

# Mechanical Thrombectomy Coding

New codes are approved for mechanical thrombectomy.

BY KATHARINE L. KROL, MD; SEAN M. TUTTON, MD; AND DAWN HOPKINS

*In an effort to keep readers informed of pertinent issues related to coding and billing, Endovascular Today provides this semiregular forum in which experts discuss perennially difficult components of the current system and updates that emerge in the future. If there is a specific topic that you would like one of the authors to cover, please contact us at [evteditorial@bmctoday.com](mailto:evteditorial@bmctoday.com).*



Effective January 1, 2006, a new family of CPT codes describing vascular mechanical thrombectomy (MT) will be available. These codes will be used for describing percutaneous interventional procedures to physically remove thrombus from peripheral arteries and veins other than

dialysis access, coronary, or intracranial vessels. MT is often performed using devices specific for mechanically breaking up, macerating, and/or removing thrombus from a vessel. For this entire family of codes, conscious sedation is considered integral to the procedure, is included in the value given each code, and thus is not separately reportable.

## ARTERIAL THROMBECTOMY

There are three new codes for arterial thrombectomy:

- 37184 Primary percutaneous transluminal MT, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injection(s); initial vessel. (Do not report 37184 in conjunction with 76000, 76001, 90774, 99143-99150.)
- 37185 Second and all subsequent vessel(s) within the same vascular family (list separately in addition to code for primary mechanical thrombectomy procedure). (Do not report 37185 in conjunction with 76000, 76001, 90775.)
- 37186 Secondary percutaneous transluminal thrombectomy (eg, non-primary mechanical, snare basket, suction technique) arterial

or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injections, provided in conjunction with a percutaneous intervention other than primary MT (list separately in addition to code for primary procedure).

These codes were developed to describe removal of thrombus from a vessel using a mechanical device. These codes are component codes, meaning that they will be coded in combination with other portions of the procedure. These new codes for MT include the work of introducing the device into the thrombus, removing the thrombus (including as many passes of the device[s] as needed), bolus injection of thrombolytic drug(s) if used,

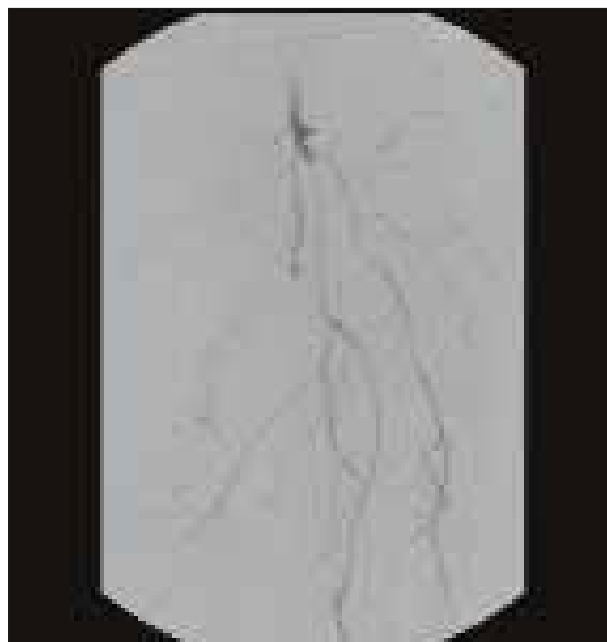


Figure 1. Selective left leg arteriogram demonstrating occlusion of the superficial femoral artery (SFA) by thrombus.

fluoroscopic and contrast guidance of the thrombectomy portion of the procedure, and follow-up angiography to determine that the thrombectomy is complete.

These codes do not include catheterization of the vessel, angiography performed to diagnose the pathology, prolonged pharmacologic thrombolytic infusion, and any other interventional procedure performed to treat an underlying problem discovered after the thrombus is removed (eg, PTA or stenting). The arterial MT codes are used for native arteries as well as synthetic or autologous arterial bypass grafts. Appropriate codes for services not included should also be reported. Pharmacologic thrombolytic infusions should be coded when performed either before or after MT (37201, 75894, 75898). Short-term infusions are not coded separately. For example, a short infusion of tPA while the patient is on the angiography table would be included in the MT code.

37184, primary MT of a peripheral artery or nondialysis arterial bypass graft, describes MT used to remove thrombus from the initial vessel being treated. All work done to mechanically remove the thrombus from this vessel is included in this code. Bolus injections or short infusions of thrombolytic drugs are also included in this code.

37185 is an add-on code used with 37184. This code describes MT performed in additional vessels in the same vascular family, no matter how many additional vessels are treated.

#### Coding Example 1 (37184):

A man presents to the emergency room with acute onset of left leg pain and is found to have a cold, pale, pulseless extremity. He has a history of femoropopliteal bypass graft, and no flow is found in the graft. He is referred to the interventional service, and angiography is performed via an ipsilateral antegrade common femoral puncture, documenting occlusion of the graft with reconstitution of the popliteal artery just below the distal anastomosis. MT is performed, removing all thrombus from the graft and restoring flow. Final angiography is performed, revealing no underlying stenosis, and the catheter is removed.

- 36246 second-order selective catheterization (catheter advanced from the common femoral artery into the graft and through the distal anastomosis into the popliteal artery)
- 75710-59 unilateral extremity diagnostic angiogram
- 37184 primary arterial MT, initial vessel

#### Coding Example 2 (37184, 37185):

The same case is done as described in Example 1, except that the thrombus extends past the bypass graft into the



Figure 2. Selective left femoral angiogram showing acute thrombus occluding the SFA.

native popliteal artery. The same procedure is performed, but MT is also required in the popliteal artery to remove thrombus from this additional vessel to restore flow.

- 36246 second-order selective catheterization
- 75710-59 unilateral extremity diagnostic arteriogram
- 37184 primary arterial MT, initial vessel (femoropopliteal graft MT)
- 37185 primary arterial MT, additional vessel(s), (popliteal artery MT)

#### Coding Example 3 (37184, 37185):

The same case is done as described in Example 2, but after MT is performed to clear the graft and native popliteal artery of thrombus, follow-up angiography demonstrates an embolus into the anterior tibial artery now occluding that vessel. MT is done to clear thrombus from the anterior tibial artery, and final angiography demonstrates flow is restored.

- 36247 (catheter advanced into anterior tibial artery, third-order selection)
- 75710-59 unilateral extremity arteriogram
- 37184 (femoropopliteal graft MT)
- 37185 (MT of native popliteal artery and anterior tibial artery)

#### Coding Example 4 (37184):

The same case is done as described in Example 1, but follow-up angiography demonstrates a tight stenosis at

the distal anastomosis, requiring treatment to maintain flow. A balloon angioplasty is performed, opening the stenosis.

- 36246 second-order selective catheterization
- 75710-59 unilateral extremity arteriogram
- 37184 MT femoropopliteal graft
- 35474 PTA of femoropopliteal artery
- 75962 radiological supervision and interpretation, femoropopliteal artery PTA

#### Coding Example 5 (37184):

The same case is done as described in Example 1, but the thrombus cannot be entirely cleared from the graft despite repeated attempts. It is elected to infuse tPA overnight to clear the remaining thrombus, so an infusion catheter is positioned into the graft and tPA infusion is begun.

- 36246 second-order selective catheterization
- 75710-59 unilateral extremity arteriogram
- 37184 primary arterial MT, initial vessel (MT femoropopliteal graft)
- 37201 thrombolytic infusion
- 75894 radiological supervision and interpretation, thrombolytic infusion

37186 is an add-on code that describes removal of thrombus from an artery or arterial bypass graft when thrombus is not the primary underlying pathology and MT is not the primary therapeutic intervention. 37186 typically involves a smaller amount of thrombus than

would be expected when performing 37184 or 37185.

This code is often used to describe removal of a thrombus or embolus that may have occurred during an intervention, such as angioplasty, stenting, or atherectomy. It may also be useful for removing thrombus that has occurred acutely prior to an intervention. There are many ways to accomplish this, and all are included in this code. For example, passing a large-bore catheter or sheath for suction removal of the thrombus/embolus, snare basket, or MT device would be coded with 37186. The deciding factor for use of 37186 is that the thrombectomy is a secondary procedure, with balloon angioplasty, stenting, or atherectomy being the intended treatment for a lesion. 37186 cannot be coded with 37184 or 37185.

#### Coding Example 6 (37186):

A tight SFA stenosis is treated with balloon angioplasty from an antegrade femoral puncture. Follow-up angiography shows that the stenosis has been successfully opened, but flow is stagnant and the patient is experiencing foot and calf pain. Distal angiography shows a new filling defect in the common peroneal trunk, representing acute embolization of plaque and/or thrombus. A 7-F guiding catheter is advanced to the filling defect, and the embolus is aspirated into the guiding catheter and then removed with the catheter. Final angiography shows no residual embolus, with good flow into the foot.

- 6247 third-order selective catheterization of the common peroneal trunk
- 35474 PTA of the femoral artery
- 75962 radiological supervision and interpretation, PTA of femoral artery
- 37186 MT of embolus to the common peroneal trunk

#### Coding Example 7 (37186):

A diagnostic study identifies a tight stenosis of the SFA, and intervention is planned to open the stenosis. However, at the time of the intervention, it is seen that a new thrombus has converted the previous stenosis to an occlusion. Before proceeding with the primary intended treatment of the lesion, a suction thrombectomy is performed. Once the stenosis has been returned to the baseline seen on the previous angiogram, stenting of the SFA is done with a good result.

- 36245 first-order selective catheterization of SFA from antegrade puncture
- 37186 MT of local thrombus at intended PTA site
- 35474 PTA of SFA
- 75962 radiological supervision and interpretation, PTA of SFA

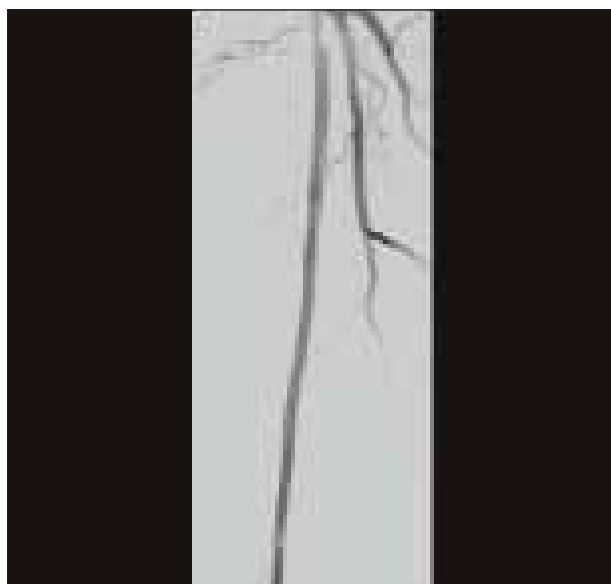


Figure 3. SFA patency achieved by MT to remove thrombus and stent placement to open underlying stenosis.

It is worth restating the differentiation between codes 37184 and 37185, the primary arterial MT codes, and 37186, the secondary arterial MT code. Codes 37184 and 37185 describe MT as the primary intended procedure, whereas 37186 is coded when MT is performed secondary to angioplasty, stenting, atherectomy, or other vascular intervention.

### VENOUS MT

- 37187 Percutaneous transluminal MT, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance
- 37188 Percutaneous transluminal MT, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance, repeat treatment on subsequent day during course of thrombolytic therapy

Like the arterial MT codes, the venous codes describe mechanical removal of thrombus as a component of the overall procedure. 37187 describes mechanical removal or maceration of thrombus from a vein or venous sys-

tem. This code is used on the first day of treatment of venous thrombosis. Catheterization and any diagnostic venography that is required and performed would be coded separately.

If the thrombus cannot be completely resolved and a thrombolytic infusion is necessary, this is separately coded. If the patient is returned to the angiography suite the next day for follow-up angiography, demonstrating some residual thrombus, 37188 would be coded if MT is again utilized to try to resolve the residual thrombus.

### EDITORIAL REVISION OF CODE 37209

In addition to the five new codes for MT, code 37209 was updated for the 2006 CPT Manual. The new descriptor for 37209 allows use of this code for exchange of a catheter during thrombolytic infusion therapy in either a vein or an artery. The code previously described its use only in arteries, which reflected the use when the code was originally developed, but did not reflect the evolution of thrombolytic therapy for venous thrombosis.

### CLINICAL EXAMPLE OF ARTERIAL MT

A 65-year-old man presents with worsening left foot numbness and pain for the previous 4 days. A selective left lower-extremity arteriogram is obtained from the right CFA approach (Figures 1 and 2). Acute thrombus is seen, with moderate collaterals suggesting chronic underlying stenosis with acute thrombosis.

MT is performed with pulse spray of 6 mg tPA, which partially clears the acute thrombus and restores flow. A stent is then placed, fully opening the vessel (Figure 3).

- 36247 third-order selection of left SFA
- 75710-59 unilateral lower-extremity arteriogram
- 37184 MT combined with tPA pulse spray
- 37205 percutaneous placement of vascular stent in SFA, including postdilatation
- 75960 radiological supervision and interpretation of stent placement. ■

*Katharine L. Krol, MD, is Director of Vascular and Interventional Radiology, CorVasc MD's, St. Vincent's Hospital, Indianapolis, Indiana.*

*Sean M. Tutton, MD, is currently an Assistant Professor at the Medical College of Wisconsin, Froedtert Memorial Hospital in Milwaukee, Wisconsin. He is also the Co-Chairman of the Economics Committee for the SIR. Dr Tutton may be reached at (414) 805-3125; stutton@mcw.edu.*

*Dawn Hopkins is Senior Manager for Reimbursement at the SIR, Fairfax, Virginia. She may be reached at (703) 460-5588; hopkins@sirweb.org.*