

Clinical Policy: Cardiovascular Services

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Date of Last Revision: 1/2022

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

This policy describes the medical necessity guidelines for elective invasive coronary angiography (ICA), percutaneous coronary intervention (PCI), outpatient cardiac rehabilitation program as treatment for cardiovascular conditions under specific circumstances.

This policy only applies to enrollees age 18 and older and does not apply to the following enrollees:

- A. Age < 18;
- B. Currently pregnant;
- C. History of cardiac transplant;
- D. History of solid organ transplant;
- E. Survivors of sudden cardiac arrest;

Policy/Criteria

- II.** It is the policy of Louisiana Healthcare Connections that Elective (not emergent) Invasive Coronary Angiography (ICA) is **medically necessary** for the following indications:
- A. Congenital heart disease that cannot be characterized by non-invasive modalities such as cardiac ultrasound, CT, or MRI;
 - B. Heart failure with reduced ejection fraction for the purposes of diagnosing ischemic cardiomyopathy;
 - C. Hypertrophic cardiomyopathy prior to septal ablation or myomectomy;
 - D. Severe valvular disease or valvular disease with plans for surgery or percutaneous valve replacement;
 - E. Type 1 myocardial infarction within the past three months defined by detection of a rise and/or fall of cardiac troponin values with at least one value above the 99th percentile upper reference limit and with at least one of the following:
 - 1.Symptoms of acute myocardial ischemia;
 - 2.New ischemic electrocardiogram (ECG) changes;
 - 3.Development of pathological Q waves;
 - 4.Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality in a pattern consistent with an ischemic etiology; and
 - 5.Identification of a coronary thrombus;
 - F. History of ventricular tachycardia requiring therapy for termination or sustained ventricular tachycardia;
 - G. History of ventricular fibrillation;
 - H. Return of angina within nine months of prior PCI;
 - I. Canadian Cardiovascular Society Class I-IV by history, without Chronic Kidney Disease (CKD), and with intolerance of or failure to respond to at least two (2) target dose anti-anginal medications (beta blocker, dihydropyridine or non-dihydropyridine calcium channel blocker, nitrates, and/or ranolazine); or

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- J. High risk imaging findings, defined as one or more of the below:
1. Severe resting left ventricular dysfunction (LVEF $\leq 35\%$) not readily explained by noncoronary causes;
 2. Resting perfusion abnormalities $\geq 10\%$ of the myocardium in enrollees without prior history or evidence of myocardial infarction;
 3. Stress electrocardiogram findings including ≥ 2 mm of ST-segment depression at low workload or persisting into recovery, exercise-induced ST-segment elevation, or exercise-induced ventricular tachycardia/ventricular fibrillation;
 4. Severe stress-induced left ventricular dysfunction (peak exercise LVEF $< 45\%$ or drop in LVEF with stress $\geq 10\%$);
 5. Stress-induced perfusion abnormalities affecting $\geq 10\%$ myocardium or stress segmental scores indicating multiple vascular territories with abnormalities;
 6. Stress-induced left ventricular dilation;
 7. Inducible wall motion abnormality (involving > 2 segments or 2 coronary beds);
 8. Wall motion abnormality developing at low dose of dobutamine (≥ 10 mg/kg/min) or at a low heart rate (< 120 beats/min); or
 9. Left main stenosis ($\geq 50\%$ stenosis) on coronary computed tomography angiography

III. It is the policy of Louisiana Healthcare Connections that Elective (not emergent) Percutaneous Coronary Intervention (PCI) is **medically necessary** for the following indications:

- A. Angina with stable coronary artery disease with both of the following:
1. Canadian Cardiovascular Society Class I-IV by history, without Chronic Kidney Disease (CKD)
 2. Intolerance of or failure to respond to at least two (2) target dose anti-anginal medications (beta blocker, dihydropyridine or non-dihydropyridine calcium channel blocker, nitrates, and/or ranolazine).
- B. Heart failure with reduced ejection fraction for the purposes of treating ischemic cardiomyopathy;
- C. Left main stenosis $\geq 50\%$ as determined on prior cardiac catheterization or coronary computed tomography angiography, if the member has documentation indicating they were declined for a coronary artery bypass graft surgery; and
- D. Type 1 myocardial infarction within the past three months as defined by detection of a rise and/or fall of cardiac troponin values with at least one value above the 99th percentile upper reference limit and with at least one of the following:
1. Symptoms of acute myocardial ischemia;
 2. New ischemic electrocardiogram changes;
 3. Development of pathological Q waves;
 4. Imaging evidence of new loss of viable myocardium, or new regional wall motion abnormality in a pattern consistent with an ischemic etiology; and
 5. Identification of a coronary thrombus.

IV. It is the policy of Louisiana Healthcare Connections that Elective (not emergent) Invasive Coronary Angiography (ICA) and Elective (not emergent) Percutaneous Coronary Intervention (PCI) is **not medically necessary** for the following indications:

- A. Documentation of member unwilling to adhere with recommended medical therapy;

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- B. Unlikely to benefit from the proposed procedure (e.g., life expectancy less than six months due to a terminal illness).
- V. It is the policy of Louisiana Healthcare Connections that Endovascular Revascularization for Peripheral Artery Disease is **medically necessary** for the following indications:
- A. Endovascular revascularization procedure (stents, angioplasty, and atherectomy) for the lower extremity AND one of the following:
1. Acute limb ischemia;
 2. Chronic limb-threatening ischemia, defined as the presence of any of the following:
 - a. Ischemic pain at rest;
 - b. Gangrene; or
 - c. Lower limb ulceration greater than two weeks duration.
- B. Endovascular revascularization procedure (stents, angioplasty, and atherectomy) with peripheral artery disease who have symptoms of intermittent claudication and meet all of the following criteria:
1. Significant peripheral artery disease of the lower extremity as indicated by at least one of the following:
 - a. Moderate to severe ischemic peripheral artery disease with ankle-brachial index (ABI) ≤ 0.69 ; or
 - b. Stenosis in the aortoiliac artery, femoropopliteal artery, or both arteries, with a severity of stenosis $\geq 70\%$ by imaging studies; and
 2. Claudication symptoms that impair the ability to work or perform activities of daily living; and
 3. No improvement of symptoms despite all of the following treatments:
 - a. Documented participation in a medically supervised or directed exercise program for at least 12 weeks. Individuals fully unable to perform exercise therapy may qualify for revascularization only if the procedure is expected to provide long-term functional benefits despite the limitations that precluded exercise therapy; and
 - b. At least six months of optimal pharmacologic therapy including all the below agents, unless contraindicated or discontinued due to adverse effects:
 - i. Antiplatelet therapy with aspirin, clopidogrel, or both
 - ii. Statin therapy
 - iii. Cilostazol
 - iv. Antihypertensives to a goal systolic blood pressure ≤ 140 mm Hg and diastolic blood pressure ≤ 90 mmHg; and
 4. At least one documented attempt at smoking cessation, if applicable, consisting of pharmacotherapy, unless contraindicated, and behavioral counseling, or referral to a smoking cessation program that offers both pharmacotherapy and counseling.
- VI. It is the policy of Louisiana Healthcare Connections that Endovascular Revascularization for the lower extremity is **not medically necessary** for the following indications:

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- A. Claudication due to isolated infrapopliteal artery disease (anterior tibial, posterior tibial or peroneal) including enrollees with coronary artery disease, diabetes mellitus, or both;
- B. To prevent the progression of claudication to chronic limb-threatening ischemia in an enrollee who does not otherwise meet medical necessity criteria;
- C. Enrollee is asymptomatic; or
- D. Treatment of a nonviable limb.

VII. It is the policy of Louisiana Healthcare Connections that Peripheral Arterial Disease Rehabilitation for Symptomatic Peripheral Arterial Disease is **medically necessary** if all the following components of a supervised exercise therapy (SET) program are met:

- A. Up to 36 sessions over a 12-week period
- B. Sessions lasting 45-60 minutes using a motorized treadmill or a track to achieve symptom-limited claudication.
- C. Delivered by qualified auxiliary personnel to ensure benefits exceed harms, and who are trained in exercise therapy for PAD and under the direct supervision of a physician, physician assistant, or nurse practitioner/clinical nurse specialist trained in both basic and advanced life support techniques.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only and may not support medical necessity. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
93454	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation
93455	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography
93456	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right heart catheterization
93457	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography and right heart catheterization
93458	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed

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CPT® Codes	Description
93459	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts)
93460	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
93461	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, veno
92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch
92921	Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)
92924	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch
92925	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)
92928	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch
92929	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)
92933	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch
92934	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)
92937	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when
92938	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection whe
92941	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty,
92943	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel
92944	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; each additional

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CPT® Codes	Description
37220	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal angioplasty
37221	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed
37224	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal angioplasty
37225	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with atherectomy, includes angioplasty within the same vessel, when performed
37226	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed
37227	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed
37228	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal angioplasty
37229	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with atherectomy, includes angioplasty within the same vessel, when performed
37230	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed
37231	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed
37232	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal angioplasty (List separately in addition to code for primary procedure)
37233	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with atherectomy, includes angioplasty within the same vessel, when performed (List separately in addition to code)
37234	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately)
37235	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed (
93668	Peripheral arterial disease (PAD) rehabilitation, per session

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Original approval date	1/22	

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References

1. Louisiana Medicaid Managed Care Organization (MCO) Manual. Last Updated 1/5/2022
2. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD) for supervised exercise therapy (SET) for symptomatic peripheral artery disease (PAD) (20.35). Baltimore, MD: CMS; July 2, 2018.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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