Medtronic

Carotid artery stenting and Intracranial mechanical thrombectomy

2025 coding and payment guide

What's inside:

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Physician Coding and Payment

Effective January 1, 2025 – December 31, 2025

Carotid and Vertebral Angiography

Procedure	CPT procedure code and description[a]	Multiple procedure discounting	Medicare work RVUs (facility setting)[b]	Medicare national average for physician services provided in facility setting[c]
Diagnostic bundled angiograms	**36221** Non-selective catheter placement, thoracic aorta, with angiography of the extracranial carotid, vertebral, and/or intracranial vessels, unilateral or bilateral, and all associated radiological supervision and interpretation, includes angiography of the cervicocerebral arch, when performed	Yes	3.92	$190
	36222 Selective catheter placement, common carotid or innominate artery, unilateral, any approach, with angiography of the ipsilateral extracranial carotid circulation and all associated radiological supervision and interpretation, includes angiography of the cervicocerebral arch, when performed	Yes	5.28	$273
	36223 Selective catheter placement, common carotid or innominate artery, unilateral, any approach, with angiography of the ipsilateral intracranial carotid circulation and all associated radiological supervision and interpretation, includes angiography of the extracranial carotid and cervicocerebral arch, when performed	Yes	5.75	$318
	36224 Selective catheter placement, internal carotid artery, unilateral, with angiography of the ipsilateral intracranial carotid circulation and all associated radiological supervision and interpretation, includes angiography of the extracranial carotid and cervicocerebral arch, when performed	Yes	6.25	$357
	36225 Selective catheter placement, subclavian or innominate artery, unilateral, with angiography of the ipsilateral vertebral circulation and all associated radiological supervision and interpretation, includes angiography of the cervicocerebral arch, when performed	Yes	5.75	$316
	36226 Selective catheter placement, vertebral artery, unilateral, with angiography of the ipsilateral vertebral circulation and all associated radiological supervision and interpretation, includes angiography of the cervicocerebral arch, when performed	Yes	6.25	$355
	36227 Selective catheter placement, external carotid artery, unilateral, with angiography of the ipsilateral external carotid circulation and all associated radiological supervision and interpretation (List separately in addition to code for primary procedure)	No	2.09	$117
	36228 Selective catheter placement, each intracranial branch of the internal carotid or vertebral arteries, unilateral, with angiography of the selected vessel circulation and all associated radiological supervision and interpretation (eg, middle cerebral artery, posterior inferior cerebellar artery) (List separately in addition to code for primary procedure)	No	4.25	$242

Carotid Artery Stenting & IVUS

Carotid stenting	**37215** Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; with distal embolic protection	Yes	17.75	$938
	37216 Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; without distal embolic protection	Not payable by Medicare		
	37217 Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery by retrograde treatment, open ipsilateral cervical carotid artery exposure, including angioplasty, when performed, and radiological supervision and interpretation	Yes	20.38	$1,029
	37218 Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery, open or percutaneous antegrade approach, including angioplasty, when performed, and radiological supervision and interpretation	Yes	14.75	$790
Intravscular Ultrasound and Ultrasound Guidance	**+37252** Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; initial noncoronary vessel (List separately in addition to code for primary procedure)	No	1.80	$84
	+37253 Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; each additional noncoronary vessel (List separately in addition to code for primary procedure)	No	1.44	$67
	+76937 Ultrasound guidance for vascular access requiring ultrasound evaluation of potential access sites, documentation of selected vessel patency, concurrent realtime ultrasound visualization of vascular needle entry, with permanent recording and reporting (List separately in addition to code for primary procedure)	No	0.30	$37

Intracranial Mechanical Thrombectomy

Procedure	CPT procedure code and description[a]	Multiple procedure discounting	Medicare work RVUs (facility setting)[b]	Medicare national average for physician services provided in facility setting[c]
Administration of Thrombolytic (IV-t-PA)	**37195** Thrombolysis, cerebral, by intravenous infusion performed	Contractor Priced		
Intracranial Mechanical 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)	No	15.00	$822

Thrombectomy code 61645 encompasses intracranial thrombectomy by any method, including mechanical retrieval device and aspiration catheter.[1]

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. However, 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.[1]

Hospital Inpatient Coding and Payment

Effective October 1, 2024 – September 30, 2025

ICD-10-PCS procedure codes[d]

Procedure code	Procedure code description
Carotid artery stenting	
037H34Z	Dilation of Right Common Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037H35Z	Dilation of Right Common Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037H36Z	Dilation of Right Common Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037H37Z	Dilation of Right Common Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach
037H3DZ	Dilation of Right Common Carotid Artery with Intraluminal Device, Percutaneous Approach
037H3EZ	Dilation of Right Common Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037H3FZ	Dilation of Right Common Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
037H3GZ	Dilation of Right Common Carotid Artery with Four or More Intraluminal Devices, Percutaneous Approach
037J34Z	Dilation of Left Common Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037J35Z	Dilation of Left Common Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037J36Z	Dilation of Left Common Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037J37Z	Dilation of Left Common Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach
037J3DZ	Dilation of Left Common Carotid Artery with Intraluminal Device, Percutaneous Approach
037J3EZ	Dilation of Left Common Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037J3FZ	Dilation of Left Common Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
037J3GZ	Dilation of Left Common Carotid Artery with Four or More Intraluminal Devices, Percutaneous Approach
037K34Z	Dilation of Right Internal Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037K35Z	Dilation of Right Internal Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037K36Z	Dilation of Right Internal Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037K37Z	Dilation of Right Internal Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach
037K3DZ	Dilation of Right Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
037K3EZ	Dilation of Right Internal Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037K3FZ	Dilation of Right Internal Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
037K3GZ	Dilation of Right Internal Carotid Artery with Four or More Intraluminal Devices, Percutaneous Approach
037L34Z	Dilation of Left Internal Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037L35Z	Dilation of Left Internal Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037L36Z	Dilation of Left Internal Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037L37Z	Dilation of Left Internal Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach

037L3DZ	Dilation of Left Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
037L3EZ	Dilation of Left Internal Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037L3FZ	Dilation of Left Internal Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
037L3GZ	Dilation of Left Internal Carotid Artery with Four or More Intraluminal Devices, Percutaneous Approach
037M34Z	Dilation of Right External Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037M35Z	Dilation of Right External Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037M36Z	Dilation of Right External Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037M37Z	Dilation of Right External Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach
037M3DZ	Dilation of Right External Carotid Artery with Intraluminal Device, Percutaneous Approach
037M3EZ	Dilation of Right External Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037M3FZ	Dilation of Right External Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
037M3GZ	Dilation of Right External Carotid Artery with Four or More Intraluminal Devices, Percutaneous Approach
037N34Z	Dilation of Left External Carotid Artery with Drug-eluting Intraluminal Device, Percutaneous Approach
037N35Z	Dilation of Left External Carotid Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
037N36Z	Dilation of Left External Carotid Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
037N37Z	Dilation of Left External Carotid Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach
037N3DZ	Dilation of Left External Carotid Artery with Intraluminal Device, Percutaneous Approach
037N3EZ	Dilation of Left External Carotid Artery with Two Intraluminal Devices, Percutaneous Approach
037N3FZ	Dilation of Left External Carotid Artery with Three Intraluminal Devices, Percutaneous Approach
Thrombectomy via stent retriever device with local adjunctive aspiration syringe[2]	
03CG3Z7	Extirpation of matter from intracranial artery using stent retriever, percutaneous approach
Thrombectomy via aspiration system	
03CG3ZZ	Extirpation of matter from intracranial artery, percutaneous approach
Cerebral arteriography	
B31R1ZZ	Fluoroscopy of intracranial arteries using low osmolar contrast
B31RYZZ	Fluoroscopy of intracranial arteries using other contrast
Administration of thrombolytic (IV-tPA)	
B31R1ZZ	Fluoroscopy of intracranial arteries using low osmolar contrast

Stent retriever thrombectomy uses qualifier 7-Stent Retriever while direct clot aspiration thrombectomy uses default qualifier Z. When thrombectomy is performed using stent retriever and aspiration together, only the stent retriever code is assigned. No additional code is needed.[3]

MS-DRG Assignments

MS-DRG[e]	MS-DRG title[e]	Relative weight[e]	Geometric mean length of stay[e]	Subject to PACT[e,4]	Medicare national average[f]
Carotid artery stenting					
034	Carotid artery stent procedures with MCC	4.7	3.8887	NA	$27,752
035	Carotid artery stent procedures with CC	1.9	2.2748	NA	$16,234
036	Carotid artery stent procedures without CC/ MCC	1.2	1.8331	NA	$13,082
Ischemic stroke with removal of thrombus via stent retriever or aspiration system or both (stroke primary diagnosis)					
023	Craniotomy with major device implant/acute complex central nervous system principal diagnosis with MCC[5]	5.7051	7.3	Yes	$40,715
024	Craniotomy with major device implant/acute complex central nervous system principal diagnosis without MCC[5]	3.8017	3.9	Yes	$27,131
Ischemic stroke with removal of thrombus via stent retriever or aspiration system or both (stroke not primary diagnosis)					
025	Craniotomy and endovascular intracranial procedures with MCC	4.4723	6.5	Yes	$31,917
026	Craniotomy and endovascular intracranial procedures with CC	3.0586	3.0	Yes	$21,828
027	Craniotomy and endovascular intracranial procedures without CC/MCC	2.4678	1.6	Yes	$17,612
Ischemic stroke with administration of thrombolytic only					
061	Ischemic Stroke, Precerebral Occlusion or Transient Ischemia with Thrombolytic Agent with MCC	2.7034	4.8	No	$19,293
062	Ischemic Stroke, Precerebral Occlusion or Transient Ischemia with Thrombolytic Agent with CC	1.7809	3.1	No	$12,709
063	Ischemic Stroke, Precerebral Occlusion or Transient Ischemia with Thrombolytic Agent without CC/ MCC	1.4048	2.2	No	$10,025
Ischemic stroke with medical management					
064	Intracranial Hemorrhage or Cerebral Infarction with MCC	1.9892	4.5	Yes	$14,196
065	Intracranial Hemorrhage or Cerebral Infarction with CC or TPA in 24 Hours	1.0169	2.8	Yes	$7,257
066	Intracranial Hemorrhage or Cerebral Infarction without CC/MCC	0.6883	1.9	Yes	$4,912

Annual References

a. CPT codes, descriptions, and other data only are copyright 2024 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply. 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.

b. Centers for Medicare & Medicaid Services. CY 2025 MPFS final rule. Although the total RVU consists of three components, only the physician work RVU is shown.

c. Medicare national average payment is determined by multiplying the total RVU for a CPT code by the conversion factor, which is $32.3465 for CY 2025. CY 2025 MPFS final rule.

d. Centers for Medicare & Medicaid Services. 2025 ICD-10 Procedure Coding System (ICD-10-PCS).

e. Center for Medicare & Medicaid Services. FY 2025 IPPS final rule.

f. Payment is based on the average standardized operating amount ($6,624.39) plus the capital standard amount ($512.15). The payment rate shown is the standardized amount for facilities with a wage index less than or equal to one. The average standard amounts shown also assume facilities receive the full quality update. FY 2025 IPPS final rule.

Coding Footnotes

1. See CPT manual instructions (Surgery section, Nervous System, Endovascular Therapy). See also CPT Assistant, September 2019, p.6, for completion angiography.
2. Per ICD-10-PCS indexing, C-Extirpation is used for thrombectomy.
3. See Coding Clinic 4th Q 2018, p.47.
4. 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, hospice, 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 at double the per diem rate for the first day plus the per diem rate for each remaining day up to the full DRG payment.
5. All ischemic stroke codes are classified as "acute complex central nervous system" diagnoses in DRG logic.

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