New Coding for Endovascular Stroke Therapy in 2016

Discussion and clinical scenarios illustrating the nuances of coding for stroke services.

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There is a new code (61645) specific for endovascular stroke therapy effective January 1, 2016. This code is inclusive of almost all components of the service, which means that coding these procedures should be more straightforward than in the past.

For purposes of coding stroke services, there are three vascular territories: right hemisphere, left hemisphere, and vertebrobasilar distribution. This code is typically reported once per session, as almost all stroke therapy involves a single vascular territory, but it may be reported once for each of the three vascular territories treated during the session.

●61645 Percutaneous arterial transluminal mechanical thrombectomy and/or infusion for thrombolysis, intracranial, any method, including diagnostic angiography, fluoroscopic guidance, catheter placement, and intraprocedural pharmacologic thrombolytic injection(s)

DISCUSSION

Code 61645 includes all catheterizations of the vascular territory treated for stroke. For example, if the embolus is in the left middle cerebral artery (MCA), all catheterizations of the left carotid system and intracranial branches are included in the work of 61645 and would not be separately reported. Any angiography performed on the ipsilateral vessel supplying the area of stroke is included in 61645 and would not be separately reported. Diagnostic angiography performed before, during, and after stroke therapy is included in this work, as well as any imaging guidance, road mapping, and angiography performed to guide therapy throughout the procedure.

All work done to remove clot/embolus and to restore flow to the vessel(s) is included in the work of 61645. Mechanical thrombectomy using any method, as well as instillation and/or infusion of thrombolytic drugs or any other drugs, are considered inherent to the work of 61645 and are not separately reported. In addition, bolus or infusion of nonthrombolytic drugs (eg, antispasmolytics, glycoprotein IIa/IIIb inhibitors) used to treat stroke or iatrogenic sequelae of the therapy (eg, spasm) are included in the service described by 61645.

Neurologic and hemodynamic monitoring of the patient throughout the procedure is considered inherent to the procedure and is not separately reported. Closure of the entry vessel by any method is also included in the work of 61645. Balloon angioplasty and/or stenting of intracranial vessels in the target vessel territory are included in the work of 61645 and are not separately reported. Codes 61650 and 61651 (prolonged infusion of intracranial drugs other than thrombolysis) are not reported with 61645, even if drugs other than thrombolytics are required for stroke therapy, as these services are also considered inherent to the work of 61645.

Additional components of service may be provided during the same encounter as stroke therapy that may not be included in code 61645 and may be separately reported. For instance, diagnostic angiography of a cerebral territory other than the treated therapy may be separately reported. Although intracranial balloon angioplasty and stenting are not separately reported,

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stenting of a carotid bifurcation lesion (ipsilateral or contralateral) may be separately reported. Also, moderate sedation is not considered inherent to the procedure and may be separately reported if provided.

The following coding scenarios are intended to demonstrate nuances of coding for stroke procedures. For the purposes of demonstrating coding, each of the following scenarios is designed to illustrate a single coding tenet.

SCENARIO 1

A patient presents with a witnessed stroke 40 minutes before arrival to the emergency department (ED). CT angiography (CTA; separately reported) is performed, showing left MCA occlusion, no hemorrhage, and no acute brain infarction. Intravenous tissue plasminogen activator (IV tPA) therapy is given in the ED, and the stroke team immediately transfers the patient to the angiography suite for therapy. CTA showed normal vessels in the right hemisphere and vertebrobasilar territory, so the stroke team elects to proceed directly to left carotid catheterization and treatment of the left MCA. The patient is given general anesthesia.

The right common femoral artery is punctured, and a catheter is advanced to the aortic arch and used to select the left common carotid artery. Angiography is performed to confirm the CTA findings, including intra- and extracranial angiography of the left carotid artery. A sheath is then placed into the left internal carotid artery (ICA), and a microcatheter is advanced into the left MCA. A thrombus retrieval device is used to extract the thrombus, and follow-up angiography shows that the vessel is open with flow to distal branches and no evidence of complications. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645—This code includes all of the components of service provided to treat this patient

SCENARIO 2

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. An arch aortogram is performed prior to selective catheterization of the left carotid artery to outline anatomy and to determine if any significant disease is present in the arch that may have contributed to the acute stroke. Therapy is the same as in scenario 1.

Coding

- 61645—Although a diagnostic study of the aortic arch is performed, this work is included in the code and is not separately reported

SCENARIO 3

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. However, a diagnostic angiogram of the contralateral hemisphere and the vertebrobasilar territory is performed because the CTA does not clearly show all the vessels. All other aspects of the procedure are the same as in scenario 1. Right carotid arteriography is performed via catheterization of the right common carotid artery, and the posterior circulation is evaluated via selective catheterization of the right vertebral artery. Treatment of the left MCA thrombus is performed as in scenario 1.

Coding

- 61645, 36223 (right carotid angiography), 36226 (vertebrobasilar angiography)

SCENARIO 4

The same patient described in scenario 3 presents to the ED with acute stroke and is sent for endovascular stroke therapy. Arch aortography shows a bovine aortic arch anatomy. A right carotid arteriography is performed via catheterization of the right common carotid artery, and the posterior circulation is evaluated via selective catheterization of the right vertebral artery. Treatment of the left MCA thrombus is performed as in scenario 1.

Coding

- 61645, 36223 (right carotid angiography), 36226 (vertebrobasilar angiography)—Note that although both carotid arteries arise from a common trunk of the aorta, coding is determined by the intracranial vascular territories defined for stroke therapy rather than the aortic arch anatomy. The right carotid arteriogram involves a separate vascular territory from the left hemisphere target treatment zone for the acute stroke and may be separately reported

SCENARIO 5

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. IV tPA was not given in the ED, and instead intra-arterial tPA is given as a bolus and as an

infusion during mechanical thrombectomy to remove the thrombus. Follow-up angiography shows good clearing of the obstruction, restoring blood flow to all branches. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645—This code describes all work to open the vessel, including mechanical and pharmacologic therapies (both local bolus and local infusion)

SCENARIO 6

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. A clot retriever is used, and follow-up angiography demonstrates residual thrombus and very little antegrade flow. The device is passed again twice, each time with some improvement until the vessel is sufficiently open. However, the device has dislodged a portion of the thrombus into the A1 segment, requiring additional selective catheterization of that vessel to retrieve the residual fragment, which is successfully removed. Final angiography shows good flow in both the anterior and middle cerebral distributions. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645—Although additional catheterization of a separate vessel was required to complete the therapy, and the device was deployed multiple times, including into two superselective vessels, 61645 is reported once and includes all steps required to restore flow to the hemisphere

SCENARIO 7

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. After the clot retriever has removed the thrombus, angiography demonstrates an underlying atherosclerotic stenosis of the M1 segment with impaired flow. The team elects to treat this lesion with percutaneous transluminal angioplasty, which results in dissection. A stent is placed, which successfully opens the vessel and restores flow. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645—Intracranial balloon angioplasty and stenting in the treated vascular territory are included in 61645 and therefore would not be separately reported

SCENARIO 8

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. The left carotid angiogram demonstrates a high-grade stenosis at the extracranial left carotid bifurcation with antegrade flow and confirms occlusion in the left MCA. It is determined that the left bifurcation lesion will need to be treated in addition to the left MCA occlusion. After the thrombus has been cleared from the MCA and flow is restored, an embolic protection device is placed in the distal ICA, and the bifurcation lesion is treated with a stent. Final angiography shows that all lesions are open, and flow is restored. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645, 37215—Treatment of the extracranial vessels is not included in the work of 61645 and may be separately reported. If the same patient is treated, but an embolic protection device is not used (eg, it is not technically possible to use the embolic protection device or the physician elects not to use it), 37216 would be reported rather than 37215 for the extracranial carotid stent placement

SCENARIO 9

The same patient described in scenario 1 presents to the ED with acute stroke and is sent for endovascular stroke therapy. After attempts to retrieve the left MCA thrombus, angiography shows narrowing of the distal ICA above the sheath and propagation of intracranial thrombus regionally. A glycoprotein IIb/IIIa inhibitor is administered, and a spasmolytic agent is infused directly into the distal ICA. Follow-up angiography shows that the vessels are successfully opened. A sheath is left in place at the groin, and the patient is transferred to the intensive care unit. The sheath is removed the following day.

Coding

- 61645—The infusion of glycoprotein IIb/IIIa inhibitor and spasmolytic agents are included in the work of 61645 and are not separately reported. Removal of the sheath the following day may be reportable as a part of the evaluation and management work performed the following day

SCENARIO 10

A patient presents with a witnessed stroke 40 minutes before arrival to the ED. CTA is performed, which shows

a basilar artery occlusion, no hemorrhage, and no acute brain infarction. IV tPA is given in the ED, and the stroke team transfers the patient immediately to the angiography suite for therapy. The CTA showed normal vessels in the territories of the right and left hemispheres, as well as large and patent vertebral arteries bilaterally, so it is elected to proceed directly to treatment of the posterior hemisphere. The patient is given general anesthesia.

The right common femoral artery is punctured, and a catheter is advanced to the arch and used to select the left subclavian artery and then the left vertebral artery. Angiography is performed to confirm the CTA findings, including intra- and extracranial angiography of the left vertebral artery circulation. A sheath is then placed into the left vertebral artery, a microcatheter is advanced into the basilar artery, and further road mapping imaging is performed. A thrombus retrieval device is used to extract the thrombus, and follow-up angiography shows improved flow in the basilar artery, but a portion of the thrombus has been displaced into the distal right vertebral artery, occluding the distal right vertebral artery and partially occluding the origin of the basilar artery as well. In order to treat this portion of the vessel, the right vertebral artery must also be cannulated, and this is accomplished by a second puncture (this time using the left femoral artery) and selective catheterization of the right vertebral artery. A sheath is placed into the right vertebral artery, and the clot retrieval device is used to remove the thrombus from the distal right vertebral artery. Final angiography shows successful opening of the posterior circulation, and no evidence of complication. The sheaths are removed, and the arteriotomies are closed with closure devices.

Coding

- 61645—Despite the requirement for a second puncture and additional catheterization of both vertebral arteries, code 61645 includes all work required to clear the thrombus in the vertebrobasilar vascular territory. No additional codes are reported for the additional puncture, catheterization, or device manipulation required for this patient

SCENARIO 11

A patient presents with a witnessed stroke 40 minutes before arrival to the ED. CTA shows thrombus in the left ICA causing incomplete occlusion from the origin of the left ICA to the distal cervical portion of the vessel. In addition, a fragment of thrombus is seen as a filling defect, causing occlusion of the M1 segment of the left MCA. IV tPA is given in the ED, and the patient is transferred immediately to the angiography suite for endovascular therapy.

A sheath is placed via the right common femoral artery into the left common carotid artery, and angiography is performed, which confirms the CTA findings. Mechanical thrombectomy is first used to treat the extracranial thrombus and then used to treat the intracranial thrombus, which restores flow to the left MCA distribution. The sheath is removed, and the arteriotomy is closed with a closure device.

Coding

- 61645—Although 61645 describes therapy of intracranial vessels, because the thrombus is continuous, part of the same occlusive/embolic process, and involves the same vascular territory, 61645 would also include clearing of the extracranial portion of the vessel. This code was designed to include all thrombus treatments per vascular territory. Code 37184 (primary arterial mechanical thrombectomy, nonintracranial) is not reported in this case to describe the additional work of clearing the extracranial internal carotid thrombus ■

Katharine L. Krol, MD, FSIR, FACR, is an interventional radiologist and has recently retired from active clinical practice. She has stated that she has no financial interests related to this topic.

CONTACT US

If you have any questions or topics you would like Dr. Krol to address in a future column, please contact us at evteditorial@bmctoday.com.