

MP.091.MPC- Intravascular Ultrasound for Coronary Vessels

Maryland Physicians Care considers **Intravascular Ultrasound (IVUS) for Coronary Vessels** medically necessary for either of the following indications:

1. IVUS of the coronary arteries (consistent with the 2011 ACCF/AHA Guidelines for Percutaneous Coronary Intervention (PCI) 5.4.2) is indicated for any of the following medical reasons:
 - a. To confirm clinical suspicion of a significant left main coronary artery stenosis when standard angiography is indeterminate;
 - b. To detect rapidly progressive cardiac allograft vasculopathy following heart transplant;
 - c. To determine the mechanism of stent thrombosis or restenosis;
 - d. To assess non-left main coronary arteries with angiographic intermediate stenosis (50-70%) to aid the decision whether or not to place a stent; or,
 - e. To assist in guidance of complex coronary stent implementation, especially involving the L main coronary artery.
2. In lieu of coronary angiography when performed to minimize use of iodinated contrast material in an individual with compromised renal function, congestive heart failure or known contrast allergy.

Limitations

Coronary IVUS is not covered for any of the following (this is not an all-inclusive list):

1. Screening for coronary artery disease in asymptomatic individuals;
2. Routine lesion assessment is not recommended when revascularization with PCI or Coronary Artery Bypass Grafting (CABG) is not being considered;
3. Carotid stent placement;
4. Follow-up monitoring of medical therapies for atherosclerosis;
5. Peripheral vascular intervention; or,
6. Evaluation of chronic venous obstruction or to guide venous stenting.

Background

Ultrasound diagnostic procedures utilizing low energy sound waves are being widely employed to determine the composition and contours of nearly all body tissues except bone and air-filled spaces. This technique permits noninvasive visualization of even the deepest structures in the body. The use of the ultrasound technique is sufficiently developed that it can be considered essential to good patient care in diagnosing a wide variety of conditions.

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Intravascular ultrasound (IVUS) is an imaging technique that uses a tiny ultrasound transducer to obtain detailed views of the lumen and wall of a coronary vessel. IVUS has been investigated for imaging of coronary vessels for guidance of procedures such as angioplasty and insertion of coronary stents and for monitoring response to treatment.

Codes:

CPT Codes / HCPCS Codes / ICD-10 Codes	
Code	Description
CPT Codes	
92978	Intravascular ultrasound (coronary vessel or graft) 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	Each additional vessel (list separately in addition to code for a primary procedure).
Non-Covered CPT Codes	
37252*	Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation, initial noncoronary vessel
37253*	Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation, each additional noncoronary vessel
*Considered Non-covered unless part of a NIH-certified study subject to medical necessity review	
ICD-10 codes covered if selection criteria are met:	
I20.0-I25.9	Ischemic heart diseases
I42.0-I49.9	Cardiomyopathy
I50.1-I50.9	Heart failure
I70.0	Atherosclerosis of aorta
I70.8-I70.92	Atherosclerosis of other arteries-Generalized atherosclerosis
I97.710 – I97.89	Other postprocedural complications during surgery
J95.61 – J95.831	Postprocedural hemorrhage and hematoma of a respiratory system organ or structure following other procedure
K91.61- K91.841	Postprocedural hemorrhage and hematoma of a digestive system following other procedure

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M96.810 –M96.831	Post procedural hemorrhage and hematoma of a musculoskeletal structure following other procedure
N99.61 – N99.821	Postprocedural hemorrhage and hematoma of a genitourinary system following a genitourinary system procedure
R07.1-R07.9	Chest pain
R57.0	Cardiogenic shock
R94.30-R94.39	Abnormal results of cardiovascular function studies
T81.11XA	Postprocedural cardiogenic shock
T82.817A- T82.9XXs	Other complications due to other cardiac and vascular prosthetic devices, implants, and grafts
T86.20-T86.298	Complications of heart transplant
T97.710-T97.89	Intraoperative cardiac functional disturbances-Intraoperative and postprocedural complications and disorders of circulatory system, not elsewhere classified
Z48.21	Encounter for aftercare following heart transplant
Z48.298	Encounter for aftercare following other organ transplant
Z94.1	Heart transplant status
Z95.5	Presence of coronary angioplasty implant and graft
Z98.61	Coronary angioplasty status

References

1. Agency for Health Research and Quality (AHRQ). Effective Health Care Program- Intravascular Diagnostic Procedures and Imaging Techniques Versus Angiography Alone in Coronary Artery Stenting: Comparative Effective Review. February 2013. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0054677/>
2. Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) No. 220.5 - Ultrasound Diagnostic Procedures, 09/2007. <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=263&ncdver=3&bc=AgAAgAAAAAAAAAA%3d%3d&>
3. Killingsworth CD, Taylor SM, Patterson MA, et al. Prospective implementation of an algorithm for bedside intravascular ultrasound-guided filter placement in critically ill patients. J Vasc Surg. 2010 May;51(5):1215-1221. <http://www.ncbi.nlm.nih.gov/pubmed/20223628>
4. Koo, B, Yang, H, Doh, J. et al. Optimal intravascular ultrasound criteria and their accuracy for defining the functional significance of intermediate coronary stenoses of different locations. J Am Coll Cardiol. 2011 Jul; 4(7): 803-811. <http://www.ncbi.nlm.nih.gov/pubmed/21777890>

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5. Levine GN, Bates ER, Blankenship JC, et al. 2011 ACCF/AHA/SCAI Guideline for Percutaneous Coronary Intervention: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions. *J Am Coll Cardiol.* 2011 Dec; 58(24):e44-e122. <http://circ.ahajournals.org/content/124/23/e574>
6. Mintz GS. Clinical utility of intravascular imaging and physiology in coronary artery disease. *J Am Coll Cardiol.* 2014 Jul 15;64(2):207-222. doi: 10.1016/j.jacc.2014.01.015. Epub 2014 Feb 12. <http://www.ncbi.nlm.nih.gov/pubmed/24530669>
7. Puri R, Kapadia SR, Nicholls SJ, et al. Optimizing outcomes during left main percutaneous coronary intervention with intravascular ultrasound and fractional flow reserve: the current state of evidence. *J Am Coll Cardiol.* 2012 July; 5(7): 681-707. <http://www.ncbi.nlm.nih.gov/pubmed/22814774>
8. Society for Cardiovascular Angiography and Intervention (SCAI). Expert Consensus Statement on the Use of Fractional Flow Reserve, Intravascular Ultrasound, and Optical Coherence Tomography: A Consensus Statement of the Society of Cardiovascular Angiography and Interventions. Nov. 8, 2013. <https://pubmed.ncbi.nlm.nih.gov/24227282/>
9. Tuzcu EM, Bayturan O, Kapadia S. Coronary intravascular ultrasound: a closer view. *Heart.* 2010 March; 96: 1318-1324. <http://www.ncbi.nlm.nih.gov/pubmed/20659952>
10. U.S. Department of Health and Human Services. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: 2011 ACCF/AHA/SCAI Guideline for Percutaneous Coronary Intervention: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions Published: December 2011. <https://www.ahajournals.org/doi/10.1161/CIR.0b013e31823ba622>
11. Wellons ED, Rosenthal D, Shuler FW, et al. Real-time intravascular ultrasound-guided placement of a removable inferior vena cava filter. *J Trauma.* 2004 July; 57(1):20-23; discussion 23-25. <http://www.ncbi.nlm.nih.gov/pubmed/15284542>

Archived References

1. Hayes Medical Technology Directory. Intravascular Ultrasound (IVUS) for Guidance of Percutaneous Coronary Interventions. Annual Review June 6, 2014. Archived: August 22, 2015.

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