RIPTIDE™ ASPIRATION SYSTEM CODING AND REIMBURSEMENT GUIDE

Medtronic

Riptide™

Aspiration System

The Riptide™ Aspiration System is intended for use in the revascularization of patients with acute ischemic stroke secondary to intracranial large vessel occlusive disease (within the internal carotid, middle cerebral – M1 and M2 segments, basilar, and vertebral arteries) within 8 hours of symptom onset. Patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who fail IV t-PA therapy are candidates for treatment.

HOSPITAL INPATIENT PROCEDURE CODING AND DRG PAYMENT

ICD-10-PCS PROCEDURE CODES[4] – *effective October 1, 2017*

ICD-10-PCS procedure codes are used by hospitals to report surgeries and procedures performed in the inpatient setting.

ICD-10-PCS CODE[5]	CODE DESCRIPTION
REMOVAL OF THROMBUS VIA ASPIRATION	
03CG3ZZ	Extirpation of matter from intracranial artery, percutaneous approach[6]
03CH3ZZ	Extirpation of matter from right common carotid artery, percutaneous approach
03CJ3ZZ	Extirpation of matter from left common carotid artery, percutaneous approach
03CK3ZZ	Extirpation of matter from right internal carotid artery, percutaneous approach
03CL3ZZ	Extirpation of matter from left internal carotid artery, percutaneous approach
03CP3ZZ	Extirpation of matter from right vertebral artery, percutaneous approach
03CQ3ZZ	Extirpation of matter from left vertebral artery, percutaneous approach
CEREBRAL ARTERIOGRAPHY	
B31R1ZZ	Fluoroscopy of intracranial arteries using low osmolar contrast
B31RYZZ	Fluoroscopy of intracranial arteries using other contrast[7]
CEREBRAL ARTERIOGRAPHY	
3E03317	Introduction of other thrombolytic into peripheral vein, percutaneous approach

DRG ASSIGNMENT FY2018 – *effective October 1, 2017*

Under Medicare's MS-DRG methodology for hospital inpatient payment, each inpatient stay is assigned to one of about 750 diagnosis-related groups, based on the ICD-10 codes assigned to the diagnoses and procedures. MS-DRG has a relative weight that is then converted to a flat payment amount. Implanted devices are typically included in the flat payment and are not paid separately. Only one MS-DRG is assigned for each inpatient stay, regardless of the number of procedures performed. MS-DRGs shown are those typically assigned to the following scenarios.

MS-DRG[8]	MS-DRG TITLE[8,9]	FY 2018 RELATIVE WEIGHT[8]	FY 2018 GEOMETRIC MEAN LENGTH OF STAY[8]	FY 2018 SUBJECT TO PACT[8,10]	FY 2018 MEDICARE NATIONAL AVERAGE[11]
ISCHEMIC STOKE WITH REMOVAL OF THROMBUS (RIPTIDE ASPIRATION THROMBECTOMY)					
023	Craniotomy with Major Device Implant/Acute Complex Central Nervous System Principal Diagnosis W MCC[12]	5.4949	7.6	Yes	$33,115
024	Craniotomy with Major Device Implant/Acute Complex Central Nervous System Principal Diagnosis WO MCC[12]	3.8314	4.2	Yes	$23,090

HCPCS DEVICE CODES

HCPCS device codes are assigned by the entity that purchased and supplied the device to the patient. In the case of the Riptide™ aspiration system, that is the hospital. However, hospitals assign HCPCS device codes only when the device is provided in the hospital outpatient setting. HCPCS device codes cannot be assigned or billed for procedures performed in the inpatient setting. If a hospital requires a HCPCS device code for an inpatient case for internal purposes only, such as for tracking, please refer to the HCPCS addendum for references.

DIAGNOSIS CODING

Medtronic provides this information for your convenience only. It does not constitute legal advice or a recommendation regarding clinical practice. Information provided is gathered from third-party sources and is subject to change without notice due to frequently changing laws, rules and regulations. Medtronic makes no guarantee that the use of this information will prevent differences of opinion or disputes with Medicare or other payers as to the correct form of billing or the amount that will be paid to providers of service. Please contact your Medicare contractor, other payers, reimbursement specialists and/or legal counsel for interpretation of coding, coverage and payment policies. This document provides assistance for FDA cleared indications. Where reimbursement is sought for use of a product that may be inconsistent with, or not expressly specified in, the FDA cleared labeling (eg, instructions for use, operator's manual or package insert), consult with your billing advisors or payers on handling such billing issues. Some payers may have policies that make it inappropriate to submit claims for such items or related service.

The following information is calculated per the footnotes included and does not take into effect Medicare payment reductions resulting from sequestration associated with the Budget Control Act of 2011. Sequestration reductions went into effect on April 1, 2013.

For questions please contact us at **neuro.us.reimbursement@medtronic.com**

ICD-10-CM DIAGNOSIS CODES[1] – *effective October 1, 2017*

ICD-10-CM diagnosis codes are used by both physicians and hospitals to report the indication for the procedure.

ICD-10-CM CODE[2]	CODE DESCRIPTION
ISCHEMIC STROKE	
PRECEREBRAL ARTERIES	
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery
I63.011	Cerebral infarction due to thrombosis of right vertebral artery
I63.012	Cerebral infarction due to thrombosis of left vertebral artery
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery
I63.02	Cerebral infarction due to thrombosis of basilar artery
I63.031	Cerebral infarction due to thrombosis of right carotid artery
I63.032	Cerebral infarction due to thrombosis of left carotid artery
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery
I63.09	Cerebral infarction due to thrombosis of other precerebral artery
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery
I63.111	Cerebral infarction due to embolism of right vertebral artery
I63.112	Cerebral infarction due to embolism of left vertebral artery
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery
I63.12	Cerebral infarction due to embolism of basilar artery
I63.12	Cerebral infarction due to embolism of basilar artery
I63.131	Cerebral infarction due to embolism of right carotid artery
I63.132	Cerebral infarction due to embolism of left carotid artery
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
I63.139	Cerebral infarction due to embolism of unspecified carotid artery
I63.19	Cerebral infarction due to embolism of other precerebral artery
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries
PRECEREBRAL ARTERIES (CONTINUED)	
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries
I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery
I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery
I63.39	Cerebral infarction due to thrombosis of other cerebral artery
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery
I63.411	Cerebral infarction due to embolism of right middle cerebral artery
I63.412	Cerebral infarction due to embolism of left middle cerebral artery
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries
I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries
I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery
I63.441	Cerebral infarction due to embolism of right cerebellar artery
I63.442	Cerebral infarction due to embolism of left cerebellar artery
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery
I63.49	Cerebral infarction due to embolism of other cerebral artery
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries
I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries
I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar cerebral artery
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries
I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral arteries
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
I63.8	Other cerebral infarction
I63.9	Cerebral infarction, unspecified
HISTORY OF TPA[3]	
Z92.82	Status post-administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility

PHYSICIAN PROCEDURE CODING AND PAYMENT

PHYSICIAN PROCEDURE CODING AND RBRVS PAYMENT FOR RIPTIDE™ ASPIRATION SYSTEM

Physicians use CPT® codes for all services.

Under Medicare's Resource-Based Relative Value Scale (RBRVS) methodology for physician payment, each CPT® code is assigned a point value, the relative value unit (RVU), which is then converted to a flat payment amount.

CPT® CODES[13] – *effective January 1, 2018* **CY 2018 RBRVS FACTORS**[14] – *effective January 1, 2018*

CPT® CODE	CODE DESCRIPTION	MULTIPLE PROCEDURE DISCOUNTING[15]	CY2018 MEDICARE RVUS (FACILITY SETTING)[16]	CY2018 MEDICARE NATIONAL AVERAGE (FACILITY SETTING)[16, 17]
RIPTIDE ASPIRATION THROMBECTOMY				
61645	Percutaneous arterial transluminal mechanical thrombectomy and/or infusion for thrombolysis, intracranial, any method, including diagnostic angiography, fluoroscopic guidance, catheter placement, and intraprocedural pharmacological thrombolytic injection(s)	N	24.04	$865

Thrombectomy code 61645 encompasses intracranial thrombectomy by any method, including aspiration catheter.[18]

CPT defines code 61645 as a comprehensive procedure which includes: catheterization, diagnostic angiography in the vessel territory treated, imaging guidance, radiological supervision and interpretation, thrombolytic injection during the procedure, completion angiography, and all neurologic and hemodynamic monitoring of the patient. These components are not coded separately. Diagnostic angiography in vessel territories that were not treated can be coded separately. Code 61645 may be reported once for each intracranial vascular territory treated. There are three territories: 1) right carotid, 2) left carotid, and 3) vertebro-basilar.[18]

REFERENCES

1. ICD-10-CM: Department of Health and Human Services, Centers for Medicare & Medicaid Services and Centers for Disease Control and Prevention. International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM). http://www.cdc.gov/nchs/icd/icd10cm.htm
2. For the I63.-- codes for ischemic stroke, note that the first digit is the letter "I", not the number "1".
3. ICD-10-CM code Z92.82 is used to indicate the history for a patient who received IV tap at one facility and has been transferred to another facility. The code is assigned by the receiving hospital and is always used as an additional diagnosis (not primary). See "code first" note on code Z92.82 in the ICD-10-CM Tabular.
4. ICD-10-PCS: Department of Health and Human Services, Centers for Medicare & Medicaid Services. International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS). https://www.cms.gov/Medicare/Coding/ICD10/2018-ICD-10-PCS-and-GEMs.html
5. Root Operation C-Extirpation is defined as taking or cutting out solid matter from a body part. The solid matter may be imbedded in a body part or may be in the lumen of a tubular body part. Thrombectomy and embolectomy are coded to this root operation. CMS ICD-10-PCS Reference Manual 2016, p.248.
6. Intracranial artery includes the basilar artery, intracranial portion of the internal carotid artery, and middle cerebral artery.
7. Fifth character Y-Other Contrast can be used for is-osmolar contrast, eg, Visipaque, per Coding Clinic 3rd Q 2016, p.36.
8. Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and FY2018 Rates Final Rule, 82 Fed. Reg. 37990-38589. https://www.gpo.gov/fdsys/pkg/FR-2017-08-14/pdf/2017-16434.pdf. Published August 14, 2017. Correction 82 Fed. Reg. 46138-46163 https://www.gpo.gov/fdsys/pkg/FR-2017-10-04/pdf/2017-21325.pdf. Published October 4, 2017.
9. "W MCC in MS-DRG titles refers to secondary diagnosis codes that are designated as major complications or comorbidities. MS-DRGs W MCC have at least one major secondary complication or comorbidity. Similarly, W CC in MS-DRG titles refers to secondary diagnosis codes designated as other (non-major) complications or comorbidities, and MS-DRGs W CC have at least one other (non-major) secondary complication or comorbidity. MS-DRGs WO CC/MCCs have no secondary diagnoses that are designated as complications or comorbidities, major or otherwise. Note that some secondary diagnoses are only designated as CCs or MCCs when the conditions were present on admission, and do not count as CCs or MCCs when the conditions are acquired in the hospital during the stay."
10. Post-Acute Care Transfer (PACT) status refers to selected DRGs in which payment to the hospital may be reduced when the patient is discharged by being transferred out. The DRGs impacted are those marked "Yes" and the patient must be transferred out before the geometric mean length of stay to certain post-acute care providers, including rehabilitation hospitals, long term care hospitals, skilled nursing facilities, or to home under the care of a home health agency. When these conditions are met, the DRG payment is converted to a per diem and payment is made as double the per diem rate for the first day plus the per diem rate for each remaining day up to the full DRG payment.
11. Payment is based on the average standardized operating amount ($5,572.53) plus the capital standard amount ($453.95). Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY2018 Rates; 82 Fed. Reg. 38548. Tables 1A-1D. https://www.gpo.gov/fdsys/pkg/FR-2017-08-14/pdf/2017-16434.pdf. Published August 14, 2017. Accessed September 21, 2017 and Correction 82 Fed. Reg. 46146 https://www.gpo.gov/fdsys/pkg/FR-2017-10-04/pdf/2017-21325.pdf. Published October 4, 2017. Accessed October 5, 2017. The payment rate shown is the standardized amount for facilities with a wage index greater than one. The average standard amounts shown also assume facilities receive the full quality update. The payment will also be adjusted by the Wage Index for specific geographic locality. Therefore, payment for a specific hospital will vary from the stated Medicare national average payment levels shown. Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the national average payment amount shown.
12. All ischemic stroke codes are classified as "acute complex central nervous system" diagnoses in DRG logic.
13. CPT copyright 2017 American Medical Association. All rights reserved. CPT® is a registered trademark of the American Medical Association. Applicable FARS/DFARS Restrictions Apply to Government Use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.
14. Centers for Medicare & Medicaid Services. Medicare Program; Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2018 Final Rule; 82 Fed. Reg. 52976-53371. https://www.gpo.gov/fdsys/pkg/FR-2017-11-15/pdf/2017-23953.pdf . Published November 15, 2017.
15. For codes marked "Y", multiple procedure discounting indicates that when a procedure code is reported on the same day as another higher-weighted procedure code, the highest-weighted code is paid at 100% of the fee schedule amount and additional codes are paid at 50% of the fee schedule amount. Procedure codes marked "N" are always paid at 100% of the fee schedule amount regardless of whether they are submitted with other procedure codes. January 2018 release of the PFS Relative Value File RVU18A at http:/www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Relative-Value-Files.html. Released November 15, 2017.
16. The total RVU as shown here is the sum of three components: physician work RVU, practice expense RVU, and malpractice RVU. RVUs and the Medicare National Average are shown for the facility setting only because the Riptide aspiration thrombectomy for ischemic stroke is always performed in the hospital, rather than the non-facility (physician office) setting.
17. Medicare national average payment is determined by multiplying the sum of the three RVUs by the conversion factor. The conversion factor for CY 2018 is $35.9996 per 82 Fed. Reg. 53344. https://www.gpo.gov/fdsys/pkg/FR-2017-11-15/pdf/2017-23953 . Published November 15, 2017. See also the January 2018 release of the PFS Relative Value File RVU18A at http:/www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Relative-Value-Files.html. Released November 15, 2017. Final payment to the physician is adjusted by the Geographic Practice Cost Indices (GPCI). Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the payment amount shown.
18. See CPT manual instructions (Surgery section, Nervous System, Endovascular Therapy).

Indications, Contraindications, Warnings and instructions for use can be found in the product labeling supplied with each device.
CAUTION: Federal (USA) law restricts this device to sale distribution and use by or on order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labeling supplied with each device.

Medtronic

9775 Toledo Way
Irvine, CA 92618
USA
Tel 877.526.7890
Fax 763.526.7888

medtronic.com

© 2018 Medtronic. All rights reserved. Medtronic, Medtronic logo and Further, Together are trademarks of Medtronic. CPT is a registered trademark of the American Medical Association. All other brands are trademarks of a Medtronic company. DC00083090 Rev. A JUN2018