2023, Mar. 2023 Release CP:Procedures

Subset: Endovascular Intervention, Peripheral Artery [1, 2, 3, 4, 5, 6, 7]

Requested Service: Endovascular Intervention, Peripheral Artery

Age: Age ≥ 18

Patient:	Name:	DOB:	ID #:	GROUP #:
	Sex (circle): M / F	Height:	Weight:	
Provider/PCP:	Name:	Fax #:	Phone #:	
	NPI/ID #:	Signature:		Date:
Servicing:	Vendor/Facility:		Phone #:	
	Diagnosis/ICD:	Service Date:	Authorization: / / to / /	

ICD-10:

CPT®:

INSTRUCTIONS: Choose one of the following options and continue to the appropriate section

- ▢ 10. Acute limb ischemia (urgent)
- ▢ 20. Claudication
- ▢ 30. Focal vein graft stenosis by imaging
- ▢ 40. Gangrene or impending gangrene on lower leg or foot
- ▢ 50. In-stent stenosis by imaging
- ▢ 60. Nonhealing ulcer or wound on lower leg or foot ≥ 2 weeks
- ▢ 70. Rest pain

▢ 10. Acute limb ischemia (urgent)

1. Symptoms in extremity, Choose all that apply:
   - ▢ A) Pain [8]
   - ▢ B) Numbness
   - ▢ C) Coldness
   - ▢ D) Weakness [9]
   - ▢ E) Discoloration
   - ▢ F) Other clinical information (add comment)

> • If 1 or more options A, B, C, D or E selected and option F not selected, then go to question 2
> • No other options lead to the requested service

Acute limb ischemia (urgent) (continued...)

2. Choose all that apply: [10]
   - ▢ A) Absent or weak arterial signal by doppler
   - ▢ B) Ankle-brachial index (ABI) ≤ 0.4
   - ▢ C) Other clinical information (add comment)

If the number of options selected is 2 and option C not selected, then the rule is satisfied; you may stop here **(Inpatient)** [1]
- No other options lead to the requested service

▢ 20. Claudication

1. Claudication interferes with ADLs
   - ▢ A) Yes
   - ▢ B) No

- If option Yes selected, then go to question 2
- No other options lead to the requested service

2. Choose all that apply: [11]
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 [12]
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 [13]
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 [14]
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery [14]
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30mmHg decrease from baseline and delayed recovery [14]
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm [15]
   - ▢ H) Other clinical information (add comment)

- If 1 or more options A, B, C, D, E, F or G selected and option H not selected, then go to question 3
- No other options lead to the requested service

3. Occlusion or ≥ 50% stenosis by imaging [16]
   - ▢ A) Yes
   - ▢ B) No

- If option Yes selected, then go to question 4
- No other options lead to the requested service

4. Choose one:
   - ▢ A) Common or external iliac arterial lesion
   - ▢ B) Femoral or popliteal arterial lesion
   - ▢ C) Tibial arterial lesion
   - ▢ D) Other clinical information (add comment)

- If option A or B selected, then go to question 5
- If option C selected, then go to question 7
- No other options lead to the requested service

Claudication (continued...)

5. Choose all that apply:
   - ▢ A) Exercise ≥ 12 weeks [17]
   - ▢ B) Smoking cessation or reduction ≥ 12 weeks or nonsmoker [18]
   - ▢ C) Cilostazol ≥ 12 weeks or contraindicated or not tolerated [19, 20]
   - ▢ D) Statin ≥ 12 weeks or contraindicated or not tolerated [21]
   - ▢ E) Other clinical information (add comment)

   • If the number of options selected is 4 and option E not selected, then go to question 6
   • No other options lead to the requested service

6. Continued symptoms or findings after treatment [22]
   - ▢ A) Yes
   - ▢ B) No

   If option Yes selected, then the rule is satisfied; you may stop here [1]
   • No other options lead to the requested service

7. Choose all that apply: [22]
   - ▢ A) Exercise ≥ 12 weeks [17]
   - ▢ B) Smoking cessation or reduction ≥ 12 weeks or nonsmoker [18]
   - ▢ C) Cilostazol ≥ 12 weeks or contraindicated or not tolerated [19, 20]
   - ▢ D) Statin ≥ 12 weeks or contraindicated or not tolerated [21]
   - ▢ E) Other clinical information (add comment)

   • If the number of options selected is 4 and option E not selected, then go to question 8
   • No other options lead to the requested service

8. Continued symptoms or findings after treatment
   - ▢ A) Yes
   - ▢ B) No

   If option Yes selected, then the rule is satisfied; you may stop here Ltd 2nd [1, 23, 24]
   • No other options lead to the requested service

▢ 30. Focal vein graft stenosis by imaging

There are no questions for the requested service

▢ 40. Gangrene or impending gangrene on lower leg or foot

Gangrene or impending gangrene on lower leg or foot (continued...)

1. Choose all that apply: (11)
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 (12)
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 (13)
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 (14)
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery (14)
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30 mmHg decrease from baseline and delayed recovery (14)
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm (15)
   - ▢ H) Transcutaneous Po_2 ≤ 30 mmHg (4.0 kPa) (25)
   - ▢ I) Other clinical information (add comment)

   • If 1 or more options A, B, C, D, E, F, G or H selected and option I not selected, then go to question 2
   • No other options lead to the requested service

2. Occlusion or ≥ 50% stenosis by imaging (16)
   - ▢ A) Yes
   - ▢ B) No

   If option Yes selected, then the rule is satisfied; you may stop here (1)
   • No other options lead to the requested service

▢ 50. In-stent stenosis by imaging

1. Choose one:
   - ▢ A) Claudication (26)
   - ▢ B) Rest pain (27)
   - ▢ C) Nonhealing ulcer or wound on lower leg or foot ≥ 2 weeks (28, 27, 29)
   - ▢ D) Gangrene or impending gangrene on lower leg or foot (27, 29)
   - ▢ E) Other clinical information (add comment)

   • If option A selected, then go to question 2
   • If option B, C or D selected, then go to question 3
   • No other options lead to the requested service

2. Choose all that apply: (11)
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 (12)
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 (13)
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 (14)
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery (14)
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30mmHg decrease from baseline and delayed recovery (14)
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm (15)
   - ▢ H) Other clinical information (add comment)

   If 1 or more options A, B, C, D, E, F or G selected and option H not selected, then the rule is satisfied; you may stop here (1)
   • No other options lead to the requested service

In-stent stenosis by imaging (continued...)

3. Choose all that apply: (11)
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 (12)
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 (13)
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 (14)
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery (14)
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30 mmHg decrease from baseline and delayed recovery (14)
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm (15)
   - ▢ H) Transcutaneous Po_2 ≤ 30 mmHg (4.0 kPa) (25)
   - ▢ I) Other clinical information (add comment)

   If 1 or more options A, B, C, D, E, F, G or H selected and option I not selected, then the rule is satisfied; you may stop here (1)
   • No other options lead to the requested service

▢ 60. Nonhealing ulcer or wound on lower leg or foot ≥ 2 weeks

1. Choose all that apply: (11)
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 (12)
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 (13)
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 (14)
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery (14)
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30 mmHg decrease from baseline and delayed recovery (14)
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm (15)
   - ▢ H) Transcutaneous Po_2 ≤ 30 mmHg (4.0 kPa) (25)
   - ▢ I) Other clinical information (add comment)

   • If 1 or more options A, B, C, D, E, F, G or H selected and option I not selected, then go to question 2
   • No other options lead to the requested service

2. Occlusion or ≥ 50% stenosis by imaging (16)
   - ▢ A) Yes
   - ▢ B) No

   If option Yes selected, then the rule is satisfied; you may stop here (1)
   • No other options lead to the requested service

▢ 70. Rest pain

Rest pain (continued...)

1. Choose all that apply: (11)
   - ▢ A) Resting ankle-brachial index (ABI) ≤ 0.9 (12)
   - ▢ B) Ankle-brachial index (ABI) > 1.4 and toe-brachial index ≤ 0.7 (13)
   - ▢ C) Exercise or hyperemic ankle-brachial index (ABI) ≤ 0.9 (14)
   - ▢ D) Exercise ankle-brachial index (ABI) > 20% decrease from baseline and delayed recovery (14)
   - ▢ E) Exercise ankle-brachial index (ABI) ≥ 30 mmHg decrease from baseline and delayed recovery (14)
   - ▢ F) Resting toe pressure ≤ 50 mmHg
   - ▢ G) Transmetatarsal or ankle pulse volume recording (PVR) amplitude ≤ 5 mm (15)
   - ▢ H) Transcutaneous Po_2 ≤ 30 mmHg (4.0 kPa) (25)
   - ▢ I) Other clinical information (add comment)

   • If 1 or more options A, B, C, D, E, F, G or H selected and option I not selected, then go to question 2
   • No other options lead to the requested service

2. Occlusion or ≥ 50% stenosis by imaging (16)
   - ▢ A) Yes
   - ▢ B) No

   If option Yes selected, then the rule is satisfied; you may stop here (1)
   • No other options lead to the requested service

Reference

Ltd - This requested service is designated as 'Limited Evidence' in this clinical scenario. Criteria cannot be met.

2nd - Secondary review required. Criteria cannot be met.

Off-label - Use for an indication not approved by the U.S. Food and Drug Administration (FDA).

Notes:

1:
I / O setting:
Acute limb ischemia - Inpatient
Anticoagulation planned - Due to variations in practice, this procedure can be performed in the inpatient or outpatient setting
Renal failure - Due to variations in practice, this procedure can be performed in the inpatient or outpatient setting
All others - Outpatient

2:
These criteria include the following procedures:
Peripheral Artery Angioplasty
Peripheral Artery Atherectomy
Peripheral Artery Embolectomy
Peripheral Artery Stent
Peripheral Artery Thrombectomy
Peripheral Artery Thrombolysis

3:
These criteria address arterial thrombolysis. For thrombolysis of a deep vein thrombosis, see the “Thrombolysis, Deep Vein Thrombosis (DVT)“ criteria subset.

4:
Lower extremity peripheral arterial disease (PAD) is most commonly a manifestation of systemic atherosclerotic disease and places patients at an increased risk for stroke, myocardial infarction, and death. When symptomatic, it affects the quality of life and functional status of the patient. In the most severe cases PAD may be limb threatening and is a leading cause of limb amputation (Bailey et al., J Am Coll Cardiol 2019, 73: 214-37; Patel et al., J Am Coll Cardiol 2015, 65: 931-41). The primary risk factors for PAD include tobacco use, diabetes, hypertension, advanced age, and hypercholesterolemia (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Expert Panels on Vascular et al., J Am Coll Radiol 2019, 16: S174-S83; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S).

5:
A variety of endovascular techniques are available to treat peripheral artery stenosis and include angioplasty with or without stenting, primary stenting, atherectomy, embolectomy, thrombectomy, thrombolysis, and laser atherectomy or angioplasty. The decision to utilize an endovascular approach should be based upon the morphology of the lesion(s), clinical judgment of the medical practitioner, and patient preference and goals.

6:
Patients with peripheral arterial disease who are diabetics often lack the typical symptoms of claudication or rest pain even when significant tissue loss is present. Additionally, edema, infection, peripheral neuropathy, and arterial calcification are common in diabetics and may affect diagnostic testing (Hinchliffe et al., Diabetes Metab Res Rev 2016, 32 Suppl 1: 37-44).

7:
InterQual® Procedures criteria are derived from the systematic, continuous review and critical appraisal of the most current evidence-based literature and include input from our independent panel of clinical experts. To generate the most appropriate recommendations, a comprehensive literature review of the clinical evidence was conducted. Sources searched included PubMed, Agency for Healthcare Research and Quality (AHRQ) Comparative Effectiveness Reviews, the Cochrane Library, Choosing Wisely, Centers for Medicare & Medicaid Services (CMS) National Coverage Determinations, and the National Institute of Health and Care Excellence (NICE). Other medical literature databases, medical content providers, data sources, regulatory body websites, and specialty society resources may also have been used. Relevant studies were assessed for risk of bias following principles described in the Cochrane Handbook. The resulting evidence was assessed for consistency, directness, precision, effect size, and publication bias. Observational trials were also evaluated for the presence of a dose-response gradient and the likely effect of plausible confounders.

8:
Patients with limited or no peripheral arterial disease (PAD) usually experience severe pain in the affected extremity, while those with existing PAD usually experience less severe symptoms due to the presence of collateral circulation (Blecha, The Surgical clinics of North America 2013, 93: 789-812).

9:
Muscle weakness may be an indication of severe ischemia.

10:
Acute limb ischemia requires rapid assessment and determination of limb viability as the skeletal muscle may not tolerate ischemia for longer than 4 to 6 hours. The longer symptoms are present in this condition, the lower the likelihood of limb salvage. Assessment of patients with suspected arterial occlusion should include arterial and venous examination with a hand-held doppler. Pulse palpation has proven to be extremely inaccurate. The loss of arterial signal by doppler is indicative of a threatened limb, while the absence of both arterial and venous signals may indicate that the limb is not salvageable (Bjorck et al., Eur J Vasc Endovasc Surg 2020, 59: 173-218; Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

11:
Noninvasive hemodynamic testing objectively assesses the presence or absence of peripheral artery disease. Only if this testing is positive should imaging be performed for further treatment planning or assessment of disease. Clinical circumstances are essential in determining which noninvasive hemodynamic test is most valuable or accurate for any given patient.

12:
The ankle-brachial index (ABI), an objective measurement of vascular perfusion, is the ratio of ankle to brachial systolic blood pressure and is normally equal to 1 in patients without peripheral arterial disease (PAD). An ABI of 0.9 or less supports a diagnosis of PAD with high sensitivity and specificity. These patients have an increased risk of developing claudication, rest pain, nonhealing ulcer, or gangrene (Aboyans et al., Eur J Vasc Endovasc Surg 2018, 55: 305-68; Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Rooke et al., Journal of the American College of Cardiology 2013, 61: 1555-70; Aboyans et al., Circulation 2012, 126: 2890-909). The ABI is recommended as the primary non-invasive test to diagnose PAD (Stoner et al., J Vasc Surg 2016, 64: 227-8; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S; Aboyans et al., Circulation 2012, 126: 2890-909).

13:
A resting ankle-brachial index (ABI) of greater than 1.4 indicates noncompressible arteries; this can occur with advanced age or in patients with long-standing diabetes mellitus, renal insufficiency, and arterial calcifications. In this situation, a toe-brachial index reading of 0.7 or less helps support a diagnosis of peripheral arterial disease (Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Stoner et al., J Vasc Surg 2016, 64: 227-8.; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S; Anderson et al., Circulation 2013, 127: 1425-43; Rooke et al., Journal of the American College of Cardiology 2013, 61: 1555-70; Aboyans et al., Circulation 2012, 126: 2890-909; Norgren et al., Journal of vascular surgery 2007, 45 Suppl S: S5-67).

14:
An exercise ankle-brachial index (ABI) (performed with treadmill testing) or a hyperemic ABI (performed with a thigh tourniquet) may be especially helpful for those patients with compelling symptoms but who have a normal rest noninvasive vascular test. A post exercise ABI of 0.9 or less is diagnostic of PAD. It should be noted that there is a mild decrease in ABI in healthy patients when measured immediately after exercise cessation; however, these patients often recover to preexercise values within 1 to 2 minutes. In patients with peripheral artery disease (PAD) the ankle pressure decreases more during exercise and recovery time to pre-exercise values is delayed, proportionally to the severity of PAD. In more specific terms, a drop of 30 mmHg or more or at least a 20% decrease from the pre-exercise baseline with delayed recovery is indicative of a significant arterial obstruction (Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S).

15:
Pulse volume recordings (PVRs) may be useful to establish the diagnosis of peripheral arterial disease, assess the location (e.g., aortoiliac, femoropopliteal, infrapopliteal) and severity, and to follow the status of the extremity after

a revascularization procedure (Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Anderson et al., Circulation 2013, 127: 1425-43). A depressed or flattened wave form (≤ 5 mm) by PVR indicates severe disease.

16:
Revascularization is considered when lesions are hemodynamically significant. When a stenosis is 50%-75% the hemodynamic significance may be unclear, but can be determined with noninvasive testing or intravascular pressure measurements. When stenosis is greater than 75% or occluded the significance is clear (Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

17:
Exercise has been shown to significantly increase walking time and walking ability in most patients with claudication. Supervised exercise over a 3- to 6-month period can improve walking distance in patients with claudication when compared to medical management, unsupervised exercise, or an endovascular intervention. Long-term data from earlier studies have shown continued benefit from supervised exercise in claudication. Community and home-based exercise programs are the focus of newer research and have shown promise to improve walking ability and functional status (Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

18:
Discontinuation of smoking and other tobacco use should be documented. Peripheral arterial disease (PAD) and claudication have a higher incidence in smokers. The risk of limb loss, amputation, myocardial infarction, and death are greater for smokers with PAD than nonsmokers. Patency rates of angioplasty and surgical bypass are higher for patients with PAD who stopped smoking than for those who continued (Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

19:
Current guidelines support the use of antiplatelet therapy with daily aspirin or clopidogrel to treat patients with peripheral arterial disease and claudication to reduce the risk of ischemic stroke, myocardial infarction, and death (Rooke et al., Journal of the American College of Cardiology 2013, 61: 1555-70; Alonso-Coello et al., Chest 2012, 141: e669S-e90S). For those patients with claudication despite treatment, a trial of cilostazol is recommended in addition to antithrombotic therapies. Cilostazol for the treatment of claudication has been shown to improve symptoms, increase walking distance, and improve noninvasive hemodynamic measures (Bailey et al., J Am Coll Cardiol 2019, 73: 214-37; Bedenis et al., Cochrane Database Syst Rev 2014: CD003748). Pentoxifylline, which was once given as a second−line alternative to cilostazol, is no longer considered effective for the treatment of claudication (Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Bedenis et al., Cochrane Database Syst Rev 2014: CD003748; Rooke et al., Journal of the American College of Cardiology 2013, 61: 1555-70; Alonso-Coello et al., Chest 2012, 141: e669S-e90S).

20:
Patients with heart failure, renal disease, or hepatic impairment should not use cilostazol (Bedenis et al., Cochrane Database Syst Rev 2014: CD003748; Rooke et al., Journal of the American College of Cardiology 2013, 61: 1555-70).

21:
Treatment with a statin medication is recommended for all patients with peripheral arterial disease to reduce cardiovascular events and mortality (Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S).

22:
Medical management for the treatment of peripheral arterial disease should include structured exercise, blood pressure management, control of diabetes mellitus, smoking cessation, statin therapy, and may include antiplatelet or thrombolytic therapy (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Venermo et al., Eur J Prev Cardiol 2019, 26: 1971-84; Aboyans et al., Eur J Vasc Endovasc Surg 2018, 55: 305-68; Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

23:
Recommendations are designated as “Limited Evidence” based on one or more of the following:

- Research to date has not demonstrated this intervention’s equivalence or superiority to the current standard of care

- The balance of benefits and harms does not clearly favor this intervention
- The clinical utility of this intervention has not been clearly established
- The evidence is mixed, unclear, or of low quality
- This intervention is not standard of care
- New technology is still being investigated

24:
Guidance from the American College of Cardiology, the American Heart Association and the Society for Vascular Surgery state that the use of endovascular interventions for the treatment of claudication in patients with infrapopliteal or isolated infrapopliteal lesions is unknown or has not been evaluated. The Society for Cardiovascular Angiography and Interventions guidance speaks to reserving endovascular intervention for patients with claudication that demonstrate multivessel tibial disease or a stenosis of at least 50% which is moderate to severe stenosis (Klein et al., Catheter Cardiovasc Interv 2017, 90: E90-E110; Gerhard-Herman et al., Circulation 2017, 135: e726-e79; Society for Vascular Surgery Lower Extremity Guidelines Writing et al., J Vasc Surg 2015, 61: 2S-41S). As studies and outcomes remain limited and a clear need for further research on this indication are required, requests for endovascular intervention for patients with tibial disease and claudication require secondary medical review.

25:
Transcutaneous oximetry is a substitute for ankle and toe pressures and is primarily utilized for the assessment of patients with rest pain (Stoner et al., J Vasc Surg 2016, 64: 227-8). The measurement of Po2 may help determine whether perfusion is sufficient for wound healing.

26:
Claudication is fatigue, discomfort, cramping, or pain occurring with activity and relieved by rest. It usually manifests as pain in the calf; however, aortoiliac disease may present with buttock, thigh, or hip pain.

27:
Critical limb ischemia (CLI) is a chronic condition secondary to chronic arterial occlusive disease. Ischemic rest pain, nonhealing wounds or ulcers, and gangrene are manifestations of CLI. Patients with CLI are at increased risk for amputation and ischemic cardiovascular events (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Gerhard-Herman et al., Circulation 2017, 135: e726-e79). A variety of classification systems (e.g., Global Limb Anatomic Staging System [GLASS]; Wound, Ischemia, and foot Infection [WIfI]) exist to aid in decision-making based on risk for amputation and preference for one revascularization strategy over another (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Authors/Task Force et al., Eur J Vasc Endovasc Surg 2017:; Mills et al., J Vasc Surg 2014, 59: 220-34 e1-2). The goal of treatment is to improve perfusion of the limb, thus allowing wounds to heal and preventing limb amputation while optimizing cardiovascular health for the patient (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Farber and Eberhardt, JAMA Surg 2016, 151: 1070-7).

28:
This criteria point addresses ischemic ulcers only and does not cover neuropathic, traumatic, or venous nonhealing wounds or ulcers of the lower leg or foot (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Gerhard-Herman et al., Circulation 2017, 135: e726-e79).

29:
In critical limb ischemia, wounds or gangrene most often involve the forefoot, but may affect the lower leg (Conte et al., Eur J Vasc Endovasc Surg 2019, 58: S1-S109 e33; Farber and Eberhardt, JAMA Surg 2016, 151: 1070-7).

ICD-10-CM (circle all that apply): I70.211, I70.212, I70.213, I70.218, I70.219, I70.221, I70.222, I70.223, I70.228, I70.229, I70.231, I70.232, I70.233, I70.234, I70.235, I70.238, I70.239, I70.241, I70.242, I70.243, I70.244, I70.245, I70.248, I70.249, I70.25, I70.261, I70.262, I70.263, I70.268, I70.269, I70.311, I70.312, I70.313, I70.318, I70.319, I70.321, I70.322, I70.323, I70.328, I70.329, I70.331, I70.332, I70.333, I70.334, I70.335, I70.338, I70.339, I70.341, I70.342, I70.343, I70.344, I70.345, I70.348, I70.349, I70.35, I70.361, I70.362, I70.363, I70.368, I70.369, I70.411, I70.412, I70.413, I70.418, I70.419, I70.421, I70.422, I70.423, I70.428, I70.429, I70.431, I70.432, I70.433, I70.434, I70.435, I70.438, I70.439, I70.441, I70.442, I70.443, I70.444, I70.445, I70.448, I70.449, I70.45, I70.461, I70.462, I70.463, I70.468, I70.469, I70.511, I70.512, I70.513, I70.518, I70.519, I70.521, I70.522, I70.523, I70.528, I70.529, I70.531, I70.532, I70.533, I70.534, I70.535, I70.538, I70.539, I70.541, I70.542, I70.543, I70.544, I70.545, I70.548, I70.549, I70.55, I70.561, I70.562, I70.563, I70.568, I70.569, I70.611, I70.612, I70.613, I70.618, I70.619, I70.621, I70.622, I70.623, I70.628, I70.631, I70.632, I70.633, I70.634, I70.635, I70.638, I70.639, I70.641, I70.642, I70.643, I70.644, I70.645, I70.648, I70.649, I70.65, I70.661, I70.662, I70.663, I70.668, I70.669, I70.711, I70.712, I70.713, I70.718, I70.719, I70.721, I70.722, I70.723, I70.728, I70.729, I70.731, I70.732, I70.733, I70.734, I70.735, I70.738, I70.739, I70.741, I70.742, I70.743, I70.744, I70.745, I70.748, I70.749, I70.75, I70.761, I70.762, I70.763, I70.768, I70.769, I73.9, I74.2, I74.3, I74.4, I74.5, I96, L97.501, L97.502, L97.503, L97.504, L97.505, L97.506, L97.508, L97.509, L97.901, L97.902, L97.903, L97.904, L97.905, L97.906, L97.908, L97.909, L97.911, L97.912, L97.913, L97.914, L97.915, L97.916, L97.918, L97.919, L97.921, L97.922, L97.923, L97.924, L97.925, L97.926, L97.928, L97.929, S81.801A, S81.801D, S81.801S, S81.802A, S81.802D, S81.802S, S81.809A, S81.809D, S81.809S, S91.301A, S91.301D, S91.301S, S91.302A, S91.302D, S91.302S, S91.309A, S91.309D, S91.309S, T82.856A, T82.856D, T82.856S, T82.858A, T82.858D, T82.858S, Other _____

ICD-10-PCS (circle all that apply): 047C341, 047C34Z, 047C35Z, 047C36Z, 047C37Z, 047C3D1, 047C3DZ, 047C3EZ, 047C3FZ, 047C3GZ, 047C3Z1, 047C3ZZ, 047C441, 047C44Z, 047C45Z, 047C46Z, 047C47Z, 047C4D1, 047C4DZ, 047C4EZ, 047C4FZ, 047C4GZ, 047C4Z1, 047C4ZZ, 047D341, 047D34Z, 047D35Z, 047D36Z, 047D37Z, 047D3D1, 047D3DZ, 047D3EZ, 047D3FZ, 047D3GZ, 047D3Z1, 047D3ZZ, 047D441, 047D44Z, 047D45Z, 047D46Z, 047D47Z, 047D4D1, 047D4DZ, 047D4EZ, 047D4FZ, 047D4GZ, 047D4Z1, 047D4ZZ, 047E341, 047E34Z, 047E35Z, 047E36Z, 047E37Z, 047E3D1, 047E3DZ, 047E3EZ, 047E3FZ, 047E3GZ, 047E3Z1, 047E3ZZ, 047E441, 047E44Z, 047E45Z, 047E46Z, 047E47Z, 047E4D1, 047E4DZ, 047E4EZ, 047E4FZ, 047E4GZ, 047E4Z1, 047E4ZZ, 047F341, 047F34Z, 047F35Z, 047F36Z, 047F37Z, 047F3D1, 047F3DZ, 047F3EZ, 047F3FZ, 047F3GZ, 047F3Z1, 047F3ZZ, 047F441, 047F44Z, 047F45Z, 047F46Z, 047F47Z, 047F4D1, 047F4DZ, 047F4EZ, 047F4FZ, 047F4GZ, 047F4Z1, 047F4ZZ, 047H341, 047H34Z, 047H35Z, 047H36Z, 047H37Z, 047H3D1, 047H3DZ, 047H3EZ, 047H3FZ, 047H3GZ, 047H3Z1, 047H3ZZ, 047H441, 047H44Z, 047H45Z, 047H46Z, 047H47Z, 047H4D1, 047H4DZ, 047H4EZ, 047H4FZ, 047H4GZ, 047H4Z1, 047H4ZZ, 047J341, 047J34Z, 047J35Z, 047J36Z, 047J37Z, 047J3D1, 047J3DZ, 047J3EZ, 047J3FZ, 047J3GZ, 047J3Z1, 047J3ZZ, 047J441, 047J44Z, 047J45Z, 047J46Z, 047J47Z, 047J4D1, 047J4DZ, 047J4EZ, 047J4FZ, 047J4GZ, 047J4Z1, 047J4ZZ, 047K341, 047K34Z, 047K35Z, 047K36Z, 047K37Z, 047K3D1, 047K3DZ, 047K3EZ, 047K3FZ, 047K3GZ, 047K3Z1, 047K3ZZ, 047K441, 047K44Z, 047K45Z, 047K46Z, 047K47Z, 047K4D1, 047K4DZ, 047K4EZ, 047K4FZ, 047K4GZ, 047K4Z1, 047K4ZZ, 047L341, 047L34Z, 047L35Z, 047L36Z, 047L37Z, 047L3D1, 047L3DZ, 047L3EZ, 047L3FZ, 047L3GZ, 047L3Z1, 047L3ZZ, 047L441, 047L44Z, 047L45Z, 047L46Z, 047L47Z, 047L4D1, 047L4DZ, 047L4EZ, 047L4FZ, 047L4GZ, 047L4Z1, 047L4ZZ, 047M341, 047M34Z, 047M35Z, 047M36Z, 047M37Z, 047M3D1, 047M3DZ, 047M3EZ, 047M3FZ, 047M3GZ, 047M3Z1, 047M3ZZ, 047M441, 047M44Z, 047M45Z, 047M46Z, 047M47Z, 047M4D1, 047M4DZ, 047M4EZ, 047M4FZ, 047M4GZ, 047M4Z1, 047M4ZZ, 047N341, 047N34Z, 047N35Z, 047N36Z, 047N37Z, 047N3D1, 047N3DZ, 047N3EZ, 047N3FZ, 047N3GZ, 047N3Z1, 047N3ZZ, 047N441, 047N44Z, 047N45Z, 047N46Z, 047N47Z, 047N4D1, 047N4DZ, 047N4EZ, 047N4FZ, 047N4GZ, 047N4Z1, 047N4ZZ, 047P341, 047P34Z, 047P35Z, 047P36Z, 047P37Z, 047P3D1, 047P3DZ, 047P3EZ, 047P3FZ, 047P3GZ, 047P3Z1, 047P3ZZ, 047P441, 047P44Z, 047P45Z, 047P46Z, 047P47Z, 047P4D1, 047P4DZ, 047P4EZ, 047P4FZ, 047P4GZ, 047P4Z1, 047P4ZZ, 047Q341, 047Q34Z, 047Q35Z, 047Q36Z, 047Q37Z, 047Q3D1, 047Q3DZ, 047Q3EZ, 047Q3FZ, 047Q3GZ, 047Q3Z1, 047Q3ZZ, 047Q441, 047Q44Z, 047Q45Z, 047Q46Z, 047Q47Z, 047Q4D1, 047Q4DZ, 047Q4EZ, 047Q4FZ, 047Q4GZ, 047Q4Z1, 047Q4ZZ, 047R341, 047R34Z, 047R35Z, 047R36Z, 047R37Z, 047R3D1, 047R3DZ, 047R3EZ, 047R3FZ, 047R3GZ, 047R3Z1, 047R3ZZ, 047R441, 047R44Z, 047R45Z, 047R46Z, 047R47Z, 047R4D1, 047R4DZ, 047R4EZ, 047R4FZ, 047R4GZ, 047R4Z1, 047R4ZZ, 047S341, 047S34Z, 047S35Z, 047S36Z, 047S37Z, 047S3D1, 047S3DZ, 047S3EZ, 047S3FZ, 047S3GZ, 047S3Z1, 047S3ZZ, 047S441, 047S44Z, 047S45Z, 047S46Z, 047S47Z, 047S4D1, 047S4DZ, 047S4EZ, 047S4FZ, 047S4GZ, 047S4Z1, 047S4ZZ, 047T341, 047T34Z, 047T35Z, 047T36Z, 047T37Z, 047T3D1, 047T3DZ, 047T3EZ, 047T3FZ, 047T3GZ, 047T3Z1, 047T3ZZ, 047T441, 047T44Z, 047T45Z, 047T46Z, 047T47Z, 047T4D1, 047T4DZ, 047T4EZ, 047T4FZ, 047T4GZ, 047T4Z1, 047T4ZZ, 047U341, 047U34Z, 047U35Z, 047U36Z, 047U37Z, 047U3D1, 047U3DZ, 047U3EZ, 047U3FZ, 047U3GZ, 047U3Z1, 047U3ZZ, 047U441, 047U44Z, 047U45Z, 047U46Z, 047U47Z, 047U4D1, 047U4DZ, 047U4EZ, 047U4FZ, 047U4GZ, 047U4Z1, 047U4ZZ, 047V341, 047V34Z, 047V35Z, 047V36Z, 047V37Z, 047V3D1, 047V3DZ, 047V3EZ, 047V3FZ, 047V3GZ, 047V3Z1, 047V3ZZ, 047V441, 047V44Z, 047V45Z, 047V46Z, 047V47Z, 047V4D1, 047V4DZ, 047V4EZ, 047V4FZ, 047V4GZ, 047V4Z1, 047V4ZZ, 047W341, 047W34Z, 047W35Z, 047W36Z, 047W37Z, 047W3D1, 047W3DZ, 047W3EZ, 047W3FZ, 047W3GZ, 047W3Z1, 047W3ZZ, 047W441, 047W44Z, 047W45Z, 047W46Z, 047W47Z, 047W4D1, 047W4DZ, 047W4EZ, 047W4FZ, 047W4GZ, 047W4Z1, 047W4ZZ, 047Y341, 047Y34Z, 047Y35Z, 047Y36Z, 047Y37Z, 047Y3D1, 047Y3DZ, 047Y3EZ, 047Y3FZ, 047Y3GZ, 047Y3Z1, 047Y3ZZ, 047Y441, 047Y44Z, 047Y45Z, 047Y46Z, 047Y47Z, 047Y4D1, 047Y4DZ, 047Y4EZ, 047Y4FZ, 047Y4GZ, 047Y4Z1, 047Y4ZZ, 04CC3ZZ, 04CC4ZZ, 04CD3ZZ, 04CD4ZZ, 04CE3ZZ, 04CE4ZZ,

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CPT® (circle all that apply): 0238T, 34101, 34111, 34151, 34201, 34203, 37184, 37220, 37221, 37222, 37224, 37225, 37226, 37227, 37228, 37229, 37230, 37231, 37236, Other _____