MEDICAL POLICY



MEDICAL POLICY DETAILS		
Medical Policy Title	Intravascular Ultrasound (IVUS)	
Policy Number	6.01.09	
Category	Technology Assessment	
Original Effective Date	10/18/01	
Committee Approval Date	10/18/01, 06/20/02	
Current Effective Date	07/20/23	
Archived Date	05/21/03	
Archive Review Date	11/10/05, 11/16/06, 12/20/07, 12/18/08, 11/19/09, 06/17/10, 06/16/11, 07/19/12, 07/18/13, 07/17/14, 07/16/15, 07/21/16, 7/20/17, 07/19/18, 7/18/19, 7/16/20, 07/15/21, 07/21/22, 07/20/23	
Product Disclaimer	 If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply. If a commercial product (including an Essential Plan or Child Health Plus product), medical policy criteria apply to the benefit. If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit. If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit. If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line. 	

POLICY STATEMENT

- I. Based upon our criteria and assessment of the peer-reviewed literature, intravascular ultrasound has been medically proven to be effective and, therefore, is considered **medically appropriate** for any of the following indications:
 - A. Determination of the appropriate type of revascularization procedure to be done;
 - B. Assessment of abdominal aortic aneurysm;
 - C. Assessment of coronary artery stent deployment and expansion;
 - D. Evaluation of subsequent stenosis after stent replacement;
 - E. Evaluation of the coronary vessels for evidence of post-transplant vasculopathy; or
 - F. Evaluation of vascular stents and intravascular devices.
- II. Based upon our criteria and assessment of the peer-reviewed literature, the use of intravascular ultrasound for all other indications has not been proven to be medically effective and, therefore, is considered **investigational**.

Refer to Corporate Medical Policy #11.01.03 Experimental and Investigational Services

DESCRIPTION

Transcatheter intravascular ultrasound (IVUS) imaging is a catheter-based technique that provides real-time, high-resolution tomographic images of the lumen and arterial wall of vascular structure. The technique involves a miniaturized ultrasound transducer, mounted on the tip of a catheter, which is inserted directly into an artery or vein to produce either two-dimensional tomographic images or three-dimensional computer-assisted reconstruction of planar IVUS images.

Intravascular ultrasound is intended to image the internal lining of a vessel prior to, during, and following angioplasty, artherectomy, placement of a stent, post-cardiac transplant vasculopathy, and assessment and/or placement of endovascular graft for abdominal aneurysm, as well as prior, during, and after vascular procedures/surgeries.

Medical Policy: INTRAVASCULAR ULTRASOUND (IVUS)

Policy Number: 6.01.09

Page: 2 of 3

RATIONALE

IVUS is a non-invasive, evidence-based procedure that can provide high-quality images to help determine whether surgery is necessary, the type of surgery best suited to the individual patient, and whether further medical treatment in the form of lifestyle changes and medication might benefit the patient.

CODES

- *Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.*
- CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.
- Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates
- Code Key: Experimental/Investigational = (E/I), Not medically necessary/appropriate = (NMN).

CPT Codes

Code	Description
37252	Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; initial noncoronary vessel (List separately in addition to code for primary procedure)
37253	Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; each additional noncoronary vessel (List separately in addition to code for primary procedure)
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	each additional vessel (List separately in addition to code for primary procedure)

Copyright © 2023 American Medical Association, Chicago, IL

HCPCS Codes

Code	Description
C1753	Catheter, intravascular ultrasound

ICD10 Codes

Code	Description
I25.10-I25.119	Atherosclerotic heart disease of native coronary artery (code range)
I25.700-I25.812	Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris or other forms of chronic ischemic heart disease (code range)
I71.4	Abdominal aortic aneurysm, without rupture
Z48.21	Encounter for aftercare following heart transplant
Z48.280	Encounter for aftercare following heart-lung transplant
Z94.1	Heart transplant status

Medical Policy: INTRAVASCULAR ULTRASOUND (IVUS)

Policy Number: 6.01.09

Page: 3 of 3

Code	Description
Z94.3	Heart and lungs transplant status

REFERENCES

*Blessing E, et al. Intravascular ultrasound and stent implantation: intraobserver and interobserver variability. <u>Amer Heart J</u> 1999 Feb;137(2):368-71.

*Bruining N, et al. Clinical implications of intravascular ultrasound imaging for stenting procedures. <u>Amer Heart J</u> 1999 Feb;137(2):368-71.

Kuno T, et al. Real-world use of intravascular ultrasound in Japan: A report from contemporary multicenter PCI registry. <u>Heart and Vessels</u> 2019 Nov;34(11):1728-1739.

*Mintz GS, et al. ACC clinical expert consensus document on standards for the acquisition, measurement and reporting of intravascular ultrasound studies: a report of the American College of Cardiology task force on clinical expert consensus documents (Committee to develop a clinical expert consensus document on standards for acquisition, measurement and reporting of intravascular ultrasound studies [IVUS]). <u>J Am Coll Cardiol</u> 2001;37:1478–92.

Shlofmitz E, et al. Intravascular Ultrasound (IVUS), StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan.

*Spence DJ. Ultrasound measurement of carotid plaque as a surrogate outcome for coronary artery disease. <u>Amer J Cardiol</u> 2002;89(Suppl):10B–16B.

*Stahr PM, et al. Discrimination of early/intermediate and advanced/complicated coronary plaque types by radiofrequency intravascular ultrasound analysis. Amer J Cardiol 2002; 90:19–23.

*Tanaka AT, et al. Use of preintervention intravascular ultrasound in patients with acute myocardial infarction. <u>Amer J Cardiol</u> 2002;89:257-61.

*Van Essen JA, et al. Intravascular ultrasonography allows accurate assessment of abdominal aortic aneurysm: an in vitro validation study. <u>J Vascul Surg</u> 1998 Feb;27(2):347-53.

*Key Article

KEY WORDS

Intravascular ultrasound, IVUS

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

Based upon our review, Intravascular Ultrasound is not addressed in National or Regional Medicare coverage determinations or policies.