mandatory to assign an additional code — one of G45.0, G45.1, G45.2, G45.3, G45.8, G45.9 — as diagnosis type (3)/other problem to specify that the condition complicating the pregnancy, childbirth or puerperium is a TIA. In the obstetrical population, a transient retinal artery occlusion is classified to O99.80– and it is mandatory to assign the additional code H34.0 as a diagnosis type (3)/other problem to specify that the condition complicating pregnancy, childbirth or puerperium is a transient retinal artery occlusion.
- **Intracranial and intraspinal phlebitis and thrombophlebitis** (G08). Note: In the obstetrical population, this condition is classified to O22.5– *Cerebral venous thrombosis in pregnancy* or O87.3– *Cerebral venous thrombosis in the puerperium*, as applicable.
- **Nonpyogenic thrombosis of intracranial venous system** (I67.6). Note: In the obstetrical population, this condition is classified to O99.40– and it is mandatory to assign the additional code I67.6 as diagnosis type (3)/other problem to specify that the condition complicating the pregnancy, childbirth or puerperium is nonpyogenic thrombosis of intracranial venous system.
- **Central retinal artery occlusion** (also referred to as ocular or eye stroke) (H34.1). Note: In the obstetrical population, this condition is classified to O99.80– and it is mandatory to assign the additional code H34.1 as diagnosis type (3)/other problem to specify that the condition complicating the pregnancy, childbirth or puerperium is a central retinal artery occlusion.

For complete and the most up-to-date information and to find out if your province/territory participates in the Stroke Special Projects (340, 640 and 740) refer to the Special Projects Data Collection Instructions available via the DAD/NACRS Abstracting Manual link in the DAD and NACRS applications.

The table below summarizes the codes included in the completion criteria for Stroke Special Projects 340, 640 and 740. Of note, Project 740 does not include H34.0 or H34.1 in its project completion criteria.

ICD-10-CA codes included in DAD and NACRS Stroke Strategy Performance Improvement Projects and DAD Alpha FIM® Project 740

Hemorrhagic stroke

Code	Code description
I60.0	Subarachnoid haemorrhage from carotid siphon and bifurcation
I60.1	Subarachnoid haemorrhage from middle cerebral artery
I60.2	Subarachnoid haemorrhage from anterior communicating artery
I60.3	Subarachnoid haemorrhage from posterior communicating artery
I60.4	Subarachnoid haemorrhage from basilar artery
I60.5	Subarachnoid haemorrhage from vertebral artery
I60.6	Subarachnoid haemorrhage from other intracranial arteries
I60.7	Subarachnoid haemorrhage from intracranial artery, unspecified
I60.8	Other subarachnoid haemorrhage
I60.9	Subarachnoid haemorrhage, unspecified
I61.0	Intracerebral haemorrhage in hemisphere, subcortical
I61.1	Intracerebral haemorrhage in hemisphere, cortical
I61.2	Intracerebral haemorrhage in hemisphere, unspecified
I61.3	Intracerebral haemorrhage in brain stem
I61.4	Intracerebral haemorrhage in cerebellum
I61.5	Intracerebral haemorrhage, intraventricular
I61.6	Intracerebral haemorrhage, multiple localized
I61.8	Other intracerebral haemorrhage
I61.9	Intracerebral haemorrhage, unspecified

Ischemic stroke

Code	Code description
I63.0	Cerebral infarction due to thrombosis of precerebral arteries
I63.1	Cerebral infarction due to embolism of precerebral arteries
I63.2	Cerebral infarction due to unspecified occlusion or stenosis of precerebral arteries
I63.3	Cerebral infarction due to thrombosis of cerebral arteries
I63.4	Cerebral infarction due to embolism of cerebral arteries
I63.5	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
I63.8	Other cerebral infarction
I63.9	Cerebral infarction, unspecified

Unspecified stroke

Code	Code description
I64	Stroke, not specified as haemorrhage or infarction

Transient ischemic attack

Code	Code description
G45.0	Vertebro-basilar artery syndrome
G45.1	Carotid artery syndrome (hemispheric)
G45.2	Multiple and bilateral precerebral artery syndromes
G45.3	Amaurosis fugax
G45.8	Other transient cerebral ischaemic attacks and related syndromes
G45.9	Transient cerebral ischaemic attack, unspecified

Transient retinal artery occlusion

Code	Code description
H34.0	Transient retinal artery occlusion **Note: H34.0 is excluded from Project 740 completion criteria**

Thrombosis of intracranial venous system

Code	Code description
G08	Intracranial phlebitis and thrombophlebitis
O22.5–	Cerebral venous thrombosis in pregnancy
O87.3–	Cerebral venous thrombosis in puerperium
I67.6	Nonpyogenic thrombosis of intracranial venous system (Excludes: when causing infarction see I63.6)

Central retinal artery occlusion

Code	Code description
H34.1	Central retinal artery occlusion **Note: H34.0 is excluded from Project 740 completion criteria**

Atrial fibrillation

Atrial fibrillation is an abnormally fast and highly irregular heartbeat and is classified as a functional disturbance when it occurs following cardiac surgery. Atrial fibrillation and flutter are abnormal heart rhythms in which the atria, or upper chambers of the heart, are contracting out of synchronization with the ventricles, or lower chambers of the heart. In atrial fibrillation, the atria “quiver” chaotically and the ventricles beat irregularly. In atrial flutter, the atria beat regularly and faster than the ventricles.

There are two main types of atrial fibrillation: paroxysmal and persistent. Paroxysmal atrial fibrillation is recurrent, typically lasts less than 48 hours and converts spontaneously to normal sinus rhythm. Persistent atrial fibrillation can last for more than a week and requires treatment such as electrical cardioversion and/or catheter ablation to convert back to normal sinus rhythm.

In most cases, the cause of atrial fibrillation and flutter can be found, but sometimes the cause is not documented. Causes of these heartbeat abnormalities include

- Cardiomyopathy
- Valvular disorders
- Hyperthyroidism
- Hypertension
- Stress and anxiety
- Caffeine
- Alcohol
- Tobacco
- Diet pills
- Some prescription and over-the-counter medications
- Open-heart surgery

Chapter X — Diseases of the respiratory system

Pneumonia

Pneumonia, per *The Merck Manual*, is an acute inflammation of the lungs caused by infection; the most common causes of infection are pathogens in the air we breathe such as bacteria, viruses and fungi. Pneumonia can affect anyone, but the two age groups at highest risk are children and seniors.

There are four main kinds or categories of pneumonia as determined by both the type of pathogen that causes it and where the infection is acquired.

When the pneumonia is acquired outside of hospital or other health care facility, it is called community-acquired pneumonia (CAP); this is the most common type of pneumonia. CAP includes lobar pneumonia and bronchopneumonia, which are most often caused by the bacteria *Streptococcus pneumoniae*; other pathogens such as viruses or fungi may also be the cause.

Hospital-acquired pneumonia (HAP), including ventilator-acquired and post-operative pneumonia, develops in patients during a hospital stay for an unrelated illness. It usually develops 48 hours after admission and is a severe type of pneumonia because the bacteria causing it tend to be more resistant to antibiotics, and also because the people who get it are already compromised due to age and other health conditions.

Aspiration pneumonia is another prevalent type of pneumonia. It occurs when large volumes of upper airway or gastric secretions, such as food, drink, vomit or saliva, enter into the lungs, causing infection.

Health care–acquired pneumonia (HCAP) is a bacterial type of infection of the lungs acquired most often by seniors or people living in nursing homes or other long-term care facilities. Like HAP, HCAP is an acute and severe type of pneumonia because the bacteria causing it tend to be resistant to antibiotics.

Asthma

Asthma is a disease in which inflammation of the airways causes airflow into and out of the lungs to sometimes be restricted. When an asthma attack occurs, the muscles of the bronchial tree become tight and the lining of the air passages swells, reducing airflow and producing the characteristic wheezing sound. Mucus production is increased.

Most people with asthma have periodic wheezing attacks separated by symptom-free periods. Some asthmatics have chronic shortness of breath with episodes of increased shortness of breath. Asthma attacks can last minutes to days, and can become dangerous if the airflow becomes severely restricted.

Adult respiratory distress syndrome

Adult respiratory distress syndrome (ARDS) is a group of conditions or symptoms that collectively indicate or characterize a disease process.

ARDS is a life-threatening condition that occurs when there is severe fluid buildup in both lungs. The fluid buildup prevents adequate oxygen-carbon dioxide transfer within the pulmonary alveoli.

ARDS is the end result of a variety of severe injuries to the lungs, characterized by sudden onset of severe shortness of breath, tachycardia, and profound hypoxia and pulmonary edema.

Sepsis and the systemic inflammatory response are the most common predisposing factors associated with development of ARDS. A (non-inclusive) list of common causes of ARDS includes septic shock, traumatic shock, diffuse viral pneumonia, oxygen therapy toxicity, inhaled toxins and irritants, narcotic overdose, hypersensitivity reaction and aspiration pneumonia.

The pathogenesis of ARDS begins with mediators, for example, platelet activating factor, into the blood that result in leukocyte aggregation in the lungs. Stimulating neutrophils release oxygen-free radicals, lysosomal enzymes and products of arachidonic acid that damage the lung capillaries and alveolar epithelium. This allows fluid to leak from the blood. Further chemical damage by neutrophils destroy alveolar living cells. The result is accumulation of

serum, fibrin and dead cell debris in the alveoli. Hyaline membranes form inside the alveoli. Once hyaline membranes have formed, no surfactant is present and alveoli tend to collapse. Atelectasis and edema make the lungs stiff and non-compliant.

Injured cells promote inflammation and fibrosis, and alter bronchomotor tone and vasoreactivity.

Chapter XI — Diseases of the digestive system

Diagnostic colonoscopic interventions

A sigmoidoscopy, colonoscopy and ileoscopy are all endoscopic examinations of the lower gastrointestinal tract.

A sigmoidoscopy is an endoscopic examination of the **lower portion of the large intestine**; its aim is to examine the rectum to the sigmoid up to the lower portion of the descending colon up to the splenic flexure. Very occasionally, the transverse colon may be visualized.

A colonoscopy is an endoscopic examination of the **entire large intestine** from the distal rectum to the cecum. The goal of a complete inspection is to reach the cecum, and the anatomic landmarks that help the physician to determine if this has been achieved include visualization of the appendiceal orifice and the ileocecal valve.

An ileoscopy is an endoscopic examination of the terminal ileum (anatomic site 2.NK.^^) and may be accomplished using a colonoscope. This is considered a retrograde approach. The instrument tip first passes through the rectum, then through the colon and eventually reaches the area where the cecum (large intestine) and terminal ileum (small intestine) connect. The ileocecal valve separates the small from the large intestine. **In order to inspect the terminal ileum, the ileocecal valve must be intubated.** Anytime the terminal ileum is intubated during an endoscopy, it is for the purpose of inspecting the small intestine.

The ileum can also be examined by a double balloon enteroscopy. A double balloon enteroscopy, also known as push-and-pull enteroscopy is an advanced endoscopic technique to inspect the entire small bowel. The double balloon enteroscope can be inserted either orally, antegrade approach, or it can be passed in retrograde fashion, through the rectum, into the colon and finally into the ileum to inspect the end of the small bowel. To complete a double balloon enteroscopy, doctors use a scope fitted with two balloons to navigate the entire small bowel. When inflated with air, the balloons can expand sections of the small intestine to allow the camera a closer examination.

Chapter XII — Diseases of the skin and subcutaneous tissue

Cellulitis

Cellulitis is a relatively deep infection, generally resulting from a break in the skin. It involves subcutaneous spaces in addition to the dermis. Some cases of cellulitis appear on areas of trauma, where the skin has broken open, such as the skin near ulcers or surgical wounds. Many times, however, cellulitis occurs where there has been no break in the skin at all. The patient presents with pain, redness, warmth and systemic symptoms such as fever. The affected area appears red and is warm to the touch. Lymphatic drainage is damaged by cellulitis, which renders the area predisposed to subsequent infections.

Cellulitis is typically treated with a course of oral or intravenous (IV) antibiotics as well as wound management involving debridement, any re-apposition and topical dressing.

Chapter XIII — Diseases of the musculoskeletal system and connective tissue

Osteoarthritis

Osteoarthritis (OA) is often called “wear and tear” of the joints. OA causes certain parts of the joints to weaken and break down. Cartilage, the tough elastic material that cushions the ends of the bones, begins to crack and get holes in it. Bits of cartilage can break off into the joint space and irritate soft tissues, such as muscles, and cause problems with movement. Much of the pain of OA is a result of muscles and the other tissues that help joints move (such as tendons and ligaments) being forced to work in ways for which they were not designed, as a result of damage to the cartilage. Cartilage itself does not have nerve cells, and therefore cannot sense pain, but the muscles, tendons, ligaments and bones do. After many years of cartilage erosion, bones may actually rub together. This grinding of bone against bone adds further to the pain. Bones can also thicken and form growths, called spurs or osteophytes, which rub together. Also, when cartilage is weak or damaged, the surrounding bones place extra force on it, and this may cause excessive blood flow (hyperemia) that can cause pain, especially at night.

Damage due to OA progresses slowly over time and may result in several problems. OA commonly affects weight-bearing joints such as hips, knees, feet and spine. However, non–weight bearing joints such as finger joints and the joint at the base of the thumb may be affected as well. It usually does not affect other joints, except when they have been injured or been put under unusual stress.

No one knows for sure what causes OA, although scientists are well on their way to understanding the events that lead to the breakdown of cartilage. Researchers now think that there are several factors that may increase the risk for getting OA. Key risk factors include heredity, excess weight, injury and/or joint damage from another type of arthritis.

Osteoarthritis resulting from a known cause such as a congenital/developmental problem, metabolic disease, endocrine disease, calcium deposition disease, neuropathic condition, other bone and joint conditions, acute and chronic (repetitive) trauma is classified as secondary osteoarthritis.

Spinal stenosis

Spinal stenosis is defined as any developmental or acquired narrowing of the spinal (neural) canal, or nerve root canals (intervertebral foramina) that results in compression of neural elements.[11]

Spinal or foraminal stenosis is a term used when the **underlying condition** has become so severe that the spinal canal's dimensions have been reduced to the point that the patient develops symptoms which range from pain to extremity dysfunction. In myelopathy, the patient will typically have organ dysfunction. Some common causes of spinal stenosis include neoplasms, intervertebral disc disorders such as displacement or disc degeneration, and spondylosis.

Chapter XIV — Diseases of the genitourinary system

Stages of chronic kidney disease (CKD)

Chronic kidney disease is defined according to the presence or absence of kidney damage and level of kidney function irrespective of the underlying disease. The stages of CKD are defined by physicians based on the level of kidney function as evidenced by the glomerular filtration rate (GFR).

In a clinical setting, patients are diagnosed with chronic kidney disease if they meet either of the following criteria:

- Kidney damage for three months or more, as defined by structural or functional abnormalities of the kidney, with or without decreased GFR, manifest by either
  - Pathological abnormalities; or
  - Markers of kidney damage, including abnormalities in the composition of the blood or urine, or abnormalities in imaging tests; or
  - GFR <60 mL/min/1.73 m^2 for three months or more, with or without kidney damage.

Recent professional guidelines classify the severity of chronic kidney disease in five stages, with stage 1 being the mildest and usually causing few symptoms and stage 5 being a severe illness with poor life expectancy if untreated. Stage 5 CKD, also called end-stage chronic kidney disease or established kidney disease, is synonymous with the now-outdated terms “end-stage renal disease” (ESRD) or “end-stage renal failure” (ESRF).

Stage	Description	GFR (mL/min/1.73 m^2)
1	Kidney damage with normal or increased GFR	≥90
2	Kidney damage with mild decreased GFR	60 to 89
3	Moderate decreased GFR	30 to 59
4	Severe decreased GFR	15 to 29
5	End-stage kidney disease	<15

Adverse outcomes of kidney disease are based on the level of kidney function and risk of loss of function in the future. CKD tends to worsen over time; therefore, the risk of adverse outcomes increases over time with disease severity. Staging of chronic kidney disease will facilitate application of clinical practice guidelines, clinical performance measures and quality improvement efforts for the evaluation of CKD, as well as management of chronic kidney disease. Severity is based on the level of GFR because GFR is widely accepted as the best overall measure of kidney function.

Pelvic relaxation

Pelvic relaxation is the result of laxities or weakening of the ligaments, fascia and muscles that support the pelvic organs. Labor and delivery, obesity, aging, injury, chronic straining, congenital malformations, increased abdominal pressure, sacral nerve disorders and connective tissue disorders can contribute to the disorder. Pelvic relaxation may include cystocele, rectocele, urethrocele, uterine and vaginal prolapse.[12]

Cystoceles and urethroceles

The effect of labor and delivery on the female pelvis is a common cause of a cystocele or an urethrocele. Symptoms commonly associated with a cystocele include urinary stress incontinence, frequency or, a sensation of vaginal fullness or pressure. Symptoms are aggravated by increased intra-abdominal pressure caused by activity such as prolonged standing, coughing or sneezing. It is important to note that even though stress incontinence is the most common symptom associated with a cystocele, it is not caused by the cystocele and surgical correction of the cystocele alone will not necessarily correct the incontinence. Stress incontinence is due to the relaxation of the surrounding pelvic support structures and the loss of the normal urethrovesical angle.

A cystocele is a herniation of the bladder. When a cystocele exists alone, without any other form of genital prolapse, it is rarely repaired surgically unless it is so large that it is the cause of urinary retention or bladder infections. The most common method of cystocele repair is the anterior colporrhaphy which, in CCI, is classified to the rubric 1.RS.80.^^ *Repair, vagina NEC*.

This repair may require that sutures, grafts or synthetic materials be used to strengthen the vaginal walls and correct protrusion of the bladder. Colporrhaphy may be performed concomitantly with other interventions like vaginal hysterectomy (1.RM.89.CA) when other conditions exist.

Female stress incontinence

When stress incontinence is the main indication for the surgical intervention, repair is usually directed toward the urethrovesical angle where urethropexy is attained. This is classified to 1.PL.74.^^ *Fixation of the bladder neck*. A variety of techniques are available to elevate the urethra and surrounding fascia and muscular support to a level that restores normal urethral function. Any concomitant repair of any co-existent cystocele is also coded.

Rectoceles

Rectocele is a rectovaginal hernia caused by damage done to the fibrous connective tissue between the rectum and vagina during childbirth. It may not become problematic until after menopause. Repair of a rectocele is classified to 1.RS.80.^^ *Repair, vagina*.

Enteroceles

An enterocele is a small bowel herniation into the rectovaginal septum. It is commonly found in women who have had a previous hysterectomy. The peritoneum may be in direct contact with vaginal epithelium due to weakened or absent support structures. Repair of the defect involves reduction of the small bowel and suturing the apex of pubocervical and rectovaginal fascia back together. If this is the only intervention performed, then a code from the rubric 1.RS.80.^^ will adequately capture this. However, this repair of the apical defect is sometimes followed by a vaginal vault suspension. An additional code will then be required to capture the colpopexy or vaginal vault suspension (1.RS.74.^^ *Fixation, vagina*) that restores the normal shape and support of the vaginal vault.

Uterine prolapse

Uterine prolapse is a condition in which the uterus drops below its normal position as a result of damage to or weakness of the uterosacral ligaments. Childbirth, hard physical labor, aging and lack of estrogen support may cause this damage or weakness. Uterine prolapse is often described in degrees where

- First degree prolapse means the cervix remains within the vagina
- Second degree prolapse means the cervix protrudes beyond introitus
- Third degree prolapse (complete procidentia) means the prolapse with entire uterus outside vulva

The surgical treatment of choice depends on whether or not a functional uterus is still desired. In older women, a hysterectomy may be performed. In many cases, cystocele, rectocele and enterocele are also present along with the genital prolapse and a vaginal repair (1.RS.80.^^) may then be performed concomitantly with the hysterectomy. Younger women who desire future pregnancies may have a uterine suspension performed. This is classified to 1.RM.74.^^ *Fixation, uterus and surrounding structures*.

Chapter XV — Pregnancy, childbirth and the puerperium

Length of gestation

The duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or completed weeks (e.g., events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation).

Gestational age is frequently a source of confusion, when calculations are based on menstrual dates. For the purposes of calculation of gestational age from the date of the first day of the last normal menstrual period and the date of delivery, it should be borne in mind that the first day is day zero and not day one; days 0–6 therefore correspond to “completed week zero”; days 7–13 to “completed week one”; and the 40th week of actual gestation is synonymous with “completed week 39.” Where the date of the last normal menstrual period is not available, gestational age should be based on the best clinical estimate. In order to avoid misunderstanding, tabulations should indicate both weeks and days.

Preterm

Less than 37 completed weeks (less than 259 days) of gestation.

Term

From 37 completed weeks to less than 41 completed weeks.

Post-dates

A pregnancy is considered post-dates at 41 completed weeks. At this point in the pregnancy, induction may be offered.

Post-term/prolonged

A pregnancy is considered post-term (prolonged) at 42 completed weeks of gestation or 294 days from the last menstrual period (LMP) (280 days from the date of conception). At this gestational age the risk of adverse fetal and neonatal outcome, and in particular the risk of perinatal death, is increased.

Trimesters

For the purposes of this classification, trimesters shall be defined as follows:

- First trimester is less than and including the 13th week of gestation (≤13 weeks);
- Second trimester is the fourteenth week up to and including the twenty-sixth week (14–26 weeks); and
- Third trimester is more than 26 weeks gestation (>26 weeks).

Chapter XVI — Certain conditions originating in the perinatal period

Respiratory distress of newborn

“Respiratory distress syndrome (RDS), also called, hyaline membrane disease is a syndrome caused by deficient surfactant manifested clinically by respiratory distress in the preterm infant. RDS almost always occurs in newborns born before 37 week gestation; the more premature, the greater the chance of developing RDS. Pulmonary surfactant, a mixture of phospholipids and three surfactant lipoproteins, is secreted by type II pneumocytes. The air-fluid interface of the film of water lining the alveoli exerts large forces that cause the alveoli to close if surfactant is deficient. Lung compliance is decreased, and the work of inflating the stiff lungs is increased. If untreated, severe hypoxemia can result in multiple organ failure and death. However, if the newborn’s ventilation is adequately supported, surfactant production will begin and RDS will resolve by 4 or 5 days. Recovery is hastened by treatment with pulmonary surfactant.”[13]

"Transient tachypnea of the newborn (TTN), also called neonatal wet lung syndrome, is respiratory distress with rapid respirations and hypoxemia caused by delayed reabsorption of fetal lung fluid, requiring O_2 supplementation. Affected newborns are often born at or close to term. They are likely to have been delivered by Cesarean section and may have had perinatal distress. Recovery usually occurs within 2 to 3 days."[13]

Neonatal jaundice

Neonatal jaundice, also referred to as neonatal hyperbilirubinemia, is a yellow discoloration of the skin caused by elevated levels of bilirubin in the blood (hyperbilirubinemia). Per *The Merck Manual*, jaundice is diagnosed when laboratory tests show a serum bilirubin concentration of >10 mg/dL (171 µmol/L) in preterm newborns or >18 mg/dL (257 µmol/L) in full-term newborns. Jaundice can be classified into two main categories: physiologic and pathologic. Physiologic jaundice occurs in almost all neonates, is usually not clinically significant and resolves within one week. Pathologic jaundice manifests by a rapidly rising total serum bilirubin concentration resulting in prolonged jaundice, often requiring therapy.

Phototherapy has proved to be safe and effective in treating hyperbilirubinemia with the aim of preventing potentially toxic bilirubin levels and decreasing the need for exchange transfusion. A maximal effect is obtained by exposing the newborn to visible light in the blue range. However, blue lights prevent detection of cyanosis, so phototherapy using broad-spectrum white light is often preferred.

In cases of severe neonatal jaundice, exchange transfusion is an effective form of treatment. Severe hyperbilirubinemia, per *The Merck Manual*, is defined by serum bilirubin concentration of 11–14 mg/dL for preterm newborns; for full-term newborns, the definition is >20 mg/dL at 24 to 48 hours or >25 mg/dL at more than 48 hours and failure of phototherapy to result in bilirubin decrease. In exchange transfusion, small amounts of blood are withdrawn and replaced through an umbilical vein catheter to remove partially hemolyzed and antibody-coated red blood cells as well as circulating immunoglobulins.

Chapter XVIII — Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

Systemic inflammatory response syndrome (SIRS)

Systemic inflammatory response syndrome (SIRS) is the body's response to an infectious or non-infectious insult. It is identified by two or more clinical findings of elevated or reduced temperature, rapid heart rate and respiration, and elevated or reduced white blood count.

The signs and symptoms associated with SIRS are indicators that a systemic reaction is occurring in the body requiring the need for quick treatment. The signs and symptoms associated with SIRS are the same whether the underlying cause is of an infectious or non-infectious origin.

The following definitions may assist in understanding the interrelationships between the concepts of bacteremia, septicemia, systemic inflammatory response syndrome, sepsis, severe sepsis and septic shock:

- Bacteremia: The presence of bacteria in the blood with no systemic response.
- Septicemia: Systemic disease associated with the presence and persistence of pathogenic microorganisms or their toxins in the blood. Also called sepsis. Physicians sometimes use the terms “septicemia” and “sepsis” interchangeably.
- Systemic inflammatory response syndrome: The systemic inflammatory response due to a severe clinical insult manifested by two or more of the following symptoms: elevated or reduced temperature; rapid heart rate and respiration; and/or elevated or reduced white blood count.
- Sepsis: Systemic inflammatory response syndrome when the clinical insult is infection.
- Severe sepsis: Sepsis associated with acute organ dysfunction.
- Sepsis with chronic organ failure/dysfunction (e.g., chronic kidney disease) is not synonymous with severe sepsis.
- Septic shock: Sepsis with hypotension, despite adequate fluid resuscitation, along with the presence of perfusion abnormalities.[14]

When a patient with a known or suspected infection shows signs and symptoms of **systemic** inflammatory response (SIRS), the condition is described as “sepsis.”[15]

Used in the strictest sense, the term **“SIRS”** should be restricted to mean “SIRS of a non-infectious origin” and the term **“sepsis”** should be used to mean “SIRS of an infectious origin”; however, these terms are used interchangeably by physicians.

It is now recognized that patients with critical illnesses and injuries may trigger a systemic inflammatory response similar to that caused by infection. These patients exhibit the same type of reaction as sepsis patients, yet there is no evidence of generalized or systemic infection. This reaction in non-infectious patients is what initiated the use of the term “SIRS” in clinical practice. When a patient experiences a major insult to the body, such as massive trauma, burns, major surgery, pancreatitis or acute coronary syndrome, a systemic inflammatory response may occur. In summary, the following tables outline the possible SIRS scenarios and how these scenarios are classified.

Classification of SIRS: Infectious origin

SIRS	SIRS with specified acute organ failure	SIRS with unspecified acute organ failure	SIRS with shock
Sepsis code (M), (1), (2) or MP/OP **AND** Code for underlying localized infection when documented (1), (2) or MP/OP	Sepsis code (M), (1), (2) or MP/OP **AND** Acute organ failure code(s) (1), (2) or OP **AND** Code for underlying localized infection when documented (1), (2) or MP/OP	Sepsis code (M), (1), (2) or MP/OP **AND** Code for underlying localized infection when documented (1), (2) or MP/OP **AND**	Assign codes from either the second or third column, when applicable **AND** Code for underlying localized infection when documented (1), (2) or MP/OP **AND**
Optional R65.0 Systemic inflammatory response syndrome of infectious origin without organ failure (3) or OP	**Optional** R65.1 Systemic inflammatory response syndrome of infectious origin with acute organ failure (3) or OP	**Mandatory** R65.1 Systemic inflammatory response syndrome of infectious origin with acute organ failure (1), (2) or OP **Note:** R65.1 is mandatory only when the diagnosis is stated as “severe sepsis” or “multi-organ dysfunction syndrome (MODS)” or “multiple organ failure” in the presence of sepsis.	**Mandatory** R57.2 Septic shock (1), (2) or OP
Rationale: SIRS is already inherent in the sepsis code; therefore, assigning R65.0 is optional.	Rationale: When the type of acute organ failure is specified in the documentation, each type is coded separately. R65.1 is optional as it does not provide any new information. The presence of SIRS is inherent in the sepsis code and the progression to severe sepsis is indicated by the specific codes for acute organ failure. Sepsis code plus code(s) for acute organ failure = severe sepsis.	Rationale: When acute organ failure is documented but not specified, it is mandatory to assign R65.1 to indicate that this is a case of severe sepsis.	Rationale: When septic shock is documented, it is captured as an additional comorbidity. **Note:** Shock in SIRS due to an infectious origin is specifically **septic shock**.

Classification of SIRS: Non-infectious origin

SIRS	SIRS with specified acute organ failure	SIRS with unspecified acute organ failure	SIRS with shock
Underlying cause code (M), (1), (2) or MP/OP **AND**	Underlying cause code (M), (1), (2) or MP/OP **AND** Acute organ failure code(s) (1), (2) or OP **AND**	Underlying cause code (M), (1), (2) or MP/OP **AND**	When shock is present in non-infectious SIRS, it is mandatory to assign an additional code from category R57 *Shock, not elsewhere* classified as a type (1), (2) or (OP). **Note:** R57.2 *Septic shock* is not applicable to non-infectious SIRS.
Mandatory R65.2 Systemic inflammatory response syndrome of noninfectious origin without organ failure (1), (2) or OP	**Mandatory** R65.3 Systemic inflammatory response syndrome of noninfectious origin with acute organ failure (1), (2) or OP	**Mandatory** R65.3 Systemic inflammatory response syndrome of noninfectious origin with acute organ failure (1), (2) or OP	Not applicable

Rationale: Unlike SIRS of an infectious origin, where SIRS is already inherent in the sepsis code, SIRS of a non-infectious origin always requires the addition of R65.2 and R65.3 (mandatory) to identify the presence of SIRS. In a non-infectious cause, SIRS is always a significant comorbidity.

Chapter XIX — Injury, poisonings and certain other consequences of external causes

Crush injuries

Crush injury is defined as muscle swelling and/or neurological disturbances due to compression of extremities or other parts of the body. Typically these include injuries of the lower extremities, upper extremities and trunk.

Crush syndrome is localized crush injury with systemic manifestations. These systemic effects are caused by traumatic rhabdomyolysis (muscle breakdown). This muscle breakdown releases potentially toxic muscle cell components and electrolytes into the circulatory system. Crush syndrome can cause local tissue injury, organ dysfunction and metabolic abnormalities, including acidosis, hyperkalemia and hypocalcemia.[16]

Opioid overdose

Opioid overdose coding direction

Below is a brief summary of direction for coding opioid overdose cases as described in the bulletin *Opioid Overdose Coding Direction*.

Coding opioid overdose cases: Summary of direction

Documentation	Opioid antidote given	Positive effect from opioid antidote	Direction
Opioid overdose	May or may not be known	May or may not be known	**Classify the encounter as a confirmed opioid overdose since the documentation describes a confirmed opioid overdose.** When a diagnosis of "opioid overdose" or drug overdose with specification of the specific opioid (e.g., fentanyl) is documented, assign the applicable codes for an opioid overdose per the direction in the coding standard *Adverse Reactions in Therapeutic Use Versus Poisonings*.
Drug overdose	Yes	Yes	**Classify the encounter as a confirmed opioid overdose since an opioid antidote was administered and had a positive effect.** When an opioid antidote (e.g., naloxone, [Narcan]) is administered for a suspected overdose prior to arrival at the facility (e.g., self-administered, administered by someone else) or during the episode of care and there is documentation of a positive effect (e.g., starts breathing normally and/or regains consciousness, opens eyes), classify the encounter as an opioid overdose.
Drug overdose	Yes	No	**Classify the encounter as unknown drug overdose.** Do not classify as an opioid overdose.
Query opioid overdose	Yes	Yes	**Classify the encounter as a confirmed opioid overdose since an opioid antidote was administered and had a positive effect.** When an opioid antidote (e.g., naloxone, [Narcan]) is administered for a suspected overdose prior to arrival at the facility (e.g., self-administered, administered by someone else) or during the episode of care and there is documentation of a positive effect (e.g., starts breathing normally and/or regains consciousness, opens eyes), classify the encounter as an opioid overdose.

Documentation	Opioid antidote given	Positive effect from opioid antidote	Direction
Suspected opioid overdose. All available documentation reviewed.	No	Not applicable	**Classify the encounter as a query (unconfirmed) opioid overdose since an opioid antidote was not administered and there is no other documentation available confirming that the drug taken was an opioid.** When a query/unconfirmed opioid overdose is documented (e.g., "suspected opioid overdose," "questionable opioid overdose," "rule out opioid overdose," "possible opioid overdose") and an opioid antidote (e.g., naloxone, [Narcan]) is **not** given, classify the encounter as a query opioid overdose and assign prefix Q, unless other available documentation confirms that the drug overdose was due to an opioid.
Query opioid overdose. The drug taken is documented as an opioid in other available documentation.	No	Not applicable	**Classify the encounter as a confirmed opioid overdose since other available documentation confirmed that the drug taken was an opioid.** Use all health care provider documentation including non-physician documentation (e.g., nurses notes, ambulance records) when there is documentation of • A query (unconfirmed) opioid overdose; or • A drug overdose and the specific drug is not documented by the physician.

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Appendix B — Y83–Y84 Inclusion List

The Y83–Y84 Inclusion List is a guide for the consistent assignment of interventions to subcategories in Y83 and Y84. The list below includes additions up to January 2018. It is the responsibility of each coder to keep this list up to date from responses to coding questions in the eQuery database about interventions that are not represented on the list.

Code	Use of this subcategory	Includes
Y83 Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure		
Y83.0 Surgical operation with transplant of whole organ or tissue	This subcategory includes any whole or partial organ or tissue transplant. “Transplant” is the keyword.	• Bone marrow transplant • Corneal transplant (including lamellar corneal transplant) • Heart transplant • Heart valve replacements, all natural (see Y83.1 for artificial valves) • Kidney transplant • Lobes of organs • Stem cell transplant
Y83.1 Surgical operation with implant of artificial internal device	This subcategory includes all interventions that employ any artificial internal device. The key words are “artificial,” “internal” and “device.” Internal means completely internal.	• Artificial organs • Central venous catheter (CVC) that is totally implanted (e.g., Port-a-Cath) (see Y84.8 for CVCs that are not totally implanted) • Heart valve replacements, artificial (all artificial or combination of artificial and natural [stented]) (see Y83.0 for all natural valves) • Infusion pumps (systems) (e.g., Baclofen, insulin) • Joint replacement prostheses (e.g., TKR, THR) • Orthopedic internal fixation devices (e.g., screws, pins, nails) and implants (to fill a bony defect [e.g., cranioplasty plate]) (see Y83.8 for external orthopedic devices) • Other prostheses (e.g., breast implant, ossicular prosthesis) • Pacemakers, defibrillators and cardiac resynchronization therapy devices (includes leads) (see Y84.8 for temporary pacemaker)

Code	Use of this subcategory	Includes
Y83.1 Surgical operation with implant of artificial internal device (cont'd)		• Shunts (shunt systems) employing artificial devices (e.g., catheters, pumps) (e.g., VP shunt, Transjugular Intrahepatic Portosystemic Shunt [TIPS]) (see also Y83.2) • Slings (e.g., eyelid [silastic rods], vaginal [TVT]) • Stents (e.g., tear [lacrimal] duct, coronary artery [PTCA with stent], bile duct, nasal) • Tubes (e.g., myringotomy/tympanostomy tubes) **Other** • Dental implants • Gastroplasty band(ing system) • Intraocular lens
Y83.2 Surgical operation with anastomosis, bypass or graft	This subcategory includes any intervention involving anastomosis, bypass or graft including those that employ artificial or natural tissue. The key words are "anastomosis," "bypass" and "graft." Excludes with stoma formation (Y83.3).	• Augmentation, with natural or synthetic tissue (e.g., Contigen, Macroplastique, silicone) with device Y83.1 • Bypasses (e.g., CABG, gastric bypass, bypass for PVD [saphenous vein graft] [e.g., aortobifemoral, iliofemoral]) • Grafts (autograft, homograft, xenograft) (patch grafts, tube grafts) (flaps–local, free, pedicled) (artificial, natural) (e.g., skin, ligament [ACL], repair AAA, TRAM) • Hemodialysis access (creation AV fistula [radiocephalic–wrist; brachiocephalic or brachiobasilic–upper arm]) • Removal organ with anastomosis (e.g., hemicolectomy with colocoloanastomosis, partial gastrectomy with Billroth II, esophagectomy with cervicogastric anastomosis) • Shunts without artificial devices (e.g., Sano shunt [consists of a Gortex tube graft between the right ventricle and the pulmonary arteries]) (see also Y83.1) • Surgically constructed reservoirs (e.g., neobladder, pelvic pouch)

Code	Use of this subcategory	Includes
Y83.2 Surgical operation with anastomosis, bypass or graft (cont'd)		**Other** • Bladder neck fixation using fascia as a sling • Dacryocystorhinostomy • Mesh (e.g., hernia repair with mesh) • Trabeculectomy
Y83.3 Surgical operation with formation of external stoma	This subcategory includes all interventions that result in the formation of an external stoma. Complications of catheters used with these stomas are included here unless the catheter has a defect or has broken (Y70-Y82).	• Anastomosis, bypass or graft with formation of external stoma (e.g., neobladder with stoma) • Percutaneous ostomies (e.g., gastrostomy [PEG tube]) • Reconstructive surgery with formation of external stoma • Removal of organ with formation of external stoma (e.g., Hartmann's procedure) • Temporary and permanent stomas
Y83.4 Other reconstructive surgery	This subcategory includes reconstructive, restorative and plastic procedures that do **not** involve implant of an artificial internal device (Y83.1); anastomosis, bypass or graft (Y83.2); or formation of external stoma (Y83.3).	• A & P repair • Cleft lip and palate repair • Hypospadias repair • Lift surgery (e.g., blepharoplasty, eyebrow lift) • Nasal septum reconstruction (e.g., septoplasty, SMR) • Nissen fundoplication • Reduction (size reduction) (e.g., breast reduction, abdominoplasty) • Repair of hernia with simple closure (with mesh Y83.2)
Y83.5 Amputation of limb(s)	This subcategory includes surgical amputations of limbs–partial and complete, and revisions of (surgical) (traumatic) amputations.	• BKA • Amputation of finger (partial) (revision) • Amputation of foot

Code	Use of this subcategory	Includes
Y83.6 Removal of other organ (partial) (total)	This subcategory includes removal of organs — partial and total — that do not involve transplant (Y83.0); implant of an artificial internal device (Y83.1); anastomosis, bypass or graft (Y83.2); or formation of external stoma (Y83.3).	• Excision of lesion (includes bunionectomy) • Excisional biopsies • Extractions (e.g., nail, tooth) • Procurement of tissue • Removal of organ (partial) (total) (e.g., appendectomy, cholecystectomy, circumcision, hysterectomy, mandibulectomy, mastoidectomy, parathyroidectomy, pneumonectomy, tonsillectomy) • Resection of tissue (e.g., resection brain tumour, EMR (esophageal mucosal resection), TURB)
Y83.8 Other surgical procedures	This subcategory includes any surgical intervention that does not involve any type of intervention assigned to one of the specific subcategories.	• Angioplasties (dilation) (see Y83.1 for with stent placement) • Banding (e.g., esophageal varices) • Biopsies, for example, needle lung biopsy, incisional biopsies (all forms except excisional [Y83.6]) • Control of bleeding • Debridements • Destructions (e.g., root canal, endometrial ablation, [YAG] laser capsulotomy) • Dilation (e.g., hydrodilation of bladder) (see also Angioplasties) • Embolization (for control of bleeding or occlusion) • Endarterectomy (atherectomy) (no tissue or device used) (e.g., carotid endarterectomy, coronary artery atherectomy) • Endoscopies with or without biopsy (e.g., cystoscopy, colonoscopy with biopsy) Note: endoscopies with a therapeutic intervention are assigned to the appropriate surgical subcategory (e.g., endoscopic stent placement Y83.1) • Incision and Drainage (I & D) • Lysis adhesions • Orthopedic external fixation devices (e.g., percutaneous external fixator, halo fixation device)

Code	Use of this subcategory	Includes
Y83.8 Other surgical procedures (cont'd)		• Release procedures (e.g., plantar fasciotomy, carpal tunnel repair, spinal decompression) • Repairs with simple closure (e.g., suture laceration, repair tendon tear) • Tubal ligation • Vasectomy • Vitrectomy
Y83.9 Surgical procedure, unspecified	This subcategory is used when there is no documentation of the type of surgical intervention performed and when multiple types of surgical interventions are performed and none are known to be directly attributed to the post-intervention condition.	n/a
Y84 Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure		
Y84.0 Cardiac catheterization	This subcategory includes diagnostic cardiac catheterizations only. Cardiac catheterizations with therapeutic interventions are assigned to the appropriate surgical subcategory (e.g., PTCA with stent Y83.1).	• Cardiac catheterization, diagnostic • Coronary angiography
Y84.1 Kidney dialysis	This subcategory includes all forms of kidney dialysis as a procedure and the catheters employed unless the catheter has a defect or has broken (Y70–Y82).	• Hemodialysis • Peritoneal dialysis
Y84.2 Radiological procedure and radiotherapy	This subcategory includes diagnostic radiological (diagnostic imaging) procedures and radiotherapy only. Radiological procedures with a therapeutic intervention are assigned to the appropriate surgical subcategory (e.g., ERCP with bile duct stent placement Y83.1).	• Brachytherapy • ERCP, diagnostic • Mammogram • Radiation (irradiation) (radiotherapy) • Retrograde pyelogram (includes cystoscopy as part of this intervention)
Y84.30 Electroconvulsive therapy	This subcategory includes ECT (of brain) only.	• Electroshock therapy

Code	Use of this subcategory	Includes
Y84.38 Other shock therapy	This subcategory includes all forms of shock therapy other than ECT.	• Cardioversion • Extracorporeal shock wave therapy • Insulin shock therapy
Y84.4 Aspiration of fluid	This subcategory includes one-time aspiration of fluids for drainage or diagnostic purposes.	• Paracentesis • Spinal tap/lumbar puncture • Thoracentesis
Y84.5 Insertion of gastric or duodenal sound	This subcategory is specific to the use of gastric or duodenal sounds.	• Insertion of gastric or duodenal sound
Y84.6 Urinary catheterization	This subcategory includes urinary catheterization as a procedure and the catheter itself unless the catheter has a defect or has broken (Y70–Y82).	• Urinary catheterization (Foley insertion) (indwelling catheter) (suprapubic catheterization Y84.8)
Y84.7 Blood-sampling	This subcategory includes blood sampling for diagnostic purposes only.	• Blood sampling
Y84.8 Other medical procedures	This subcategory includes all medical interventions that do not involve any type of intervention assigned to one of the specific medical or surgical subcategories. This subcategory excludes adverse effects from drugs and other products that are introduced into the body (see Table of Drugs and Chemicals) and devices that have a defect or have broken (Y70–Y82).	• Blood donor procedure • Blood transfusion procedure • Casts • Central venous catheters (CVC) that are not totally implanted (e.g., permacath, PICC, subclavian line) (see Y83.1 for totally implanted CVC) • Chiropractic manipulation • CPR • Extracorporeal circulation (e.g., extracorporeal membrane oxygenation [ECMO], cardiopulmonary bypass [CPB]) • Hypothermia (medically induced) • Infusion procedure • Injection procedure • Intubation (anesthetic) • IUD insertion • IVs • Nasal packing • Pacemaker, temporary (see Y83.1 for permanent pacemaker) • Reattachments • Suprapubic catheterization • TPN

Code	Use of this subcategory	Includes
Y84.8 Other medical procedures (cont'd)		• Transcranial magnetic stimulation • Tubes (e.g., chest tube, tracheal [ventilator] tube, Hemovac drain [collection system]) • Vaccination procedure • Ventilation therapy
Y84.9 Medical procedure, unspecified	This subcategory includes cases where there is no documentation of the type of medical intervention performed or when two or more medical interventions are performed and it is unclear which intervention is attributable to the post-intervention condition.	n/a

Appendix C — Table of changes — 2018 Canadian Coding Standards

The purpose of this appendix is to

1. Provide a summary of changes for easy reference; and
2. Support understanding of changes

Important: This table identifies changes that are reflected in the *Canadian Coding Standards for Version 2018 ICD-10-CA and CCI*. It is not an exhaustive list of v2018 changes to ICD-10-CA and CCI. For a complete list of new and disabled codes, see appendices A and B in ICD-10-CA and appendices E and F in CCI.

Note: For ease of use, the coding standard title and chapter heading is a hyperlink to the relevant standard.

Description of change	Rationale
Main and Other Problem Definitions for NACRS — General coding standards for ICD-10-CA	
Deleted the following statement: "The entry must be a valid ICD-10-CA code."	An invalid code cannot be entered into a CIHI abstract; therefore, this statement is unnecessary.
Added the word "mandatory" to the following statement: "An ICD-10-CA code is assigned, mandatory, as other problem (OP) when . . ."	To clarify that when a condition meets the definition of other problem, it is mandatory to assign an ICD-10-CA code.
Added the following statement to the definition of "other problem": "It is optional to assign a code for a condition or circumstance when it does not meet the above definition for mandatory other problem (OP) assignment."	To clarify that only those conditions/circumstances that meet the definition of other problem are mandatory; all other conditions/circumstances are optional.
Added the statement "CIHI recommends that any decision regarding optional other problem assignment . . ."	To incorporate CIHI's recommendation that any decision regarding optional other problem (OP) assignment be made at the jurisdiction or facility level, based on data needs and in consultation with stakeholders responsible for overseeing coding and data quality.
Added the note "See data elements 44 and 45 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual* . . ."	To identify that further instructions with respect to main problem and other problem are found in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

Description of change	Rationale
Added the word “optional” to the code (Q) K21.9 in the following example and modified the rationale: “A patient presents to the emergency department with chest pain . . .”	To align with direction in the standard *Unconfirmed Diagnosis*.
Coding of Main and Other Problems for NACRS — General coding standards for ICD-10-CA	
Modified the second paragraph of the introductory statement: **From:** “Diagnoses listed only on death certificates, history and physical or pre-operative anesthetic consults qualify as other problems when they meet the definition of an **other problem** (OP).” **To:** “It is optional to assign a code as an other problem for a diagnosis listed only on a death certificate, history and physical or pre-operative anesthetic consult, unless that diagnosis meets the definition for mandatory **other problem** (OP) assignment.”	To clarify when these diagnoses are mandatory versus when they are optional, per the definition of other problem.
Deleted the code Z63.0 *Problems in relationship with spouse or partner* from the following example: “A man who recently argued with his wife presents to the emergency department complaining of acute dizziness . . .”	In the example scenario, the diagnosis is not documented by the physician/primary care provider and cannot be inferred.
Diagnosis Typing Definitions for DAD — General coding standards for ICD-10-CA	
Removed “Morphology codes (type 4)” from the list of diagnosis types.	To align with v2018 ICD-10-CA enhancements. Chapter XXII — Morphology of neoplasms was removed from the classification; therefore, diagnosis type (4) is no longer a valid diagnosis type.
Added the following note to the section “Determining when a condition meets the criteria for significance”: “Treatment may include transfer to another facility (e.g., another acute care inpatient facility, a day surgery unit at another facility for an out-of-hospital [OOH] intervention) for a diagnostic or therapeutic intervention identified as mandatory for code assignment in the coding standards.”	To clarify that performing a qualifying intervention at a facility other than the reporting facility during the current episode of care does not preclude applying a significant diagnosis type to the diagnosis.
Added the following note to the section “Determining when a condition meets the criteria for significance” “Documented evidence of a diagnostic investigation or an assessment, a confirmed diagnosis and a proposed treatment plan that is not implemented per the patient’s decision to refuse treatment or due to a contraindication do not preclude assignment of a significant diagnosis type.”	To clarify that a patient refusing treatment does not preclude applying a significant diagnosis type to the diagnosis.

Description of change	Rationale
Added the note "For details related to the intervention location code and out-of-hospital (OOH) indicator . . ."	To provide reference to the correct section of the *Discharge Abstract Database* (*DAD) Abstracting Manual*.
Added the flowchart Assigning prefixes 5 and 6 to a DAD inpatient abstract.	To assist with the proper application of prefixes 5 and 6.
Added the following statement: "Direction pertaining to the assignment of diagnosis type (3) is found throughout the coding standards. . ."	To incorporate CIHI's recommendation that any decision regarding **optional diagnosis type (3) assignment** be made at the jurisdiction or facility level, based on data needs and in consultation with stakeholders responsible for overseeing coding and data quality.
Removed the section Diagnosis type (4) — Morphology codes.	To align with v2018 ICD-10-CA enhancements. Chapter XXII — Morphology of neoplasms was removed from the classification; therefore, diagnosis type (4) is no longer a valid diagnosis type.
Added two examples: • "A patient is admitted with an upper gastrointestinal (GI) hemorrhage. On admission, the physician documents that the hemoglobin is low. . . " • "A term patient with gestational diabetes presents in labor. Resources at the facility are limited; therefore, arrangements are made to transfer the patient to the care of an obstetrician at another facility . . ."	To demonstrate application of the notes based on clinically relevant cases.
Diagnosis Cluster — General coding standards for ICD-10-CA	
Added the note "For more information about diagnosis clusters, see Group 10, . . ."	To provide reference to where additional information can be found in the *Discharge Abstract Database (DAD) Abstracting Manual* and the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.
Amended the following example: **From:** "A patient has a total knee replacement in Hospital A and is transferred to Hospital B . . ." **To:** "A patient with primary, bilateral osteoarthritis of the knee has a total knee replacement in Hospital A and is transferred to Hospital B . . ." Added the code and diagnosis type for the osteoarthritis and modified the rationale.	To comply with the requirement in the coding standard *Admission for Convalescence* that an additional code to indicate the condition for which convalescence is required is mandatory as a diagnosis type (3). Also to clarify that the anemia was a condition that was present on transfer.

Description of change	Rationale
Underlying Symptoms or Conditions — General coding standards for ICD-10-CA	
Added a purpose statement to the beginning of the coding standard.	To clarify that the direction in this coding standard applies when a patient presents for investigation of a sign, symptom and/or abnormal finding and there is **no** documentation to support that the patient is being investigated to rule out a specific suspected condition.
Added a rationale to the following example: "A patient presents to the emergency department with a seizure . . ."	To provide a rationale for code assignment in this example.
Added three examples: • "The patient presents with diarrhea and anemia. A colonoscopy is performed. . ." • "The patient presents with dyspepsia and for follow-up of diverticulosis. An esophagogastroduodenoscopy (EGD) and colonoscopy are performed. . ." • "The patient presents for an EGD and colonoscopy to investigate iron deficiency anemia. During the colonoscopy external hemorrhoids are noted. . ."	To demonstrate application of the directive statements to a number of possible scenarios.
Modified the rationale in the following example: "A patient presents to the emergency department with right lower quadrant (RLQ) abdominal pain."	To clarify how the direction provided in the directive statement applies to the example.
Unconfirmed Diagnosis — General coding standards for ICD-10-CA	
Added new coding standard.	To facilitate reference to the direction for different circumstances involving one or more unconfirmed diagnoses by dividing the standard into three sections: Unconfirmed diagnosis, Confirmed diagnosis with unconfirmed specificity and Sign/symptom/abnormal finding with unconfirmed diagnosis. To provide clear direction regarding mandatory versus optional assignment of one or more codes, with an accompanying prefix Q, for one or more unconfirmed diagnoses.
Query Diagnosis (Q)/Etiology — General coding standards for ICD-10-CA	
Deleted the coding standard.	Direction for unconfirmed diagnoses is provided in the new coding standard *Unconfirmed Diagnosis*.

Description of change	Rationale
Use Additional Code/Code Separately Instructions — General coding standards for ICD-10-CA	
Modified the following exception: **From:** "The instruction to 'use additional code (B95–B98) to identify infectious agent' is optional when it is not a drug-resistant infectious organism. See also the coding standard *Drug-Resistant Microorganisms*." **To: "**The instruction to 'use additional code (B95–B98) to identify infectious agent' is optional when it is not one of the mandatory drug-resistant infectious organisms. See also the coding standard *Drug-Resistant Microorganisms*."	To clarify that it is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* only when the infection is due to one of the mandatory drug-resistant microorganisms.
Reworded the rationale in the second example: **From:** "Assignment of codes from B95–B98 is optional. Assignment of codes from B95–B98 is mandatory for infectious agents due to drug-resistant organisms only." **To:** "Assignment of a code from B95–B98 is optional, unless the infection is due to one of the mandatory drug-resistant microorganisms."	To demonstrate that it is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* only when the infection is due to one of the mandatory drug-resistant microorganisms.
Cancelled Interventions — General coding standards for ICD-10-CA	
Added the note "For more information about cancelled interventions, see Group 11 . . ."	To provide reference to where additional information can be found in the *Discharge Abstract Database (DAD) Abstracting Manual* and the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.
Selection of Interventions to Code for Ambulatory Care — General coding standards for CCI	
Added 1.^^.35.^^-M^ *Pharmacotherapy using antineoplastic and immunomodulating agents* to the list Additional mandatory CCI codes for ambulatory care.	To incorporate the direction for the assignment of chemotherapy interventions classified to 1.^^.35.^^-M^ provided in the coding standard *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*.
Added 1.ZZ.35.^^ *Pharmacotherapy, total body* — **mandatory only in certain circumstances**; see the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy* to the list Additional mandatory CCI codes for ambulatory care.	To incorporate the direction for the assignment of codes from 1.ZZ.35.^^ provided in the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*, and to reference the appropriate coding standards which direct when it is mandatory to assign codes from 1.ZZ.35.^^.
Added 2.ZZ.02.PM *Assessment (examination), total body for assistance in dying* to the list Additional mandatory CCI codes for ambulatory care.	To incorporate the direction for the mandatory assignment of 2.ZZ.02.PM provided in the coding standard *Medical Assistance in Dying*.

Description of change	Rationale
Added 5.AC.24.CK-BD *Preparation by dilating cervix (for), labour, using per orifice (ripening) by balloon catheter* and 5.AC.24.CK-W6 *Preparation by dilating cervix (for), labour, using per orifice insertion of luminaria* to the list Additional mandatory CCI codes for ambulatory care.	To incorporate the direction for the mandatory assignment of 5.AC.24.CK-BD and 5.AC.24.CK-W6 provided in the coding standard *Interventions Associated with Delivery*.
Added 7.SC.08.PM *Other ministration, personal care for assistance in dying* to the list Additional mandatory CCI codes for ambulatory care.	To incorporate the direction for the mandatory assignment of 7.SC.08.PM provided in the coding standard *Medical Assistance in Dying*.
Added the coding standard *Medical Assistance in Dying* to the list of additional standards that provide direction for mandatory code assignment.	To complete the list of additional coding standards.
Selection of Interventions to Code for Acute Inpatient Care — General coding standards for CCI	
Added 1.ZZ.35.^^ *Pharmacotherapy, total body* — **mandatory only in certain circumstances**; see the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy* to the list Additional mandatory CCI codes for acute inpatient care.	To incorporate the direction for the assignment of codes from 1.ZZ.35.^^ provided in the coding standards *Medical Assistance in Dying* and *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*, and to reference the appropriate coding standards which direct when it is mandatory to assign codes from 1.ZZ.35.^^.
Added 2.ZZ.02.PM *Assessment (examination), total body for assistance in dying* to the list Additional mandatory CCI codes for acute inpatient care.	To incorporate the direction for the mandatory assignment of 2.ZZ.02.PM provided in the coding standard *Medical Assistance in Dying*.
Added 5.AC.24.CK-BD *Preparation by dilating cervix (for), labour, using per orifice (ripening) by balloon catheter* and 5.AC.24.CK-W6 *Preparation by dilating cervix (for), labour, using per orifice insertion of luminaria* to the list Additional mandatory CCI codes for acute inpatient care.	To incorporate the direction for the mandatory assignment of 5.AC.24.CK-BD and 5.AC.24.CK-W6 provided in the coding standard *Interventions Associated with Delivery*.
Added 7.SC.08.PM *Other ministration, personal care for assistance in dying* to the list Additional mandatory CCI codes for acute inpatient care.	To incorporate the direction for the mandatory assignment of 7.SC.08.PM provided in the coding standard *Medical Assistance in Dying*.
Added the coding standard *Medical Assistance in Dying* to the list of additional standards that provide direction for mandatory code assignment.	To complete the list of additional coding standards.
Endoscopic Interventions — General coding standards for CCI	
Moved the directive statements and the examples from the coding standards *Diagnostic Esophagogastroduodenoscopy (EGD)* and *Diagnostic Colonoscopic Interventions* to the coding standard *Endoscopic Interventions*.	To collate all of the information about the classification of an endoscopic intervention into one coding standard.

Description of change	Rationale
Abandoned Interventions — General coding standards for CCI	
Added the note "When an intervention meets the criteria for 'abandoned,' it is mandatory to assign . . ."	To clarify that it is mandatory to assign the status attribute "abandoned" whenever it is available and the intervention meets the criteria for an abandoned intervention.
Converted Interventions — General coding standards for CCI	
Added the note "When an intervention meets the criteria for 'converted,' it is mandatory to assign . . ."	To clarify that it is mandatory to assign the status attribute "converted" whenever it is available and the intervention meets the criteria for a converted intervention.
Infections — Chapter I — Certain infectious and parasitic diseases	
Added the following exception: "It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganisms. See also the coding standard *Drug-Resistant Microorganisms*."	To identify an exception to the directive statement "Assignment of codes from categories B95–B98 is optional; . . ." when there is a specific drug-resistant microorganism infection.
Drug-Resistant Microorganisms — Chapter I — Certain infectious and parasitic diseases	
Added "carbapenem-resistant Enterobacteriaceae (CRE)" to the introductory paragraph.	To identify the addition of carbapenem-resistant Enterobacteriaceae (CRE) infection to the standard *Drug-Resistant Microorganisms*.
Added "CRE" to the following directive statement: "When there is a current infection that is clearly documented by the physician/primary care provider as being due to MRSA, CRE, ESBL producing microorganisms or VRE, assign, mandatory, the appropriate code combination to identify the . . ."	To provide direction that it is mandatory to capture codes for drug-resistant microorganism infections due to CRE.
Removed "when it is not included in a combination code" from the second bullet in the first directive statement.	To provide direction that it is mandatory to assign a code from category B95–B98 *Bacterial, viral, and other infectious agents* for all infections due to MRSA, CRE, ESBL and VRE.
Added the code U82.20 *Resistance to carbapenem* to the second bullet in the first directive statement.	To identify that CRE has been added to the list of specific drug-resistant microorganisms.
Modified the code for ESBL from U82.2 *Extended spectrum betalactamase (ESBL) resistance* to U82.28 *Resistance to other specified extended spectrum betalactam antibiotics* in the third bullet in the first directive statement.	To align with v2018 ICD-10-CA enhancements whereby the code U82.2 was expanded to the fifth digit.

Description of change	Rationale
Added CRE to the following note: "Documentation by infection control staff stating that a patient has a current infection due to MRSA, CRE, ESBL producing microorganisms or VRE . . ."	To identify that CRE has been added to the list of specific drug-resistant microorganisms where documentation by infection control staff may be used to meet the requirement for code assignment.
Added the statement "It is mandatory to assign the set of codes that describe an infection due to a specific drug-resistant microorganism. . . " to the rationale in the following examples: "This patient, who has primary, bilateral osteoarthritis of the hip, is admitted . . ." "**Final diagnosis:** ESBL *E. coli* UTI" "The patient is admitted for treatment of infected stage II pressure ulcers . . ."	To demonstrate that it is mandatory to assign a code from category B95–B98 *Bacterial, viral, and other infectious agents* to identify the specific infection for a drug-resistant microorganism.
Added the example "A patient is admitted with a diagnosis of pneumonia due to MRSA."	To demonstrate that it is mandatory to use a code from category B95–B98 *Bacterial, viral, and other infectious agents* to identify the specific infection even when the microorganism is included in the combination code.
Added CRE to the introductory paragraph for the subsection Carriers of drug-resistant microorganisms.	To identify the addition of carbapenem-resistant Enterobacteriaceae (CRE) carrier to the subsection Carriers of drug-resistant microorganisms.
Septicemia/Sepsis — Chapter I — Certain infectious and parasitic diseases	
Added the example "The patient is admitted for a total colectomy with ileostomy for colon cancer. On post-operative day 2, he develops post-operative staphylococcus sepsis . . ."	To demonstrate that four diagnosis codes are required to identify the post-intervention sepsis (T81.4 and A41.2) and the post-intervention septic shock (T81.1 and R57.2).
Added the example "The patient is admitted to the intensive care unit with a diagnosis of central line–associated *E. coli* sepsis . . ."	To demonstrate that four diagnosis codes are required to identify the central line–associated sepsis (T82.701 and A41.50) and the central line–associated septic shock (T82.8 and R57.2).
Viral Hepatitis — Chapter I — Certain infectious and parasitic diseases	
Deleted the coding standard.	To align with v2018 ICD-10-CA enhancements and current terminology. The concept of being a carrier of viral hepatitis is no longer recognized and was removed from the classification.

Description of change	Rationale
Neoplasms of Ectopic Tissue — Chapter II — Neoplasms	
Deleted the coding standard.	To align with the v2018 ICD-10-CA enhancement that neoplasms of ectopic or aberrant tissue are classified to where they are found and not to the anatomical site of origin. The ectopic neoplasm coding rule is found within the classification.
Complications of Malignant Disease — Chapter II — Neoplasms	
Modified the directive statement: **From:** "When a patient is admitted for treatment of a specific complication of the malignancy, and no treatment is directed toward the malignancy itself, assign the code for the complication as the MRDx/main problem. Assign the code for the malignancy as a diagnosis type (3)/other problem." **To:** "When a patient is admitted for treatment of a specific complication of the malignancy, and no treatment is directed toward the malignancy itself, assign the code for the complication as the MRDx/main problem. Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem."	To clarify that it is mandatory to assign a code for the malignancy as a diagnosis type (3)/other problem in this scenario.
Modified the directive statement: **From:** "When a patient is admitted for management of a side effect of cancer treatment, assign a code for the side effect as the MRDx/main problem. Assign the code for the malignancy as a diagnosis type (3)/other problem." **To:** "When a patient is admitted for management of a side effect of cancer treatment, assign a code for the side effect as the MRDx/main problem. Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem."	To clarify that it is mandatory to assign a code for the malignancy as a diagnosis type (3)/other problem in this scenario.
Seizures — Chapter VI — Diseases of the nervous system	
Added the note "Do not confuse intractable epilepsy (medication-resistant or refractory) with status epilepticus . . ."	To clarify that the terms "intractable epilepsy" and "status epilepticus" have different meanings.

Description of change	Rationale
Neurologically Determined Death — Chapter VI — Diseases of the nervous system	
Added new coding standard.	To mandate the collection of G93.81 *Neurologically determined death* in cases where there is documentation of brain death by a designated physician. The collection of this data makes it possible to analyze and report on patients who are eligible for possible organ procurement.
Thrombolytic Therapy — Chapter IX — Diseases of the circulatory system	
Added the words “only when the diagnosis is ST-segment elevation myocardial infarction (STEMI)” to the Apply the Intervention Pre-Admit Flag note.	To clarify that the criteria for application of the Intervention Pre-Admit Flag to the code for thrombolytic therapy apply only when the thrombolytic therapy is administered prior to admission and the diagnosis is ST-segment elevation myocardial infarction (STEMI).
Added the note “The diagnosis is not STEMI and the thrombolytic agent is administered after admission . . .” to the first and fifth examples.	To clarify that the reason the Intervention Pre-Admit Flag is not applied to the code for thrombolytic therapy is because the diagnosis is not STEMI.
Added the note “The diagnosis is STEMI. However, the thrombolytic therapy is administered after admission . . .” to the second example.	To clarify that the reason the Intervention Pre-Admit Flag is not applied to the code for thrombolytic therapy is because the thrombolytic agent was not administered prior to admission.
Revised the note “Apply Intervention Pre-Admit Flag” for the third and fourth examples. **From:** “Apply Intervention Pre-Admit Flag.” **To:** “The diagnosis is STEMI and the thrombolytic therapy is administered prior to admission. Therefore, the Intervention Pre-Admit Flag does apply.”	To clarify that the reason the Intervention Pre-Admit Flag is applied to the code for thrombolytic therapy is because the thrombolytic therapy is administered prior to admission and the diagnosis is STEMI.
Added the diagnosis of STEMI to the example “The patient is brought to the emergency department at Facility A, where he receives TNK . . .”	To clarify that the reason the Intervention Pre-Admit Flag is applied to the code for thrombolytic therapy is because the diagnosis is STEMI.
Added the sentence “The Intervention Pre-Admit Flag does not apply to antithrombotics or platelet aggregation inhibitors” to the paragraph “A patient presenting with NSTEMI may be treated with antithrombotics (such as heparin) to inhibit the coagulation process . . .”	To clarify that the Intervention Pre-Admit Flag is not applied when a code is assigned for administration of an antithrombotic.

Description of change	Rationale
Strokes: Hemorrhagic, Ischemic and Unspecified — Chapter IX — Diseases of the circulatory system	
Renamed the coding standard **From:** Strokes, Cerebrovascular Accidents (CVAs) and Transient Ischemic Attacks (TIAs) **To:** Strokes: Hemorrhagic, Ischemic and Unspecified	To clarify that the direction within this coding standard is specific to hemorrhagic, ischemic and unspecific strokes.
Revised the wording of the introductory paragraph: **From:** "This standard addresses the difference between a current stroke episode and one that is considered treatment of sequelae of stroke." **To:** "This standard addresses the classification of a stroke in the context of • The initial episode of care in which an acute/current stroke is diagnosed; and • An admission solely for rehabilitation immediately following an acute/current stroke."	To clarify what this coding standard addresses.
Added a second introductory paragraph: "From a classification perspective, per the ICD-10-CA alphabetical index lookup, documentation of a stroke (meaning acute/current stroke diagnosis) is classified to one of four categories: I60, I61, I63 or I64. Code assignment depends on whether the cause of the stroke is hemorrhagic, ischemic or unknown. . ."	To clarify that from an ICD-10-CA perspective, there are only four categories to which a hemorrhagic, ischemic or unspecified stroke is classified.
Added a third introductory paragraph: "It is important to note that some provinces/territories monitor stroke strategy performance by collecting additional data using the Stroke Special Projects in the DAD and NACRS databases. . ."	To ensure provinces/territories that participate in the DAD and NACRS Stroke Strategy Performance Improvement Projects are aware of the other conditions that are included in these projects' criteria for completion.
Added the following statement to the "see also" note: "Direction related to coding neurological deficits following a stroke and sequelae/late effects of a stroke are found in the coding standards *Neurological Deficits Following a Stroke* and *Sequelae*."	To direct coders to the applicable coding standards when coding a case involving neurological deficits following a stroke or sequelae/late effects of a stroke.
Added the term "Acute" to the subheading "Acute/current stroke."	To clarify that "acute" equates to a "current" stroke from an ICD-10-CA code assignment perspective versus, for example, code assignment for a history of a stroke or sequelae/late effects of a stroke.

Description of change	Rationale
Modified the following directive statement: **From:** "Assign the code for current stroke, classifiable to I60, I61, I63 and I64, during the initial episode of care for the stroke. This includes both the acute care hospitalization and any subsequent transfer to another facility for rehabilitation to continue treating the associated neurological deficits during the current, uninterrupted episode of care." **To:** "Assign, mandatory, the applicable code from category I60, I61, I63 or I64 for an acute/current stroke diagnosed during the initial episode of care. This includes the emergency department visit, the acute care hospitalization and any subsequent admission to another facility for rehabilitation to continue treating the associated neurological deficits during the current, uninterrupted episode of care."	To clarify that it is mandatory to assign a code for an acute/current stroke classified to I60, I61, I63 or I64, and that this also applies to the emergency department visit in which an acute/current stroke may be diagnosed.
Added a new directive statement: "When a patient is admitted solely for rehabilitation immediately following an acute/current stroke diagnosis, . . ."	To provide direction to assign a code for the acute/current stroke, mandatory, as a diagnosis type (3) in this circumstance.
Revised the wording of the following statement: "A stroke may continue to worsen or progress for several hours to a day or two as a steadily enlarging area of brain tissue dies (stroke evolution). . ." Following is the new note: "When a hemorrhagic or ischemic stroke is described as progressing or evolving, an additional code is not assigned. A stroke may continue to worsen or progress for several hours to a day or two as a steadily enlarging area of brain tissue dies (stroke in evolution)."	To properly format the statement into a Note box, and to amend the wording for clarity.
Added a new note: "An acute/current stroke complicating pregnancy is classified per the direction in the coding standard *Complicated Pregnancy Versus Uncomplicated Pregnancy*."	To direct coders to the applicable coding standard when coding an acute/current stroke complicating pregnancy.
Added a new note: "The term "perinatal stroke" collectively refers to a nontraumatic stroke that occurred before birth (fetal or prenatal), during birth or within 28 days after birth. Refer to the coding standard *Perinatal Stroke*."	To direct coders to the applicable coding standard when coding a perinatal stroke.

Description of change	Rationale
Added a new note: "Documentation of 'history of a stroke' is classified to Z86.78 *Personal history of other diseases of the circulatory system* only when there are no longer any neurological deficits present. . ."	To clarify the appropriate use of Z86.78 when there is documentation of a "history of a stroke."
Added a rationale to the example "The same person is now transferred from acute care to rehabilitation. . ."	To provide rationale for assigning I63.9 as a diagnosis type (3).
Added a new example: "The patient presents to the emergency department after being found to have a decreased level of consciousness with decreased movements of her left side. . ."	To include an example of acute/current stroke meeting the definition of diagnosis type (3).
Deleted the subsection Sequelae of cerebrovascular disease.	To consolidate information and remove direction that can be found in the coding standard *Sequelae*.
Modified the wording in the subsection Related interventions. **From:** "Emergency treatment of stroke from a blood clot is aimed at dissolving the clot. Thrombolytic therapy is coded in CCI using 1.ZZ.35.HA-1C *Pharmacotherapy, total body NEC, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], using thrombolytic agent*. See also the coding standard *Thrombolytic Therapy*. Other aggressive treatment options include Intracranial angioplasty 1.JW.50.^^ *Dilation, intracranial vessels*; Intracranial thrombectomy 1.JW.57.^^ *Extraction, intracranial vessels*; or Bypass, intracranial to intracranial vessels 1.JW.76.^^ *Bypass, intracranial vessels*." **To:** "Emergency treatment of an ischemic stroke from a blood clot is aimed at dissolving the clot using thrombolytic therapy. See also the coding standard *Thrombolytic Therapy*. "Endovascular treatment (EVT) is a relatively new treatment option for acute stroke care. Examples include endovascular clot retrieval (thrombectomy) and endovascular dilation with or without stenting of carotid artery or intracranial vessels."	To simplify the message and introduce the newer treatment option for acute stroke care, endovascular treatment (EVT).
Deleted the subsection Vascular syndromes of brain in cerebrovascular diseases.	To remove information that can be found in the ICD-10-CA alphabetical index and tabular instructions.

Description of change	Rationale
Invasive Ventilation — Chapter X — Diseases of the respiratory system	
Added the note "Use the Intervention Pre-Admit Flag to indicate . . ."	To provide reference to where additional information can be found in the *Discharge Abstract Database (DAD) Abstracting Manual*.
Diagnostic Esophagogastroduodenoscopy (EGD) — Chapter XI — Diseases of the digestive system	
Deleted the coding standard.	To collate all of the information about the classification of an endoscopic intervention into one coding standard. Direction for the classification of diagnostic esophagogastroduodenoscopic interventions is provided in the coding standard *Endoscopic Interventions*.
Diagnostic Colonoscopic Interventions — Chapter XI — Diseases of the digestive system	
Deleted the coding standard.	To collate all of the information about the classification of an endoscopic intervention into one coding standard. Direction for the classification of colonoscopic interventions is provided in the coding standard *Endoscopic Interventions*.
Cellulitis — Chapter XII — Diseases of the skin and subcutaneous tissue	
Added the exception "It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganism infections. See also the coding standard *Drug-Resistant Microorganisms*."	To identify an exception to the directive statement "Assign an additional code, optional, as a diagnosis type (3) . . ."
Pregnancy With Abortive Outcome — Chapter XV — Pregnancy, childbirth and the puerperium	
Added "See Section 3: Additional Abstracting Information: **Stillborn Abstracting** . . ." to the third note.	To provide reference to the correct section of the *Discharge Abstract Database (DAD) Abstracting Manual*.
Complicated Pregnancy Versus Uncomplicated Pregnancy — Chapter XV — Pregnancy, childbirth and the puerperium	
Added "acute myocardial infarction" to the examples of cardiac disease (O99.4–) that complicate pregnancy in the subsection Complicated pregnancy.	To clarify that in pregnancy an acute myocardial infarction is always considered to complicate the pregnancy and O99.4– is assigned.
Added the bullet "ST segment elevation myocardial infarction (STEMI) (R94.30) . . ." to the list of conditions that complicate pregnancy.	To clarify that in pregnancy STEMI or NSTEMI is always considered to complicate the pregnancy and when all that is documented is the working diagnosis STEMI or NSTEMI, O99.8– is assigned.

Description of change	Rationale
Added the note "For emergency department encounters . . . O99.8– *Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium* is assigned as the main problem and R94.30 or R94.31 is assigned as an other problem."	To clarify that in pregnancy, when the emergency department discharge diagnosis is documented as the working diagnosis STEMI or NSTEMI, O99.8– is assigned with R94.30 or R94.31.
Added the note "For inpatient and day surgery cases, O99.4– *Diseases of the circulatory system complicating pregnancy, childbirth and the puerperium* is assigned as a significant diagnosis and I21.– *Acute myocardial infarction* or I22.– *Subsequent myocardial infarction* or I24.0 *Coronary thrombosis not resulting in myocardial infarction* and R94.30 or R94.31 are assigned as diagnosis type (3). O99.8– *Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium* is not assigned."	To clarify that in pregnancy, for inpatient and day surgery abstracts, a diagnosis of STEMI or NSTEMI is classified to O99.4–, with the appropriate code for the acute myocardial infarction (I21.–, I22.– or I24.0), and per the direction in the *Acute Coronary Syndrome* coding standard, R94.30 or R94.31 is assigned as a diagnosis type (3). Since STEMI or NSTEMI is further describing the acute myocardial infarction, O99.8– is not assigned.
Added the example "A primigravida patient is admitted at 37 weeks gestation for intravenous oxytocin induction of labor for gestational hypertension. . ."	To demonstrate that a code from category O99.4 and an additional code to identify the specific type of stroke are assigned for a stroke in an obstetrical patient.
Added the directive statement "When a condition that complicates the pregnancy is classified to a code from O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium*, assign an additional code, mandatory, as a diagnosis type (3)/other problem, to identify the specific condition . . ."	To reinforce that when a code from category O99 is assigned, it is mandatory to assign an additional code as a diagnosis type (3)/other problem, to identify the specific condition, per the "use additional code" instruction at category O99.
Added the directive statement "When two or more conditions that complicate the pregnancy are classified to different subcategories from O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium*, assign the code from the appropriate subcategory (O99.0–O99.8) . . ."	To clarify that when more than one condition that complicates the pregnancy is classified to multiple subcategories at category O99, a code for each complication from the appropriate subcategory (O99.0–O99.8) is assigned separately, to permit the greatest degree of specificity.
Added the bullet to the above directive statement "Do not assign O99.8– as a flag to identify cases with multiple complications classifiable to O99.0–O99.7."	To clarify that O99.8– is not assigned as a flag when there is more than one condition that complicates the pregnancy, classified to multiple subcategories (O99.0–O99.8) at category O99.
Obstructed Labor — Chapter XV — Pregnancy, childbirth and the puerperium	
Amended the following example and removed the intervention code from it: "A female infant is delivered vaginally with significant shoulder dystocia lasting for one minute . . ."	To clarify that this example is demonstrating the second directive statement, specifically the direction to code obstructed labor "when the alphabetical index leads to an obstructed labor code." Direction on interventions (maneuvers) is provided later in the standard and is not applicable in this example.

Description of change	Rationale
Added the words "(e.g., Rubin, Wood's)" to the following directive statement: "When an obstructing factor is resolved by version and/or rotation . . ."	To provide examples of what are considered "certain other maneuvers."
Added the following note: "Maternal positioning classified to rubric 5.MD.16.^^ *Maternal positions for delivery (assistance*) (e.g. McRoberts) . . ."	To clarify that maneuvers classified to rubric 5.MD.16.^^ *Maternal positions for delivery (assistance)*, including McRoberts, are optional to capture.
Added the following example: "Shoulder dystocia is noted during delivery . . ."	To demonstrate the directive statement and the note regarding mandatory and optional maneuvers, respectively.
Postpartum Hemorrhage — Chapter XV — Pregnancy, childbirth and the puerperium	
Revised the wording in the introductory paragraph: **From:** "Blood loss occurring in the postpartum period due to causes other than the aforementioned is not classified to category O72 *Postpartum haemorrhage* (for example, an injury such as a tear of the uterine artery during Cesarean section or a sulcus tear during vaginal delivery)." **To:** "Blood loss occurring in the postpartum period due to causes other than the aforementioned, such as an injury (e.g., tear of the uterine artery during Cesarean section, sulcus tear during vaginal delivery), is not classified to category O72 *Postpartum haemorrhage*."	To provide clarity that blood loss occurring in the postpartum period due to injury is not classified to category O72 *Postpartum haemorrhage*.
Change in direction. Revised the first criterion in the directive statement for the criteria for excessive blood loss: **From:** "Blood loss is excessive: • Vaginal delivery with ≥500 cc blood loss during third stage of labor, in immediate postpartum period or after 24 hours following delivery. • Cesarean delivery with ≥1,000 cc blood loss." **To: "**Blood loss is excessive: • Vaginal delivery with >500 cc/ml blood loss during third stage of labor, in immediate postpartum period or after 24 hours following delivery. • Cesarean delivery with >1,000 cc/ml blood loss."	To reflect the change in direction that blood loss must be greater than 500 cc/ml for vaginal delivery and greater than 1,000 cc/ml for Cesarean delivery to meet the criteria for excessive blood loss in order to assign a code from category O72 *Postpartum haemorrhage*.

Description of change	Rationale
Change in direction. Revised the second criterion in the directive statement for the criteria for excessive blood loss: **From:** "Documentation indicates uterine atony following delivery or bleeding in the presence of retained products, regardless of the amount of blood loss recorded." **To:** "Documentation indicates uterine atony following delivery, regardless of the amount of blood loss recorded."	To reflect the change in direction that excessive bleeding must be present with a diagnosis of retained products to justify assignment of O72 *Postpartum haemorrhage*.
Modified the table Selection of the code from category O72 *Postpartum haemorrhage* is based on etiology and time frame. **From:** "Retained, trapped or adherent placenta" **To:** "Retained, trapped or adherent placenta with excessive bleeding" **From:** "Uterine atony or unknown/not documented (that is, PPH NOS)" **To:** "Uterine atony or unknown/not documented (i.e., PPH NOS), regardless of the amount of blood loss recorded"	To clarify that retained, trapped or adherent placenta with bleeding that meets the criteria for excessive is classified to O72.0– *Third-stage haemorrhage* or O72.2– *Delayed and secondary postpartum haemorrhage*. To clarify that uterine atony or postpartum hemorrhage NOS is classified to O72 *Postpartum haemorrhage* regardless of blood loss.
Added a note "Retained, trapped or adherent placenta without excessive bleeding or physician documentation of hemorrhage that occurs anytime during or after the third stage of labor is classified to O73.– *Retained placenta and membranes, without haemorrhage*."	To clarify that retained, trapped or adherent placenta with blood loss that does not meet the criteria for excessive blood loss, with no physician documentation of hemorrhage, is classified to O73.– *Retained placenta and membranes, without haemorrhage*.
Replaced the note: **From:** "When the amount of blood loss recorded includes blood loss from sources not associated with uterine atony, retained products or coagulation defects (that is, an injury) do not assign a code from category O72 *Postpartum haemorrhage*." **With:** "Hemorrhage or excessive blood loss during the delivery process or immediately following the delivery that is secondary to an injury, including perineal lacerations, is classified as intrapartum hemorrhage, since the injury occurred prior to or during the delivery of the infant. It is classified to O67.8– *Other intrapartum haemorrhage*."	To clarify that hemorrhage or excessive blood loss that is due to an injury occurring prior to or during the delivery of the infant is classified as an intrapartum hemorrhage.

Description of change	Rationale
Modified the rationale in the first example: **From:** "A postpartum hemorrhage occurred during the third stage of labor due to retained placenta; therefore, O72.002 is assigned." **To:** "A postpartum hemorrhage documented as due to retained placenta occurred during the third stage of labor; therefore, O72.002 is assigned."	To explain the correct application of the directive.
Added "The estimated blood loss recorded is 600 cc." to the third example, and updated the rationale: **From:** "Bleeding due to retained portions of placenta not during the third stage of labor is classified to delayed and secondary hemorrhage, regardless of the time frame." **To:** "Excessive bleeding due to retained portions of placenta not occurring during the third stage of labor is classified to delayed and secondary hemorrhage."	To clarify that only excessive bleeding (greater than 500 cc/ml) due to retained portions of placenta that does not occur during the third stage of labour is classified to O72.202 *Delayed and secondary postpartum haemorrhage, delivered, with mention of postpartum complication*.
Modified the code in the fourth example from O72.204 to O73.104 and updated the rationale. **From:** "Bleeding due to retained products of conception not during the third stage of labor is classified to delayed and secondary hemorrhage, regardless of the time frame." **To:** "Retained products of conception without excessive bleeding or physician documentation of hemorrhage is classified to O73.1– *Retained portions of placenta and membranes, without haemorrhage*."	To provide a relevant example to demonstrate that retained products of conception without excessive bleeding or hemorrhage is classified to O73.1– *Retained portions of placenta and membranes, without haemorrhage*.
Added a new example "The patient delivers a healthy baby by vaginal . . ."	To explain the correct application of the directive.
Interventions Associated With Delivery — Chapter XV — Pregnancy, childbirth and the puerperium	
Added the directive statement "When cervical ripening is performed by balloon catheter or insertion of Laminaria, assign, mandatory, . . ."	To mandate the collection of cervical ripening performed via balloon catheter (5.AC.24.CK-BD) and/or insertion of Laminaria (5.AC.24.CK-W6).
Added the exception note "When an intravenous (IV) oxytocic agent is used to induce labor, . . ."	To clarify that when an IV oxytocic agent is used to induce labor, any subsequent administration of an IV oxytocic agent is a continuation of the induction and not augmentation, even when the IV oxytocic agent is stopped and restarted.

Description of change	Rationale
Revised the note: **From:** "Use the Intervention Pre-Admit Flag to capture that induction of labor was performed prior to admission. See Group 11, Field 20 in the *DAD Abstracting Manual* for specific instructions for applying the flag for interventions initiated prior to admission." **To:** "Apply the Intervention Pre-Admit Flag to capture that induction of labor (5.AC.30.^^) or cervical ripening by balloon catheter (5.AC.24.CK-BD) and/or cervical ripening by insertion of Laminaria (5.AC.24.CK-W6) was performed prior to admission. See Group 11, Field 20 in the *DAD Abstracting Manual* for specific instructions for applying the flag for interventions initiated prior to admission."	To identify that the pre-admit flag is applied to capture codes for induction of labor and specific codes for cervical ripening when they are performed prior to admission.
Added the example "The patient presents at 37 + 3 weeks gestation for a planned induction of labor for essential hypertension. IV oxytocin is started at a high dose, per protocol. . . ."	To demonstrate that IV oxytocin administered to induce labor is classified to induction even when the IV oxytocin is stopped and restarted.
Introductory paragraph — Chapter XVI — Certain conditions originating in the perinatal period	
Added an introduction to the beginning of Chapter XVI — Certain conditions originating in the perinatal period.	To provide instruction for classifying conditions that occur or are documented as occurring in the perinatal period.
Low Birth Weight and/or Preterm Infant — Chapter XVI — Certain conditions originating in the perinatal period	
Modified the wording in the second bullet in the second note. **From:** "According to the *Discharge Abstract Database (DAD) Abstracting Manual*, the gestational age recorded in the data element for a newborn or neonate refers to the physical assessment done to determine the newborn's gestational age at the time of birth, per the *Algorithm for the Estimation of Gestational Age, Canadian Perinatal Surveillance System, 2010*." **To:** "According to the *Discharge Abstract Database (DAD) Abstracting Manual*, the gestational age of the newborn or neonate is based on the physical assessment at the time of birth, per the *Algorithm for the Estimation of Gestational Age, Canadian Perinatal Surveillance System, 2010*. See Group 18, Field 06 in the *Discharge Abstract Database (DAD) Abstracting Manual*."	To align with information in the *Discharge Abstract Database (DAD) Abstracting Manual* and to provide reference to where additional information can be found.

Description of change	Rationale
Confirmed Sepsis and Risk of Sepsis in the Neonate — Chapter XVI — Certain conditions originating in the perinatal period	
Modified the format of the coding standard to divide into two subsections: Confirmed sepsis Ruled-out sepsis	To format the coding standard in such a way that the direction is readily understood.
Modified the introductory paragraph.	To clarify that neonatal sepsis is divided into two groups: early-onset (newborn) sepsis and late-onset neonatal sepsis.
Modified the first directive statement, "When sepsis has been confirmed in a neonate, assign. . ."	To clarify that a code from category P36.– *Bacterial sepsis of newborn* is assigned only when sepsis arises within the first 72 hours following birth, and to provide direction for code assignment when sepsis arises in a neonate more than 72 hours after birth.
Added rationale to the example "The mom has prolonged rupture of membranes with chorioamnionitis . . ."	To explain the code assignment.
Added a new example "A 20-day-old neonate is admitted to hospital with sepsis and acute pyelonephritis due to *E. coli* . . ."	To demonstrate application of the directive statements.
Modified the rationale in the example "The infant is delivered vaginally at 37 weeks. The mom had premature rupture of membranes for greater than 24 hours prior to the delivery. . ." **From:** "A 'Q' is not placed in front of the code in this case, as a diagnosis of "probable" in neonatal sepsis is an indication that the diagnosis is made on the basis of clinical findings only. Lab results may not provide confirmation in all cases of neonatal sepsis." **To: "**A prefix 'Q' is not applied to the sepsis code in this case, as the diagnosis of "probable" in neonatal sepsis is an indication that the diagnosis was made by the physician/primary care provider on the basis of clinical findings only. A diagnosis of probable sepsis is classified as confirmed sepsis. Lab results are not used to either confirm or rule-out neonatal sepsis."	To provide clear rationale for assigning a code for neonatal sepsis when the physician/primary care provider has documented probable sepsis based on clinical findings.
Removed the directive statement "Ensure that a code from category P36 *Bacterial sepsis of newborn* is not assigned when sepsis is 'ruled out.'"	Removed this statement as it is self explanatory. Ruled out means that the patient does not have the condition.

Description of change	Rationale
Removed the directive statement "Do not assign Z03.8 on the basis of risk factors alone. When any of the above codes apply on the birth admission, assign Z38.– *Liveborn infants according to place of birth* as diagnosis type (0)."	Removed this statement as this is redundant information that does not apply specifically to this coding standard.
Moved the directive statement "When any of the following descriptors for sepsis are used on the record of a neonate . . ." to the note following the first directive statement.	To provide information that clarifies the first directive statement.
Moved the directive statement "When neonatal sepsis is suspected but ruled out, classify the case as follows . . ." to below the subheading Ruled-out sepsis.	To align with the direction under the subheading Ruled-out sepsis.
Removed the directive statement "Base code decisions on physician documentation and not on blood culture results. Sepsis cannot be assumed or ruled out on the basis of blood culture results alone."	To remove redundant information as there is already a similar directive in the coding standards and rationale is provided in one of the examples.
Moved the note "The requirement to return the record to the physician . . ." from the second note box to the first note box.	To provide direction that this is an exception to the *Unconfirmed Diagnosis* standard.
Modified the following note: **From:** "Z03.8 *Observation for other suspected diseases and conditions* is for use in limited circumstances on records of otherwise healthy newborns who are at risk for an abnormal condition, that requires study, but for whom it is determined, after examination and observation, that there is no need for further treatment or medical care." **To:** "Z03.8 *Observation for other suspected diseases and conditions* is for use in limited circumstances on records of otherwise healthy newborns who are at risk for an abnormal condition, such as sepsis but for whom it is determined, after examination and observation, that there is no need for further treatment or medical care."	To make the note applicable to the neonatal sepsis standard.
Perinatal Stroke — Chapter XVI — Certain conditions originating in the perinatal period	
Added new coding standard.	To provide direction for the classification of a perinatal stroke (i.e., that originates in the perinatal period), either hemorrhagic or ischemic.

Description of change	Rationale
Adverse Reactions in Therapeutic Use Versus Poisonings — Chapter XIX — Injury, poisonings and certain other consequences of external causes	
Added the example "The patient is brought to hospital via ambulance after snorting fentanyl . . ."	To demonstrate that an overdose is classified as a poisoning; that the code is taken from the first column of the Table of Drugs and Chemicals; and that the external cause code is taken from one of the poisoning columns of the Table of Drugs and Chemicals.
Added the example "The patient is admitted to hospital for confusion due to oxycodone . . ."	To demonstrate that an adverse effect in therapeutic use is classified to the code for the manifestation followed by an external cause code taken from the Adverse effect in therapeutic use column of the Table of Drugs and Chemicals.
Code Assignment for Multiple Superficial Injuries or Multiple Open Wounds — Chapter XIX — Injury, poisonings and certain other consequences of external causes	
Added the phrase "*or Multiple Open Wounds*" to the title of the standard.	To clarify that the coding standard applies to both multiple superficial injuries and multiple open wounds.
Added the phrase "or multiple body regions" to the directive statement.	To clarify that the directive applies to multiple and/or bilateral superficial injuries or open wounds of both the same body region and multiple body regions.
Added a "see also" statement and a hyperlink to the coding standard *Open Wounds*.	To provide ready access to another standard that includes additional information on open wounds.
Rejection/Failure of Transplanted Organs, Grafts and Flaps — Chapter XIX — Injury, poisonings and certain other consequences of external causes	
Modified the following directive statement: **From:** "When a condition is documented as affecting the transplanted organ or tissue, but it cannot be classified as either failure or rejection, assign a code from category Z94 *Transplanted organ and tissue status*." **To:** "When a condition is documented as affecting the transplanted organ or tissue, but it cannot be classified as either failure or rejection, assign a code for the condition and assign an additional code from category Z94 *Transplanted organ and tissue status*, optional, as a diagnosis type (3)/other problem."	To clarify that it is optional to assign a code from Z94 *Transplanted organ and tissue status* and that, if it is assigned, it is assigned as a diagnosis type (3)/other problem.

Description of change	Rationale
Added the word “optional” to the Z94 codes in the following examples: “The patient had a liver transplant due to damage from chronic hepatitis C virus infection. . .” “The patient develops renal cell carcinoma in a transplanted kidney five years post-transplant.”	To clarify that it is optional to assign a code from Z94 *Transplanted organ and tissue status*.
Admission for Observation — Chapter XXI — Factors influencing health status and contact with health services	
Added a purpose statement at the beginning of the coding standard.	To clarify that the direction provided in this coding standard is for when a patient presents for investigation of a sign, symptom and/or abnormal finding for which there is documentation to support that the patient is being investigated to rule out a specific suspected condition.
Revised the wording of the introductory paragraph: **From:** “Codes from Z03 are assigned as the MRDx/main problem when a patient is investigated for a suspected condition and is considered to have no disease/problem. These patients will have a sign or symptom; however, after investigation, it will have been determined that the condition for which they are being examined has been ruled out and no further treatment or investigation is required. When the plan is to further investigate the cause of the sign or symptom, a code for the sign or symptom is assigned (see also the coding standards *Underlying Symptoms or Conditions* and *Query Diagnosis (Q)/Etiology*). The fact that the patient may be scheduled to return for a repeat screening test (such as a prostate-specific antigen [PSA] test in six months or a mammogram in one year) following observation does not limit the use of codes from category Z03.” **To:** “Codes from category Z03 *Medical observation and evaluation for suspected diseases and conditions* are assigned as the MRDx/main problem when a patient is investigated for a suspected condition and is considered to have no disease/problem. These patients will have a sign, symptom and/or abnormal finding (e.g., positive screening test); however, after investigation, it will have been determined that the condition for which they are being examined has been ruled out and there is no documentation to support that further investigation is required. See also the coding standards *Screening for Specific Diseases* and *Unconfirmed Diagnosis*.”	To clarify that a code from category Z03 *Medical observation and evaluation for suspected diseases and conditions* is assigned as the MRDx/main problem only when the suspected condition is ruled out and there is no documentation that supports further investigation is required. To clarify that the reason for investigation can include an abnormal finding, such as a positive screening test.

Description of change	Rationale
Moved and modified the following statement in the introductory paragraph: "The fact that the patient may be scheduled to return for a repeat screening test . . ." to create the following new Note: "Repeat screening is not synonymous with further investigations required. Therefore, the fact that the patient is scheduled to return for a repeat screening test . . ."	To clarify that repeat screening does not mean the patient is returning for further investigations. In this case Z03 is assigned when all criteria are met.
Revised the wording and added three criteria to the first directive statement "Assign a code from category Z03 *Medical observation and evaluation for suspected diseases and conditions* . . .", and added the statement "Assign an additional code for the sign, symptom or abnormal finding, optional, as a diagnosis type (3)/other problem based on the facility's data needs."	To clarify that a code from category Z03 *Medical observation and evaluation for suspected diseases and conditions* is assigned only when • The suspected condition is ruled out/not found; and • There is no documentation to support that further investigation is required; and • Another underlying condition is not identified and to provide direction for the assignment of an additional code for the sign, symptom or abnormal finding.
Added three directive statements: "When a patient is investigated for a suspected condition and the suspected condition **is found**, assign a code for the identified underlying condition as the MRDx/main problem. . ." "When a patient is investigated for a suspected condition and the suspected condition **is not found** and there is documentation to support that further investigation is required, assign a code for the sign, symptom or abnormal finding as the MRDx/main problem." "When a patient is investigated for a suspected condition and **an underlying condition that is not the suspected condition is identified**, assign a code for the underlying condition as the MRDx/main problem."	To provide direction that when the suspected condition is found, a code for the identified underlying condition is assigned as the MRDx/main problem, and that an additional code for the sign, symptom and/or abnormal finding that led to the admission for observation is assigned, optionally, per the facility's needs. To provide direction that when the plan is to further investigate the underlying cause, a code for the sign, symptom or abnormal finding that led to admission for observation is assigned. To provide direction that when an underlying condition other than the suspected condition is identified, a code for the identified underlying condition is assigned.

Description of change	Rationale
Revised the following note: **From:** "Do not assign codes from category Z03 *Medical observation and evaluation for suspected diseases and conditions* as a diagnosis type (3)/other problem when a diagnosis is established or when further follow-up to investigate the cause of the sign or symptom is recommended or planned." **To:** "Do not assign codes from category Z03 *Medical observation and evaluation for suspected diseases and conditions* as a diagnosis type (3)/other problem."	To clarify that codes from category Z03 are not assigned as a diagnosis type (3).
Added the note "A fecal immunochemical test (FIT) and fecal occult blood test (FOBT) are screening tests for colorectal cancer. Therefore, a patient with a positive result who is admitted for an endoscopy is considered to be under observation for suspected colorectal cancer. There is no requirement for colorectal cancer to be documented as a suspected condition that is being ruled out."	To clarify that fecal immunochemical tests (FITs) and fecal occult blood tests (FOBTs) are screening tests for colorectal cancer. When patients are admitted for endoscopy to further investigate a positive FIT or FOBT, they are considered to be under observation for suspect colorectal cancer.
Amended the rationale in all the examples.	To clarify that a code from Z03 is assigned when the three criteria are met. When the three criteria are not met, another code — depending on whether or not another condition is found — is assigned as the MRDx.
Added nine examples:	
"The patient presents for colonoscopic examination due to a positive FIT . . ."	To demonstrate that the three criteria are met; therefore, Z03 is assigned as the MRDx.
"The patient presents for observation of obstructive sleep apnea due to increased snoring. Sleep apnea is ruled out . . ."	To demonstrate that the three criteria are met; therefore, Z03 is assigned as the MRDx.
"The patient presents for a colonoscopy due to rectal bleeding. The physician documents 'rule out malignancy' . . ."	To demonstrate that the three criteria are met; therefore, Z03 is assigned as the MRDx.
"The patient presents for colonoscopy due to rectal bleeding. The physician notes diverticulosis in the colon during examination . . ."	To demonstrate that the direction in the coding standard *Admission for Observation* does not apply.
"The patient has been having gross hematuria. He presents for a biopsy of the bladder for suspected bladder malignancy . . ."	To denote the code assignment when the suspected condition is found.
"The patient presents for colonoscopy to rule out malignancy due to ongoing rectal bleeding, melena and weight loss . . ."	To denote the code assignment when the documentation supports that further investigations are required to determine the cause of the symptom.
"The patient presents for colonoscopic examination due to a positive FIT. During colonoscopy, a polyp is found in the sigmoid colon . . ."	To denote the code assignment when an underlying condition that is not the suspected condition is identified and that the reason for the visit was a positive FIT.

Description of change	Rationale
"The patient presents for colonoscopic examination due to a positive FIT. The final diagnosis is recorded as 'first-degree bleeding internal hemorrhoids' . . ."	To denote the code assignment when an underlying condition that is not the suspected condition is identified and the reason for the visit was a positive FIT.
"The patient presents for endoscopic examination due to "RUQ pain, rectal bleeding and a family history of colorectal cancer" . . ."	To denote the code assignment when an underlying condition that is not the suspected condition is identified.
Added the subheading Admission for observation following accident or alleged assault or abuse.	To provide a means to distinctly separate the directive statements and examples that apply to Z03 from the directive statements and examples that apply to Z04.
Admission for Convalescence — Chapter XXI — Factors influencing health status and contact with health services	
Added "See Section 3: Additional Abstracting Information: Day Surgery Abstracting: **Day Surgery Abstracting, Patients Admitted Directly From Day Surgery to Acute Care** . . ." to the exception note.	To provide reference to the correct section of the *Discharge Abstract Database (DAD) Abstracting Manual*.
Screening for Specific Diseases — Chapter XXI — Factors influencing health status and contact with health services	
Added "Prostate-specific antigen (PSA) tests to detect prostate cancer because of age and/or family history" to the list of examples of screening programs.	To provide another relevant example of a screening program.
Added the note "For direction on code assignment when the episode of care is to further investigate a positive screening test, see the coding standard *Admission for Observation*."	To clarify that the direction on code assignment when the episode of care is to further investigate a positive screening test can be found in the coding standard *Admission for Observation*.
Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy — Chapter XXI — Factors influencing health status and contact with health services	
Added the bullet "Z51.0 *Radiotherapy session* as a diagnosis type (1)/other problem when . . ." to the first directive statement.	To clarify the circumstances in which Z51.0 *Radiotherapy session* is assigned as a diagnosis type (1).
Added the bullet "Z51.1 *Chemotherapy session for neoplasm* as a diagnosis type (1)/other problem when . . ." to the second directive statement.	To clarify the circumstances in which Z51.1 *Chemotherapy session for neoplasm* is assigned as a diagnosis type (1).
Added the directive statement "Assign a CCI code, mandatory, for any radiation therapy or chemotherapy interventions to treat the malignancy or neoplasm-related conditions."	To clarify that it is mandatory to assign an intervention code for chemotherapy and radiation therapy when performed.

Description of change	Rationale
Added the note “Z51.0 *Radiotherapy session* and Z51.1 *Chemotherapy session for neoplasm* must not be assigned as a diagnosis type (2) or diagnosis type (3).”	To explain that it is not correct to apply diagnosis type (2) or diagnosis type (3) to either Z51.0 or Z51.1.
Added the note “Chemotherapy and radiation therapy are interventions; therefore, a CCI code is assigned . . .”	To clarify that chemotherapy and radiation therapy are interventions, classified to a CCI code.
Added a rationale to the example “Encounter for IV vincristine chemotherapy session for active left main bronchus malignancy.”	To explain that Z51.1 is assigned as the most responsible diagnosis (MRDx)/main problem when a patient is admitted solely for administration of chemotherapy; that it is mandatory to assign an additional code to identify the malignancy as a diagnosis type (3)/other problem; and, that it is mandatory to assign a CCI code for the chemotherapy.
Revised the rationale for the example “A patient with malignant neoplasm of the breast. . .”	To explain that Z51.1 is assigned as the most responsible diagnosis (MRDx)/main problem when a patient is admitted solely for administration of chemotherapy; that it is mandatory to assign an additional code to identify the malignancy as a diagnosis type (3)/other problem; and, that it is mandatory to assign a CCI code for the chemotherapy.
Added a rationale to the example “Encounter for radiation therapy session. . .”	To explain that Z51.0 is assigned as the most responsible diagnosis (MRDx)/main problem when a patient is admitted solely for administration of radiation therapy; that it is mandatory to assign an additional code to identify the malignancy as a diagnosis type (3)/other problem; and, that it is mandatory to assign a CCI code for the radiation therapy.
Added the example “A patient with recurrent Hodgkin’s lymphoma who previously underwent dexamethasone, high-dose cytarabine and cisplatin (DHAP) chemotherapy for stem cell mobilization . . .”	To demonstrate that Z51.1 is not assigned because the patient was not admitted solely for administration of chemotherapy, and to demonstrate that it is mandatory to assign a CCI code for stem cell transfusion and a CCI code for chemotherapy administered to treat a malignancy or neoplasm-related condition whenever these interventions are performed during an episode of care.

Description of change	Rationale
Added the example “A patient with acute myeloblastic leukemia (AML) is admitted for post-remission mitoxantrone, etoposide and cytarabine (MEC) consolidation therapy . . .”	To demonstrate that Z51.1 is assigned as a diagnosis type (1) because the patient was admitted solely for administration of chemotherapy; however, another condition arose post-admission that subsequently met the criteria for the most responsible diagnosis (MRDx); and to demonstrate that it is mandatory to assign a CCI code for chemotherapy administered to treat a malignancy or neoplasm-related condition and for total parenteral nutrition (TPN) whenever these interventions are performed during an episode of care.
Modified the following directive statement: **From:** “When the patient has an encounter solely for administration of chemotherapy (pharmacotherapy) to treat conditions other than malignant neoplasms or neoplasm related conditions . . .” **To:** “When a patient previously diagnosed with a non-malignant condition has an encounter solely for the administration of chemotherapy, assign . . .”	To clarify that Z51.2 is assigned when the patient is admitted solely for administration of chemotherapy to treat a previously diagnosed non-malignant condition.
Added the bullet “Z51.2 *Other chemotherapy* as a diagnosis type (1)/other problem when . . .” to the directive statement “When a patient previously diagnosed with a non-malignant condition . . .”	To clarify the circumstances in which Z51.2 *Other chemotherapy* is assigned as a diagnosis type (1).
Changed the bullet “Assign an additional code to identify the disease/condition, mandatory . . .” to a directive statement.	To align with the directive statements for Z51.0 and Z51.1.
Added the directive statement “Assign a CCI code, mandatory, for any chemotherapy interventions classified to 1.^^.35.^^-M^ *Pharmacotherapy using antineoplastic and immunomodulating agents*.”	To clarify that it is mandatory to assign a CCI code for chemotherapy when the agent qualifier is “M^”.
Added the directive statement “Assign a CCI code, mandatory, for any chemotherapy interventions performed during a clinic visit.”	To clarify that it is mandatory to assign a CCI code for chemotherapy performed in a clinic to be consistent with the direction “Assign a code from any section in CCI for each intervention performed during a clinic visit” provided in the coding standard *Selection of Interventions to Code for Ambulatory Care*.
Added the note “Z51.2 *Other chemotherapy* must not be assigned as a diagnosis type (2) or diagnosis type (3) . . .”	To explain that it is not correct to apply diagnosis type (2) or diagnosis type (3) to Z51.2.

Description of change	Rationale
Added a rationale to the sixth and seventh examples.	To explain that Z51.2 is assigned as the most responsible diagnosis (MRDx)/main problem when a patient is admitted solely for administration of chemotherapy to treat a condition other than a malignant neoplasm or neoplasm-related condition, and that it is mandatory to assign an additional code to identify the disease/condition as a diagnosis type (3)/other problem.
Removed the statement, "Assignment of a code from category Z51 *Other medical care* in these circumstances is redundant. . ." and incorporated into the new note "When chemotherapy or radiation therapy is administered during the episode of care in which the malignancy is diagnosed or . . ."	To explain when Z51 *Other medical care* is assigned, and to clarify that chemotherapy and radiation therapy are interventions, classified to a CCI code.
Added a rationale to the eighth example.	To explain that the code for the malignancy is the most responsible diagnosis when the patient is admitted for definitive surgery. When the patient also receives chemotherapy during this episode of care, a CCI code is assigned for the chemotherapy. Z51.1 is not assigned because the patient was not admitted solely for administration of chemotherapy.
Palliative Care — Chapter XXI — Factors influencing health status and contact with health services	
Added the note "Medical assistance in dying is not the same as palliative care. See also the coding standard *Medical Assistance in Dying*.	To distinguish between medical assistance in dying and palliative care, and to provide a link to the coding standard providing direction on *Medical Assistance in Dying*.
Added the NACRS icon and moved the first two directive statements "Assign Z51.5 *Palliative care* as a significant diagnosis type . . ." and "When palliative care is documented as a known component . . ." to a new directive box.	To explain that it is mandatory to assign the code Z51.5 *Palliative care* and prefix 8 when palliative care is documented as a known component of the patient's care prior to arrival to the hospital for both acute inpatient care and ambulatory care visits.
Added "main or other problem" to the first directive statement "Assign Z51.5 *Palliative care* as a significant diagnosis type/main or other problem whenever there is physician documentation of palliative care."	To explain that it is mandatory to assign the code Z51.5 *Palliative care* when palliative care is documented as a known component of the patient's care prior to arrival to the hospital for both acute inpatient care and ambulatory care visits.
Moved the note "Prefix 8 is restricted for use with Z51.5 *Palliative Care* . . ." to below the first directive statement.	To align with the information in the first directive statement.

Description of change	Rationale
Added the note "For more information about prefix 8, see . . ."	To provide reference to the correct section of the *Discharge Abstract Database (DAD) Abstracting Manual* and the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.
Added three examples: • "A patient known to be on a palliative care plan . . ." • "A patient with advanced adenocarcinoma . . ." • "A patient with multiple myeloma . . ."	To demonstrate that it is mandatory to assign the code Z51.5 *Palliative care* and prefix 8 when palliative care is documented as a known component of the patient's care prior to arrival to the hospital for ambulatory care visits.
Medical Assistance in Dying — Chapter XXI — Factors influencing health status and contact with health services	
Added new coding standard.	To mandate and to provide direction on the classification of medical assistance in dying (MAID) to support national information needs.
Homelessness — Chapter XXI — Factors influencing health status and contact with health services	
Added new coding standard.	To mandate the collection of Z59.0 *Homelessness* in cases where there is documentation of such on admission. The collection of this data makes it possible to analyze and report on this patient population.

Appendix D — Mandatory attributes in CCI

Attributes are designated as mandatory for one or more of the following reasons:

- They affect grouping.
- They provide necessary detail not present within the generic structure of the CCI code.
- They provide nationally relevant detail for CIHI data holdings and registries.
- They provide data important for health system use.

This list contains the CCI rubrics for which the status, location or extent attribute has been activated as mandatory in Folio.

When an intervention meets the criteria for “abandoned,” “converted” or “revision,” per the coding standards, those status attribute values, when available, are mandatory to assign, even when the status attribute is not activated as mandatory — that is, even when the status attribute box is not pink in Folio.

See also the coding standards *Abandoned Interventions*, *Converted Interventions* and *Revised Interventions*.

For more information on attributes, see Group 11, fields 03, 04 and 05 in the *Discharge Abstract Database (DAD) Abstracting Manual* and data elements 48, 49 and 50 in the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

CCI rubric	CCI rubric title	Status	Location	Extent
1.AX.13.^^	Control of bleeding, spinal canal and meninges	—	—	Mandatory
1.BF.59.^^	Destruction, sympathetic nerves	—	Mandatory	—
1.CN.13.^^	Control of bleeding, retina	—	—	Mandatory
1.ET.13.^^	Control of bleeding, nose	—	—	Mandatory
1.FL.87.^^	Excision partial, sublingual gland	—	Mandatory	—
1.FM.87.^^	Excision partial, parotid gland	—	Mandatory	—
1.FN.87.^^	Excision partial, submandibular gland	—	Mandatory	—
1.FR.13.^^	Control of bleeding, tonsils and adenoids	—	—	Mandatory
1.FU.13.^^	Control of bleeding, thyroid gland	—	—	Mandatory

CCI rubric	CCI rubric title	Status	Location	Extent
1.FU.87.^^	Excision partial, thyroid gland	—	Mandatory	—
1.FU.89.^	Excision total, thyroid gland	—	Mandatory	—
1.FV.87.^^	Excision partial, parathyroid gland	—	Mandatory	—
1.GJ.77.^^	Bypass with exteriorization, trachea	Mandatory	—	—
1.GM.13.^^	Control of bleeding, bronchus NEC	—	—	Mandatory
1.GR.87.^^	Excision partial, lobe of lung	—	Mandatory	—
1.GR.89.^^	Excision total, lobe of lung	—	Mandatory	—
1.GR.91.^^	Excision radical, lobe of lung	—	Mandatory	—
1.GT.13.^^	Control of bleeding, lung NEC	—	—	Mandatory
1.GT.59.^^	Destruction, lung NEC	—	Mandatory	—
1.GT.87.^^	Excision partial, lung NEC	—	Mandatory	—
1.GT.85.^^	Transplant, lung NEC	—	Mandatory	—
1.GT.89.^^	Excision total, lung NEC	—	Mandatory	—
1.GT.91.^^	Excision radical, lung NEC	—	Mandatory	—
1.GZ.31.^^	Ventilation, respiratory system NEC	—	—	Mandatory
1.HD.53.^^	Implantation of internal device, endocardium	—	—	Mandatory
1.HZ.53.^^	Implantation of internal device, heart NEC	—	—	Mandatory
1.ID.50.^^	Dilation, aorta NEC	—	Mandatory	—
1.ID.53.^^	Implantation of internal device, aorta NEC	—	Mandatory	—
1.ID.55.^^	Removal of device, aorta NEC	—	Mandatory	—
1.ID.57.^^	Extraction, aorta NEC	—	Mandatory	—
1.ID.74.^^	Fixation, aorta NEC	—	Mandatory	—
1.ID.76.^^	Bypass, aorta NEC	—	Mandatory	—
1.ID.79.^^	Repair by increasing size, aorta NEC	—	Mandatory	—
1.ID.80.^^	Repair, aorta NEC	—	Mandatory	—
1.IJ.50.^^	Dilation, coronary arteries	Mandatory	—	Mandatory
1.IJ.55.^^	Removal of device, coronary arteries	—	—	Mandatory
1.IJ.57.^^	Extraction, coronary arteries	—	—	Mandatory

CCI rubric	CCI rubric title	Status	Location	Extent
1.IJ.76.^^	Bypass, coronary arteries	—	—	Mandatory
1.IJ.86.^^	Closure of fistula, coronary arteries	—	—	Mandatory
1.IM.51.^^	Occlusion, pulmonary artery	—	—	Mandatory
1.IN.51.^^	Occlusion, pulmonary vein	—	—	Mandatory
1.IS.53.^^	Implantation of internal device, vena cava (superior and inferior)	—	Mandatory	—
1.JE.51.^^	Occlusion, carotid artery	—	—	Mandatory
1.JJ.51.^^	Occlusion, brachiocephalic arteries	—	—	Mandatory
1.JK.51.^^	Occlusion, subclavian artery	—	—	Mandatory
1.JL.51.^^	Occlusion, internal mammary artery	—	—	Mandatory
1.JM.51.^^	Occlusion, arteries of arm NEC	—	—	Mandatory
1.JW.51.^^	Occlusion, intracranial vessels	—	—	Mandatory
1.JX.51.^^	Occlusion, other vessels of head, neck and spine NEC	—	—	Mandatory
1.JY.51.^^	Occlusion, thoracic vessels NEC	—	—	Mandatory
1.KE.51.^^	Occlusion, abdominal arteries NEC	—	—	Mandatory
1.KG.51.^^	Occlusion, arteries of leg NEC	—	—	Mandatory
1.KG.82.^^	Reattachment, arteries of leg NEC	—	—	Mandatory
1.KQ.51.^^	Occlusion, abdominal veins NEC	—	—	Mandatory
1.KT.51.^^	Occlusion, vessels of the pelvis, perineum and gluteal region	—	—	Mandatory
1.MC.87.^^	Excision partial, lymph node(s), cervical	—	Mandatory	—
1.MC.89.^^	Excision total, lymph node(s), cervical	—	Mandatory	—
1.MC.91.^^	Excision radical, lymph node(s), cervical	—	Mandatory	—
1.NF.13.^^	Control of bleeding, stomach	—	—	Mandatory
1.NF.78.^^	Repair by decreasing size, stomach	Mandatory	—	—
1.NK.87.^^	Excision partial, small intestine	—	Mandatory	—
1.NM.87.^^	Excision partial, large intestine	—	Mandatory	—
1.NP.13.^^	Control of bleeding, small and large intestine	—	—	Mandatory
1.NV.89.^^	Excision total, appendix	Mandatory	—	—

CCI rubric	CCI rubric title	Status	Location	Extent
1.OA.13.^^	Control of bleeding, liver	—	—	Mandatory
1.OA.87.^^	Excision partial, liver	—	Mandatory	—
1.OB.13.^^	Control of bleeding, spleen	—	—	Mandatory
1.PB.87.^^	Excision partial, adrenal gland	—	Mandatory	—
1.PB.89.^^	Excision total, adrenal gland	—	Mandatory	—
1.PC.13.^^	Control of bleeding, kidney	—	—	Mandatory
1.PL.74.^^	Fixation, bladder neck	Mandatory	—	—
1.PM.13.^^	Control of bleeding, bladder	—	—	Mandatory
1.QM.89.^^	Excision total, testis	—	Mandatory	—
1.RB.89.^^	Excision total, ovary	—	Mandatory	—
1.RD.89.^^	Excision total, ovary with fallopian tube	—	Mandatory	—
1.RF.51.^^	Occlusion, fallopian tube	—	Mandatory	—
1.RF.59.^^	Destruction, fallopian tube	—	Mandatory	—
1.RF.89.^^	Excision total, fallopian tube	—	Mandatory	—
1.RM.13.^^	Control of bleeding, uterus and surrounding structures	—	—	Mandatory
1.RM.87.^^	Excision partial, uterus and surrounding structures	—	—	Mandatory
1.RS.13.^^	Control of bleeding, vagina	—	—	Mandatory
1.RS.80.^^	Repair, vagina	Mandatory	Mandatory	—
1.SC.54.^^	Management of internal device, spinal vertebrae	—	Mandatory	—
1.SC.55.^^	Removal of device or appliance, spinal vertebrae	—	Mandatory	—
1.SC.59.^^	Destruction, spinal vertebrae	—	Mandatory	—
1.SC.74.^^	Fixation, spinal vertebrae	—	Mandatory	—
1.SC.75.^^	Fusion, spinal vertebrae	—	Mandatory	—
1.SC.80.^^	Repair, spinal vertebrae	—	Mandatory	—
1.SC.87.^^	Excision partial, spinal vertebrae	—	Mandatory	—
1.SC.89.^^	Excision total, spinal vertebrae	—	Mandatory	—
1.SE.53.^^	Implantation of internal device, intervertebral disc	—	Mandatory	—
1.SE.55.^^	Removal of device, intervertebral disc	—	Mandatory	—

CCI rubric	CCI rubric title	Status	Location	Extent
1.SE.59.^^	Destruction, intervertebral disc	—	Mandatory	—
1.SE.87.^^	Excision partial, intervertebral disc	—	Mandatory	—
1.SQ.53.^^	Implantation of internal device, pelvis	Mandatory	Mandatory	—
1.SY.80.^^	Repair, muscles of the chest and abdomen	Mandatory	Mandatory	—
1.TA.53.^^	Implantation of internal device, shoulder joint	Mandatory	Mandatory	—
1.TA.55.^^	Removal of device, shoulder joint	—	Mandatory	—
1.VA.53.^^	Implantation of internal device, hip joint	Mandatory	Mandatory	Mandatory
1.VA.55.^^	Removal of device, hip joint	—	Mandatory	—
1.VG.53.^^	Implantation of internal device, knee joint	Mandatory	Mandatory	Mandatory
1.VG.55.^^	Removal of device, knee joint	—	Mandatory	—
1.VP.53.^^	Implantation of internal device, patella	Mandatory	Mandatory	—
1.VP.55.^^	Removal of device, patella	—	Mandatory	—
1.WI.87.^^	Excision partial, first metatarsal bone and first metatarsophalangeal joint	—	Mandatory	—
1.WJ.87.^^	Excision partial, tarsometatarsal joints, other metatarsal bones and other metatarsophalangeal joints [forefoot]	—	Mandatory	—
1.WY.19.^^	Transfusion, bone marrow	Mandatory	—	—
1.YM.59.^^	Destruction, breast	—	Mandatory	—
1.YM.79.^^	Repair by increasing size, breast	Mandatory	—	—
1.YM.87.^^	Excision partial, breast	—	Mandatory	Mandatory
1.YM.88.^^	Excision partial with reconstruction, breast	—	Mandatory	Mandatory
1.YM.89.^^	Excision total, breast	—	Mandatory	—
1.YM.90.^^	Excision total with reconstruction, breast	—	Mandatory	—
1.YM.91.^^	Excision radical, breast	—	Mandatory	—
1.YM.92.^^	Excision radical with reconstruction, breast	—	Mandatory	—
2.GT.71.^^	Biopsy, lung NEC	—	Mandatory	—
2.MA.71.^^	Biopsy, lymph node(s), head region	—	—	Mandatory
2.MC.71.^^	Biopsy, lymph node(s), cervical	—	—	Mandatory
2.MD.71.^^	Biopsy, lymph node(s), axillary	—	—	Mandatory

CCI rubric	CCI rubric title	Status	Location	Extent
2.ME.71.^^	Biopsy, lymph node(s), mediastinal	—	—	Mandatory
2.MF.71.^^	Biopsy, lymph node(s), intrathoracic NECC	—	—	Mandatory
2.MG.71.^^	Biopsy, lymph node(s), intra abdominal	—	—	Mandatory
2.MH.71.^^	Biopsy, lymph node(s), pelvic	—	—	Mandatory
2.MJ.71.^^	Biopsy, lymph node(s), inguinal	—	—	Mandatory
2.MK.71.^^	Biopsy, lymph node(s), extremity NEC	—	—	Mandatory
2.YM.71.^^	Biopsy, breast	—	Mandatory	—
2.ZZ.02.^^	Assessment (examination), total body	Mandatory	—	—
3.IP.10.^^	Xray, heart with coronary arteries	Mandatory	Mandatory	—
5.CA.90.^^	Selective fetal reduction	—	—	Mandatory
5.MD.60.^^	Cesarean section delivery	Mandatory	—	—
6.AA.02.^^	Assessment, mental health and addictions	Mandatory	—	—
6.AA.10.^^	Counseling, mental health and addictions	—	—	Mandatory
6.AA.30.^^	Therapy, mental health and addictions	—	—	Mandatory
6.DA.07.^^	Facilitation, interpersonal relationships	Mandatory	Mandatory	—
6.DA.08.^^	Test, interpersonal relationships	Mandatory	—	Mandatory
6.DA.10.^^	Counseling, interpersonal relationships	Mandatory	Mandatory	—
6.DA.30.^^	Therapy, interpersonal relationships	Mandatory	Mandatory	Mandatory
6.LA.02.^^	Assessment, communication	Mandatory	—	Mandatory
6.LA.50.^^	Training, communication	Mandatory	Mandatory	Mandatory
6.PA.50.^^	Training, hearing	—	—	Mandatory
6.RA.02.^^	Assessment, voice	Mandatory	—	Mandatory
6.RA.50.^^	Training, voice	—	—	Mandatory
6.VA.02.^^	Assessment, motor and living skills	Mandatory	Mandatory	Mandatory
6.VA.07.^^	Facilitation, motor and living skills	Mandatory	Mandatory	—
6.VA.08.^^	Test, motor and living skills	Mandatory	—	Mandatory
6.VA.50.^^	Training, motor and living skills	—	—	Mandatory
7.SC.08.^^	Other ministration, personal care	—	Mandatory	—

CCI rubric	CCI rubric title	Status	Location	Extent
7.SP.10.^^	Counseling, promoting health and preventing disease	—	—	Mandatory
7.SP.59.^^	Instruction, promoting health and preventing disease	—	Mandatory	Mandatory
7.SP.60.^^	Education, promoting health and preventing disease	—	Mandatory	Mandatory

Note
— Optional or not activated.

Appendix E — Tips for Coders

This appendix consolidates all of the Tips for Coders that were released on CIHI's Coder's Resource Page between 2009 and spring 2017 and that are currently relevant. The Tips for Coders provide education and clarification on a specific topic. They have been reviewed and updated to ensure they are compliant with version 2018 of ICD-10-CA/CCI, the *Canadian Coding Standards for Version 2018 ICD-10-CA and CCI*, the *Discharge Abstract Database (DAD) Abstracting Manual* and the *National Ambulatory Care Reporting System (NACRS) Abstracting Manual*.

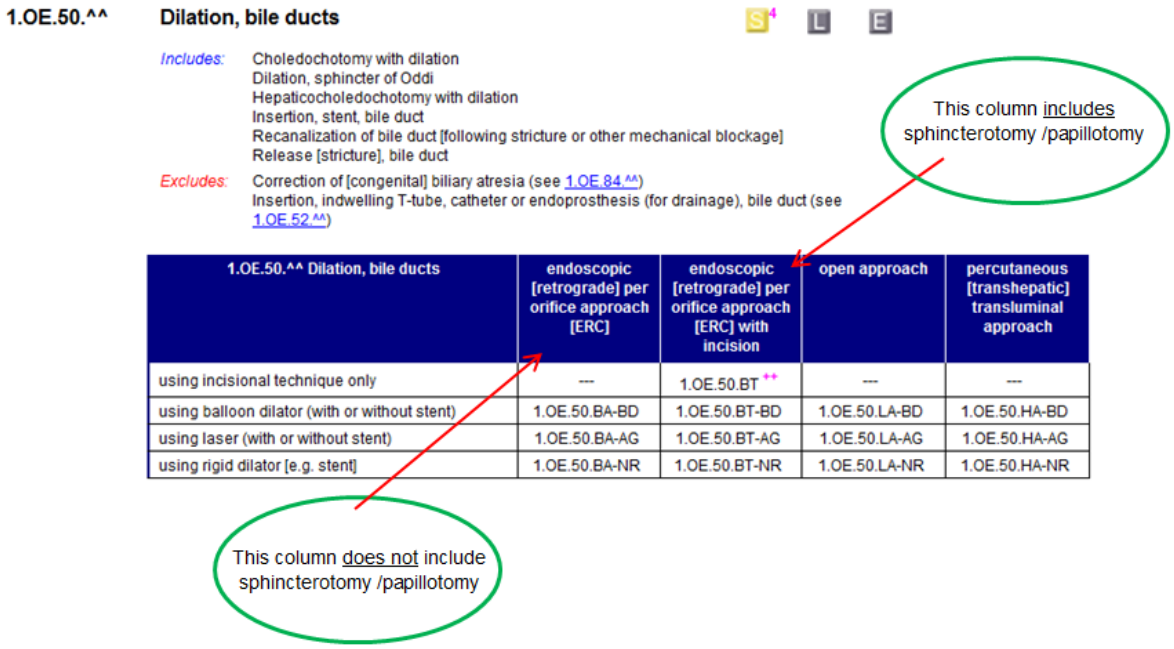
General coding standards for CCI

Endoscopic Retrograde Cholangiography With Sphincterotomy Alone or Concomitant With Extraction

Endoscopic retrograde cholangiography (ERC) or endoscopic retrograde cholangiopancreatography (ERCP) is a procedure that combines upper gastrointestinal endoscopy and X-rays to view the bile and pancreatic ducts. With the availability of non-invasive tests such as magnetic resonance cholangiography to investigate signs and symptoms, ERC(P) is performed primarily for cases in which it is expected that treatment will be delivered during the procedure rather than as a diagnostic procedure alone.

The purpose of this tip is to explain when 1.OE.50.BT.^^ *Dilation, bile ducts using incisional technique only endoscopic [retrograde] per orifice approach with incision* is assigned and when it is included in another code.

Sphincterotomy alone: Assign 1.OE.50.BT.^^ *Dilation, bile ducts using incisional technique only endoscopic [retrograde] per orifice approach with incision* **only when** a sphincterotomy or papillotomy is the sole intervention performed during an ERCP. A diagnosis of papillary stenosis is an example of when a papillotomy alone may be performed to treat the stenosis.



1.OE.50.^^ Dilation, bile ducts	endoscopic [retrograde] per orifice approach [ERC]	endoscopic [retrograde] per orifice approach [ERC] with incision	open approach	percutaneous [transhepatic] transluminal approach
using incisional technique only	---	1.OE.50.BT ++	---	---
using balloon dilator (with or without stent)	1.OE.50.BA-BD	1.OE.50.BT-BD	1.OE.50.LA-BD	1.OE.50.HA-BD
using laser (with or without stent)	1.OE.50.BA-AG	1.OE.50.BT-AG	1.OE.50.LA-AG	1.OE.50.HA-AG
using rigid dilator [e.g. stent]	1.OE.50.BA-NR	1.OE.50.BT-NR	1.OE.50.LA-NR	1.OE.50.HA-NR

Sphincterotomy concomitant with extraction: A patient with a diagnosis of biliary stones requiring extraction may require a sphincterotomy of the bile ducts, but in this instance since the sphincterotomy is not the only intervention performed during the ERCP, 1.OE.50.BT.^^ *Dilation, bile ducts using incisional technique only endoscopic [retrograde] per orifice approach with incision* is not assigned. Rather, we can see that **extraction with sphincterotomy** is included at 1.OE.57.^^ *Extraction, bile ducts*.

1.OE.57.^^ Extraction, bile ducts

Includes: Choledocholithotomy
Cholelithotomy
Extraction [with or without sphincterotomy], bile duct calculus
Sphincterotomy with extraction [calculus], bile duct
Sphincterotomy with extraction [calculus], hepatic duct
Sphincterotomy with extraction [calculus], pancreatic duct

Excludes: Cholecystectomy with extraction of bile duct calculi (see 1.OD.89.^^)

Code Also: Any concomitant destruction of bile duct calculi (see 1.OE.59.^^)
Any insertion of catheter or T-tube for continuous drainage (see 1.OE.52.^^)
Any insertion of stent for continuous dilation during healing (see 1.OE.50.^^)

Note: Choledochotomy or sphincterotomy incision may be performed to enlarge bile duct lumen in order to aid in extraction of stone(s) and usually involves subsequent simple suture repair. Irrigation is commonly performed following extraction to clear bile duct of calculi debris.

Note

Diagnostic imaging interventions (Section 3) are mandatory to capture for ambulatory care. Therefore, a code from either 3.OE.10.^^ *Xray, bile ducts* or 3.OG.10.^^ *Xray, biliary ducts with pancreas* is also assigned for ambulatory care cases.

Interventions: Failed/Abandoned/Change of Plans

Let's review the operative note below. The patient was scheduled for a cystoprostatectomy with ileal conduit.

Operative note

We entered the retroperitoneal space. We immediately encountered a hard, fixed pelvic mass. It was very difficult to develop the space of Retzius, which appeared to be obliterated by the patient's cancer. The space behind the pubic bone was not accessible and was basically a rock-hard surface with no evident tissue planes. Likewise, we were not able to develop the lateral aspect of the space of Retzius to expose the iliac vessels. We therefore made the decision to enter the peritoneal cavity. The peritoneum above the bladder was elevated in hemostats and entered sharply. We opened the peritoneum from the umbilicus down to the bladder. The urachus was taken at the umbilicus and dissected down toward the dome of the bladder.

It became evident that the sigmoid colon was quite firmly attached to the left lateral aspect of the bladder. We spent a long time dissecting this free and were eventually able to mobilize it somewhat.

We were starting to form the impression that this was likely not a resectable bladder and prostate, but we elected to proceed cautiously in the hope that further dissection might change the situation. We dissected laterally on both sides in an effort to expose the iliac vessels. It became clear that there was likely nodal metastatic disease on both sides. We were never able to access the iliac vessels, which appeared to be involved by tumor. We did take down the spermatic cords bilaterally, using clips and ligatures of 0-Vicryl for hemostasis. Unfortunately, this did not really lead us into a useful plane.

Reassessing the bladder and prostate, it became clear that this was a stage T4 tumor. It was clearly fixed, and in multiple locations laterally, anteriorly, and posteriorly. It was a very malignant feeling, frozen pelvis and it was clear that we were not going to be able to proceed safely. We agreed that this unfortunate gentleman had unresectable and incurable disease, and we reluctantly elected to abort the procedure at this point.

This is a (select the correct option below)

A. Change of plans during an intervention

B. Abandoned intervention

C. Failed intervention

If you selected **A. Change of plans during an intervention**, you are correct!

The *Change of Plans During an Intervention* coding standard states that when an intervention is performed that is different from the one originally intended, code only the intervention that was actually performed. The intended therapeutic intervention has no clinical significance and must not be recorded on the abstract. Coding of therapeutic interventions should reflect what was actually done.

So, while the intended intervention was a radical cystoprostatectomy with ileal conduit, the intervention actually done was lysis of extensive adhesions.

Why is this not an abandoned intervention?

The surgeon documents “We agreed that this unfortunate gentleman had unresectable and incurable disease, and we reluctantly elected to abort the procedure at this point.”

The patient was scheduled to have a cystoprostatectomy. Why wouldn’t we assign 1.PM.91.^^ *Excision radical, bladder* with the status attribute A — abandoned after onset?

The *Abandoned Interventions* coding standard defines an abandoned intervention as follows:

> “. . . a situation in which a planned intervention classifiable to Section 1 or Section 5 is begun but, due to usually unanticipated circumstances, cannot be completed beyond an incision, inspection, biopsy or anesthetization.”

More than an incision, inspection, biopsy or anesthetization was completed; therefore, this is not an abandoned intervention.

Why is this not a failed intervention?

The *Failed Interventions* coding standard defines a failed intervention as follows:

> “. . . on termination of the procedure, the expected outcome is either poor or not achieved entirely. Classify a failed intervention in the same manner as one that is successful.”

The cystoprostatectomy was not performed because the tumor was fixed in multiple locations and proceeding with the surgery was not deemed to be safe. This describes a change of plans.

See also the coding standards *Abandoned Interventions*, *Failed Interventions*, *Change of Plans During an Intervention* and *Cancelled Interventions*.

Apheresis

Apheresis is a procedure in which blood is withdrawn and passed through a machine that separates out one particular component and returns the remaining components back to the person.

The procedure

Apheresis is an extracorporeal therapy, meaning that blood is taken from the patient to have a process applied to it before it is returned to the patient. During the procedure, whole blood is removed from the body through an intravenous line and enters a cell separator machine adjusted to separate out a selected blood component. The selected layer is removed and retained and the remaining unused components are returned into the patient through a different intravenous line. Additional fluids such as saline or plasma may be given to replace/correct the intravascular volume. The procedure takes about two hours.

Apheresis is named for the component that is selectively separated and retained from the donor as indicated in the following table:

Apheresis	Selective removal of
Erythrocytapheresis	Red blood cells
Leukapheresis	Leukocytes (white blood cells)
Lymphocytapheresis	Lymphocytes
Plasmapheresis	Blood plasma
Plateletpheresis (also called thrombapheresis, thrombocytapheresis)	Platelets
Stem cell apheresis or harvesting	Circulating bone marrow cells

There are two purposes for performing apheresis; classification depends upon the intent of the procedure:

Donation apheresis

Apheresis is a method of procuring healthy blood components from a donor for later transfusion into another person (homologous transfusion) or for storage and later transfusion back into the donor (autologous transfusion).

In CCI, donation apheresis is classified to 1.LZ.58.^^ *Procurement, circulatory system NEC*. The **later** transfusion into another person or into the donor is classified to 1.LZ.19.^^ *Transfusion, circulatory system NEC*.

Therapeutic apheresis

Therapeutic apheresis is performed on a sick person to remove the component of the blood that is contributing to his or her diseased state. Therapeutic apheresis is classified to 1.LZ.20.^^ *Apheresis, circulatory system NEC*.

Note

Mandatory to capture for ambulatory care:

1.LZ.20.^^ Apheresis, circulatory system NEC

1.LZ.19.HH-U7-^ Transfusion, circulatory system NEC, of stem cells

1.LZ.19.HH-U8-^ Transfusion, circulatory system NEC, of cord blood stem cells

Mandatory to capture for acute inpatient care:

1.LZ.19.HH-U7-^ Transfusion, circulatory system NEC of stem cells

1.LZ.19.HH-U8-^ Transfusion, circulatory system NEC of cord blood stem cells

See also the lists Additional mandatory CCI codes for ambulatory care and Additional mandatory CCI codes for acute inpatient care.

Spinal Decompression

Hierarchy of interventions

In alignment with the CCI principle of reducing the need for multiple code assignment to describe complex health interventions, a hierarchy of surgical interventions performed on the spinal vertebrae or intervertebral discs for decompression was established.

Lowest to highest:

1.SC.80.^^ *Repair, spinal vertebrae* — includes laminectomy, facetectomy and foraminotomy when performed alone (without discectomy).

1.SE.87.^^ *Excision, partial, intervertebral disc* — includes discectomy with any single-level fusion (two vertebrae being fused together), facetectomy, laminectomy or foraminotomy (without fixation/instrumentation).

1.SC.74.^^ *Fixation, spinal vertebrae* — includes instrumentation with any discectomy, facetectomy, laminectomy or foraminotomy (without grafting).

1.SC.75.^^ *Fusion, spinal vertebrae* — includes grafting with any instrumentation, discectomy, facetectomy, laminectomy or foraminotomy (without vertebrectomy).

1.SC.89.^^ *Excision total, spinal vertebrae* — includes vertebrectomy with any grafting, instrumentation, discectomy, facetectomy, laminectomy or foraminotomy.

Vertebrectomy takes precedence over discectomy.

Key point
Most often spinal decompression is achieved by surgical interventions performed on the spinal vertebrae or intervertebral discs without ever touching the dura. When there is no mention of damage to the dura, it means decompression was successful without further resorting to a spinal cord/nerve root release (1.AW.72.^^). The ultimate goal is to not damage the dura. Surgeons may state that the spinal cord is "completely free" or "bouncing free" or that the nerve root is "moving well" and "totally exposed."

Code also 1.AW.72.^^ *Release, spinal cord*?

A spinal cord release (1.AW.72.^^) describes surgery that involves some sort of repaired damage to the spinal cord/nerve root. It represents the most invasive form of decompression.

Clues to justify assigning 1.AW.72.^^ *Release, spinal cord:*

- Compression is so bad that the nerve root or cord is damaged or must be damaged by the surgeon **to effect the release**.
- Bone fragment or spicule is lodged in the dura or nerve root and must be plucked out.
- Ligamentum flavum is so calcified/hypertrophied that it is adherent to the dura or nerve root and can only be removed with damage to the neural structures.
- Posterior longitudinal ligament (PLL) is ossified so badly that it abuts the dura, attenuating it to such thinness that dissecting the PLL away from it results in tearing the dura.

Caution
Physicians will use the term "decompression" to describe spinal cord decompression achieved by surgical interventions performed on the spinal vertebrae or intervertebral discs.

Use the following alphabetical index search only when there is documentation of damage to the dura:

Decompression (see also Release, by site)

– spinal

– – cord (nerve root) with dural breach 1.AW.72.^^

Whenever the cord does actually require extra or intradural release, 1.AW.72.^^ is the principal procedure followed by any concomitant intervention on the vertebrae or intervertebral discs.

Damaged dura

Is the dura damaged because of the compression of vertebral structures on it or because it is impossible to decompress without deliberately incising? When documentation indicates that damage to the dura to achieve complete spinal decompression was “deliberate,” do not assign T81.2 *Accidental puncture and laceration during a procedure, not elsewhere classified*. Whereas, when the documentation indicates that an “accidental damage/tear” or “unintended tear/damage” of the dura occurred, T81.2 is appropriated assigned. Mention of a dural tear means the spinal cord dura has been compromised and regardless if the dural tear was deliberate or accidental, this is the circumstance in which you assign 1.AW.72.^^ *Release, spinal cord*.

Chapter I — Certain infectious and parasitic diseases

Infections: Interpretation of *This* Versus *That*

Purpose: Some discrepancies have been found with the coding of infections. It is important to determine whether

- An infection has been confirmed or ruled out;
- An infection is present on admission or acquired following admission; and
- A patient has an active infection or is a carrier of an infective organism.

Assignment of the correct ICD-10-CA codes and accurate diagnosis typing are crucial to providing quality data that will be used for improving outcomes for patients. The health information management professional must have a thorough knowledge of the coding standards and always apply that knowledge to each and every case. Failure to do so results in unreliable data. The following table provides some assistance in discerning some common situations surrounding the coding of infections whereby interpretation of this versus that will result in different code selections and diagnosis typing.

Coding of infections: Interpretation and considerations

This	That	Considerations
Methicillin-resistant *Staphylococcus aureus* (MRSA) infection	Methicillin-sensitive *Staphylococcus aureus* (MSSA) infection	With an MRSA infection, treatment with methicillin will not be effective since the bacteria is resistant to methicillin. For an MRSA infection, it is mandatory to assign ICD-10-CA codes to identify (a) the site of infection, (b) the infectious microorganism and (c) the specific drug resistance (in this case, U82.1 *Resistance to methicillin*), and to always apply the diagnosis cluster to link the codes. With an MSSA infection, treatment with methicillin will be effective since the bacteria is sensitive to methicillin. For an MSSA infection, U82.1 *Resistance to methicillin* is not assigned.

This	That	Considerations
Confirmed The infection has been verified based on various factors such as physical examination, laboratory testing, diagnostic imaging and clinical input.	Ruled out The infection has been excluded based on various factors such as physical examination, laboratory testing, diagnostic imaging and clinical input.	There must be documentation of a confirmed infection by the physician/primary care provider in order to assign a code. When symptoms present, patients are often put on established infection control protocols prior to confirmation of an infection, such as when a patient has diarrhea and a *Clostridium difficile* (*C. difficile*) infection is suspected. This is a precaution to ensure that the potential infection is contained in the event that the patient tests positive for the infection. If the infection is ruled out on initial testing, a code is not assigned for the infection. The patient does/did not have the infection. Further information is available in a Public Health Agency of Canada fact sheet on *C. difficile*.
Infection A microorganism is present on or in the body causing illness.	Carrier A microorganism is present on or in the body without causing illness.	Care must be taken to ensure that documentation of any microorganism — and in particular any drug-resistant microorganism (DRMO) — is classified appropriately either as a confirmed infection or as carrier status. Remember that documentation by the physician, nursing staff or infection control staff may be used for mandatory code assignment of a carrier of a drug-resistant microorganism. However, there must be confirmation by the physician/primary care provider in order to assign a code for an active infection.

This	That	Considerations
Pre-admit comorbidity A significant condition that is present prior to or on admission.	Post-admit comorbidity A significant condition that develops after admission.	The timeline of a condition must be considered when applying the correct diagnosis type to any comorbidity. For infections, the presentation of symptoms and the timing of the testing are important considerations. For example, when a patient presents with symptoms of an infection and blood cultures that were taken in the emergency room or on day 1 of admission are positive, this is indicative of a pre-admit comorbidity even if the infection is not documented until later (sometimes days later) by the physician/ primary care provider. Conversely, if the patient starts to deteriorate or to show signs of a new condition after admission, it is reasonable to consider this a post-admit comorbidity. Each case must be looked at individually and steps taken to carefully review the documentation to ensure the correct diagnosis typing.
Post-intervention condition A condition or symptom that is not attributable to another cause that arises during an uninterrupted, continuous episode of care within 30 days following an intervention (including transfers from one facility to another) or a condition where a cause/effect relationship is documented, regardless of timeline.	Not a post-intervention condition A condition or symptom occurring in the post-intervention period of 30 days that is attributable to another cause, including • A condition that represents a worsening of the very condition being treated; • An exacerbation of a pre-existing condition; and • A condition that is due to another cause.	When determining whether a condition is a post-intervention condition, the documentation must be carefully reviewed in order to ensure that the condition was not present prior to the intervention or that the condition was not attributable to another cause. Here's an example: The patient suffers a gastrointestinal (GI) bleed due to an antral ulcer on day 1 following an intervention. The GI bleed is attributable to another cause and is not a post-intervention condition.

Remember that **laboratory results are not used for code assignment.** A positive blood culture does not always mean that an infection is present. The diagnosis must be documented (as stated in the table above).

The following resources are also available to assist the health information management professional:

- CIHI's education products
- eQuery Tool
- CIHI's website (cihi.ca)

See also the coding standards *Infections* and *Drug-Resistant Microorganisms*.

Urosepsis

The term "urosepsis" may be classified 2 ways, depending on whether the health care provider means that the patient has:

1. A urinary tract infection (UTI) that has progressed to generalized sepsis (i.e., the organism causing the UTI has entered the blood stream and become generalized sepsis); or

2. A localized infection of the urinary tract (without progression to generalized sepsis).

In order to determine the meaning of the term "urosepsis" for a specific case, as described above, review all pertinent source documentation to see whether or not there is evidence that the patient's UTI has progressed to generalized sepsis. If a review of all the pertinent source documentation does not help you determine the intended meaning of "urosepsis," seek clarification from the physician.

When the diagnosis "urosepsis" means that the UTI has progressed to generalized sepsis, search the alphabetical index using the lead term "Sepsis" and assign

- A41.9 *Sepsis, unspecified* (or the more specific code for generalized sepsis, as applicable); and
- N39.0 *Urinary tract infection* for the localized UTI.

When the diagnosis "urosepsis" means a localized UTI without progression to generalized sepsis, search the alphabetical index using the lead term "Urosepsis" and assign

- N39.0 *Urinary tract infection*.

See also the coding standards *Septicemia/Sepsis* and *Systemic Inflammatory Response Syndrome (SIRS)*.

Chapter IX — Diseases of the circulatory system

Thrombolytic Therapy

Capture a code for **thrombolytic** therapy on the first inpatient encounter of a current, uninterrupted episode of care whenever it is administered, regardless of the diagnosis, mandatory.

Don’t let the terminology confuse you . . .

A **thrombolytic** agent actively breaks down a clot and is also known as a “clot buster,” while an **antithrombotic** acts to reduce the risk of clot formation by preventing or interfering with clot formation.

Let the classification be your guide . . .

Common **thrombolytic** agents include anistreplase, alteplase, reteplase, streptokinase, tenecteplase, TNKase (TNK), tissue plasminogen activator (TPA) and urokinase.

The CCI Section 1 agent qualifier for a **thrombolytic** is **1C** — using **thrombolytic** agent.

Common **antithrombotic** agents include warfarin, heparin, enoxaparin, dipyridamole and glycoprotein IIb/IIIa receptor inhibitors (GPIs) (e.g., ReoPro [abciximab], Aggrastat and Integrilin [eptifibatide]). The CCI Section 1 agent qualifier for an **antithrombotic** is **C1** — using **antithrombotic** agent.

Intervention Pre-Admit Flag: Yes or no?

The Intervention Pre-Admit Flag identifies that the intervention was initiated prior to, and in some cases continued into, the acute care inpatient admission. Its application is restricted to interventions listed in the *Discharge Abstract Database (DAD) Abstracting Manual* Group 11, Field 20 — Intervention Pre-Admit Flag.

Thrombolytic therapy is listed as an intervention that qualifies for application of the Intervention Pre-Admit Flag. However, the Intervention Pre-Admit Flag is Y (yes) **only** when the thrombolytic therapy was administered prior to admission, during an encounter of the current, uninterrupted episode of care, when the patient’s diagnosis is ST segment elevation myocardial infarction (STEMI) and the intervention is classified to one of the following CCI codes:

1.ZZ.35.HA-1C Pharmacotherapy, total body, percutaneous approach [intramuscular, intravenous, subcutaneous, intradermal], blood and blood forming organ agents, using thrombolytic agent

1.IL.35.HA-1C Pharmacotherapy (local), vessels of heart percutaneous injection approach, of thrombolytic agent

1.IL.35.HH-1C Pharmacotherapy (local), vessels of heart percutaneous infusion approach, of thrombolytic agent

Knowledge check

1. The patient was diagnosed with an ischemic stroke. He was given tissue plasminogen activator (TPA) in the emergency department and then admitted to an acute care inpatient bed.

   i. It is mandatory to assign an intervention code for administration of the TPA.

   a. True

   b. False

   ii. The Intervention Pre-Admit Flag is Y (yes).

   a. True

   b. False

2. The patient was diagnosed with an ST segment elevation myocardial infarction (STEMI). She was given streptokinase in the emergency department of Facility A. She was then transferred and admitted to an acute care inpatient bed at Facility B.

   i. It is mandatory to assign an intervention code for administration of the streptokinase.

   a. True

   b. False

   ii. The Intervention Pre-Admit Flag is Y (yes).

   a. True

   b. False

Correct answers

1. i. a. True: TPA is a thrombolytic agent. It is mandatory to assign a code for administration of a thrombolytic agent on the first inpatient encounter of a current uninterrupted episode of care, regardless of the diagnosis.
1. ii. b. False: The diagnosis was not ST segment elevation myocardial infarction (STEMI).
2. i. a. True: Streptokinase is a thrombolytic agent. It is mandatory to assign a code for administration of a thrombolytic agent on the first inpatient encounter of a current uninterrupted episode of care, regardless of the diagnosis.
2. ii. a. True: The diagnosis was ST segment elevation myocardial infarction (STEMI).

See also the coding standard *Thrombolytic Therapy*.

Cardiac Arrest

A code for cardiac arrest is assigned when terminology such as “asystole,” “cardiac arrest,” “cardiorespiratory arrest,” “circulatory arrest” or “cardiac standstill” is documented by the physician **and** a resuscitative intervention is undertaken, regardless of the outcome.

An intervention code is assigned for resuscitative interventions that are initiated prior to and that continue following admission, or those that are performed during the episode of care. An intervention code is not assigned for resuscitative interventions that stopped prior to admission.

Knowledge checks

(Use the information above and refer to the coding standard *Cardiac Arrest* to answer the following true or false questions.)

1. The patient had a documented “cardiac arrest.” The paramedics initiated cardiocerebral resuscitation (CCR) at the scene. The patient reverted to normal sinus rhythm in the ambulance en route to the hospital. CCR was discontinued prior to arrival at the emergency department. A code for CCR is assigned.

   a. True

   b. False

2. The patient suffered a documented “cardiac standstill.” The paramedics initiated cardiopulmonary resuscitation (CPR). The patient was intubated and ventilated via a bag–valve mask. The emergency department physician assessed the patient and wrote an order for admission. The patient was admitted to the coronary care unit intubated and ventilated.

   i) I46.0 *Cardiac arrest with successful resuscitation* is assigned as a diagnosis type (1) on the acute care inpatient abstract.

      a. True

      b. False

   ii) 1.GZ.31.CA-EP *Ventilation, respiratory system NEC, Invasive per orifice approach by endotracheal intubation, manual hand assisted* (e.g. ambu bag) is assigned on the acute care inpatient abstract.

      a. True

      b. False

3. A bystander witnessed the patient fall. The patient was not breathing and the bystander was unable to find a pulse. The bystander initiated cardiopulmonary resuscitation (CPR). The paramedics took over and continued CPR until arrival at the emergency department, where the patient was pronounced dead. The physician documented the final diagnosis as "vital signs absent."

   A code for "cardiac arrest" is assigned.

   a. True

   b. False

Correct answers

1. b) False. The resuscitative intervention was discontinued prior to arrival at the hospital. It was not in progress at the time of admission.
2. i. a) True. Cardiac standstill was documented; intubation and ventilation were initiated prior to and continued into the admission. I46.0 *Cardiac arrest with successful resuscitation* meets the criteria for significance per the coding standard *Diagnosis Typing Definitions for DAD*.

   Ii. a) True. The intubation and ventilation were initiated prior to and continued into the admission. A code from rubric 1.GZ.31.^^ *Ventilation, respiratory system NEC* is mandatory per the coding standard *Invasive Ventilation*.
3. b) False. Cardiac arrest was not documented. The documented diagnosis "vital signs absent" is classified to R99 *Other ill-defined and unspecified causes of mortality*.

See also the coding standards *Cardiac Arrest* and *Vital Signs Absent (VSA)*.

I21 *Acute Myocardial Infarction:* Diagnosis Typing

Given the direction in the coding standard *Acute Coronary Syndrome (ACS)*, it is expected that codes from category I21.– would rarely be assigned a diagnosis type (3).

Instruction: Review the coding standard *Acute Coronary Syndrome (ACS)* and then complete the following exercise by selecting "True" or "False" for each of the statements.

Question: A code from category I21 *Acute myocardial infarction* is assigned as a diagnosis type (3) on a DAD abstract, when

A. It is part of a post-intervention condition as an additional code to provide specificity (i.e., a sandwich code). **True/False?**

B. A patient is admitted for a condition not related to the AMI (i.e., admission is within 28 days of the AMI) and the AMI is not treated during this episode of care. **True/False?**

C. A patient has recently suffered an AMI (i.e., admission is within 28 days of the AMI) and is admitted electively for treatment of coronary artery disease (CAD) with percutaneous coronary intervention (PCI). **True/False?**

D. The patient is admitted for continuing observation following treatment of the AMI at another facility. The AMI occurred 30 days ago. **True/False?**

E. A patient has a subsequent AMI classified to a code from category I22 *Subsequent myocardial infarction* on the abstract and the original AMI is also coded. **True/False?**

Correct answers

A. False. An acute myocardial infarction (AMI) that meets the definition of a post-intervention condition is never assigned as an additional (sandwich) code. The AMI code (I21) is the primary code for the post-intervention condition. A myocardial infarction within the acute phase is always assigned a significant diagnosis type.

B. False. A myocardial infarction within the acute phase is always assigned a significant diagnosis type.

C. False. In this case, the code for the coronary artery disease is the most responsible diagnosis and the AMI code (I21) is a significant diagnosis type per the coding standard *Acute Coronary Syndrome (ACS)*.

D. False. Since the patient is still receiving care (i.e., observation) for the myocardial infarction, the myocardial infarction is classified to category I21. The same criteria noted in B above apply since the AMI is still considered acute, albeit more than 28 days old. For a myocardial infarction to be classified to I25.2 *Old myocardial infarction* both listed criteria must apply.

E. True. A subsequent MI is one that occurs within 28 days of a previous MI (i.e., the original MI is still within the acute phase). In such a case, a code from category I22 *Subsequent myocardial infarction* is assigned as a significant diagnosis type. A code from category I21 may be assigned, optionally, as a diagnosis type (3), as per the coding standard *Acute Coronary Syndrome (ACS)*.

Data quality check

Selection criteria: Records with a code from category I21 *Acute myocardial infarction* as a diagnosis type (3) **without** an additional code of I22 *Subsequent myocardial infarction* assigned as a significant diagnosis type (M, 1, 2, W, X, Y). Review the chart documentation for appropriate correction.

See also the coding standard *Acute Coronary Syndrome (ACS)*.

Chapter XI — Diseases of the digestive system

Bariatric Surgery and Diagnosis Code Mismatch

Purpose: As a rule, the intervention code 1.NF.78.^^ *Repair by decreasing size, stomach* is assigned **only** to identify a patient receiving gastric bypass surgery for the purpose of weight reduction. Data analysis identified cases of 1.NF.78.^^ being assigned with a diagnosis code for cancer of the stomach and other stomach diseases.

1.NF.78.^^ *Repair by decreasing size, stomach* **is assigned only for weight reduction surgery**.

The error in the data is due to either the diagnosis code assignment **or** the intervention code assignment.

1. **Potentially incorrect diagnosis code assignment**

   Suspect data is identified when reviewing cases **with** an intervention assigned from 1.NF.78.^^ (excluding cases with status attribute "R" — revised) and **without** a diagnosis of E66.– *Obesity* assigned on the abstract.

   Suspect data includes cases with the diagnosis codes listed below on the same abstract as 1.NF.78.^^:

   C16.– Malignant neoplasm of stomach

   C25.– Malignant neoplasm of pancreas

   D37.– Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs

   K21.– Gastroesophageal reflux disease

   K25.– Gastric ulcer

   K31.– Other disease of stomach and duodenum

   K44.– Diaphragmatic hernia

2. **Potentially incorrect intervention code assignment**

   Suspect data is identified when reviewing cases with E66.– assigned as the most responsible diagnosis (MRDx) **and** 1 of the following intervention codes:

   1.NF.76.^^ Bypass, stomach

   1.NF.80.^^ Repair, stomach

   1.NF.87.^^ Excision partial, stomach

   1.NF.89.^^ Excision total, stomach

   1.NF.91.^^ Excision radical, stomach

Cases with E66.– as the MRDx and any of the above-listed interventions will group to CMG 910 Unrelated Interventions.

Data quality check

1. Identify cases with intervention code 1.NF.78.^^ (excluding cases with status attribute “R” assigned) and without E66.– as a significant diagnosis type on the abstract.
2. Identify cases with an intervention code from 1.NF.76.^^, 1.NF.80.^^, 1.NF.87.^^, 1.NF.89.^^ or 1.NF.91.^^ and with E66.– assigned as the MRDx.
3. Identify cases grouped to CMG 910 Unrelated Interventions, make corrections and send the corrected data to CIHI before year-end database closure.

Chapter XIII — Diseases of the musculoskeletal system and connective tissue

Where Do Soft-Tissue Injuries Fit in the Classification?

The purpose of this tip is to provide assistance with code selection when the documentation indicates **soft-tissue injury**. As there is no index look-up for this term, emergency visit coders will benefit from the 4 relevant examples provided in this tip.

The most common soft tissues injured are muscles, tendons and ligaments. These injuries often occur during sports and exercise activities, but sometimes simple everyday activities can cause an injury.

Soft-tissue injuries (STIs) fall into 2 basic categories: acute injuries and overuse injuries.

- Acute injuries are caused by a sudden trauma, such as a fall, twist or blow to the body. Examples of acute injuries include sprains, strains and contusions.
- Overuse injuries occur gradually over time, when an athletic or other activity is repeated so often that areas of the body do not have enough time to heal between occurrences. Tendinitis and bursitis are common soft-tissue overuse injuries.

As soft-tissue injuries can occur anywhere in the body, the first axis for classification purposes is the site of the injury. After that, the choice of code is case specific.

Case 1: A patient presents to the emergency department (ED) with a bruised ankle. The patient dropped a 10 lb weight on the ankle. The physician confirms no broken bones and documents STI.

The highest level of specificity in this case is a bruise.

S90.0 Contusion of ankle

Case 2: A patient presents to the ED with a swollen ankle. The patient states that he twisted his ankle and fell down 3 stairs. The physician confirms no broken bones and documents “STI — ankle sprain.” The patient has to be non-weight-bearing with a soft or hard cast, and he needs to rest and use ice, compression, elevation and anti-inflammatory medications.

The highest level of specificity here is ankle sprain.

S93.49 Sprain and strain of ankle, unspecified

Case 3: A patient presents to the ED with a painful ankle; she is unable to walk after a sports injury. There is severe edema, bruising and disabling pain. The physician confirms no broken bones; after the imaging tests are done, the STI is determined to be a significant tendon rupture. The patient is immobilized with a cast.

S96.90 Laceration of unspecified muscle and tendon at ankle and foot level

Case 4: The only documentation is “Fall down stairs, STI ankle.”

You have an anatomic site; the code could be from one of the categories listed below:

S90.– Superficial injury of ankle and foot;

S93.– Dislocation, sprain and strain of joints and ligaments at ankle and foot level; or

S96.– Injury of muscle or tendon at ankle and foot level.

Select the unspecified code of the least-severe injury in the options available:

S90.9 Superficial injury of ankle and foot, unspecified

See also the coding standard *Excision (of Lesion) of Bone, Soft Tissue and Skin*.

Chapter XV — Pregnancy, childbirth and the puerperium

Fetal Heart Rate Anomaly

Purpose: To ensure that ICD-10-CA codes for fetal stress [distress] are not being assigned when there is no true fetal heart rate (FHR) **anomaly** occurring.

O68 Labour and delivery complicated by fetal stress [distress]

O68 Labour and delivery complicated by fetal stress [distress]		Delivered, with or without mention of antepartum condition
O68.0	Labour and delivery complicated by fetal heart rate anomaly ++	O68.001
O68.2	Labour and delivery complicated by fetal heart rate anomaly with meconium in amniotic fluid	O68.201

These codes (O68.001 and O68.201) are assigned for the delivery episode of care when there is evidence of an FHR **anomaly** or **non-reassuring** FHR. Not every change in FHR is "non-reassuring." A normal baseline FHR is 110 to 160 beats per minute. During labor, when contractions occur, certain changes in the FHR are expected and normal. It is when these changes in FHR are abnormal or persistent that there is a need for concern. The following table serves to promote a better understanding of FHR patterns and the terminology typically seen in the chart. It is not intended to help coders interpret monitor strips or FHR patterns.

Documentation of . . .	. . . means this
Accelerations — periodic increases in the FHR	Normal: This is the fetus responding to increased activity during labor. Accelerations are actually reassuring as they confirm that the fetus is not hypoxic.
Variability in FHR	Normal: As long as no atypical features are present, this is reassuring.
Early decelerations	Normal: This is a transient decrease in heart rate with the onset of a contraction. It is a normal response during a contraction.
Tachycardia	Abnormal: This may be a sign of fetal hypoxia and is concerning.
Bradycardia	Abnormal: This may be a sign of fetal hypoxia and is concerning.
Late decelerations	Occasional decelerations may be normal. Decelerations that are persistent and/or repetitive are very concerning, and require that the care provider take action.
Variable decelerations with atypical features	Although variability and occasional decelerations are not concerning, the presence of atypical features or persistent variable decelerations may be a cause for concern.

The documentation of occasional FHR variability, accelerations or early decelerations does not indicate a non-reassuring FHR; these occurrences are therefore not classified to a code from category O68 *Labour and delivery complicated by fetal stress [distress]*.

The codes O68.001 and O68.201 include documentation of fetal bradycardia, fetal tachycardia, fetal heart rate irregularity (note: this is not the same as “variability”) and non-reassuring fetal heart rate (NRFHR). When these conditions are documented or when abnormal fetal heart rate (fetal heart rate anomaly) is a reason for intervention (e.g., instrumented or operative delivery), then a code from this category is assigned as a significant diagnosis type.

Section 5 Intervention Codes Applicable to Stillbirths, Missed Abortion and Termination of Pregnancy

Purpose

Coders have indicated that they would like information on the obstetrical intervention codes that are valid for use in various obstetrical circumstances.

This Tip for Coders covers 3 separate topics: stillbirths, missed abortion and termination of pregnancy:

1. Section 5 intervention codes applicable to delivery of a stillbirth
2. Section 5 intervention codes applicable to missed abortion
3. Section 5 intervention codes applicable to termination of pregnancy

Overview

The selection of intervention codes related to intrauterine death depends on the time of death of the fetus. Intrauterine death at or after 20 weeks equates to a delivery (see Section 5 intervention codes applicable to delivery of a stillbirth). Intrauterine death before 20 weeks equates to an abortion (see Section 5 intervention codes applicable to missed abortion).

In contrast, interventions to end a pregnancy where the fetus is alive equate to termination; thus a different selection of intervention codes is required (see Section 5 intervention codes applicable to termination of pregnancy).

This tip covers the selection of Section 5 CCI codes that are valid for use for the expulsion, extraction and facilitation of removal of a stillbirth, missed abortion and termination of pregnancy. Interventions following stillbirth, missed abortion and termination of pregnancy are also covered.

1. Section 5 intervention codes applicable to delivery of a stillbirth

Definitions

Stillbirth

Death that occurs in utero **at or after 20 completed weeks** of gestation (also known as late intrauterine fetal death)

Interventions to expel, extract or facilitate removal of a stillbirth equate to a delivery.

Code selection

1. For interventions to **initiate labor**, select a code(s) from

   5.AC.^^.^^ Antepartum Therapeutic Interventions

2. For interventions **during labor**, select a code(s) from

   5.LC.^^.^^ Interventions during Latent Labour *or*

   5.LD.^^.^^ Interventions during Active Labour

3. For interventions to **facilitate delivery**, select a code(s) from

   5.MD.11.^^ to 5.MD.47.^^

4. For interventions to **accomplish delivery**, select 1 code* from

   5.MD.50.^^ to 5.MD.60.^^

5. For interventions **following delivery**, select a code(s) from

   5.PC.^^.^^ Postpartum Therapeutic Interventions

* A minimum of 1 intervention code (the delivery code, 5.MD.50.^^ to 5.MD.60.^^) is required for stillbirths.

Example

Intrauterine demise occurs at approximately 24 weeks. The patient is admitted for intravenous (IV) oxytocic induction of labor, which is followed by spontaneous vaginal delivery.

5.MD.50.AA Manually assisted vaginal delivery (vertex) without episiotomy

5.AC.30.HA-I2 Induction of labour using percutaneous injection of oxytocic agent

Exclusion

Fetal death that occurs **before** 20 completed weeks is a missed abortion (not a stillbirth), even when expulsion of the fetus takes place after 20 weeks. See the topic Section 5 intervention codes applicable to missed abortion.

See also the topic Section 5 intervention codes applicable to termination of pregnancy.

2. Section 5 intervention codes applicable to missed abortion

Definitions

Missed abortion

Death that occurs in utero **before 20 completed weeks** of gestation with retention of the fetus, even when expulsion of the fetus takes place after 20 weeks (also known as early intrauterine fetal death)

Interventions to expel, extract or facilitate removal of a missed abortion equate to a naturally occurring abortion.

Code selection

1. For interventions to **induce/facilitate expulsion**, select a code(s) from

   5.AC.^^.^^ Antepartum Therapeutic Interventions

2. For interventions to **accomplish (complete) removal**, select a code from

   5.PC.91.^^ Interventions to uterus (following delivery or abortion)

3. For interventions **following removal**, select a code(s) from

   5.PC.^^.^^ Postpartum Therapeutic Interventions

Note that there is no minimum number of intervention codes for a missed abortion.

Examples

Example 1: Intrauterine demise occurs at 16 weeks. The patient is admitted for administration of misoprostol, which is followed by spontaneous expulsion.

5.AC.30.CK-A2 Induction of labour, using per orifice (intra vaginal) administration of antacids [e.g. misoprostol]

Example 2: Missed abortion is diagnosed at 18 weeks. The patient is admitted 2 weeks later for dilatation and curettage (D & C). At the time of the D & C, there is bleeding of the cervix from trauma related to application of the tenaculum, which is controlled by sutures.

5.PC.91.GA Interventions to uterus (following delivery or abortion) dilation and curettage

5.PC.80.JJ Surgical repair, postpartum of current obstetric laceration of cervix occurring at vaginal delivery

Exclusion

Fetal death that occurs **at or after 20 weeks** is a stillbirth (not a missed abortion). See the topic Section 5 intervention codes applicable to delivery of a stillbirth.

See also the topic Section 5 intervention codes applicable to termination of pregnancy.

3. Section 5 intervention codes applicable to termination of pregnancy

Definitions

Termination of pregnancy

The intentional medical or surgical cessation of a pregnancy where the fetus is alive at the initiation of the intervention, regardless of the outcome of the fetus (products of conception, stillbirth, livebirth)

Interventions to expel, extract or facilitate removal of a live fetus equate to termination (an induced abortion).

Code selection

1. For interventions to **facilitate and/or accomplish termination**, select a code(s) from 5.CA.^^.^^ Termination of Pregnancy

2. For interventions **following termination**, select a code(s) from 5.PC.^^.^^ Postpartum Therapeutic Interventions

   Note that a minimum of 1 intervention code (to accomplish termination) is required for termination of pregnancy.

Example

The patient is admitted at 26 weeks for termination due to severe cardiac anomalies in the fetus. Labor is induced via means of intravenous oxytocin. The fetus is expelled and lives for approximately 2 hours.

5.CA.88.HA-I2 Pharmacological termination of pregnancy, percutaneous approach [e.g. intravenous, injection into intraamniotic or extraamniotic sac], oxytocin

Exclusions

Interventions when the fetus is already dead. See the topics Section 5 intervention codes applicable to delivery of a stillbirth and Section 5 intervention codes applicable to missed abortion.

See the coding standards *Pregnancy With Abortive Outcome* and *Continuing Pregnancy After Abortion/Selective Fetal Reduction in Multiple Gestation*.

Amniotic Fluid Embolism

Amniotic fluid embolism (AFE) is a rare obstetric occurrence, yet it is one of the leading causes of maternal mortality in developed countries. In Canada, from 1997 to 2000, AFE ranked third behind cerebrovascular and hypertensive disorders and ahead of postpartum hemorrhage and other pulmonary embolisms as a direct cause of maternal deaths. AFE is believed to arise from simultaneous tears in the fetal membranes and the uterine vessels, thus permitting amniotic fluid to enter the uterine vein and hence the maternal pulmonary arterial circulation. It is characterized by sudden dyspnea, cardiopulmonary collapse and intravascular coagulation.

A study on AFE attempted to reduce false-positive diagnoses in CIHI's data. A confirmed case required the presence of at least one of the following conditions or procedures: cardiac arrest, shock or severe hypertension, respiratory distress, coma, seizure, coagulation disorder or mechanical ventilation. A total of 292 AFE cases were identified in Discharge Abstract Database (DAD) data, of which only 120 (40%) were confirmed; 33 of the confirmed cases were fatal.[1]

AFE remains a rare but serious obstetric outcome, with major implications for maternal, fetal and neonatal health; therefore, it is important to classify cases correctly and to not confuse AFE with other diagnoses of obstetric embolism from category O88 *Obstetric embolism*. AFE is classified to O88.1– *Amniotic fluid embolism*.

Data quality check

As there should be very few cases of AFE, a data quality check on all DAD abstracts with a diagnosis of O88.1– *Amniotic fluid embolism* as any diagnosis type should be performed to help reduce false-positive cases of AFE in the DAD. The abstract should be reviewed for other diagnoses and/or intervention codes that would be expected with a true diagnosis of AFE:

- Cardiac arrest
- Shock or severe hypertension
- Respiratory distress
- Coma
- Seizure
- Coagulation disorder
- Mechanical ventilation

If none of these are identified on the abstract, the chart should be reviewed to confirm the diagnosis of AFE.

Assisted Reproductive Technology (ART)

ART includes any technology that manipulates ovulation, fertilization and conception. The type of technology used is dependent on the underlying cause of the infertility.

Categories Z37 and Z38

Categories Z37 *Outcome of delivery* and Z38 *Liveborn infants according to place of birth* include a sixth digit so that pregnancies occurring as the result of ART can be distinguished from those that are the result of completely unassisted and spontaneous ovulation and conception.

A sixth digit of 0 indicates that pregnancy was achieved or baby was a product of natural and spontaneous ovulation and conception. A sixth digit of 1 indicates that some type of manipulation of sperm and/or ovum was required to achieve pregnancy.

What is included in ART?

For the purposes of code selection from Z37 and Z38, ART includes any technology that manipulates ovulation, fertilization and conception, including artificial insemination. Specifically, these include:

- In-vitro fertilization (IVF) with or without intracytoplasmic sperm injection (ICSI) or in-vitro (egg) maturation (IVM);
- Embryo transfer; fresh or frozen

- Ovarian stimulation/ovulation induction which include the use of drugs such as clomiphene citrate (brand names Clomid, Milophene, Serophene), human menopausal gonadotropins (hMG) either urinary or recombinant, follicle-stimulating hormone (FSH) products either urinary or recombinant or luteinizing (LH) agonists; and
- Artificial insemination

What is not included in ART?

ART does not include surgical procedures to rectify anatomical reproductive problems in either the male or the female such as repair of damaged/blocked fallopian tubes or repair of male varicocele. It also does not include surrogacy. Finally, it does not include medication taken to increase sperm motility.

The coder is not expected to go back to previous patient visits to determine if the current pregnancy was a result of ART. If there is no documentation on the current admission to support ART, then select the sixth digit of 0.

Data quality check

Ensure that the Z37 *Outcome of delivery* code on the mom's abstract matches the Z38 *Liveborn infants according to place of birth* on the baby's abstract. Both should have the same sixth digit of either 0 or 1 that indicates the pregnancy/baby was a product of either spontaneous ovulation and conception or ART respectively.

Chapter XVI — Certain conditions originating in the perinatal period

Spot the Error: Use of Codes From Chapter XVI — Certain conditions originating in the perinatal period (P00–P96)

The following is from an abstract submitted to the Discharge Abstract Database (DAD). Can you spot the error?

ICD-10-CA diagnosis code	ICD-10-CA code description
O42.021	Premature rupture of membranes, onset of labour within 24 hours, full term, delivered, with or without mention of antepartum condition
O70.001	First degree perineal laceration during delivery, delivered, with or without mention of antepartum condition
P08.1	Other heavy for gestational age infants
Z37.000	Single live birth, pregnancy resulting from both spontaneous ovulation and conception

CCI intervention code	CCI intervention code description
5.MD.50.AA	Manually assisted vaginal delivery (vertex) without episiotomy

Note

For obstetrical cases, remember the general rule: O– codes are for the mother, P– codes are for the baby.

Codes from Chapter XVI describe conditions originating in the perinatal period. Conceivably, an adult could continue to have a disorder that originated in the perinatal period. As such, there are no CIHI edits in place to restrict the use of P– codes on any abstract submitted to the DAD.

Data quality check

For adult abstracts (age group 19 to 44) with any diagnosis code beginning with P, review the chart documentation and the abstract to ensure that the correct diagnosis code has been assigned.

Sixth Digit at Z37 and Z38

Z37.0 Single live birth

Z37.000 (Canadian enhancement) Single live birth, pregnancy resulting from both spontaneous ovulation and conception

Z37.001 (Canadian enhancement) Single live birth, pregnancy resulting from assisted reproductive technology (ART)

Z38.0 **Singleton, born in hospital**

Note: Assisted reproductive technology includes ovulation induction, intracytoplasmic sperm injection (ICSI), embryo transfer, and in vitro fertilization (IVF).

Z38.0 Singleton, born in hospital	Product of both spontaneous (NOS) ovulation and conception	Product of assisted reproductive technology (ART)
Z38.00 delivered vaginally	Z38.000	Z38.001

What is wrong with this picture?

Mother's abstract: Z37.00**1** Single live birth, pregnancy resulting from assisted reproductive technology (ART)

Newborn's abstract: Z38.00**0** Singleton, born in hospital, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Data quality check

Selection criteria: Records where the **sixth digit** for the **Outcome of delivery** code (e.g., Z37.00**0**) on the mother's abstract **does not match** the sixth digit for the **Liveborn according to place of birth** code (e.g., Z38.00**1**) on the newborn's abstract.

Error explanation: The **sixth digit** for the **Outcome of delivery code** (e.g., Z37.00**0**) does not match the sixth digit for the **Liveborn according to place of birth** code (Z38.00**1**). The **sixth digits** for the **Outcome of delivery** code and **Liveborn according to place of birth** code must match. Review the mother and newborn charts to determine which abstract requires correction.

See also the coding standard *Selection of the Sixth Digit in Obstetrical Coding*.

Chapter XIX — Injury, poisonings and certain other consequences of external causes

Selecting the Primary Code for a Post-Intervention Condition

Purpose

A review of Discharge Abstract Database (DAD) abstracts reveals that the set of codes for a post-intervention condition is sometimes missing the required T-code or PP-code as the primary code. This Tip for Coders is a refresher of the rules for assigning the primary code for a post-intervention condition. These rules were created to ensure that coders in Canada maintain consistency with both the international (ICD-10) and national (ICD-10-CA) disease classifications in order to support reliable comparison and reporting of data.

Selecting the primary code for a post-intervention condition: Refresher of the rules

The minimum set of codes for a post-intervention condition consists of a primary code and an external cause code. The primary code can be a T-code (T80–T88), a PP-code (from the postprocedural disorders category at the end of most body system chapters) or a regular code (all other codes) in the classification. The basis for selecting the primary code is the alphabetical index lookup using the PIC steps. An abbreviated form of these steps is displayed below. For full details, see the section Searching the alphabetical index for the primary code for a post-intervention condition in the coding standard *Post-Intervention Conditions*.

Step 1 Locate the lead term for the condition.	**Step 2** Look for a subterm denoting "postprocedural."	**Step 3** If there is no postprocedural subterm, assign the regular code or a code specific to one of the select interventions.
Notes a) Go to lead term **Misadventure** for misadventures. b) Go to lead term **Complication, complications (from) (of)** for conditions associated with i) Artificial fertilization; ii) Immunization (includes vaccination); and iii) Infusion, transfusion and therapeutic injection (includes dialysis, extracorporeal circulation and perfusion).	**Notes** a) If there is no postprocedural subterm, go to Step 3. b) If there is only 1 postprocedural subterm, select the code per the classification. c) If there are 2 or more postprocedural subterms — one specific to the interventions listed in Step 3, the other to T81 — assign the code specific to the interventions listed in Step 3 if the condition is associated with the outcome of that intervention; otherwise, assign the code from T81.	**Notes** a) Go to lead term **Complication, complications (from) (of)** for conditions associated with the outcome of i) Amputation; ii) Device/implant/graft; iii) Lumbar puncture; iv) Mastoidectomy; v) Reattached extremity/body part; and vi) Stoma. b) For all others, assign the regular code per the classification.

Selecting the primary code for a post-intervention condition: Putting the rules into practice

Instructions: Use the alphabetical index lookup and the PIC steps above to determine whether the primary codes for the post-intervention conditions listed below are T-codes, PP-codes or regular codes in the classification. After locating the correct primary code, circle the correct code on the right-hand side of the table.

Number	Post-intervention condition	Primary code	
1	Acute renal failure following coronary artery bypass graft	N99.0 Postprocedural renal failure	N17.9 Acute renal failure, unspecified
2	Myocardial infarction following hemicolectomy	I97.8 Other postprocedural disorders of circulatory system, not elsewhere classified	I21.9 Acute myocardial infarction, unspecified
3	Sepsis following total hip replacement	T81.4 Infection following a procedure, not elsewhere classified	A41.9 Sepsis, unspecified
4	Accidental laceration of ureter during subtotal cystectomy	T81.2 Accidental puncture and laceration during a procedure, not elsewhere classified	S37.111 Laceration of ureter with open wound into cavity
5	Cerebral infarction following repair of aortic aneurysm	T81.88 Other complications of procedures, not elsewhere classified	I63.9 Cerebral infarction, unspecified
6	Septic shock following subtotal pancreatectomy	T81.1 Shock during or resulting from a procedure, not elsewhere classified	R57.2 Septic shock
7	Abdominal abscess following diversionary colocolostomy	T81.4 Infection following a procedure, not elsewhere classified	K65.0 Acute peritonitis
8	Acute peritonitis associated with continuous ambulatory peritoneal dialysis	T80.2 Infections following infusion, transfusion and therapeutic injection	K65.0 Acute peritonitis
9	Severe hyperkalemia post adrenalectomy	E89.8 Other postprocedural endocrine and metabolic disorders	E87.5 Hyperkalaemia
10	Aortic valve stenosis post aortic valve replacement	T82.8 Other specified complications of cardiac and vascular prosthetic devices, implants and grafts	I35.0 Aortic (valve) stenosis

Correct answers

Number	Post-intervention condition	Primary code
1	Acute renal failure following coronary artery bypass graft	N99.0 Postprocedural renal failure
2	Myocardial infarction following hemicolectomy	I21.9 Acute myocardial infarction, unspecified
3	Sepsis following total hip replacement	T81.4 Infection following a procedure, not elsewhere classified
4	Accidental laceration of ureter during subtotal cystectomy	T81.2 Accidental puncture and laceration during a procedure, not elsewhere classified
5	Cerebral infarction following repair of aortic aneurysm	I63.9 Cerebral infarction, unspecified
6	Septic shock following subtotal pancreatectomy	T81.1 Shock during or resulting from a procedure, not elsewhere classified
7	Abdominal abscess following diversionary colocolostomy	T81.4 Infection following a procedure, not elsewhere classified
8	Acute peritonitis associated with continuous ambulatory peritoneal dialysis	T80.2 Infections following infusion, transfusion and therapeutic injection
9	Severe hyperkalemia post adrenalectomy	E87.5 Hyperkalaemia
10	Aortic valve stenosis post aortic valve replacement	T82.8 Other specified complications of cardiac and vascular prosthetic devices, implants and grafts

Ventilator-Associated Pneumonia Versus Postoperative Pneumonia

Purpose: To ensure that the coding standard *Post-Intervention Conditions* is being applied consistently in the circumstances involving a diagnosis of ventilator-associated pneumonia or postoperative pneumonia. Ventilator-associated pneumonia and postoperative pneumonia are patient safety concerns in hospitals across the country. Furthermore, data quality is crucial for accurate reporting.

Ventilator-associated pneumonia (VAP) is specifically indexed and classified to a residual (.8) code. It is found in the alphabetical index as follows:

Pneumonia

– ventilator-associated (VAP) J95.88

A “use additional code” instruction is present at J95.88 *Other postprocedural respiratory disorders* reminding the coder to assign a “sandwich code” to identify the specific type of pneumonia.

The external cause code applicable to a diagnosis of ventilator-associated pneumonia is Y84.8 *Other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*.

Correct classification of ventilator-associated pneumonia

J95.88 [A] *Other postprocedural respiratory disorders*

J18.9 [A] *Pneumonia, unspecified* (Note: If specific type of pneumonia is known, assign applicable code instead of J18.9.)

Y84.8 [A] *Other medical procedures* as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Postoperative pneumonia is classified to the "regular" code, per the direction in the coding standard *Post-Intervention Conditions* under the heading Searching the alphabetical index for the primary code for a post-intervention condition.

Correct classification of postoperative pneumonia

J18.9 [A] *Pneumonia, unspecified* (Note: If specific type of pneumonia is known, assign applicable code instead of J18.9.)

Y83-Y84 [A] *Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*. (Note: The applicable external cause code will depend on the circumstances of the case.)

Data quality check

Facilities are encouraged to review their open-year data using the following parameters:

1. Ventilator-associated pneumonia — Abstracts **with** intervention code 1.GZ.31.^^ *Ventilation, respiratory system NEC* and J95.88 in a diagnosis cluster **without** external cause code Y84.8.

Note: This code combination is suspect for a case of ventilator-associated pneumonia that has been classified using the wrong external cause code. Chart review is necessary to confirm.

2. Postoperative pneumonia — Abstracts **without** 1.GZ.31.^^ *Ventilation, respiratory system NEC* but **with** J95.88 **and** an external cause code from Y83.0–Y83.9 in a diagnosis cluster on the same abstract.

Note: This code combination is suspect for a case of postoperative pneumonia that has been classified incorrectly to the primary code J95.88. Chart review is necessary to confirm.

See also the coding standard *Post-Intervention Conditions* as well as Appendix B — Y83–Y84 Inclusion List.

Post-Intervention Conditions — Residual Codes

Analysis of previous years' data has identified an unexpectedly high volume of abstracts in the Discharge Abstract Database (DAD) and National Ambulatory Care Reporting System (NACRS) with one or more residual codes related to post-intervention conditions.

Which post-intervention conditions are assigned to a residual code?

A residual code is assigned as the primary code for a post-intervention condition when

1. A post-intervention condition is specifically indexed to a residual code; or

   Example: Ventilator-associated pneumonia

   Pneumonia (acute) (double) (migratory) (purulent) (septic) (unresolved) J18.9

   – ventilator-associated (VAP) J95.88

2. There is no index entry for a particular post-intervention condition and direction is provided in the eQuery tool to assign a residual code for the condition.

   Example: Slipped Nissen fundoplication

   K91.8 Other postprocedural disorders of digestive system, not elsewhere classified

Apply the PIC steps to look up the following post-intervention conditions. Is the residual code the correct or incorrect primary code?

Example 1: Irradiation stricture of rectum

K91.8 [Cluster A] Other postprocedural disorders of digestive system, not elsewhere classified

K62.4 (3) [Cluster A] Stenosis of anus and rectum

Y84.2 (9) [Cluster A] Radiological procedure and radiotherapy as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Example 2: Pneumonia following hepatic resection

J95.88 [Cluster A] Other postprocedural respiratory disorders

J18.9 (3) [Cluster A] Pneumonia, unspecified

Y83.6 (9) [Cluster A] Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Example 3: Intraoperative (CABG) hypotension

I97.8 [Cluster A] Other postprocedural disorders of circulatory system, not elsewhere classified
I95.9 (3) [Cluster A] Hypotension, unspecified

Y83.2 (9) [Cluster A] Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Correct answers

Example 1: Irradiation stricture of rectum

K91.8 [Cluster A] Other postprocedural disorders of digestive system, not elsewhere classified

K62.4 (3) [Cluster A] Stenosis of anus and rectum

Y84.2 (9) [Cluster A] Radiological procedure and radiotherapy as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Correct use of residual code: The index leads you to a residual code for stricture of rectum when it is a post-intervention condition. An additional code is assigned for specificity, because K91.8 does not fully describe the condition, a code is available and use of that code is not contraindicated.

Example 2: Pneumonia following hepatic resection

Y83.6 (9) [Cluster A] Removal of other organ (partial) (total) as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Incorrect use of residual code: There is no subterm denoting “post-procedural” for pneumonia that is relevant to these circumstances. The regular code is assigned as the primary code, and is linked with the external cause code by the diagnosis cluster. The residual code J95.88 *Other postprocedural respiratory disorders* is not assigned.

Example 3: Intraoperative (CABG) hypotension

Y83.2 (9) [Cluster A] Surgical operation with anastomosis, bypass or graft as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

Incorrect use of residual code: There is no subterm denoting “post-procedural” for hypotension that is relevant to these circumstances. The regular code is assigned as the primary code, and it is linked with the external cause code by the diagnosis cluster. The residual code I97.8 *Other postprocedural disorders of circulatory system, not elsewhere classified* is not assigned.

See also the coding standard *Post-Intervention Conditions*.

The “Ifs” and “Thens” of Broken Devices

A variety of circumstances can arise involving broken devices that affect code assignment. The different circumstances and their related code assignment are described below using “if” and “then” statements — **if** the situation is such-and-such, **then** the code assignment is this-and-that.

Keep in mind that diagnosis typing definitions apply for all codes.

If an in situ device breaks by means of intrinsic force, **then** the code assignment is T82–T85 and Y70–Y82.

Example: Patient presents with fractured hip prosthesis. There is no history of trauma.

T84.033 [Cluster A] Mechanical complication of hip prosthesis, breakage and dissociation

Y79.2 [Cluster A] Orthopaedic devices associated with adverse incidents, prosthetic and other implants, materials and accessory devices

Rationale: A device that is intended to be (remain) in the body that breaks while in place is classified as a mechanical complication. When a broken (or malfunctioning) device is not associated with extrinsic force, the external cause code is selected from Y70–Y82.

If an in situ device breaks by means of extrinsic force, **then** the code assignment is T82–T85 and V01–X59.

Example: Patient presents with fractured hip prosthesis. Patient had fallen off a chair at home.

T84.033 Mechanical complication of hip prosthesis, breakage and dissociation

W07 Fall involving chair

U98.0 Place of occurrence, home

Rationale: A device that is intended to be (remain) in the body that breaks while in place is classified as a mechanical complication. When a broken (or malfunctioning) device is associated with extrinsic force, the external cause code is selected from V01–X59. This circumstance is classified as an accident and not a post-intervention condition.

If a device breaks on insertion or removal or during use by medical personnel **and** a fragment (piece) is retained, **then** the code assignment is T81.5– and Y70–Y82.

“Retained” means that the fragment (piece) was not retrieved (was deliberately left, or attempts to retrieve it were unsuccessful) or that retrieval of the retained fragment (piece) required a separate or special intervention.

Example 1: On removal of PEG tube, the stem broke off. The residual part required endoscopic removal.

T81.57 [Cluster A] Foreign body accidentally left in body cavity or operation wound following a procedure, without mention of any complication

Y73.1 [Cluster A] Gastroenterology and urology devices associated with adverse incidents, therapeutic (nonsurgical) and rehabilitative devices

Rationale: The stem of the PEG tube is a foreign body, as the residual part is not intended to remain in the body and is not serving a function. When a broken (or malfunctioning) device is not associated with extrinsic force, the external cause code is selected from Y70–Y82. Routine removal, insertion and use by medical personnel are not considered an extrinsic force, nor is this circumstance considered a misadventure, as there is no documentation of an adverse event (i.e., it is assumed that the removal of the PEG tube was performed properly).

Example 2: A drill bit broke during revision of a total hip replacement and could not be retrieved.

T81.57 [Cluster A] Foreign body accidentally left in body cavity or operation wound following a procedure, without mention of any complication

Y79.3 [Cluster A] Orthopaedic devices associated with adverse incidents, surgical instruments, materials and devices (including sutures)

Rationale: The retained piece of the drill bit is considered a foreign body, as it is not intended to remain in the body. When a broken (or malfunctioning) device is not associated with extrinsic force, the external cause code is selected from Y70–Y82. Routine removal, insertion and use by medical personnel are not considered an external force, nor is this circumstance considered a misadventure, as there is no documentation of an adverse event (i.e., it is assumed that the use of the drill bit was proper).

If a device breaks due to extrinsic force **and** a fragment (piece) is retained, **then** the code assignment is T81.5– and V01–X59.

Example: Patient cuts his or her Jackson Pratt drain; the intra-abdominal portion was retained and required a laparotomy for removal.

T81.57 Foreign body accidentally left in body cavity or operation wound following a procedure, without mention of any complication

W49 Exposure to other and unspecified inanimate mechanical forces

U98.20 Place of occurrence, hospital

Rationale: The retained piece of the drain is a foreign body, as the residual part is not intended to remain in the body and is not serving a function. When a broken (or malfunctioning) device is associated with extrinsic force, the external cause code is selected from V01–X59. This circumstance is classified as an accident and not a post-intervention condition.

If a device breaks on insertion or removal or during use **and** a fragment (piece) is readily retrieved, **then** there is no code assignment.

Example: On removal of guidewire used for central line insertion, a piece of the guidewire broke off. The broken piece was immediately retrieved with no difficulty.

No code assignment.

Rationale: There is no retained fragment (piece) of a device for which to assign codes.

See also the coding standard *Complications of Devices, Implants or Grafts*.

Chapter XXI — Factors influencing health status and contact with health services

Admissions “Solely for a Specific Purpose . . .”

This Tip for Coders provides direction on the correct use of the “admission for . . .” codes. Let’s take a closer look at these codes.

Notes in ICD-10-CA

The note at the block Persons encountering health services for specific procedures and health care (Z40–Z54) outlines the circumstances under which a code from the block Z40–Z54 is assigned, as follows:

“Categories (Z40–Z54) are intended for use to indicate a reason for care. They may be used for patients who have already been treated for a disease or injury, but who are receiving follow-up or prophylactic care, convalescent care, or care to consolidate the treatment, to deal with residual states, to ensure that the condition has not recurred, or to prevent recurrence.”

Directive statements from the Canadian Coding Standards for ICD-10-CA and CCI

The directive statements from the coding standard *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy* are clear when an “admission for . . .” code is the most responsible diagnosis (MRDx)/main problem:

- When a patient previously diagnosed with a malignancy has an encounter solely for the administration of radiation therapy, assign Z51.0 *Radiotherapy session* as the MRDx/main problem.
- When a patient previously diagnosed with a malignancy has an encounter solely for the administration of chemotherapy to treat the malignancy or neoplasm-related conditions, assign Z51.1 *Chemotherapy session for neoplasm* as the MRDx/main problem.

However, what about other diagnosis types for an “admission for . . .” code?

Direction on diagnosis typing

An "admission for . . ." code is

- The MRDx when a patient previously diagnosed with a condition has an encounter solely for a specific purpose (e.g., admission for administration of chemotherapy, admission for insertion of vascular access device, admission for dialysis).
- A diagnosis type (1) only when a patient previously diagnosed with a condition has an encounter solely for a specific purpose (e.g., admission for administration of chemotherapy, admission for insertion of vascular access device, admission for dialysis) and, during that encounter, another condition (e.g., chemotherapy-induced febrile neutropenia) meets the criteria for MRDx.
- Never a diagnosis type (2).
- Never a diagnosis type (3).

Knowledge check

Can you identify the discrepancies?

1. C18.9 (M) *Malignant neoplasm colon, unspecified* and Z51.1 (1) *Chemotherapy session for neoplasm*
2. D70.0 (M) *Neutropenia*, D70.0 (2) *Neutropenia*, Y43.3 (9) *Other antineoplastic drugs, causing adverse effects in therapeutic use* and Z51.1 (1) *Chemotherapy session for neoplasm*
3. C34.99 (M) *Malignant neoplasm bronchus or lung, unspecified, unspecified side*, C79.3 (1) *Secondary malignant neoplasm of brain and cerebral meninges*, C78.7 (1) *Secondary malignant neoplasm of liver and intrahepatic bile duct* and Z51.1 (1) *Chemotherapy session for neoplasm*
4. Z51.5 (M) *Palliative care*, Z51.1 (1) *Chemotherapy session for neoplasm* and C85.9 (3) *Non-Hodgkin lymphoma, unspecified*

Correct answers

While it isn't always possible to identify an error in a data set unless you have access to the source document, 1 and 3 potentially have errors. It appears that these patients were diagnosed with a malignant neoplasm and received chemotherapy during the same episode of care. Z51.1 is assigned when the encounter is solely for the administration of chemotherapy to treat the malignancy and not to identify that chemotherapy was administered during an episode of care. Administration of chemotherapy is captured with a CCI (intervention) code.

For 2, it is possible that this patient was admitted solely for the administration of chemotherapy and that during the episode of care he developed neutropenia (which then met the criteria for the most responsible diagnosis).

For 4, it is possible that this patient was admitted solely for the administration of chemotherapy but was then deemed palliative care.

Data quality check

Identify cases when ICD-10-CA codes Z51.0, Z51.1 and Z51.2 are assigned as a diagnosis type other than the MRDx. Review the assigned codes to determine whether or not there are potential errors.

See also the coding standard *Admission for Administration of Chemotherapy, Pharmacotherapy and Radiation Therapy*.

Reference

1. Kramer MS, Rouleau J, Liu S, Bartholomew S, Joseph KS. Amniotic fluid embolism: Incidence, risk factors, and impact on perinatal outcome. *BJOG: An International Journal of Obstetrics and Gynaecology*. 2012.

Appendix F1 — References to mandatory diagnosis type (3)/other problem in directive statements

This appendix is intended to be a quick reference that summarizes all directive statements giving instruction to assign a code as diagnosis type (3)/other problem, mandatory. It is important to always refer to the applicable coding standard to ensure the directive statement is interpreted within the correct context.

Important: This appendix is **not** a list of mandatory capture of chronic diseases. This list represents ICD-10-CA codes that are mandatory to provide additional detail that in themselves do not represent a condition meeting the criteria for significance.

Notes

- Diabetes mellitus is a chronic condition that is always mandatory to code, when documented, regardless of whether or not it meets the criteria for significance. See the coding standard *Diabetes Mellitus*.
- Chronic kidney disease is mandatory to code when it occurs with acute kidney injury and a code for the acute kidney injury is assigned. See the coding standard *Acute on Chronic Kidney Disease*.
- The “use additional code” instruction in the classification, when associated with certain conditions, requires the mandatory capture of a chronic condition even when the chronic condition does not meet the criteria for significance. See the coding standard *Use Additional Code/Code Separately Instructions*.

Standard	Directive statement	Rationale
General coding standards for ICD-10-CA		
Dagger/Asterisk Convention	Assign diagnosis type (6) or diagnosis type (3) to asterisk codes in accordance with the diagnosis typing definitions.	As this is an ICD convention, both codes are required. Asterisk codes contain information about both an underlying generalized disease and a manifestation in a particular organ or site which is a clinical problem in its own right.

Standard	Directive statement	Rationale
Cancelled Interventions	When a scheduled or planned intervention is cancelled due to a contraindication and the patient is treated for the contraindication, assign • The contraindication as the MRDx/main problem; and • Z53.0 *Procedure not carried out because of contradiction* as a diagnosis type (3)/other problem, mandatory.	It identifies another circumstance for the patient that is important from a national planning and research perspective.
Chapter I — Certain infectious and parasitic diseases		
Drug-Resistant Microorganisms	When there is a current infection that is clearly documented by the physician/ primary care provider as being due to MRSA, CRE, ESBL producing microorganisms or VRE, assign, mandatory, the appropriate code combination to identify the • Site of the infection, as a significant diagnosis type/main problem or other problem; • Infectious microorganisms from categories B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem; and • Specific drug-resistance, as a comorbid diagnosis type (1) or type (2)/other problem: – U82.1 *Resistance to methicillin*; or – U82.20 *Resistance to carbapenem*; or – U82.28 Resistance to other specified *extended spectrum betalactam antibiotics*; or – U83.0 *Resistance to vancomycin*.	The code for the infectious organism (B95–B98) is supplemental information that is required to identify the organism resistant to the drug.

Standard	Directive statement	Rationale
Drug-Resistant Microorganisms	Assign Z22.30– *Carrier of drug-resistant microorganism*, mandatory, as a diagnosis type (3)/other problem when there is documentation that the patient is a carrier of a specific drug-resistant microorganism.	It identifies another circumstance for the patient that is important from a national planning and research perspective.
Septicemia/Sepsis	When septicemia/sepsis is classified to one of the following O03–O05 *Pregnancy with abortive outcome* (with a fourth character .0 or .5) O07.3 *Failed attempted abortion, complicated* O08.0– *Genital tract and pelvic infection following abortion and ectopic and molar pregnancy* O75.3– *Other infection during labour* O85.– *Puerperal sepsis* O98.– *Maternal infectious and parasitic diseases complicating pregnancy, childbirth and the puerperium* (with a fourth character of .2, .5 or .8) T80.2 *Infections following infusion, transfusions and therapeutic injection* T81.4 *Infection following a procedure, not elsewhere classified* T88.0 *Infection following immunization* T82–T85 *Infections and inflammatory reaction due to prosthetic devices, implants and grafts* • Assign the appropriate code from the list above as a significant diagnosis type/main or other problem; and • Assign an additional code, **mandatory**, to identify the type of sepsis as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Human Immunodeficiency Virus (HIV) Disease	When patients are admitted and discharged on the same day for primary prophylactic chemotherapy for HIV infection, select Z29.2 *Other prophylactic chemotherapy* as the MRDx/main problem along with Z21 *Asymptomatic human immunodeficiency virus [HIV] infection status*, mandatory, as an additional diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.
Chapter II — Neoplasms		
Primary and Secondary Neoplasms	When a patient is diagnosed with a secondary neoplasm, assign an additional code, mandatory, to identify the primary site: a code from either • Chapter II — Neoplasms; or • Category Z85 *Personal history of malignant neoplasm* when the malignancy has been completely eradicated or excised **and** there is no further treatment (including adjuvant therapy) being directed to the primary site.	It identifies another condition in the patient that is important from a national planning and research perspective.
Acquired Absence of Breast and Lung Due to Primary Malignancy	When a patient has a history of **total mastectomy** for the treatment of primary malignancy and is now undergoing partial or total excision of the contralateral breast (with/without reconstruction) for a **new** primary breast malignancy, assign two additional codes, mandatory: • Z90.1– *Acquired absence of breast(s)* as a diagnosis type (3)/other problem; and • Z85.3– *Personal history of malignant neoplasm of breast* as a diagnosis type (3)/other problem.	It identifies another circumstance for the patient that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Acquired Absence of Breast and Lung Due to Primary Malignancy	When a patient has a history of lobectomy or pneumonectomy for the treatment of primary malignancy and is now undergoing partial or total excision of either lung for a **new** primary lung malignancy, assign two additional codes, mandatory: • Z90.2– *Acquired absence of lung [part of]* as a diagnosis type (3)/other problem; and • Z85.11– *Personal history of malignant neoplasm bronchus and lung* as a diagnosis type (3)/other problem.	It identifies another circumstance for the patient that is important from a national planning and research perspective.
Complications of Malignant Disease	When a patient is admitted for treatment of a specific complication of the malignancy, and no treatment is directed towards the malignancy itself, assign the code for the complication as the MRDx/main problem. • Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.
Complications of Malignant Disease	When a patient is admitted for management of a side effect of cancer treatment, assign a code for the side effect as the MRDx/main problem. • Assign the code for the malignancy, mandatory, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.
Recurrent Malignancies	Assign a code from categories C00–C75 when a primary malignancy, eradicated from the same organ or tissue, has recurred. • Assign an additional code, mandatory, from category Z85 *Personal history of malignant neoplasm* as a diagnosis type (3)/other problem to identify the primary site.	It identifies another condition in the patient that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Chapter IV — Endocrine, nutritional and metabolic diseases		
Diabetes Mellitus	When multiple complications of diabetes mellitus affect separate body systems and none meet the criteria for significance, assign the one code E1–.78 *Type ~ diabetes mellitus with multiple other complications*.	This is supplemental information that is important from a national planning and research perspective.
Chapter VI — Diseases of the nervous system		
Neurologically Determined Death	Assign G93.81 *Neurologically determined death* as a diagnosis type (3)/other problem, mandatory, when there is documentation of brain death by a designated physician.	This is supplemental information that is important from a national planning and research perspective.
Chapter IX — Diseases of circulatory system		
Acute Coronary Syndrome (ACS)	When any code from category I21 *Acute myocardial infarction* or I22 *Subsequent myocardial infarction* or the code I24.0 *Coronary thrombosis not resulting in myocardial infarction* is assigned, assign an additional code from subcategory R94.3– *Abnormal results of cardiovascular function studies*, mandatory, as diagnosis type (3)/other problem.	This is supplemental information that is important from a national planning and research perspective.
Acute Coronary Syndrome (ACS)	When a code from category I22 *Subsequent myocardial infarction* is assigned, assign an additional code from subcategory R94.3- *Abnormal results of cardiovascular function studies*, mandatory, as a diagnosis type (3)/other problem.	This is supplemental information that is important from a national planning and research perspective.
Strokes: Hemorrhagic, Ischemic and Unspecified	When a patient is admitted solely for rehabilitation immediately following an acute/current stroke diagnosis, assign a code from category Z50.– *Care involving use of rehabilitation procedures* as the MRDx. • Assign an additional code as a diagnosis type (3), mandatory, to identify the specific type of acute/current stroke (i.e., I60, I61, I63, I64).	This is supplemental information that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Chapter XIII — Diseases of the musculoskeletal system and connective tissue		
Fractures — Pathological fractures	When a combination category is not available or when a dagger/asterisk convention is not applicable, assign separate codes for the pathological fracture and the underlying disease that precipitated the fracture. • Sequence the code for the pathological fracture first, followed by the code for the underlying disease as a mandatory diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.
Chapter XIV — Diseases of the genitourinary system		
Continuous Ambulatory Peritoneal Dialysis (CAPD) Peritonitis	Assign an additional code from category K65 *Peritonitis*, mandatory, as a diagnosis type (3)/other problem, to specify the infection.	This identifies another condition in the patient that is important from a national planning and research perspective.
Chapter XV — Pregnancy, childbirth and the puerperium		
Pregnancy With Abortive Outcome — Medical abortion at or after 20 weeks resulting in a stillborn	When a medical abortion is performed at or **after** 20 weeks gestation and it results in a stillborn, assign P96.4 *Termination of pregnancy, affecting fetus and newborn* as the MRDx/main problem on the stillborn abstract. • When applicable, assign an additional code(s), mandatory, as a diagnosis type (3)/other problem to describe any associated congenital anomaly.	It identifies another condition in the patient that is important from a national planning and research perspective.
Pregnancy With Abortive Outcome — Medical abortion resulting in a liveborn	When a medical abortion performed at or **after** 20 weeks gestation results in a liveborn, assign: On the mother's abstract, a code from • Category O04 *Medical abortion*, as the MRDx/main problem; and • Category Z37 *Outcome of delivery* as a diagnosis type (3)/other problem to indicate that the abortion resulted in a liveborn.	This is supplemental information that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Delivery in a Normal Case	Assign a code from category Z37 *Outcome of delivery*, mandatory, for all deliveries. • When any other code from Chapter XV — Pregnancy, childbirth and the puerperium applies to the case, assign the appropriate code from category Z37, mandatory, as a diagnosis type (3).	This is supplemental information that is important from a national planning and research perspective.
Complicated Pregnancy Versus Uncomplicated Pregnancy	When a condition that complicates the pregnancy is classified to a code from O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium*, assign an additional code, mandatory, as a diagnosis type (3)/other problem, to identify the specific condition, per the "use additional code" instruction.	As this is an ICD convention, the "use additional code" instruction provides direction to assign an additional code to identify the specific condition.
Complicated Pregnancy Versus Uncomplicated Pregnancy	When a code from Chapter XV is not assigned during the antepartum episode of care, assign Z33 *Pregnant state, incidental*, mandatory, as a diagnosis type (3).	This is supplemental information that is important from a national planning and research perspective.
Chapter XIX — Injury, poisonings and certain other consequences of external causes		
Post-Intervention Conditions	When a post-intervention condition is classified to a code that does not fully describe the condition, assign an additional code (when available), mandatory, as a diagnosis type (3)/other problem to provide more detail regarding the nature of the condition.	This is supplemental information that is important from a national planning and research perspective.
Chapter XXI — Factors influencing health status and contact with health services		
Pre-Treatment Assessment	When a significant condition diagnosed during the pre-treatment assessment requires further treatment or investigation, assign a code for the significant condition as the MRDx/main problem. • Assign Z01.8 *Other specified special examination*, **mandatory**, as a diagnosis type (3)/other problem.	This is supplemental information that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Admission for Follow-Up Examination	When the examination reveals that the original condition has recurred or identifies another related condition, assign • A code for the condition as the MRDx/main problem; and • An additional code from Z08 or Z09, **mandatory**, as a diagnosis type (3)/other problem	This is supplemental information that is important from a national planning and research perspective.
Admission for Convalescence	When a patient is transferred from one hospital to another or admitted from day surgery to inpatient care **solely** for the purpose of receiving care in the recovery phase following treatment of an illness or injury or following a surgical intervention, assign a code from category Z54 *Convalescence* as the MRDx. • Assign an additional code, mandatory, as a diagnosis type (3) to indicate the condition for which convalescence is required.	This is supplemental information that is important from a national planning and research perspective.
Screening for Specific Diseases	When the condition or a sign of the condition for which the patient is screened is found, assign a code • For the condition or sign as the MRDx/main problem; and • From Z11, Z12 or Z13, **mandatory**, as a diagnosis type (3)/other problem.	This is supplemental information that is important from a national planning and research perspective.
Admission for Administration of Chemotherapy/ Pharmacotherapy and Radiation Therapy	When a patient previously diagnosed with a malignancy has an encounter solely for the administration of radiation therapy, assign • Z51.0 *Radiotherapy session* as the MRDx/main problem; or • Z51.0 *Radiotherapy session* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and that condition meets the criteria for MRDx/main problem.	It identifies another condition in the patient that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Admission for Administration of Chemotherapy/ Pharmacotherapy and Radiation Therapy (cont'd)	When a patient previously diagnosed with a malignancy has an encounter solely for the administration of chemotherapy to treat the malignancy or neoplasm-related conditions, assign • Z51.1 *Chemotherapy session for neoplasm* as the MRDx/main problem; or • Z51.1 *Chemotherapy session for neoplasm* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and that condition meets the criteria for MRDx/main problem. Assign an additional code to identify the malignant condition, **mandatory**, as a diagnosis type (3)/other problem for radiation therapy visits and chemotherapy visits.	
Admission for Administration of Chemotherapy/ Pharmacotherapy and Radiation Therapy	When a patient previously diagnosed with a non-malignant condition has an encounter solely for the administration of chemotherapy, assign • Z51.2 *Other chemotherapy* as the MRDx/main problem; or • Z51.2 *Other chemotherapy* as a diagnosis type (1)/other problem when a post-admit condition arises during the episode of care and meets the criteria for MRDx/main problem. Assign an additional code to identify the disease/condition, **mandatory**, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.

Standard	Directive statement	Rationale
Admission for Insertion of a Vascular Access Device (VAD)	When a patient is admitted solely for insertion of a vascular access device (VAD) for treatment of an existing condition, assign Z51.4 *Preparatory care for subsequent treatment, not elsewhere classified* as the MRDx/main problem. Classify any encounter that is solely for adjustment or removal (without replacement) of an implanted VAD to Z45.2 *Adjustment and management of vascular access device* as the MRDx/main problem. Assign an additional code to identify the disease/condition, mandatory, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is important from a national planning and research perspective.
Personal History of Primary Malignant Neoplasms of Breast, Lung and Prostate	Assign a code from Z85.11– *Personal history of malignant neoplasm of bronchus and lung* **or** Z85.3– *Personal history of malignant neoplasm of breast* **or** Z85.4 *Personal history of malignant neoplasm of genital organs*, mandatory, as a diagnosis type (3)/other problem when **all** of the following criteria are met: • There is a history of primary malignancy of the breast, lung or prostate; and • The previous malignancy has been completely excised or eradicated; and • There is no further treatment (including adjuvant therapy) directed to the primary site; and • The current episode of care relates to a follow-up examination, prophylactic organ removal or reconstructive surgery.	It identifies another circumstance for the patient that is important from a national planning and research perspective.
Homelessness	Assign Z59.0 *Homelessness* as a diagnosis type (3)/other problem, mandatory, for patients who are homeless on admission.	It identifies another circumstance for the patient that is important from a national planning and research perspective.

Appendix F2 — References to optional diagnosis type (3)/other problem in directive statements

The purpose of this appendix is to provide a summary of all directive statements giving instruction to assign a code as diagnosis type (3)/other problem as optional or not specified as mandatory. It is important to always refer to the applicable coding standard to ensure the directive statement is interpreted within the correct context.

Important: This appendix is **not** a list of optional capture of chronic diseases. This list represents ICD-10-CA codes that are optional to provide detail that in themselves do not represent a condition meeting the criteria for significance.

Standard	Directive statement	Rationale
General coding standards for ICD-10-CA		
Acute and Chronic Conditions	When a condition is described as being both acute (or subacute) and chronic, and ICD-10-CA provides separate categories or subcategories for each but not for the combination, assign a code for the acute condition. • Assign a code for the chronic condition, optional, as a diagnosis type (3)/other problem.	This is supplemental information that is useful for local data retrieval.
Underlying Symptoms or Conditions	When a patient presents with a symptom or condition and, during that episode of care, the underlying disease or disorder is identified, assign the underlying disease or disorder as the MRDx/main problem. • Assign an additional code for the symptom or condition, optional, as a diagnosis type (3)/other problem based on the facility's data needs.	This is supplemental information that is useful for local data retrieval.

Standard	Directive statement	Rationale
Unconfirmed Diagnosis	When **two (or more) unconfirmed diagnoses** are recorded as the final diagnosis and there is no further information or clarification, assign the first-listed unconfirmed diagnosis as the MRDx/main problem. Assignment of a code for the additional unconfirmed diagnosis is **optional**. If assigned, it is a diagnosis type (3)/other problem. • Apply the prefix Q in such circumstances.	This is supplemental information that is useful for local data retrieval.
Unconfirmed Diagnosis	When a sign, symptom or abnormal finding and an **unconfirmed diagnosis** are recorded as the final diagnosis and there is no further information or clarification, assign the code representing the sign, symptom or abnormal finding. Assignment of a code for the unconfirmed diagnosis is **optional**. If assigned, it is a diagnosis type (3)/other problem and prefix Q is mandatory to apply.	This is supplemental information that is useful for local data retrieval.
Sequelae	When a patient presents with a sequela of a previously treated condition, assign a code for the current condition under investigation or treatment as a significant diagnosis type. • Assign codes from categories titled "Sequelae of…" (B90–B94, E64, E68, G09, I69, O94, O97, T90–T98), optional, as a diagnosis type (3)/other problem to identify the current problem as sequelae.	This is supplemental information that is useful for local data retrieval.

Standard	Directive statement	Rationale
Chapter I — Certain infectious and parasitic diseases		
Infections	When the causative organism is known, classify the case in one of the following three ways, as indicated by the classification: • Use the dual classification (dagger/asterisk) with a code specifying the infectious organism followed by the manifestation. Both codes must be used together to identify the infectious disease. • Use a combination code. • Use two codes, the first identifying the locally manifesting disease and the second identifying the infectious organism. The infectious agent is classified to categories B95–B98. Assignment of codes from categories B95–B98 is optional; if coded, they must be assigned diagnosis type (3)/ other problem. **Exception:** It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganisms. See also the coding standard *Drug-Resistant Microorganisms*.	This is supplemental information that is useful for local data retrieval.
Chapter IX — Diseases of the circulatory system		
Acute Coronary Syndrome (ACS)	Assign I25.2 *Old myocardial infarction* (i.e., "history of MI") optional, as a diagnosis type (3) only when **both** of the following criteria apply: • The previous myocardial infarction occurred more than 4 weeks (28 days) ago; and • The patient is not currently receiving observation, evaluation or treatment for the previous myocardial infarction.	It identifies another condition in the patient that is useful for local data retrieval.

Standard	Directive statement	Rationale
Chapter XII — Diseases of the skin and subcutaneous tissue		
Cellulitis	When the course of treatment involves **intravenous antibiotics**, sequence cellulitis as the MRDx/main problem and record the soft tissue injury as an additional diagnosis/other problem. When the course of treatment involves only **oral antibiotics**, sequence the soft tissue injury as the MRDx/main problem and the cellulitis as a comorbid condition/other problem. Assign an additional code, optional, as a diagnosis type (3)/other problem from the range B95–B98 *Bacterial, viral and other infectious agents* when a causative agent is identified. **Exception:** It is mandatory to assign a code from B95–B98 *Bacterial, viral and other infectious agents* as a diagnosis type (3)/other problem when the causative agent is one of the specific drug-resistant microorganism infections. See also the coding standard *Drug-Resistant Microorganisms*.	This is supplemental information that is useful for local data retrieval.
Chapter XV — Pregnancy, childbirth and the puerperium		
Streptococcal Group B Infection/Carrier in Pregnancy	Assign O23.90– *Other and unspecified genitourinary tract infection in pregnancy* only when there is documented evidence of an active infection. • When there is active infection, assign B95.1 *Streptococcus, Group B, as the cause of diseases classified to other chapters*, optional, as a diagnosis type (3) to identify the organism. Assign Z22.38 *Carrier of other specified bacterial diseases*, optional, as a diagnosis type (3) to identify GBS carrier state. When antibiotics are given for prophylaxis in a GBS carrier patient, assign Z29.2 *Other prophylactic chemotherapy*, optional, as a diagnosis type (3).	It identifies another circumstance in the patient that is useful for local data retrieval.

Standard	Directive statement	Rationale
Chapter XVII — Congenital malformations, deformations and chromosomal abnormalities		
Congenital Anomaly Syndromes and Specific Manifestations	When a patient is diagnosed with multiple congenital anomalies described as a syndrome that cannot be classified to a more specific code (see flowchart below), assign Q87.8 *Other specified congenital malformation syndromes, not elsewhere classified.* • Assign additional codes from Q00–Q85.9 or other appropriate chapter to provide further specificity, – Mandatory, when the anomalies meet the criteria for significance; or – Optional, when the anomalies do not meet the criteria for significance.	This is supplemental information that is useful for local data retrieval.
Congenital Anomaly Syndromes and Specific Manifestations	When a patient presents solely for management of a specific manifestation of a congenital anomaly syndrome, assign a code for the manifestation as the MRDx/ main problem. • Assign an additional code, optional, as a diagnosis type (3)/other problem to describe the syndrome.	This is supplemental information that is useful for local data retrieval.
Chapter XVIII — Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified		
Systemic Inflammatory Response Syndrome (SIRS)	When SIRS of an **infectious origin** is present without organ failure, assign • A code identifying the type of sepsis; and • R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure*, optional, as a diagnosis type (3)/other problem.	This is supplemental information that is useful for local data retrieval.
Chapter XIX — Injury, poisonings and certain other consequences of external causes		
Adverse Reactions in Therapeutic Use Versus Poisonings	Classify conditions resulting from noncompliance with therapy to a code describing the manifestation followed by Z91.1 *Personal history of noncompliance with medical treatment and regimen*, optional, as a diagnosis type (3)/other problem.	It identifies another circumstance in the patient that is useful for local data retrieval.

Standard	Directive statement	Rationale
Current Versus Old Injuries	When a patient presents with a condition that is a sequela/late effect resulting from a previous injury, assign a code for the current condition under investigation or treatment. • Assign a code from T90–T98 *Sequelae of injuries, of poisoning and of other consequences of external causes*, optional, as a diagnosis type (3)/other problem to identify the current condition as a sequela of an injury.	This is supplemental information that is useful for local data retrieval.
Crush Injuries	Assign all significant injuries associated with a crush injury as comorbid conditions or a main/other problem. • Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify the crush injury. When multiple body regions are involved in a crush injury, select the crush injury code from the category T04 *Crushing injuries involving multiple body regions*.	This is supplemental information that is useful for local data retrieval.
Burns and Corrosions	When a patient presents for change of burn dressings, assign as the MRDx/main problem Z48.0 *Attention to surgical dressings and sutures*. • Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify the burn itself.	This is supplemental information that is useful for local data retrieval.
Burns of Multiple Body Regions	When documentation of specific sites of burns is provided, assign separate codes for each burn site. Assign T29.– *Burns and corrosions of multiple body regions*, optional, as a diagnosis type (3)/other problem, to facilitate data retrieval.	This is supplemental information that is useful for local data retrieval.
Rejection/Failure of Transplanted Organs, Grafts and Flaps	When a condition is documented as affecting the transplanted organ or tissue but it cannot be classified as either failure or rejection, assign a code for the condition and assign an additional code from category Z94 *Transplanted organ and tissue status*, optional, as a diagnosis type (3)/other problem.	This is supplemental information that is useful for local data retrieval.

Standard	Directive statement	Rationale
Chapter XXI — Factors influencing health status and contact with health services		
Pre-Treatment Assessment	Assign Z01.8 *Other specified special examination* to describe an encounter for a pre-treatment assessment. Assign an additional code to describe the underlying reason for the assessment, optional, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is useful for local data retrieval.
Admission for Observation	Assign a code from category Z03 *Medical observation and evaluation for suspected diseases and conditions* as the MRDx/main problem when a patient with a sign, symptom and/or abnormal finding is investigated for a suspected condition and **all** of the following criteria are met: • The suspected condition is ruled out/not found; and • There is no documentation to support that further investigation is required; and • Another underlying condition is not identified. Assign an additional code for the sign, symptom or abnormal finding, optional, as a diagnosis type (3)/other problem based on the facility's data needs.	It identifies another condition in the patient that is useful for local data retrieval.
Admission for Observation	When a patient is investigated for a suspected condition and the suspected condition **is found**, assign a code for the identified underlying condition as the MRDx/main problem. Assign an additional code for the sign, symptom or abnormal finding, optional, as a diagnosis type (3)/other problem based on the facility's data needs.	It identifies another condition in the patient that is useful for local data retrieval.

Standard	Directive statement	Rationale
Admission for Follow-Up Examination	When the purpose of the examination is to assess the status of a previously treated condition or injury (a personal history classifiable to categories Z85–Z88) and **the outcome indicates no need for further treatment**, select the appropriate code from one of the following as the MRDx/main problem: • Z08 *Follow-up examination after treatment for malignant neoplasm*; or • Z09 *Follow-up examination after treatment for conditions other than malignant neoplasms*. – In either case, assign an additional code indicating a personal history of the condition, optional, as a diagnosis type (3)/other problem, unless identified as mandatory elsewhere in the coding standards.	It identifies another condition in the patient that is useful for local data retrieval.
Admission for Follow-Up Examination	When the sole purpose of the encounter is to receive a **specific intervention or service**, select the appropriate code from one of the following as the MRDx/ main problem: Z39.2 *Routine postpartum follow-up* Z42 *Follow-up care involving plastic surgery* Z47 *Other orthopaedic follow-up care* Z48 *Other surgical follow-up care* • Assign an additional code, optional, as a diagnosis type (3)/other problem to describe the underlying disease or injury for which specific follow-up care is required.	It identifies another condition in the patient that is useful for local data retrieval.

Standard	Directive statement	Rationale
Screening for Specific Diseases	When a patient undergoes a screening examination and no sign of disease is found, assign a code from category Z11, Z12 or Z13 as the MRDx/ main problem. Assign an additional code, optional, as a diagnosis type (3)/other problem to identify any circumstances indicating the reason for the screening test (such as family history). Assign an additional code, optional, as a diagnosis type (3)/other problem, to identify any incidental findings noted at the time of the exam.	It identifies another condition in the patient that is useful for local data retrieval.
Coding of NACRS Visits for Rehabilitative Services	Assign a code from category Z50 *Care involving use of rehabilitation procedures* as the main problem when rehabilitation is a reason for the NACRS visit. When a person is referred solely for physical therapy (care involving use of rehabilitation procedures), assign Z50.1 *Other physical therapy* as the main problem. Assign an additional code, optional, as an other problem to identify the underlying disorder.	It identifies another condition in the patient that is useful for local data retrieval.
Admission for Blood Transfusion	When a patient is admitted solely for the purpose of a blood transfusion session, assign • Z51.3 *Blood transfusion (without reported diagnosis)* as the MRDx/ main problem; and • An additional code to identify the disease/condition, optional, as a diagnosis type (3)/other problem.	It identifies another condition in the patient that is useful for local data retrieval.
Personal and Family History of Malignant Neoplasms	Assign a code from Z80 *Family history of malignant neoplasm*, optional, as diagnosis type (3)/other problem to denote a reason for an examination or prophylactic surgery.	It identifies another condition in the patient that is useful for local data retrieval.

Appendix G — Text alternative for images

Text alternative for flowchart in coding standard *Diagnosis Typing Definitions for DAD*, Assigning prefixes 5 and 6 to a DAD inpatient abstract, page 30

This flowchart describes the time frame from the post-admit comorbidity (diagnosis type 2) to the first qualifying intervention episode.

Is this a DAD acute care inpatient abstract?

If no, prefixes 5 and 6 do not apply.

If yes, is there at least one post-admit comorbidity (diagnosis type 2) on the abstract (excludes OBS codes O00 to O99)?

If no, prefixes 5 and 6 do not apply.

If yes, is there at least one qualifying intervention on the abstract (intervention performed in main operating room [location 01] or cardiac catheterization room [location 08] or an out-of-hospital [OOH] intervention from 3.IP.10, 1.IJ.50 or 1.IJ.57)?

If no, prefixes 5 and 6 do not apply.

If yes, for each post-admit comorbidity (diagnosis type 2) on the abstract, establish whether this condition arose before or after the first qualifying intervention episode (the qualifying intervention episode with the earliest start date) and assign prefix 5 or 6 accordingly.

If the post-admit comorbidity arose **before** the first qualifying intervention episode, assign prefix 5.

If the post-admit comorbidity arose **during** or **after** the first qualifying intervention, assign prefix 6.

Text alternative for flowchart in coding standard *Hierarchy for Classification of Intracranial Lesion Resection*, page 217

When an intracranial resection overlaps regions of the brain and involves the cranium or skull base, classify the excision to rubric 1.EA.92.^^ *Excision radical with reconstruction, cranium*.

When an intracranial resection that overlaps regions of the brain is described as a posterior fossa resection and involves the brain stem, classify the excision to rubric 1.AP.87.^^ *Excision partial, brain stem*.

When an intracranial resection that overlaps regions of the brain is described as a posterior fossa resection and involves the ventricles of the brain, classify the excision to rubric 1.AC.87.^^ *Excision partial, ventricles of brain*.

When an intracranial resection that overlaps regions of the brain is described as a posterior fossa resection and involves the cerebellopontine angle, classify the excision to rubric 1.AK.87.^^ *Excision partial, cerebellopontine angle*.

When an intracranial resection that overlaps regions of the brain is described as a posterior fossa resection and involves the cerebellum, classify the excision to rubric 1.AJ.87.^^ *Excision partial, cerebellum*.

When an intracranial resection overlaps regions of the brain and involves one or more lobes of the brain, classify the excision to rubric 1.AN.87.^^ *Excision partial, brain*.

When an intracranial resection overlaps regions of the brain and primarily involves the pituitary region, classify the excision to rubric 1.AF.87.^^ *Excision partial, pituitary region*.

When an intracranial resection overlaps regions of the brain and primarily involves the pineal gland, classify the excision to rubric 1.AG.87.^^ *Excision partial, pineal gland*.

When an intracranial resection overlaps regions of the brain and involves only the meninges or dura mater of the brain, classify the excision to rubric 1.AA.87.^^ *Excision partial, meninges and dura mater of brain*.

Text alternative for flowchart in coding standard *Seizures,* Correct index search for seizure(s) and seizure disorder, page 221

When the diagnosis is recorded as seizures(s) or seizure disorder and the seizure is due to alcohol or psychoactive drug withdrawal, search the ICD-10-CA alphabetical index on the lead term “withdrawal” and the subterm “state.” This search leads to the block F10 to F19.

When the seizure is due to high fever or documented as a febrile seizure, search the ICD-10-CA alphabetical index on the lead term “seizure” and the subterm “febrile.” This search leads to sub-category R56.0–.

When an acute medical illness provokes a seizure, assign a code for the acute illness and assign R56.88 *Other and unspecified convulsions*, optionally.

When the diagnosis is a single, isolated or first seizure, search the ICD-10-CA alphabetical index on the lead term “seizure.” This search leads to R56.88 *Other and unspecified convulsions*.

When the diagnosis is seizure with a history of previous seizure(s) or recurrent seizures, search the ICD-10-CA alphabetical index on the lead term “epilepsy.” This search leads to category G40.– *Epilepsy*.

When the diagnosis is recorded as seizure(s) or seizure disorder and there is nothing documented about a history of previous seizure(s) or recurrent seizures, search the ICD-10-CA

alphabetical index on the lead term “disorder” and subterm “seizure.” This search leads to R56.80 *Seizure disorder, so described*.

Text alternative for flowchart in coding standard *Selection of Status Attribute for Percutaneous Coronary Intervention (PCI)*, page 247

When an elective percutaneous coronary intervention (PCI) is performed, apply status attribute “P” — elective PCI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI is performed and there is **not** a current acute coronary syndrome (ACS) diagnosis, apply status attribute “OP” — other PCI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI is a second stage of a staged PCI performed for a current ACS diagnosis of ST-segment elevation myocardial infarction (STEMI), classified to R94.30, apply status attribute “OP” — other PCI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI that is **not** a second stage of a staged PCI is performed and there is a current ACS diagnosis of STEMI, classified to R94.30, and the patient received thrombolytic therapy prior to the PCI, apply status attribute “D1” — other PCI for STEMI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI that is **not** a second stage of a staged PCI is performed within 12 hours of presentation at the first hospital, and there is a current ACS diagnosis of STEMI, classified to R94.30, and the patient did **not** receive thrombolytic therapy prior to the PCI, apply status attribute “N” — primary PCI for STEMI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI that is **not** a second stage of a staged PCI is **not** performed within 12 hours of presentation at the first hospital and there is a current ACS diagnosis of STEMI, classified to R94.30, and the patient did **not** receive thrombolytic therapy prior to the PCI, apply status attribute “D1” — other PCI for STEMI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI is performed and the current ACS diagnosis is I24.9 *Acute ischaemic heart disease, unspecified* (i.e., the diagnosis is not STEMI, classified to R94.30; or is not non-ST-segment elevation myocardial infarction [NSTEMI], classified to R94.31; or is not unstable angina, classified to I20.0), apply status attribute “UN” — unknown to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI is a second stage of a staged PCI performed for a current ACS diagnosis of NSTEMI, classified to R94.31, or unstable angina, classified to I20.0, apply status attribute “OP” — other PCI to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

When a **non**-elective PCI that is **not** a second stage of a staged PCI is performed for a current ACS diagnosis of NSTEMI, classified to R94.31, or unstable angina, classified to I20.0, apply status attribute “UR” — urgent PCI for NSTEMI or UA (unstable angina) to the code from rubric 1.IJ.50.^^ *Dilation, coronary arteries*.

Note: Ensure that status attribute N — primary PCI for STEMI or D1 — other PCI for STEMI is selected only with a diagnosis of STEMI (i.e., R94.30 must be assigned on the abstract).

Text alternative for flowchart in coding standard *Resection of Space-Occupying Lesions (Polyps) of Nose*, page 291

When a resection of a space-occupying lesion (polyp) of the nose extends into the nasopharynx, classify the excision to a code from rubric 1.FA.87.^^ *Excision partial, nasopharynx*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the nasopharynx and involves a radical nasopharyngectomy, classify the excision to a code from rubric 1.FA.91.^^ *Excision radical, nasopharynx*.

When a resection of a space-occupying lesion (polyp) of the nose extends into multiple sinuses but not as far as the nasopharynx, classify the excision to a code from rubric 1.EY.87.^^ *Excision partial, paranasal sinuses*.

When a resection of a space-occupying lesion (polyp) of the nose extends into multiple sinuses but not as far as the nasopharynx and involves a radical pansinusectomy, classify the excision to a code from rubric 1.EY.91.^^ *Excision radical, paranasal sinuses*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the ethmoid sinus only, classify the excision to a code from rubric 1.EU.87.^^ *Excision partial, ethmoidal sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the ethmoid sinus only and involves a total exenteration, classify the excision to a code from rubric 1.EU.89.^^ *Excision total, ethmoidal sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the sphenoid sinus only, classify the excision to a code from rubric 1.EV.87.^^ *Excision partial, sphenoidal sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the frontal sinus only, classify the excision to a code from rubric 1.EX.87.^^ *Excision partial, frontal sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the maxillary sinus only, classify the excision to a code from rubric 1.EW.87.^^ *Excision partial, maxillary sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the maxillary sinus only and involves a radical antrectomy, classify the excision to a code from rubric 1.EW.91.^^ *Excision radical, maxillary sinus*.

When a resection of a space-occupying lesion (polyp) of the nose extends into the nasal cavity — middle meatus only, classify the excision to a code from rubric 1.ET.87.^^ *Excision partial, nose*.

Text alternative for flowchart in coding standard *Septoplasty for Deviated Nasal Septum*, page 293

When a septoplasty is performed to correct a deviated nasal septum and it is included as part of an intervention involving reshaping of the nasal bone or bones, classify the intervention to a code from rubric 1.ET.80.^^ *Repair, nose*. This rubric includes septoplasty (repositioning or realignment of nasal cartilage [septum]) with nasal tip/bone reshaping (e.g., rasping, osteotomy, bone fracturing), with or without turbinectomy.

When a septoplasty is performed to correct a deviated nasal septum and it involves resection of the septum **with** (cartilage) graft, classify the intervention to a code from rubric 1.ES.80.^^ *Repair, nasal cartilage*. This may involve some resection of bones that articulate with the septum (e.g., ethmoid, vomer, maxillary crest), with or without turbinectomy.

When a septoplasty is performed to correct a deviated nasal septum and it involves resection of the septum **without** (cartilage) graft, classify the intervention to 1.ES.87.LA *Excision partial, nasal cartilage, using open approach with simple apposition (suturing) for closure*. This includes a simple septoplasty involving trimming of the septum with a swing to midline; it may also involve some resection of bones that articulate with the septum (e.g., ethmoid, vomer, maxillary crest), with or without turbinectomy. An example is a submucous resection of the septum.

When a septoplasty is performed to correct a deviated nasal septum and it involves manual reduction of the nasal structures without resection or graft, classify the intervention to a code from rubric 1.ET.73.^^ *Reduction, nose*. This involves reduction of the nasal structures into proper alignment; it may also involve reducing the turbinates.

Text alternative for flowchart in coding standard *Arthrectomy and Arthroplasty*, page 314

When an arthrectomy is concomitant with a joint replacement or joint resurfacing, either using an antibiotic cement spacer or a joint prosthesis, classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 53 Implantation, joint, by site.

When an arthrectomy is concomitant with a joint release, loose body extraction, ligament repair, excision or other arthroplasty, classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 80 Repair, joint, by site.

An arthrectomy alone, without any concomitant interventions, is classified to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 87 Excision partial, joint, by site.

Text alternative for flowchart in coding standard *Fractures*, page 319

When the fracture is the result of a birth injury, classify it to a code from category P13 *Birth injury to skeleton*.

When the fracture is a periprosthetic fracture, classify it to a code from subcategory M96.6 *Fracture of bone following insertion of orthopaedic implant, joint prosthesis, or bone plate*.

When the fracture is the result of iatrogenic trauma while inserting an orthopedic prosthetic implant or a fixation device, or during another intervention, classify it to T81.88 *Other complications of procedures, not elsewhere classified*, along with a code for the fracture, by site from Chapter XIX — Injury, poisoning and certain other consequences of external causes.

When the fracture is the result of trauma, classify it to a code from Chapter XIX — Injury, poisoning and certain other consequences of external causes, for the fracture, by site.

When the fracture is a pathological fracture of a vertebra and the underlying disease process is a neoplasm (classified to a code from the range C00 to D48), classify it to M49.5 *Collapsed vertebra in diseases classified elsewhere*. M49.5 is an asterisk code or manifestation code, so an additional code (a dagger code) to denote the etiology or underlying disease is also required.

When the fracture is a pathological fracture of a bone other than a vertebra and the underlying disease process is a neoplasm (classified to a code from the range C00 to D48), classify it to M90.7 *Fracture of bone in neoplastic disease*. M90.7 is an asterisk code or manifestation code, so an additional code (a dagger code) to denote the etiology or underlying disease is also required.

When the fracture is a pathological fracture and the underlying disease process is osteoporosis, classify it to a code from category M80 *Osteoporosis with pathological fracture*.

When the fracture is a pathological fracture not elsewhere classified, classify it to M84.4 *Pathological fracture, not elsewhere classified*.

When a vertebral fracture is described as a stress fracture or as being due to overexertion alone, classify it to a code from subcategory M48.4 *Fatigue fracture of vertebra*.

When the fracture of a bone other than a vertebra is described as a stress fracture or as being due to overexertion alone, classify it to a code from subcategory M84.3 *Stress fracture, not elsewhere classified*.

Text alternative for flowchart in coding standard *Joint Fracture Reduction, Fixation and Fusion*, page 320

When a joint only is reduced into place, whether it is a closed or an open reduction, classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 73 Reduction, joint, by site.

When a fixation device is inserted into the joint, with or without concomitant joint reduction, classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 74 Fixation, joint, by site.

When a fixation device is inserted into the joint, with or without concomitant joint reduction, to fuse the joint — which often involves a bone graft — classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 75 Fusion, joint, by site.

When a fracture through a joint is repaired without a fixation device, classify the intervention to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 80 Repair, joint, by site.

Text alternative for flowchart in coding standard *Excision (of Lesion) of Bone, Soft Tissue and Skin*, page 322

When excision of a lesion includes bone with other soft tissue, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 91 Excision radical, bone by site, to one of the following rubrics:

1.TK.91.^^ Excision radical, humerus

1.TV.91.^^ Excision radical, radius and ulna

1.SQ.91.^^ Excision radical, pelvis

1.VC.91.^^ Excision radical, femur

1.VQ.91.^^ Excision radical, tibia and fibula

When excision of a lesion of the cranium includes bone with other soft tissue, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 92 Excision radical with reconstruction, cranium, to the following rubric:

1.EA.92.^^ Excision radical with reconstruction, cranium

When excision of a lesion includes bone alone, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 87 Excision partial, bone by site, to one of the following rubrics:

1.EA.87.^^ Excision partial, cranium

1.EB.87.^^ Excision partial, zygoma

1.ED.87.^^ Excision partial, maxilla

1.EE.87.^^ Excision partial, mandible

1.SF.87.^^ Excision partial, sacrum and coccyx

1.SL.87.^^ Excision partial, ribs

1.SM.87.^^ Excision partial, clavicle

1.SN.87.^^ Excision partial, scapula

1.SQ.87.^^ Excision partial, pelvis

1.SW.87.^^ Excision partial, pubis

1.TK.87.^^ Excision partial, humerus

1.TV.87.^^ Excision partial, radius and ulna

1.UC.87.^^ Excision partial, distal radioulnar joint and carpal joints and bones

1.UF.87.^^ Excision partial, other metacarpal bones

1.UJ.87.^^ Excision partial, other phalanx of hand

1.VC.87.^^ Excision partial, femur

1.VQ.87.^^ Excision partial, tibia and fibula

1.WE.87.^^ Excision partial, tarsal bones and intertarsal joints [hindfoot, midfoot]

1.WJ.87.^^ Excision partial, tarsometatarsal joints, other metatarsal bones and other metatarsophalangeal joints [forefoot]

1.WL.87.^^ Excision partial, other phalanx of foot

When excision of a lesion is a minor debridement only that involves soft tissues (e.g., muscle, tendon) with or without skin, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 59 Destruction, soft tissue by site, to one of the following rubrics:

1.TX.59.^^ Destruction, soft tissue of arm NEC

1.UY.59.^^ Destruction, soft tissue of the wrist and hand

1.VX.59.^^ Destruction, soft tissue of leg

1.WV.59.^^ Destruction, soft tissue of the foot and ankle

When excision of a lesion is a non-viable (necrotic) muscle flap that involves soft tissues (e.g., muscle, tendon) with or without skin, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 87 Excision partial, muscle by site, to one of the following rubrics:

1.EP.87.^^ Excision partial, muscles of head and neck

1.SG.87.^^ Excision partial, muscles of the back

1.SY.87.^^ Excision partial, muscles of the chest and abdomen

1.TQ.87.^^ Excision partial, muscles of the forearm [around elbow]

1.VD.87.^^ Excision partial, muscles of hip and thigh

When excision of a lesion involves soft tissues (e.g., muscle, tendon) with or without skin, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 87 Excision partial, soft tissue by site, to one of the following rubrics:

1.EQ.87.^^ Excision partial, soft tissue of head and neck

1.SH.87.^^ Excision partial, soft tissue of the back

1.SZ.87.^^ Excision partial, soft tissue of the chest and abdomen

1.TX.87.^^ Excision partial, soft tissue of arm NEC

1.UY.87.^^ Excision partial, soft tissue of the wrist and hand

1.VX.87.^^ Excision partial, soft tissue of leg

1.WV.87.^^ Excision partial, soft tissue of the foot and ankle

When excision of a lesion involves only skin, is a minor debridement only and is followed by a skin graft or flap, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 80 Repair, skin by site, to one of the following rubrics:

1.CX.80.^^ Repair, eyelid NEC

1.YA.80.^^ Repair, scalp

1.YB.80.^^ Repair, skin of forehead

1.YC.80.^^ Repair, skin of ear

1.YD.80.^^ Repair, skin of nose

1.YE.80.^^ Repair, lip

1.YF.80.^^ Repair, skin of face

1.YG.80.^^ Repair, skin of neck

1.YR.80.^^ Repair, skin of axillary region

1.YS.80.^^ Repair, skin of abdomen and trunk

1.YT.80.^^ Repair, skin of arm

1.YU.80.^^ Repair, skin of hand

1.YV.80.^^ Repair, skin of leg

1.YZ.80.^^ Repair, skin NEC

When excision of a lesion involves only skin, is a minor debridement only and is followed by temporary skin coverage (e.g., Dermagraft, cadaver allograft, xenograft), classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 14 Dressing, skin by site, to one of the following rubrics:

1.CX.14.^^ Dressing, eyelid NEC

1.YA.14.^^ Dressing, scalp

1.YB.14.^^ Dressing, skin of forehead

1.YC.14.^^ Dressing, skin of ear

1.YD.14.^^ Dressing, skin of nose

1.YE.14.^^ Dressing, lip

1.YF.14.^^ Dressing, skin of face

1.YG.14.^^ Dressing, skin of neck

1.YR.14.^^ Dressing, skin of axillary region

1.YS.14.^^ Dressing, skin of abdomen and trunk

1.YT.14.^^ Dressing, skin of arm

1.YU.14.^^ Dressing, skin of hand

1.YV.14.^^ Dressing, skin of leg

1.YZ.14.^^ Dressing, skin NEC

When excision of a lesion involves only skin and is a minor debridement only, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 59 Destruction, skin by site, to one of the following rubrics:

1.CX.59.^^ Destruction, eyelid NEC

1.YA.59.^^ Destruction, scalp

1.YB.59.^^ Destruction, skin of forehead

1.YC.59.^^ Destruction, skin of ear

1.YD.59.^^ Destruction, skin of nose

1.YE.59.^^ Destruction, lip

1.YF.59.^^ Destruction, skin of face

1.YG.59.^^ Destruction, skin of neck

1.YR.59.^^ Destruction, skin of axillary region

1.YS.59.^^ Destruction, skin of abdomen and trunk

1.YT.59.^^ Destruction, skin of arm

1.YU.59.^^ Destruction, skin of hand

1.YV.59.^^ Destruction, skin of leg

1.YZ.59.^^ Destruction, skin NEC

When excision of a lesion involves only skin, classify the excision to CCI Section 1 — Physical/Physiological Therapeutic Interventions, generic intervention 87 Excision partial, skin by site, to one of the following rubrics:

1.CX.87.^^ Excision partial, eyelid NEC

1.YA.87.^^ Excision partial, scalp

1.YB.87.^^ Excision partial, skin of forehead

1.YC.87.^^ Excision partial, skin of ear

1.YD.87.^^ Excision partial, skin of nose

1.YE.87.^^ Excision partial, lip

1.YF.87.^^ Excision partial, skin of face

1.YG.87.^^ Excision partial, skin of neck

1.YR.87.^^ Excision partial, skin of axillary region

1.YS.87.^^ Excision partial, skin of abdomen and trunk

1.YT.87.^^ Excision partial, skin of arm

1.YU.87.^^ Excision partial, skin of hand

1.YV.87.^^ Excision partial, skin of leg

1.YZ.87.^^ Excision partial, skin NEC

Text alternative for flowchart in coding standard *Dilation and Curettage*, page 404

When the intent of a dilatation and curettage (D and C) is to terminate a pregnancy and the fetus is alive at the initiation of the intervention, classify it to CCI Section 5 — Obstetrical and Fetal Interventions, rubric 5.CA.89.^^ *Surgical termination of pregnancy*, regardless of the outcome.

When the intent is to perform a D and C of the uterus following a delivery or an abortion, classify it to CCI Section 5 — Obstetrical and Fetal Interventions, rubric 5.PC.91.^^ *Interventions to uterus (following delivery or abortion)*.

When the intent is to perform a D and C of a non-gravid uterus, classify it to CCI Section 1 — Physical/Physiological Therapeutic Interventions, rubric 1.RM.87.^^ *Excision partial, uterus and surrounding structures*

Text alternative for flowchart in coding standard *Congenital Anomaly Syndromes and Specific Manifestations*, Primary code selection for ICD-10-CA classification of multiple congenital anomalies, page 424

When there are multiple anomalies described as a syndrome and there is an ICD-10-CA code for that specific syndrome or for alternate or synonymous terms, assign the code from Q00 to Q99 or the other appropriate chapter, per the alphabetical index lookup.

When there are multiple anomalies not described as a syndrome and each anomaly is specifically identified, assign an ICD-10-CA code for each anomaly.

When there are multiple anomalies not described as a syndrome and each anomaly is not specifically identified, assign Q89.7 *Multiple congenital malformations, not elsewhere classified*.

When multiple anomalies are described as a syndrome and are specified as chromosomal, classify the anomalies to a code from the range Q90 to Q99 *Chromosomal abnormalities, not elsewhere classified*. Assign also additional codes from the range Q00 to Q85.9 or other chapters to add specificity.

When multiple anomalies are described as a syndrome and are specified as being due to an exogenous cause, classify the anomalies to a code from category Q86 *Congenital malformation syndromes due to known exogenous causes, not elsewhere classified*. Assign also additional codes from the range Q00 to Q85.9 or other chapters to add specificity.

When multiple anomalies are described as a syndrome and they affect a single body system, classify the anomalies to a code from the range Q00 to Q85.9. Assign also additional codes from the range Q00 to Q85.9 or other chapters to add specificity.

When multiple anomalies are described as a syndrome that affects multiple specific body systems and the syndrome predominantly involves skeletal changes classifiable to a code from category *Other specified congenital malformation syndromes affecting multiple systems*,

specifically to a code from the range Q87.0 to Q87.5, classify the anomalies to a code from the range Q87.0 to Q87.5. Assign also additional codes from the range Q00 to Q85.9 or other chapters to add specificity.

When multiple anomalies are described as a syndrome that affects multiple specific body systems and the syndrome does not predominantly involves skeletal changes classifiable to the range Q87.0 to Q87.5, classify the anomalies to Q87.8 *Other specified congenital malformation syndromes, not elsewhere classified*. Assign also additional codes from the range Q00 to Q85.9 or other chapters to add specificity.

When multiple anomalies are described as a syndrome with no further details, classify the anomalies to Q89.9 *Congenital malformation, unspecified*.

Text alternative for image in Appendix A, Acute coronary syndrome (ACS) and related interventions, page 619

Typical flow of diagnostic and treatment events for patients presenting with symptoms of acute coronary syndrome:

When a patient presents with chest pain or other symptoms of acute coronary syndrome an electrocardiogram (ECG) is performed and the clinician establishes a working diagnosis or impression based on his or her interpretation of the ECG results.

When the clinician determines that the chest pain or other symptoms are nonischemic in nature, classify the condition accordingly.

When the clinician establishes a working diagnosis of ST-segment elevation myocardial infarction (STEMI), the typical treatment protocol is administration of thrombolytic therapy and/or a primary or direct percutaneous coronary intervention (PCI).

When the clinician establishes a working diagnosis of non-ST-segment elevation myocardial infarction (NSTEMI) the typical treatment protocol is administration of antithrombotic therapy; administration of other medications such as an angiotensin-converting-enzyme (ACE) inhibitor, platelet aggregation inhibitor, acetylsalicylic acid (ASA) or beta blocker; and/or PCI.

Cardiac biomarkers such as troponin or creatine kinase-MB (CK-MB) are also used by clinicians to confirm a diagnosis within the acute coronary syndrome spectrum, to assess prognosis and the risk of progression to an acute myocardial infarction; and, to establish a treatment plan based on the clinical assessment.

When the clinician establishes a working diagnosis of STEMI, a diagnosis of acute myocardial infarction is virtually inevitable. Prompt treatment based on the working diagnosis can alter the final diagnosis or outcome or the type of acute myocardial infarction that occurs, resulting in one of the following three possible outcomes:

1. Evolution to a Q-wave [transmural] myocardial infarction, classified to I21.0 *Acute transmural myocardial infarction of anterior wall* or I21.1 *Acute transmural myocardial infarction of*

inferior wall or I21.2 *Acute transmural myocardial infarction* of other sites or I21.3 *Acute transmural myocardial infarction of unspecified site* with R94.30 *Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]* as a diagnosis type (3).

2. Evolution to a non-Q-wave [subendocardial] myocardial infarction, classified to I21.4 *Acute subendocardial myocardial infarction* with R94.30 *Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]* as a diagnosis type (3).
3. An aborted or averted myocardial infarction, classified to I24.0 *Coronary thrombosis not resulting in myocardial infarction* with R94.30 *Electrocardiogram suggestive of ST segment elevation myocardial infarction [STEMI]* as a diagnosis type (3).

When the clinician establishes a working diagnosis of NSTEMI, while Q-waves can develop, the final diagnosis may be one of the following two possible outcomes:

1. Evolution to a less-damaging non-Q-wave [subendocardial] myocardial infarction, classified to I21.4 *Acute subendocardial myocardial infarction* with R94.31 *Abnormal cardiovascular function studies (biomarkers or ECG) suggestive of non ST segment elevation myocardial infarction [NSTEMI]* as a diagnosis type (3).
2. A final diagnosis of unstable angina or non-ST-elevation acute coronary syndrome (NonSTEACS or NSTEACS) classified to I20.0 *Unstable angina*.

Note that when the final diagnosis is NonSTEACS or NSTEACS it must be further confirmed whether the patient had an NSTEMI or unstable angina.

Text alternative for image in Appendix E: Tips for Coders, *Endoscopic Retrograde Cholangiography With Sphincterotomy Alone or Concomitant With Extraction*, page 690

The Canadian Classification of Health Interventions (CCI) 2018 code 1.OE.50.^^ *Dilation, bile ducts* includes choledochotomy with dilation, dilation of sphincter of Oddi, hepaticocholedochotomy with dilation, insertion of stent, bile duct, recanalization of bile duct [following stricture or other mechanical blockage] and release [stricture], bile duct.

1.OE.50.^^ *Dilation, bile ducts* excludes correction of [congenital] biliary atresia (see 1.OE.84.^^) and insertion of indwelling T-tube, catheter or endoprosthesis (for drainage), bile duct (see 1.OE.52.^^).

A table containing the complete list of codes from rubric 1.OE.50.^^ *Dilation, bile ducts* is provided with additional instruction.

1.OE.50.^^ Dilation, bile ducts	endoscopic [retrograde] per orifice approach [ERC] (This column does not include sphincterotomy/papillotomy)	endoscopic [retrograde] per orifice approach [ERC] with incision (This column includes sphincterotomy/ papillotomy)	open approach	percutaneous [transhepatic] transluminal approach
using incisional technique only	Not applicable	1.OE.50.BT	Not applicable	Not applicable
using balloon dilator (with or without stent)	1.OE.50.BA-BD	1.OE.50.BT-BD	1.OE.50.LA-BD	1.OE.50.HA-BD
using laser (with or without stent)	1.OE.50.BA-AG	1.OE.50.BT-AG	1.OE.50.LA-AG	1.OE.50.HA-AG
using rigid dilator [e.g. stent]	1.OE.50.BA-NR	1.OE.50.BT-NR	1.OE.50.LA-NR	1.OE.50.HA-NR

Text alternative for image in Appendix E: Tips for Coders, *Fetal Heart Rate Anomaly*, page 710

O68 Labour and delivery complicated by fetal stress [distress]

O68 Labour and delivery complicated by fetal stress [distress]	Delivered, with or without mention of antepartum condition
O68.0 Labour and delivery complicated by fetal heart rate anomaly ++	O68.001 (Canadian enhancement)
O68.2 Labour and delivery complicated by fetal heart rate anomaly with meconium in amniotic fluid	O68.201 (Canadian enhancement)

Text alternative for image in Appendix E: Tips for Coders, *Sixth Digit at Z37 and Z38*, page 719

Z38.0 Singleton, born in hospital

Note: Assisted reproductive technology includes ovulation induction, intracytoplasmic sperm injection (ICSI), embryo transfer, and in vitro fertilization (IVF).

Z38.0 Singleton, born in hospital	Product of both spontaneous (NOS) ovulation and conception	Product of assisted reproductive technology (ART)
Z38.00 delivered vaginally	Z38.000 (Canadian enhancement)	Z38.001 (Canadian enhancement)

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