

Percutaneous Coronary Intervention



INDEPENDENT CARE HEALTH PLAN

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Medical Coverage Policy

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Disclaimer The Coverage Summaries are reviewed by the iCare Medicare Utilization Management Committee. Clinical policy is not intended to preempt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test, or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically. References to CPT® codes or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee of claims payment. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any shape or form or by any means, electronic, mechanical, photocopying or otherwise, without permission from iCare.

Related Medical/Pharmacy Coverage Policies

None

Related Documents

Please refer to [CMS website](#) for the most current applicable National Coverage Determination (NCD)/Local Coverage Determination (LCD)/Local Coverage Article (LCA)/CMS Online Manual System/Transmittals.

Type	Title	ID Number	Jurisdiction Medicare Administrative Contractors (MACs)	Applicable States/Territories
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NCD	Percutaneous Transluminal Angioplasty (PTA)	20.7		
LCD (and pertinent LCA)	Percutaneous Coronary Interventions	L34761 A57479	J5 - Wisconsin Physicians Service Insurance Corporation	IA, KS, MO, NE
LCD (and pertinent LCA)	Percutaneous Coronary Intervention	L33623 A56823	J6 - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI
LCD (and pertinent LCA)	Cardiac Catheterization and Coronary Angiography	L33557 A52850	J6 - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI
LCD (and pertinent LCA)	Percutaneous Coronary Interventions	L34761 A57479	J8 - Wisconsin Physicians Service Insurance Corporation	IN, MI
LCD (and pertinent LCA)	Cardiac Catheterization and Coronary Angiography	L33959 A56500	J15 - CGS Administrators, LLC (Part A/B MAC)	KY, OH
LCD (and pertinent LCA)	Percutaneous Coronary Intervention	L33623 A56823	JK - National Government Services, Inc. (Part A/B MAC)	CT, NY, ME, MA, NH, RI, VT

Description

A **percutaneous coronary intervention (PCI)** is used to dilate (widen) narrowed arteries in the heart to relieve chest pain, treat myocardial infarction (heart attack) and potentially enhance activity level. During a PCI, a catheter is advanced to the origin of a coronary artery. A wire with a deflated balloon is then passed beyond the obstruction and advanced into the narrowed part of the coronary artery. **Coronary artery angioplasty** (also known as percutaneous transluminal coronary angioplasty [PTCA]) is performed when the balloon is inflated to enlarge the channel for blood flow. In most PCIs, a **coronary (cardiac) stent** (expandable metal mesh tube) crimped on a balloon is then delivered in a similar fashion, and the balloon is inflated to expand the stent, effectively scaffolding the arterial wall to improve blood flow to the heart muscle. As an alternative to angioplasty, **atherectomy** removes plaque using a rotating shaver or laser at the catheter tip to open narrow or blocked arteries.

To reduce the risk of target vessel restenosis, drug-eluting stents (DES) may be used during PCI. DES vary according to the stent platform, polymer used and antirestenotic drug type (eg, everolimus, ridaforolimus, zotarolimus). Drug-eluting stents are coated with antirestenotic medication that is slowly released after implantation to help prevent build-up of new plaque in the stented artery and prevent restenosis. Information regarding specific US Food & Drug Administration (FDA)-approved coronary stents may be found on the [FDA](#) website.

Intravascular (endoluminal) imaging techniques are used to enhance visualization of coronary vessel or graft lesions during a diagnostic or therapeutic cardiac catheterization procedure in order to guide treatment decisions. **Intravascular ultrasound (IVUS)** allows visualization of the coronary artery wall by utilizing ultrasound to delineate plaque morphology and distribution and to provide guidance for transcatheter coronary intervention. **Optical coherence tomography (OCT)** relies on the reflection of light to obtain cross-sectional detailed images of the coronary artery to characterize the structure and extent of atherosclerosis and assess acute stent placement.

Coverage Determination

iCare follows the CMS requirement that only allows coverage and payment for services that are reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member except as specifically allowed by Medicare.

In interpreting or supplementing the criteria above and in order to determine medical necessity consistently, iCare may consider the criteria contained in the following:

Percutaneous Coronary Intervention

Percutaneous coronary intervention will be considered medically reasonable and necessary when the following requirements are met:

- Coronary artery diameter stenosis greater than 70% (other than left main artery) with **one or more** of the following:
 - Fractional flow reserve (FFR) less than or equal to 0.80; **OR**
 - Instantaneous wave free ratio (iFR) less than or equal to 0.89; **OR**
 - Lifestyle-limiting [chest pain](#)* despite [guideline directed medical therapy \(GDMT\)**](#); **OR**
- Coronary artery disease (CAD) treatment in conjunction with planned percutaneous valve procedure (eg, transcatheter aortic valve replacement); **OR**
- Individual with acute coronary syndrome (eg, acute myocardial infarction, unstable angina)¹⁵; **OR**
- Individual with silent ischemia¹⁵; **OR**
- In-stent restenosis as evidenced by the following:
 - [Chest pain](#)* or myocardial ischemia; **AND**
 - Individual expected to tolerate postprocedural dual antiplatelet therapy (eg, clopidogrel or ticagrelor and aspirin);

AND either of the following:

- Greater than or equal to 70% restenosis of a non-left main coronary vessel; **OR**
- Greater than or equal to 50% restenosis of the left main artery; **OR**
- Left main coronary artery stenosis appropriate for percutaneous coronary intervention (PCI) as indicated by:
 - Anatomic conditions associated with low to intermediate risk of PCI procedural complications and intermediate to high likelihood of good long-term outcome (eg, [SYNTAX score](#) less than 33); **AND**
 - Significant stenosis as indicated by **one or more** of the following:
 - 50% or greater luminal diameter stenosis⁵; **OR**
 - FFR⁵ less than or equal to 0.80; **OR**
 - iFR⁵ less than or equal to 0.89; **OR**
 - Lumen area less than 6 square millimeters⁵; **OR**
 - Lumen diameter less than 2.8 millimeters⁵;

AND either of the following:

- High surgical revascularization risk as determined by a heart team (including a cardiac surgeon and an interventional cardiologist) that is associated with clinical characteristics such as moderate to severe chronic obstructive pulmonary disease (COPD), disability from prior stroke, prior cardiac surgery, and/or [Society of Thoracic Surgery \[STS\] Predictive Risk of Mortality](#) greater than 2% (not an all-inclusive list); **OR**
- Individual chooses not to undergo surgical revascularization as documented in the clinical record

*Chest pain includes pain, pressure, tightness or discomfort in the chest, shoulders, arms, neck, back, upper abdomen or jaw, as well as shortness of breath and fatigue and should all be considered anginal equivalents.⁶

**GDMT represents individualized optimal medical therapy and lifestyle modifications for CAD and may include antianginal, antihypertensive, antiplatelet and statin or other lipid-lowering therapies along with diet modification, physical activity and smoking cessation.

Percutaneous Transluminal Angioplasty

Please refer to the above [Medicare guidance](#) for **percutaneous transluminal angioplasty**.

Doppler Functional Flow Reserve Studies

Doppler functional flow reserve studies to assess the degree of stenosis within a vessel will be considered medically reasonable and necessary.

Intracoronary Ultrasound

Intracoronary ultrasound will be considered medically reasonable and necessary when **one or more** of the following requirements are met:

- Assessment of the extent of coronary stenosis if equivocal on angiography; **OR**
- Assessment of the patency and integrity of a coronary artery post-intervention

The use of the criteria in this Medicare Advantage Medical Coverage Policy provides clinical benefits highly likely to outweigh any clinical harms. Services that do not meet the criteria above are not medically necessary and thus do not provide a clinical benefit. Medically unnecessary services carry risks of adverse outcomes and may interfere with the pursuit of other treatments which have demonstrated efficacy.

Coverage Limitations

[US Government Publishing Office. Electronic code of federal regulations: part 411 – 42 CFR § 411.15 - Particular services excluded from coverage](#)

The following **percutaneous coronary intervention (PCI)** indications will not be considered medically reasonable and necessary:

- An individual that can be managed medically¹³; **OR**
- An individual with stable CAD¹³

A review of the current medical literature shows that the evidence is insufficient to determine that this service is standard medical treatment for these indications. There remains an absence of randomized, blinded clinical studies examining benefit and long-term clinical outcomes establishing the value of this service in clinical management for these indications.

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
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)	Bundled

Percutaneous Coronary Intervention

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)	Bundled
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)	Bundled
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)	Bundled
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 performed; single vessel	
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 when performed; each additional branch subtended by the bypass graft (List separately in addition to code for primary procedure)	Bundled
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, including aspiration thrombectomy when performed, single vessel	
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 coronary artery, coronary artery branch, or bypass graft (List separately in addition to code for primary procedure)	Bundled
92973	Percutaneous transluminal coronary thrombectomy mechanical (List separately in addition to code for primary procedure)	
92974	Transcatheter placement of radiation delivery device for subsequent coronary intravascular brachytherapy (List separately in addition to code for primary procedure)	
92975	Thrombolysis, coronary; by intracoronary infusion, including selective coronary angiography	
92978	Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; initial vessel (List separately in addition to code for primary procedure)	
92979	Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; each additional vessel (List separately in addition to code for primary procedure)	
CPT® Category III Code(s)	Description	Comments
No code(s) identified		
HCPCS Code(s)	Description	Comments
C9600	Percutaneous transcatheter placement of drug eluting intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	
C9601	Percutaneous transcatheter placement of drug-eluting 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)	
C9602	Percutaneous transluminal coronary atherectomy, with drug eluting intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch	

C9603	Percutaneous transluminal coronary atherectomy, with drug-eluting intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (list separately in addition to code for primary procedure)	
C9604	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel	
C9605	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft (list separately in addition to code for primary procedure)	
C9606	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel	
C9607	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; single vessel	
C9608	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft (list separately in addition to code for primary procedure)	

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Appendix

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Change Summary

- 01/01/2024 New Policy.
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