

# Cardiovascular Diagnostic and Therapeutic Procedures

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**Effective Date:** November 1, 2024

[Instructions for Use](#)

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Related Medicare Advantage Medical Policy
<ul style="list-style-type: none"> <li><a href="#">Radiologic Diagnostic Procedures</a></li> </ul>
Related Commercial Policies
<ul style="list-style-type: none"> <li><a href="#">Cardiovascular Disease Risk Tests</a></li> <li><a href="#">Catheter Ablation for Atrial Fibrillation</a></li> <li><a href="#">Left Atrial Appendage Closure (Occlusion)</a></li> <li><a href="#">Lower Extremity Endovascular Procedures</a></li> <li><a href="#">Omnibus Codes</a></li> <li><a href="#">Transcatheter Heart Valve Procedures</a></li> </ul>

## Coverage Rationale

### Notes:

- Cardiology imaging prior authorization programs exist for some plans. Reference materials are available at UHCprovider.com > [Cardiology Prior Authorization and Notification](#).
- The medical necessity criteria referenced in this Medicare Advantage Medical Policy applies to a surgical procedure regardless of the approach, unless noted otherwise.

### Arterial Compliance Testing, Using Waveform Analysis

Medicare does not have a National Coverage Determination (NCD) for arterial compliance testing, using waveform analysis. Local Coverage Determinations (LCDs)/Local Coverage Article (LCAs) do not exist.

For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled [Cardiovascular Disease Risk Tests](#).

### Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA)

Refer to the Medicare Advantage Medical Policy titled [Radiologic Diagnostic Procedures](#).

### Catheter Ablation

#### Treatment of Atrial Fibrillation

Medicare does not have an NCD for catheter ablation for treatment of atrial fibrillation. LCDs/LCAs do not exist.

For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled [Catheter Ablation for Atrial Fibrillation](#).

#### Treatment of Other Indications (e.g., Atrial Flutter)

Medicare does not have an NCD for catheter ablation for treatment of for other atrial flutter. LCDs/LCAs do not exist.

For coverage guidelines, refer to the InterQual® CP: Procedures”

- Electrophysiology (EP) Testing + / - Radiofrequency (RFA)
- Cryothermal Ablation, Cardiac.

[Click here to view the InterQual® criteria.](#)

## **Lower Extremity Stenting, Atherectomy, and/or Angioplasty**

Medicare does not have an NCD for lower extremity endovascular interventions. LCDs/LCAs exist and compliance with these policies is required where applicable. For specific LCDs/LCAs, refer to the table for [Lower Extremity Stenting, Atherectomy, and/or Angioplasty](#).

For coverage guidelines for states/territories with no LCDs/LCAs, refer to the UnitedHealthcare Commercial Medical Policy titled [Lower Extremity Endovascular Procedures](#).

## **Pulmonary Artery Pressure Measurements (CardioMEMS™ HF System)**

Medicare does not have an NCD for Pulmonary Artery Pressure Measurements (CardioMEMS™ HF System). LCDs/LCAs do not exist.

For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled [Omnibus Codes](#).

## **Valve Repairs and Replacements**

### ***Surgical Closure (Occlusion) of the LAA Using Closure Systems (e.g., AtriClip® Management System)***

Medicare does not have an NCD for surgical closure (occlusion) of the LAA using closure systems. LCDs/LCAs do not exist.

For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled [Left Atrial Appendage Closure \(Occlusion\)](#).

## **Transcatheter Pulmonary Heart Valve Replacement**

Medicare does not have an NCD for transcatheter pulmonary heart valve replacement. LCDs/LCAs do not exist.

For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled [Transcatheter Heart Valve Procedures](#).

## **Applicable Codes**

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service; however, language may be included in the listing below to indicate if a code is non-covered. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CPT Code	Description
<b>Arterial Compliance Testing, Using Waveform Analysis</b>	
93050	Arterial pressure waveform analysis for assessment of central arterial pressures, includes obtaining waveform(s), digitization and application of nonlinear mathematical transformations to determine central arterial pressures and augmentation index, with interpretation and report, upper extremity artery, non-invasive

CPT Code	Description
<b>Catheter Ablation</b>	
93653	Comprehensive electrophysiologic evaluation with insertion and repositioning of multiple electrode catheters, induction or attempted induction of an arrhythmia with right atrial pacing and recording and catheter ablation of arrhythmogenic focus, including intracardiac electrophysiologic 3-dimensional mapping, right ventricular pacing and recording, left atrial pacing and recording from coronary sinus or left atrium, and His bundle recording, when performed; with treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathway, accessory atrioventricular connection, cavo-tricuspid isthmus or other single atrial focus or source of atrial re-entry
93656	Comprehensive electrophysiologic evaluation including transeptal catheterizations, insertion and repositioning of multiple electrode catheters with intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation, including intracardiac electrophysiologic 3-dimensional mapping, intracardiac echocardiography including imaging supervision and interpretation, induction or attempted induction of an arrhythmia including left or right atrial pacing/recording, right ventricular pacing/recording, and His bundle recording, when performed
<b>Lower Extremity Stenting, Atherectomy, and/or Angioplasty</b>	
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
<b>Pulmonary Artery Pressure Measurements (CardioMEMS™ HF System)</b>	
33289	Transcatheter implantation of wireless pulmonary artery pressure sensor for long-term hemodynamic monitoring, including deployment and calibration of the sensor, right heart catheterization, selective pulmonary catheterization, radiological supervision and interpretation, and pulmonary artery angiography, when performed
93264	Remote monitoring of a wireless pulmonary artery pressure sensor for up to 30 days, including at least weekly downloads of pulmonary artery pressure recordings, interpretation(s), trend analysis, and report(s) by a physician or other qualified health care professional
<b>Surgical Closure (Occlusion) of the LAA Using Closure Systems (e.g., AtriClip® Management System)</b>	
33267	Exclusion of left atrial appendage, open, any method (e.g., excision, isolation via stapling, oversewing, ligation, plication, clip)
33268	Exclusion of left atrial appendage, open, performed at the time of other sternotomy or thoracotomy procedure(s), any method (e.g., excision, isolation via stapling, oversewing, ligation, plication, clip) (List separately in addition to code for primary procedure)

CPT Code	Description
<b>Surgical Closure (Occlusion) of the LAA Using Closure Systems (e.g., AtriClip® Management System)</b>	
33269	Exclusion of left atrial appendage, thoracoscopic, any method (e.g., excision, isolation via stapling, oversewing, ligation, plication, clip)
33999	Unlisted procedure, cardiac surgery
<b>Transcatheter Pulmonary Heart Valve Replacement</b>	
33477	Transcatheter pulmonary valve implantation, percutaneous approach, including pre-stenting of the valve delivery site, when performed

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HCPCS Code	Description
C2624	Implantable wireless pulmonary artery pressure sensor with delivery catheter, including all system components

## Centers for Medicare and Medicaid Services (CMS) Related Documents

After checking the table below and searching the [Medicare Coverage Database](#), if no NCD, LCD, or LCA is found, refer to the criteria as noted in the [Coverage Rationale](#) section above.

NCD	LCD	LCA	Contractor Type	Contractor Name
<b>Lower Extremity Stenting, Atherectomy, and/or Angioplasty</b>				
N/A	<a href="#">L35998 Non-Coronary Vascular Stents</a>	<a href="#">A57590 Billing and Coding: Non-Coronary Vascular Stents</a>	Part A and B MAC	WPS*

<b>Medicare Administrative Contractor (MAC) With Corresponding States/Territories</b>	
MAC Name (Abbreviation)	States/Territories
CGS Administrators, LLC (CGS)	KY, OH
First Coast Service Options, Inc. (First Coast)	FL, PR, VI
National Government Services, Inc. (NGS)	CT, IL, ME, MA, MN, NH, NY, RI, VT, WI
Noridian Healthcare Solutions, LLC (Noridian)	AS, AK, AZ, CA, GU, HI, ID, MT, NV, ND, Northern Mariana Islands, OR, SD, UT, WA, WY
Novitas Solutions, Inc. (Novitas)	AR, CO, DC, DE, LA, MD, MS, NJ, NM, OK, PA, TX, VA**
Palmetto GBA (Palmetto)	AL, GA, NC, SC, TN, VA**, WV
Wisconsin Physicians Service Insurance Corporation (WPS)*	IA, IN, KS, MI, MO, NE
<b>Notes</b>	
*Wisconsin Physicians Service Insurance Corporation: Contract Number 05901 applies only to WPS Legacy Mutual of Omaha MAC A Providers.	
**For the state of Virginia: Part B services for the city of Alexandria and the counties of Arlington and Fairfax are excluded for the Palmetto GBA jurisdiction and included within the Novitas Solutions, Inc. jurisdiction.	

## Policy History/Revision Information

Date	Summary of Changes
11/01/2024	<p><b>Title Change/Template Update</b></p> <ul style="list-style-type: none"> <li>Reorganized and renamed policy; combined content previously included in the UnitedHealthcare Medicare Advantage Coverage Summaries titled: <ul style="list-style-type: none"> <li>Cardiac Procedures: Pacemakers, Pulmonary Artery Pressure Measurements, Ventricular Assistive Devices, Valve Repair, and Valve Replacements</li> <li>Cardiovascular Diagnostic and Therapeutic Procedures</li> </ul> </li> <li>Transferred content to new template and changed policy type classification to "Medical Policy"</li> <li>Updated <i>Instructions for Use</i></li> </ul>

Date	Summary of Changes
	<p><b>Related Policies</b></p> <ul style="list-style-type: none"> <li>● Added reference link to the: <ul style="list-style-type: none"> <li>○ UnitedHealthcare Medicare Advantage Medical Policy titled <i>Radiologic Diagnostic Procedures</i></li> <li>○ UnitedHealthcare Commercial Medical Policy titled: <ul style="list-style-type: none"> <li>▪ <i>Cardiovascular Disease Risk Tests</i></li> <li>▪ <i>Catheter Ablation for Atrial Fibrillation</i></li> <li>▪ <i>Left Atrial Appendage Closure (Occlusion)</i></li> <li>▪ <i>Lower Extremity Endovascular Procedures</i></li> <li>▪ <i>Omnibus Codes</i></li> <li>▪ <i>Transcatheter Heart Valve Procedures</i></li> </ul> </li> </ul> </li> <li>● Removed reference link to the UnitedHealthcare Medicare Advantage Policy Guideline titled: <ul style="list-style-type: none"> <li>○ <i>Biomarkers in Cardiovascular Risk Assessment</i></li> <li>○ <i>Long-Term Wearable Electrocardiographic Monitoring</i></li> <li>○ <i>Percutaneous Coronary Interventions</i></li> </ul> </li> </ul> <p><b>Coverage Rationale</b></p> <ul style="list-style-type: none"> <li>● Added notation to indicate the medical necessity criteria referenced in this Medicare Advantage Medical Policy applies to a surgical procedure regardless of the approach, unless noted otherwise</li> <li>● Removed content/language addressing: <ul style="list-style-type: none"> <li>○ Cardiac pacemakers (single-chamber or dual-chamber) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> <li>○ Durable medical equipment (DME) face-to-face requirement [refer to the UnitedHealthcare Medicare Advantage Medical Policy titled <i>Durable Medical Equipment (DME), Prosthetics, Orthotics (Non-Foot Orthotics), Nutritional Therapy, and Medical Supplies Grid</i>]</li> <li>○ Electrocardiographic services [refer to the MAMP titled <i>Ambulatory Electrocardiographic (AECG) Monitoring</i>]</li> <li>○ Leadless pacemakers (CPT codes 33274 and 33275) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> <li>○ Percutaneous left atrial appendage (LAA) closure therapy (CPT code 33340) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> <li>○ Transcatheter aortic valve replacement (TAVR) (CPT codes 33361, 33362, 33363, 33364, 33365, 33366, 33367, 33368, and 33369) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> <li>○ Transcatheter edge-to-edge repair (TEER) for mitral valve regurgitation (CPT codes 0345T, 33418, and 33419) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> <li>○ Ventricular assist devices (CPT codes 33979, 33980, 33982, and 33983) (refer to the <a href="#">Medicare Coverage Database</a> for applicable coverage guidelines)</li> </ul> </li> </ul> <p><b>Arterial Compliance Testing, Using Waveform Analysis</b></p> <ul style="list-style-type: none"> <li>● Removed reference link to the <i>Medicare Coverage Database</i></li> </ul> <p><b>Lower Extremity Stenting, Atherectomy, and/or Angioplasty</b></p> <ul style="list-style-type: none"> <li>● Added instruction to refer to the table [in the Centers for Medicare &amp; Medicaid (CMS) Related Documents section of the policy] for specific LCDs/LCAs</li> <li>● Removed reference link to the <i>Medicare Coverage Database</i></li> </ul> <p><b>Surgical Closure (Occlusion) of the LAA Using Closure Systems (e.g., AtriClip® Management System)</b></p> <ul style="list-style-type: none"> <li>● Added language to indicate Medicare does not have a National Coverage Determination (NCD) for surgical closure (occlusion) of the LAA using closure systems</li> <li>● Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) do not exist</li> <li>● For coverage guidelines, refer to the UnitedHealthcare Commercial Medical Policy titled <i>Left Atrial Appendage Closure (Occlusion)</i></li> </ul> <p><b>Pulmonary Artery Pressure Measurements (CardioMEMS™ HF System)</b></p> <ul style="list-style-type: none"> <li>● Removed reference link to the <i>Medicare Coverage Database</i></li> </ul> <p><b>Transcatheter Pulmonary Heart Valve Replacement</b></p> <ul style="list-style-type: none"> <li>● Removed reference link to the <i>Medicare Coverage Database</i></li> </ul>

Date	Summary of Changes
	<p><b>Treatment of Atrial Fibrillation</b></p> <ul style="list-style-type: none"> <li>Removed reference link to the <i>Medicare Coverage Database</i></li> </ul> <p><b>Treatment of Other Indications (e.g., Atrial Flutter)</b></p> <ul style="list-style-type: none"> <li>Removed reference link to the <i>Medicare Coverage Database</i></li> </ul> <p><b>Applicable Codes</b></p> <ul style="list-style-type: none"> <li>Updated list of applicable CPT codes (previously located in the <i>Coverage Rationale</i> section): <ul style="list-style-type: none"> <li>Added CPT codes 33267, 33268, 33269, and 33999</li> <li>Removed CPT codes 0345T, 33340, 33361, 33362, 33363, 33364, 33365, 33366, 33367, 33368, 33369, 33418, 33419, 33979, 33980, 33982, and 33983</li> </ul> </li> </ul> <p><b>Centers for Medicare and Medicaid Services (CMS) Related Documents</b></p> <ul style="list-style-type: none"> <li>Added: <ul style="list-style-type: none"> <li>List of documents available in the <i>Medicare Coverage Database</i> for lower extremity stenting, atherectomy, and/or angioplasty</li> <li>List of applicable <i>Medicare Administrative Contractors (MACs) With Corresponding States/Territories</i></li> <li>Notation to indicate: <ul style="list-style-type: none"> <li>The Wisconsin Physicians Service Insurance Company (WPS) Contract Number 05901 applies only to WPS Legacy Mutual of Omaha MAC A Providers</li> <li>For the state of Virginia: Part B services for the city of Alexandria and the counties of Arlington and Fairfax are excluded for the Palmetto GBA jurisdiction and included within the Novitas Solutions, Inc. jurisdiction</li> </ul> </li> </ul> </li> </ul> <p><b>Supporting Information</b></p> <ul style="list-style-type: none"> <li>Archived previous policy versions MCS012.09 and MCS013.12</li> </ul>

## Instructions for Use

The Medicare Advantage Policy documents are generally used to support UnitedHealthcare coverage decisions. It is expected providers retain or have access to appropriate documentation when requested to support coverage. This document may be used as a guide to help determine applicable:

- Medical necessity coverage guidelines; including documentation requirements, and/or
- Medicare coding or billing requirements.

Medicare Advantage Policies are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates. This Policy is provided for informational purposes and does not constitute medical advice. It is intended to serve only as a general reference and is not intended to address every aspect of a clinical situation. Physicians and patients should not rely on this information in making health care decisions. Physicians and patients must exercise their independent clinical discretion and judgment in determining care. Treating physicians and healthcare providers are solely responsible for determining what care to provide to their patients. Members should always consult their physician before making any decisions about medical care.

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The member specific benefit plan document identifies which services are covered, which are excluded, and which are subject to limitations. In the event of a conflict, the member specific benefit plan document supersedes this policy. For more information on a specific member's benefit coverage, please call the customer service number on the back of the member ID card or refer to the [Administrative Guide](#).

Medicare Advantage Policies are developed as needed, are regularly reviewed, and updated, and are subject to change. They represent a portion of the resources used to support UnitedHealthcare coverage decision making. UnitedHealthcare may modify these Policies at any time by publishing a new version on this website. Medicare source materials used to develop these policies may include, but are not limited to, CMS statutes, regulations, National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), and manuals. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. The information presented in this Policy is believed to be accurate and current as of the date of publication. Where there is a conflict between this document and Medicare source materials, the Medicare source materials apply. Medicare Advantage Policies are the property of UnitedHealthcare. Unauthorized copying, use, and distribution of this information are strictly prohibited.

UnitedHealthcare follows Medicare coverage guidelines found in statutes, regulations, NCDs, and LCDs to determine coverage. The clinical coverage criteria governing certain items or services referenced in this Medical Policy have not been fully established in applicable Medicare guidelines because there is an absence of any applicable Medicare statutes, regulations, NCDs, or LCDs setting forth coverage criteria and/or the applicable NCDs or LCDs include flexibility that explicitly allows for coverage in circumstances beyond the specific indications that are listed in an NCD or LCD. As a result, in these circumstances, UnitedHealthcare applies internal coverage criteria as referenced in this Medical Policy. The internal coverage criteria in this Medical Policy was developed through an evaluation of the current relevant clinical evidence in acceptable clinical literature and/or widely used treatment guidelines. UnitedHealthcare evaluated the evidence to determine whether it was of sufficient quality to support a finding that the items or services discussed in the policy might, under certain circumstances, be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Providers are responsible for submission of accurate claims. Medicare Advantage Policies are intended to ensure that coverage decisions are made accurately. UnitedHealthcare Medicare Advantage Policies use Current Procedural Terminology (CPT<sup>®</sup>), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT<sup>®</sup> or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

For members in UnitedHealthcare Medicare Advantage plans where a delegate manages utilization management and prior authorization requirements, the delegate's requirements need to be followed.