Bundled Cervicocerebral Angiography and Intervention Codes

An explanation of what is included in both the diagnostic and the interventional codes and how to properly report the services provided.

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The bundled diagnostic angiography codes describing cervicocerebral studies have raised several questions regarding how these codes are to be used when a diagnostic study is performed in conjunction with an intervention. Because catheterization codes are bundled with the diagnostic angiography codes, additional selective catheterizations used for an intervention may be included in the diagnostic code and thus not separately reported. Pay careful attention to what is included in both the diagnostic codes and the interventional codes in order to select the appropriate ones to report the services provided. The following scenarios describe how to code for reimbursement.

**SCENARIO 1**
Arch aortography and diagnostic bilateral carotid angiography are performed from a femoral arterial puncture, including flush aortography and bilateral selective catheterization of the common carotid arteries, with diagnostic imaging of the intracranial and extracranial circulation bilaterally. The study finds a 90% stenosis of the right internal carotid origin. It also demonstrates that what was suspected to be a tight stenosis of the left internal carotid siphon was artifactual on CTA, and there is no significant intracranial carotid disease. The right carotid stenosis is then treated with carotid stent placement (using distal embolic protection).

**Coding**
- 37215: Carotid stent placement using embolic protection
- 36223-59: Unilateral carotid angiography (with arch if performed) performed via selective catheterization of the ipsilateral common carotid artery, including intracranial diagnostic study (and extracranial diagnostic study, if performed)
- Because code 37215 includes all selective catheterization and diagnostic imaging of the ipsilateral cervical and cerebral carotid circulation, the diagnostic study is reported with the unilateral carotid angiography code. Modifier -59 is needed to indicate that the diagnostic study being reported is not the same carotid artery that was stented. Depending on carrier preference, this study could also be reported as 37215-RT, 36223-LT (designating right and left to clearly note that the diagnostic study being reported is of the contralateral carotid and is not included in code 37215).

**SCENARIO 2**
A patient with a known left carotid body tumor is referred for detailed study of the feeding vessels and for preoperative embolization of the hypervascular tumor. This is performed from a femoral puncture. An arch study is performed, visualizing the arch and extracranial vessels. The left common carotid artery is then selected, and study of the intracranial and extracranial carotid vasculature is performed. The external carotid artery is then subselected, demonstrating that the predominant flow to the tumor is from the ascending pharyngeal branch. Subselection of the superior thyroidal, occipital, and ascending pharyngeal branches is performed, and subselective imaging is performed to confirm blood flow to the tumor, as well as any communications with the internal carotid, ophthalmic, and/or intracranial vessels. Subselection of the ascending pharyngeal branch is then performed again, confirming a good catheter position for subsequent embolization. Embolization is then performed. Follow-up imaging shows that the majority of flow to the tumor has been closed.

**Coding**
- 36223: Diagnostic unilateral carotid angiography, including arch if performed, common carotid selection, and intra- and extracranial imaging
- 36227: External carotid angiography performed, including all selective catheterizations
• 61626, 75894: Embolization, noncentral nervous system (CNS) head and neck
• 75898: Follow-up completion angiography after embolization

Because all selective catheterizations performed in the external carotid distribution are included in code 36227, no additional selective catheterization codes should be reported with embolization performed in the same setting as a diagnostic external carotid artery study. This is correct even if the embolization requires additional vessel selections or higher degrees of selectivity than the diagnostic portion of the procedure. Code 75774 (selective angiography, each additional vessel after basic) cannot be used to describe additional selections or supraselective angiography of the external carotid branches.

**SCENARIO 3**

If embolization of a carotid body tumor, as described in Scenario 2, was performed without diagnostic angiography (the diagnostic study had been performed 2 days previously), the selective catheterizations used for embolization would be reported rather than included in the diagnostic external carotid angiography code.

**Coding**

- 61626, 75894: Embolization, non-CNS head and neck
- 36217, 36218X2: Subselection of the superior thyroidal, occipital, and ascending pharyngeal arteries
- 75898: Follow-up completion angiography after embolization

**SCENARIO 4**

A patient with a left posterior nosebleed that has not been controlled by packing is referred for diagnostic angiography and embolization. Diagnostic angiography is performed, including arch aortography, common carotid artery selection bilaterally to study the bilateral intra- and extracranial circulations, bilateral external carotid selection with diagnostic angiography, and selective catheterizations and study of the left internal maxillary artery. No active extravasation or vascular abnormality is seen to pinpoint the cause of the bleeding, and no abnormal communications with internal carotid, ophthalmic, or intracranial vessels are identified. It is elected to embolize the left internal maxillary artery. The catheter is advanced as far distally into the vessel as possible, and the vessel is then closed with embolization. Follow-up angiography shows successful closure of the vessel, with no evidence of complications.

**Coding**

- 36223-50: Bilateral carotid angiography performed from common carotid injections with intra- and extracranial imaging (arch included, if also performed)
- 36222-50: Bilateral external carotid angiography, including subselection of any and all branches
- 61626, 75894: Embolization, non-CNS head and neck
- 75898: Follow-up completion angiography after embolization

As in Scenario 2, all selective catheterizations performed in the external carotid distribution are included in the work of the diagnostic external carotid arteriography. In this case, a higher degree of selectivity may be used to embolize the right internal maxillary artery than was used for the diagnostic study, but additional selective catheterizations in the external carotid vascular family are not separately reportable with 36227.

Depending on carrier preference, the bilateral modifier (-50) may be replaced with 36223-RT, 36223-LT, 36227-RT, 36227-LT to report selective diagnostic study of the right and left common and external carotid arteries.

**SCENARIO 5**

A patient is referred for balloon test occlusion (BTO) of the right carotid artery as part of the preoperative evaluation. From a femoral approach, arch aortography is performed, followed by bilateral common carotid angiography from common carotid selections, and then selective internal carotid angiography with intracranial imaging. BTO of the right carotid artery is then performed. Follow-up angiography of the right carotid is performed to document the end state of the vessel following BTO.

**Coding**

- 61623: BTO (includes all angiography of the ipsilateral carotid, BTO, neurologic monitoring, and follow-up completion angiography)
- 36224-59: Selective internal carotid angiography of the left carotid artery (includes arch and extracranial ipsilateral imaging, if performed)

Because code 61623 includes catheter selection and diagnostic imaging of the ipsilateral carotid, no additional codes should be reported for the right carotid angiography. The left carotid diagnostic study may be separately reported using modifier -59 to designate that it is not the same vessel that underwent BTO. Depending on carrier preference, this procedure could also be reported using 61623-RT and 36224-LT (designating right and left) for clearer specification that different vessels were studied.

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