

# Introduction to ICD-11

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### **Desired Outcomes**

At the end of this presentation, attendees will be able to:

- Understand the underlying ICD-11 code structure and organization
- Compare and contrast ICD-11 MMS codes with ICD-10-CM codes
- Classify diagnoses using the WHO ICD-11 MMS coding tool, browser and guidelines



### Implementation of ICD-11

- The World Health Assembly adopted ICD-11 May 2019, for implementation 1/1/22
- NCVHS tasked with evaluating pathways and making recommendations to HHS on the adoption and use of ICD-11 in the US
- NCVHS subcommittee on standards held an ICD-11 expert roundtable in August 2019
- NCVHS letter to HHS November 2019 with recommendations on preparing for adoption of ICD-11 as a mandated US health data standard
- Adoption of ICD-11 by the US has two distinct dimensions:
  - Mortality reporting
    - cause of death reporting on death certificates (condition of WHO membership)
  - Morbidity reporting
    - diseases/disorders reported on healthcare claims (HIPAA-designated code set)



## Implementation of ICD-11 for Morbidity Reporting

The actual implementation date will depend on:

- Regulatory vs. sub-regulatory process
- Changing the diagnosis code set alone vs. both diagnosis and procedure code set update
- Adopting a linearization of ICD-11 vs. creating a clinical modification (ICD-11-CM)



## Overview of ICD-11 Content and Structure

- ICD-11 (Foundation)
  - https://icd.who.int/dev11/f/en
- ICD-11 for Mortality and Morbidity (ICD-11 MMS)
  - https://icd.who.int/browse11/l-m/en



# ICD-11 (Foundation)

The Foundation is the data source for:

- ICD entities and their Uniform Resource Identifiers (URI)
- Building a linearization (Tabular List)
  - Examples: Mortality and Morbidity Statistics (MMS), primary care, traditional medicine, dermatology
- Index
  - Synonyms

collection of ALL ICD entities: diseases, disorders, injuries, external causes, sign and symptoms (the ICD Universe)



### **ICD-11** Linearization

- A subset of the foundation fit for a particular purpose (e.g. MMS)
  - Selected entities become Tabular List categories
- Jointly Exhaustive of ICD Universe (Foundation)
- Composed of entities that are mutually exclusive of each other
- Each entity is given a single parent

Key Difference from ICD-10: ICD-11 foundation is the source for a linearization



## ICD-11-MMS Structure and Content

- Overall chapter structure much the same as ICD-10
- Code structure
  - Minimum of four characters
    - First character relates to the chapter (number or letter)
    - Second character is always a letter
    - Third character is always a number
  - Terminal character
    - Y reserved for other specified
    - Z reserved for unspecified



WHO ICD-11 MMS	United States ICD-10-CM
BA00 Essential hypertension	<b>I10 Essential (primary) hypertension</b>
BA00.0 Combined diastolic and systolic	Includes:
hypertension	High blood pressure
BA00.1 Isolated diastolic hypertension	Hypertension (arterial) (benign)
BA00.2 Isolated systolic hypertension	(essential) (malignant) (primary)
BA00.Y Other specified essential hypertension	(systemic)
BA00.Z Essential hypertension, unspecified	
Matching terms: hypertension NOS, essential	
hypertension, idiopathic hypertension,	
primary hypertension, arterial hypertension NOS	



## Terms and Classification Concepts

- Stem code
- Extension code
- Pre-coordination
- Post-coordination
  - Cluster coding
- Sanctioning rules
  - Permissible combinations of stem codes and extension codes

### New concepts not found in ICD-10-CM



### ICD-11 MMS Stem Code

- Codes in a particular tabular list
- Organized in 26 chapters that follow the traditional pattern of ICD
- Can be used alone or in combination
- Combining syntax:
  - forward slash (/) separates two stem codes
  - ampersand (&) links a stem code with an extension code



### ICD-11 MMS Extension Code

- Used to limit content volume but allow detailed classification of disease entities
- Provide the basis for post-coordination
- Standardize the way additional information is added to a stem code
- Can never be used without a stem code and never appear in the first position of a cluster
- Not all extension codes can be used with every stem code
- Extension codes start with an "X"



### ICD-11 MMS Extension Codes

Type 1: Adds detail to the diagnosis represented by the stem code	Type 2: Diagnosis code descriptors that alter the interpretation
<ul> <li>Severity scale value</li> <li>Temporality</li> <li>Etiology</li> <li>Topology scale value</li> <li>Anatomy and topography</li> <li>Histopathology</li> <li>Dimensions of injury</li> <li>Dimensions of external causes</li> <li>Consciousness</li> <li>Substances</li> </ul>	<ul> <li>Diagnosis code descriptors         <ul> <li>Discharge diagnosis types</li> <li>Diagnosis timing</li> <li>Diagnosis timing in relation to surgical procedure</li> <li>Diagnosis method of confirmation</li> <li>Diagnosis certainty</li> <li>Obstetrical diagnosis timing</li> </ul> </li> <li>Capacity or context</li> <li>Health devices, equipment and supplies         <ul> <li>Assistive devices</li> <li>Medical devices</li> <li>Sets, kits, systems</li> </ul> </li> </ul>



## ICD-11-MMS Pre- and Post-Coordination

- Pre-coordination
  - A stem code that contains pertinent information about a clinical concept in a pre-combined fashion
- Post-coordination
  - Linking multiple codes (through cluster coding) to describe a single diagnosis, condition or event
- Sanctioning rules
  - Embedded in the Foundation
  - Permissible code combinations
    - Prevents creation of combinations that already exist (pre-coordinated)
    - Prevents impossible combinations

Key Difference from ICD-10: Pre-coordinated Post-coordinated



ICD-11 MMS Post-coordinated Codes	ICD-10-CM Pre-coordinated Codes		
Code assignment for: Osteoarthritis, right knee			
FA01.Z: Osteoarthritis of knee, unspecified XK9K: Right Code cluster= FA01.Z & XK9K	M17.11: Unilateral primary osteoarthritis, right knee		
Code assignment for: Lumbar spinal stenosis			
FA82: Spinal stenosis XA0D60: lumbar vertebra Code cluster = FA82 & XA0D60	M48.061: spinal stenosis, lumbar region without neurogenic claudication		



WHO ICD-11 MMS	United States ICD-10-CM
CA23 Asthma	J45 Asthma
CA23.0 Allergic asthma	J45.2 Mild Intermittent asthma
CA23.00 Allergic asthma with exacerbation	J45.20 Mild intermittent asthma, uncomplicated
CA23.01 Allergic asthma with status asthmaticus	J45.21 Mild intermittent asthma with (acute) exacerbation
CA23.02 Allergic asthma, uncomplicated	J45.22 Mild intermittent asthma with status asthmaticus
CA23.0Z Allergic asthma, unspecified	J45.3 Mild persistent asthma
CA23.1 Non-allergic asthma	J45.30 Mild persistent asthma, uncomplicated
CA23.10 Non-allergic asthma with exacerbation	J45.31 Mild persistent asthma with (acute) exacerbation
CA23.11 Non-allergic asthma with status asthmaticus	J45.32 Mild persistent asthma with status asthmaticus
CA23.12 Non-allergic asthma, uncomplicated	J45.4 Moderate persistent asthma
CA23.2 Other specified forms of asthma or bronchospasm	J45.40 Moderate persistent asthma, uncomplicated
CA23.20 Aspirin-induced asthma	J45.41 Moderate persistent asthma with (acute) exacerbation
CA23.21 Exercise-induced asthma	J45.42 Moderate persistent asthma with status asthmaticus
CA23.22 Cough variant asthma	J45.5 Severe persistent asthma
CA23.3 Unspecified asthma	J45.50 Severe persistent asthma, uncomplicated
CA23.30 Unspecified asthma with exacerbation	J45.51 Severe persistent asthma with (acute) exacerbation
CA23.31 Unspecified asthma with status asthmaticus	J45.52 Severe persistent asthma with status asthmaticus
CA23.32 Unspecified asthma, uncomplicated	J45.9 Other and unspecified asthma
	J45.90 Unspecified asthma
Post-coordination:	J45.901 Unspecified asthma with (acute) exacerbation
Has Severity (use additional code, if desired)	J45.902 Unspecified asthma with status asthmaticus
XS5W Mild	J45.909 Unspecified asthma, uncomplicated (asthma NOS)
XS0T Moderate	J45.99 Other asthma
XS25 Severe	J45.990 Exercise induced bronchospasm
	J45.991 Cough variant asthma
	J45.998 Other asthma



ICD-11 MMS Post-coordinated Codes	ICD-10-CM Pre-coordinated Codes	
Code assignment for: Moderate persistent cough variant asthma		
CA23.22: Cough variant asthma XSOT: Moderate Code Cluster= CA23.22 & XSOT	J45.40: Moderate persistent asthma, uncomplicated OR J45.991: Cough variant asthma	
Code assignment for: Mild intermittent allerg	ic asthma, with exacerbation	
CA23.00: Allergic asthma with exacerbation XS5W: Mild Code cluster = CA23.00 & XS5W	J45.21: Mild intermittent asthma with exacerbation	



ICD-11 MMS Codes	ICD-10-CM Codes		
Code assignment for: ASHD, native coronary artery			
<b>BA80.0</b> : Coronary atherosclerosis of native coronary artery	<b>I25.10:</b> Atherosclerotic heart disease of native coronary artery without angina pectoris		
Code assignment for: ASHD, native coronary artery with unstable angina			
BA80.0: Coronary atherosclerosis of native coronary artery BA40.0: [Associated with] Unstable angina Code cluster = BA80.0/ BA40.0	<b>I25.110:</b> Atherosclerotic heart disease of native coronary artery with unstable angina pectoris		



ICD-11 MMS Codes	ICD-10-CM Codes		
Code assignment for: Diabetes, Type 2			
5A11: Type 2 diabetes mellitus	E11.9: Type 2 diabetes without complication		
Code assignment for: Diabetic ketoacidosis; Type 1 DM			
5A22.0: Diabetic ketoacidosis without coma 5A10: [Has causing condition] Type 1 diabetes mellitus Code cluster = 5A22.0/ 5A10	<b>E10.10:</b> Type 1 diabetes mellitus with ketoacidosis without coma		



### ICD-11 MMS Guidelines

- 'Code also' instruction
  - Mandatory cluster coding
- 'Use additional code, if desired' instruction
  - Optional additional detail for coding
- And
  - 'A and B' means that both, A and B, must be present in order to use that category.
- Or
  - Or means 'and/or'
- Excludes
  - General exclusions for a range of categories or for all subcategories are found in the notes heading 'Excludes', immediately following a chapter, group or category title.
- Exclusions
  - Certain categories contain lists of conditions preceded by the word 'Exclusions'. These are terms which are classified elsewhere



## WHO ICD-11 MMS Tools

- Coding Tool
  - https://icd.who.int/ct11/icd11\_mms/en/release
- Browser
  - https://icd.who.int/browse11/l-m/en



## Coding Tool Functionality

- Turn on chapter distribution filter and tick the box for Extension Codes.
- Codes for non-terminal categories (i.e., categories which have children) are rendered with a grey background
- Icons to the right of the entities list
  - Post-coordination is <u>available</u> for this entity:
  - Post-coordination is <u>mandatory</u> for this entity:
  - <u>Coding note</u> is available for this entity: (=)
- [Details] link to the right of the result opens further information about the entity
- Integrated browser
  - Clicking on the maximize icon (the small square) opens the ICD-11 browser within the coding tool
  - Search results only opens the hierarchy of the selected code. However, you may make the children
    of every entity visible by clicking on the small triangles shown on the left side of the screen in the
    classification



### Browser Tool Functionality

- When you move your mouse on any icon or a button for a second or so, the system will give you more information on the functionality of the icon.
- When browsing ICD-11, you will see the classification hierarchy on the left side of the screen. Clicking on any item will display the details of that entity on the right side of the screen
  - Initially, the system only shows the top level items. However, you may make the children visible by clicking on the small triangles on the left side of the items.
- Use the button to close all the open branches and return back to the top level hierarchy



### **Browser Tool Tips**

- Quick search searches the titles, inclusions, synonyms and narrower terms and it works by starting to search as you type and provides you options in a dynamic dropdown list
- You may also use \* to find similar words or to simply save some typing
- Advanced search lets you search selected properties of the classification. You could search all properties or a selected subset only
- To build a code, click on the values that are displayed in the search results, in the hierarchy or in the shorter lists



### https://icd.who.int/ct11/icd11 mms/en/release

ICD-11	Coding Tool	Mortality and Morbidity S 2020-09	tatistics (MMS)		
	Inguinal hernia			×	
Guessing t	he word being typed				F
Word I	sort : Relatedness/rep		on Entities		sort: Matching s
hernia		DD51	Inguinal hernia		J
		DD5Y	Other specified hernias Groin hernia		J



estination Entities sort: Matching score	
DD51 Inguinal hernia	
Description A hernia occurs when part of an internal organ bulges through a weak area of muscle. Most hernias occur in the abdomen. Inguinal hernia is the most common type and is in the groin.	Inguinal hernia
dditional Information Inguinal hemia is the disease with abnormal passage of an internal abdominal organ or structure through the inguinal canal. The spectrum of the disease is very broad, manifesting incidental findings to symptomatic hemias showing groin pain to surgical emergencies like incarceration or strangulation of hemia sac contents. The disease can be classified by the location of hemiation as indirect inguinal hemia and direct inguinal hemia. Indirect hemias occur through the internal inguinal ring and common in children and young adults, but direct hemias occur through defects in the abdominal wall in Hesselbach's triangle and are common in adults.	Code and Description
nclusions bubonocele scrotal hernia	
Matching Terms Show all [79] ▼         Inguinal hernia NOS         indirect inguinal hernia         direct inguinal hernia         oblique inguinal hernia         IH - [inguinal hernia]	Coding Note Post coordination
telated categories in maternal chapter J Diseases of the digestive system complicating pregnancy, childbirth or the puerperium / Inguinal hernia (JB64.6/DD8-4)	
Coding Note 😑 Use additional codes, if desired, to identify complications such as obstruction or gangrene.	
Postcoordination (+) Postcoordination is available: dick here to open the browser	Click here to open the
	browser
D5Y Other specified hernias J	browser



### ICD-11 Coding Tool

### ызсазез ог арреник Diseases of large intestine

- Diseases of anal canal
- Diseases of liver
- Diseases of gallbladder or biliary tract
- Diseases of pancreas
- Diseases of peritoneum
- Diverticular disease of intestine
- Ischaemic vascular disorders of intestine
- ▽ Hernias
- DD50 Non-abdominal wall hernia
- DD51 Inguinal hernia
- DD52 Femoral hernia DD53 Umbilical hernia
- DD54 Paraumbilical hernia
- DD55 Epigastric hernia
- DD56 Incisional hernia
- DD57 Parastomal hernia

### DD5Y Other specified hernias

- DD5Z Hernias, unspecified
- Inflammatory bowel diseases
- Functional gastrointestinal disorders
- Postprocedural disorders of digestive system
- Digestive system disorders of fetus or newborn
- Symptoms, signs or clinical findings of the digestive system or abdomen
- Structural developmental anomalies of the digestive tract JB64.6 Diseases of the digestive system complicating pregnancy, childbirth or the puerperium

### DE2Y Other specified diseases of the digestive system

### DE2Z Diseases of the digestive system, unspecified

- 14 Diseases of the skin
- 15 Diseases of the musculoskeletal system or connective tissue
- 16 Diseases of the genitourinary system
- 17 Conditions related to sexual health
- 18 Pregnancy, childbirth or the puerperium
- 19 Certain conditions originating in the perinatal period
- 20 Developmental anomalies
- 21 Symptoms, signs or clinical findings, not elsewhere classified
- 22 Injury, poisoning or certain other consequences of external causes
- 23 External causes of morbidity or mortality

### DD51 Inguinal hernia

Code: DD51

### Description

A hernia occurs when part of an internal organ bulges through a weak area of muscle. Most hernias occur in the abdomen. Inquinal hernia is the most common type and is in the groin.

Foundation URI: http://id.who.int/icd/entity/474718032

✓ Select

### Additional Information

Inguinal hernia is the disease with abnormal passage of an internal abdominal organ or structure through the inguinal canal. The spectrum of the disease is very broad, manifesting incidental findings to symptomatic hernias showing groin pain to surgical emergencies like incarceration or strangulation of hernia sac contents. The disease can be classified by the location of herniation as indirect inguinal hernia and direct inguinal hernia. Indirect hernias occur through the internal inguinal ring and common in children and young adults, but direct hernias occur through defects in the abdominal wall in Hesselbach's triangle and are common in adults.

### Inclusions

- hubonocele scrotal hernia

### Exclusions from above levels Show all [6] -

- Matching Terms Show all [79] -
- Inguinal hernia NOS indirect inquinal hernia direct inquinal hernia oblique inguinal hernia IH - [inguinal hernia]

### Related categories in maternal chapter

Diseases of the digestive system complicating pregnancy, childbirth or the puerperium / Inguinal hernia (JB64.6/DD51)

### Coding Note

Use additional codes, if desired, to identify complications such as obstruction or gangrene.

### Postcoordination

Laterality (use additional code, if desired .) XK9J Bilateral XK8G Left XK9K Right XK70 Unilateral, unspecified



### Code: DD51&XK8G

### Additional Information

Inguinal hernia is the disease with abnormal passage of an internal abdominal organ or structure on manifesting incidental findings to symptomatic hernias showing groin pain to surgical emergencies like incarceration or classified by the location of herniation as indirect inguinal hernia and direct inguinal hernia. Indirect hernias occur throu young adults, but direct hernias occur through defects in the abdominal wall in Hesselbach's triangle and are common i

### Inclusions

bubonocele scrotal hernia

### Exclusions from above levels Show all [6] -

Matching Terms Show all [79] -

Inguinal hernia NOS indirect inguinal hernia direct inguinal hernia oblique inguinal hernia IH - [inguinal hernia]

Related categories in maternal chapter Diseases of the digestive system complicating pregnancy, childbirth or the puerperium / Inguinal hernia (JB64.6/DD51)

### Coding Note

Use additional codes, if desired, to identify complications such as obstruction or gangrene.

### Postcoordination

Laterality

XK8G Left 🗙

Laterality (use additional code, if desired .) XK9J Bilateral XK8G Left XK9K Right XK70 Unilateral, unspecified

### Code Selection: DD51 & XK8G

### Laterality (use additional code, if desired)

### Code: DD51&XK8G

### Additional Information

Inguinal hernia is the disease with abnormal passage of an internal abdominal organ or structure through the inguinal ca manifesting incidental findings to symptomatic hernias showing groin pain to surgical emergencies like incarceration or st classified by the location of herniation as indirect inguinal hernia and direct inguinal hernia. Indirect hernias occur through young adults, but direct hernias occur through defects in the abdominal wall in Hesselbach's triangle and are common in

### Inclusions

bubonocele scrotal hernia

Exclusions from above levels Show all [6] -

Matching Terms Show all [79] -

Inguinal hernia NOS indirect inguinal hernia direct inguinal hernia oblique inguinal hernia IH - [inguinal hernia]

Related categories in maternal chapter Diseases of the digestive system complicating pregnancy, childbirth or the puerperium / Inguinal hernia (JB64.6/DD51)

### Coding Note

Use additional codes, if desired, to identify complications such as obstruction or gangrene.

### Postcoordination

Laterality

XK8G Left 🗙

Laterality (use additional code, if desired .) XK93 Bilateral XK8G Left XK9K Right XK70 Unilateral, unspecified

Has manifestation (use additional code, if desired .) search in axis: Has manifestation ME24 Clinical manifestations of the digestive system

# Has manifestation (use additional code, if desired)



Code: DD51&XK8G / ME24.2 Inguinal hernia NOS indirect inguinal hernia direct inguinal hernia oblique inguinal hernia IH - [inguinal hernia] Related categories in maternal chapter	Code Selection: DD51 & XK8G / ME24.2
Diseases of the digestive system complicating pregnancy, childbirth or the puerperium / Inguinal hernia Coding Note Use additional codes, if desired, to identify complications such as obstruction or gangrene.	
Postcoordination         Laterality       XK8G Left X         Has manifestation       ME24.2 Digestive system obstruction X         Laterality (use additional code, if desired .)       XK9J Bilateral         XK8G Left       XK8G Left         XK8G Left       XK9K Right         XK70 Unilateral, unspecified       Image: Comparison of Co	Has manifestation Obstruction
Has manifestation (use additional code, if desired .)         obstruction         ME24 Clinical manifestations of the digestive system         ME24.0 Digestive system abscess         ME24.1 Digestive system fistula         ME24.2 Digestive system obstruction         ME24.3 Digestive system perforation         ME24.4 Digestive system stenosis         ME24.5 Digestive system dilatation         ME24.7 Digestive system incarceration	
<ul> <li>ME24.8 Digestive system strangulation or gangrene</li> <li>ME24.9 Gastrointestinal bleeding</li> <li>ME24.A Other digestive system haemorrhage, not elsewhere classified</li> <li>ME24.Y Other specified clinical manifestations of the digestive system</li> </ul>	uasisolutions.com   30

## **Final Thoughts**

- Stay tuned as ICD-11 transition planning continues
- Implementation timeline depends on the regulatory approach and the transition plan
- Explore ICD-11 MMS in the WHO coding tool and browser
- Subscribe to our blog to follow along as we share what we learn
- Contact us to learn more about the structure and implications of ICD-11



## **References and Resources**

- World Health Organization. (n.d.). ICD-11. <u>https://icd.who.int/en</u>
- NCVHS Recommendation to HHS Secretary on Regulatory Simplification of the ICD, February 21, 2019 <u>https://ncvhs.hhs.gov/wp-content/uploads/2019/03/Recommendation-Letter-Regulatory-Simplification-of-ICD.pdf</u>
- NCVHS, Subcommittee on Standards, ICD-11 Evaluation Expert Roundtable Meeting August 6-7, 2019 <u>https://ncvhs.hhs.gov/meetings/subcommittee-on-standards-icd-11-evaluation-expert-roundtable-meeting/</u>
- AHIMA Under the Dome. "AHIMA participates in ICD-11 Expert Roundtable." Posted August 28, 2019. <u>https://journal.ahima.org/2019/08/28/ahima-participates-in-icd-11-expert-roundtable/</u>
- NCVHS Recommendation to HHS Secretary on Preparing for Adoption of ICD-11, November 25, 2019 <u>https://ncvhs.hhs.gov/wp-content/uploads/2019/12/Recommendation-Letter-Preparing-for-Adoption-of-ICD-11-as-a-Mandated-US-Health-Data-Standard-final.pdf</u>



### **Questions?**



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# • • • • • UASI at a Glance

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Team:	450+ employees, including AHIMA/AAPC-certified coders, HIM and clinical documentation specialists
Charts handled annually:	3.75 million coded; 200,000 audited
Solutions:	Coding Services, Coding Reviews, Clinical Documentation Improvement, Revenue Integrity, HIM Solutions, Strategic Consulting

### **Experience**

- HIM Management: 22 years
- Remote coding staff: 8+ years
- Coding auditor staff: 18 years

### Quality

- 97% accuracy in coding
- 100% target for accuracy, certification and meeting industry standards

### Reliability

- 35+ years in business
- 40 clients in US News & World Report best regional and honor roll hospitals

### Culture

- People-centric, team-driven culture
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- 20% new hires referred from current employees
- Industry-leading average employee tenure

