Case Examples for Lower Extremity Coding

Examples of how to implement the updated codes for lower extremity revascularization procedures.

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This article is a companion to "Coding for Lower Extremity Revascularization in 2011," which was published in *Endovascular Today's* May 2011 issue. In January 2011, 16 new codes were introduced, replacing previously used codes for infra-aortic balloon angioplasty, stenting, and atherectomy. This article expands on the previous article by describing many illustrative cases.

CASE 1

Diagnostic angiography was performed for the abdominal aorta and both lower extremities from a right femoral artery approach (a catheter was placed into the aorta at the renal arteries and then pulled down to the bifurcation) and showed a focal right common iliac artery (CIA) stenosis. The iliac lesion was then treated with stent placement and required additional ballooning with a larger balloon to fully open the lesion. The arteriotomy was closed with a closure device.

Coding

- 37221: iliac artery stent placement, unilateral
- 75625-59: radiological supervision and interpretation (RS&I) abdominal aortography
- 75716-59: RS&I bilateral lower extremity angiography

Discussion

Diagnostic angiography is reported separately if it meets the criteria outlined in the *2011 Current Procedural Terminology Manual*. Catheterization is included in the iliac stent code 37221. Because both angiography and the intervention were performed from the same puncture, catheterization is not reported separately. Code 37221 includes stent placement plus all ballooning done within that vessel, so percutaneous transluminal angioplasty (PTA) is not separately coded. A single interventional code is used for each vessel treated.

"A single interventional code is used for each vessel treated."

CASE 2

Computed tomographic angiography (CTA) documented a focal right CIA stenosis and a long right external iliac artery (EIA) stenosis. A catheter was placed into the aorta from the right femoral approach, and imaging of the aorta and iliac arteries was performed, confirming the findings of the CTA and allowing vessel measurement. The EIA lesion was pretreated with balloon angioplasty to allow placement of a sheath. The CIA stenosis was then treated with balloon angioplasty. The EIA stenosis was treated with two stents, and the arteriotomy was closed with a closure device.

Coding

- 37221: iliac artery stent placement, initial vessel
- +37222: iliac artery PTA, each additional vessel

Discussion

The stenting procedure for the EIA was the more complex procedure, so it should be used as the primary code (the most complex procedure should always be used as the primary procedure). PTA is included in this code and is not separately reported for the EIA. Even though two stents were required, stenting is only reported once per vessel.

PTA of the CIA was also reported but as an add-on code because a separate vessel segment was treated on the ipsilateral extremity.

Code 75630-59 (RS&I abdominal aortography plus bilateral iliofemoral arteriography) or alternatively 75716-52 (RS&I bilateral lower extremity arteriography, reduced services) could be reported if the decision to treat was based on the findings of the angiogram; however, the example specifies that angiography was only performed to confirm the findings of the CTA and for measurements. In this case, diagnostic angiography would not be separately reported.

CASE 3

Diagnostic angiography of the abdominal aorta and both lower extremities was performed from a right femoral puncture. The catheter was initially placed at the renal arteries, aortography was performed, the catheter was repositioned to the bifurcation, and oblique views of the iliofemoral arteries were obtained. The catheter was then used to select the left CIA and advanced selectively into the left common femoral artery (CFA) for left leg angiography and was then pulled back to the right EIA for right leg arteriography. Right EIA stenoses were identified, so a sheath was placed at the arteriotomy, and the iliac stenoses were treated with stent placement. A closure device was used to achieve hemostasis.

Coding

- 37221: iliac stent placement, initial vessel
- 36246-59: second-order selective catheter placement, branch of abdominal aorta
- 75625-59: RS&I, abdominal aortography
- 75716-59: RS&I, bilateral lower extremity angiography

Discussion

Code 37221 describes the stent placement. Code 36246 is reported in addition to the stent placement because the higher degree of selective catheter placement was performed for the diagnostic study, not the intervention. Code 37221 includes the catheter work to perform the intervention, which in this case is equivalent to code 36140 (nonselective catheter placement into the EIA from the ipsilateral CFA puncture).

CASE 4

Diagnostic angiography of the abdominal aorta and both lower extremities was performed from a right femoral puncture. The catheter was first placed at the renal arteries, aortography was performed, the catheter was repositioned to the bifurcation, and oblique views of the iliofemoral arteries were obtained. The catheter was then used to select the left CIA and was advanced selectively into the left CFA for left leg angiography and was then pulled back to the right EIA for right leg arteriography. Bilateral EIA stenoses were identified. The left iliac was selected again, and a sheath was placed across the bifurcation. The EIAs were treated with stent placements, all from the right femoral puncture. A closure device was used to achieve hemostasis.

Coding

- 37221X2 (or alternatively 37221-50; 37221-RT, 37221-LT; 37221, 37221-59): bilateral iliac stent placements, initial vessel
- 75625-59: RS&I, abdominal aortography
- 75716-59: RS&I, bilateral lower extremity arteriography

Discussion

When a bilateral procedure is performed, it can be reported in several ways, and one needs to use the convention requested by the carrier (X2, -50, or -59 modifiers are all correct depending on what each carrier requires). The catheterization code is not used in this scenario because the second-order contralateral selective catheter placement is included in code 37221, so the additional work of selective placement performed in the diagnostic study is not additionally reported, even though the vessel had to be selectively catheterized twice. The primary stent placement code is used twice because lesions were treated in both legs. The add-on code +37223 would only be used if a second iliac vessel were treated in the ipsilateral extremity.

CASE 5

A focal stenosis in the right mid-superficial femoral artery (SFA) was treated from an ipsilateral antegrade approach. Angiography of the lesion was performed, confirming anatomy and pathology seen on previous magnetic resonance angiography (MRA). The lesion was initially treated with balloon angioplasty, resulting in a flow-limiting dissection, and therefore, a covered stent was placed. Hemostasis was achieved with manual compression.

Coding

- 37226: stent placement, femoral artery, unilateral

Discussion

37226 is coded for stent placement, and this code also includes all ballooning performed in this vessel, so no additional code for PTA is reported. A covered stent is coded the same way as a noncovered stent. Drug-eluting stents are also coded with 37226.

This example specifies that angiography only confirmed what was found on MRA, which probably did not change the intent to treat, so diagnostic angiography may not be separately reported. If the findings did change the intended treatment, 75710-52 (RS&I unilateral lower extremity with reduced-services modifier because the entire extremity was not studied) would be appropriate for reporting the diagnostic angiographic portion of the procedure.

CASE 6

A short focal stenosis in the right mid-SFA was treated from an ipsilateral antegrade approach. Roadmapping images were obtained, confirming anatomy and pathology seen on previous MRA and also reconfirming the status of the distal vessels before intervention. The lesion was treated with an atherectomy device, resulting in significant improvement. Hemostasis was achieved with manual compression.

Coding

- 37225: atherectomy, femoropopliteal artery, unilateral

Discussion

A single code includes all of the work performed in this procedure. If the procedure were performed from the contralateral approach, the procedure would be coded with 37225 as well. The new codes average the frequency of more complex access. 75710 (RS&I unilateral lower extremity arteriography) may be coded if the information gained from the angiography altered the provider's intent to treat.

CASE 7

A long occlusion from the right mid-SFA to the below-the-knee popliteal artery was treated from an ipsilateral antegrade approach. Angiography was performed, confirming anatomy and pathology seen on previous MRA and also reconfirming the status of the distal vessels before intervention. Numerous wires and catheters were used to cross the chronic occlusion, including special devices designed for this purpose. Once the wire was confirmed to be intraluminal below the occlusion, an embolic protection device (EPD) was placed at the popliteal bifurcation and left in this position for the remainder of the procedure. The lesion was initially treated with low-profile balloon angioplasty to allow passage of an atherectomy device, and atherectomy provided significant improvement. The EPD was retrieved and removed. Hemostasis was achieved with manual compression.

Coding

- 37225: atherectomy, femoropopliteal artery, unilateral

Discussion

This single code describes this entire procedure. Despite there being significantly more vessel treated, more work, and higher equipment requirement for this procedure, it is coded the exact same way as case 6. Code 75710-59 may be reported if findings were different from those of the MRA and changed the provider's plan for therapy.

CASE 8

A long occlusion from the right mid-SFA to the below-the-knee popliteal artery was treated with an ipsilateral antegrade approach. Angiography was performed and confirmed the anatomy and pathology seen on previous MRA and also reconfirmed the status of the distal vessels before intervention. Numerous wires and catheters were used to cross the chronic occlusion, including devices specially designed for this use. When the wire was confirmed to be intraluminal below the occlusion, an EPD was positioned at the popliteal bifurcation, and it was left in this position for the remainder of the procedure. The lesion was initially treated with low-profile balloon angioplasty to allow an atherectomy device to pass through the vessel. Atherectomy facilitated improvement, but significant stenosis remained in three focal areas in the SFA, so a stent was placed. The EPD was retrieved and removed.

Coding

- 37227: atherectomy and stent placement, unilateral femoropopliteal artery

Discussion

This single code includes all of the work performed during this procedure.

CASE 9

The patient was brought to the interventional suite for treatment of a short occlusion of the distal SFA and a high-grade calcified eccentric stenosis of the below-the-knee popliteal artery, which was documented on recent

> "The interventions are coded per vessel, not per lesion."

CTA. From a contralateral approach, the SFA and popliteal were selectively catheterized, and the popliteal lesion was successfully opened with atherectomy. The SFA lesion was initially treated with PTA, resulting in a significant dissection, so a stent was placed. A closure device was used at the arteriotomy site.

Coding

- 37227: atherectomy and stent placement, unilateral femoropopliteal artery

Discussion

Code 37227 is used because both stenting and atherectomy were used to open the "vessel," which, for coding purposes, includes the entire SFA and popliteal segments. The interventions are coded per vessel, not per lesion. In this case, different interventions were performed in the same vessel, so the code that includes all interventions is used.

CASE 10

Previous arteriography showed total occlusion of all three trifurcation vessels in a patient with a nonhealing ulceration of the left foot. The patient returned to recanalize a long occlusion of the posterior tibial artery and to open a tight stenosis of the common peroneal trunk. The procedure was performed from an antegrade ipsilateral puncture. A catheter was selectively placed into the distal popliteal artery, and angiography was performed to determine that there was no interval change in anatomy and for roadmapping. Distal runoff was confirmed to the foot. The areas of disease were crossed with appropriate wires, catheters, and devices, and PTA of all of the lesions was performed. Final angiography showed restoration of direct flow to the foot. The arteriotomy was closed with manual compression.

Coding

- 37228: PTA tibial artery, unilateral, initial vessel

Discussion

The common peroneal trunk is considered to be part of the posterior tibial artery in this case and is not additionally coded. If the anterior tibial artery had been treated in addition to the common peroneal trunk, the coding would be separate, and 37228, +37232 (PTA tibial artery, unilateral, each additional vessel) would both be reported.

CASE 11

A previous arteriogram showed severe occlusive disease of all three trifurcation vessels in a patient with a nonhealing ulceration of the left foot. The patient presented for recanalization of a long occlusion of the anterior tibial artery and for opening of a tight stenosis of the posterior tibial artery. The procedure was performed from an antegrade ipsilateral puncture. A catheter was selectively placed into the distal popliteal artery, and angiography was performed to determine that there was no interval change in anatomy and also for roadmapping. Distal runoff was confirmed in the foot. The areas of disease were crossed with the appropriate devices, an EPD was placed into the distal anterior tibial artery below the occlusion, and atherectomy of the anterior tibial artery was performed, resulting in satisfactory opening of the vessel. The focal lesion of the distal posterior tibial artery was too distal to allow placement of an EPD, so PTA alone was used to treat this lesion, but resulted in closure of the vessel and stent placement. Final angiography showed restoration of direct flow to the foot, and the arteriotomy was closed with a closure device.

Coding

- 37229: atherectomy, tibioperoneal artery, unilateral, initial vessel
- +37234: stent placement (including PTA), tibioperoneal artery, unilateral

Discussion

Two vessels were treated, so both are reported. The second, less-intense intervention is coded with the add-on code. Even though the order of the codes in the *Current Procedural Terminology Manual* places stenting below atherectomy, the work valuation for atherectomy is higher, so it should be reported as the primary code. The lower-valued stent code is reported as the add-on code.

CASE 12

The patient was brought to the interventional suite for treatment of known anatomy, including a high-grade stenosis of the right SFA, a short occlusion of the proximal anterior tibial artery, and a long-segment occlusion of the posterior tibial artery. The anterior tibial artery was treated first by PTA with good results. The posterior tibial lesion was also treated with PTA, but there was significant elastic recoil, so atherectomy was performed and successfully opened the vessel. The SFA lesion was treat-

ed with a larger balloon, and final angiography showed satisfactory opening of all lesions, with flow seen into the foot. A closure device was used at the groin.

Coding

- 37224: PTA, femoropopliteal artery, unilateral
- 37229: atherectomy, tibial artery, unilateral, initial vessel
- +37232: PTA, tibial artery, unilateral, each additional vessel

Discussion

The femoral and tibial vessels are different vascular territories, so each has a primary code to describe the intervention performed. The atherectomy was the higher-intensity intervention performed in the tibioperoneal territory, so it is coded as the primary intervention in that territory, and the PTA of the anterior tibial artery is coded with the add-on code.

CASE 13

The patient presented to the interventional suite for treatment of known anatomy, including a high-grade stenosis of the right SFA, a short occlusion of the proximal anterior tibial artery, and a long-segment occlusion of the posterior tibial artery. The anterior tibial artery was treated with PTA and achieved a good result. The posterior tibial lesion was then treated with PTA, but there was significant elastic recoil, and atherectomy was performed, which successfully opened the vessel. The SFA lesion was treated with a larger balloon. The patient complained of worsening pain in the right foot, and inspection of the foot showed that it was mottled and cool, and no Doppler pulse could be found. Angiography showed severe spasm below the knee, which was treated with intra-arterial nitroglycerin. The foot pain slowly resolved, and the foot pulses were found with Doppler and then became palpable. Final angiography showed good opening of all lesions, with flow seen into the foot. A closure device was used at the groin.

Coding

- 37224: PTA, femoropopliteal artery, unilateral
- 37229: atherectomy, tibial artery, unilateral, initial vessel
- +37232: PTA, tibial artery, unilateral, each additional vessel
- 75710-59: RS&I, unilateral extremity angiography

Discussion

As mentioned in case 12, the femoral and tibial vessels are different vascular territories, so each has a primary code to describe the intervention performed. Atherectomy was the higher-intensity intervention performed in the tibioperoneal territory, so it is coded as the primary intervention in that territory, and the PTA of the anterior tibial artery is coded with the add-on code. Because there was a clinical change suggesting complication during the procedure, a complete diagnostic arteriography had to be performed to assess the problem. This is coded as unilateral extremity arteriography.

> " . . . different interventions were performed in the same vessel, so the code that includes all interventions is used."

CASE 14

The patient was brought to the interventional suite for treatment of a previously diagnosed occlusion of the anterior tibial artery. The lesion was approached from an antegrade puncture, and a sheath was placed at the groin. Roadmapping images were obtained, and multiple catheters and guidewires were used to try to navigate the occluded segment, with the intent to treat via atherectomy and possibly stenting, if needed. The wire was successfully passed to just above the ankle but became subintimal proximal to the segment of open vessel, and despite prolonged attempts to reenter the true lumen of the vessel, the procedure was stopped after 2.5 hours and was unsuccessful. The sheath was removed, and a closure device was used for hemostasis.

Coding

- 36247: third-order selective catheterization below the diaphragm
- G0269: placement of a closure device

Discussion

Despite all of the work involved with this procedure and all of the expensive equipment that was used to try to salvage the patient's limb, the only reportable codes are the selective catheterization and the placement of the closure device. There is no payment for Medicare patients for the code G0269. If conscious sedation was used, it could be additionally reported. ■

CPT codes are copyrighted by the AMA, so the exact descriptors are not included in this text. Please see the 2011 CPT Manual for full descriptors.

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