

# Cardiac Pacemakers



INDEPENDENT CARE HEALTH PLAN

Effective Date: 10/08/2024  
Revision Date: 10/08/2024  
Review Date: 01/23/2024  
Policy Number: WI.PA-1250  
Line of Business: Medicare

## Medicare Advantage Medical Coverage Policy

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#### Disclaimer

The Medical Coverage Policies are reviewed by the iCare Medicare Utilization Management Committee. Policies in this document may be modified by a member's coverage document. 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 Medicare Advantage Medical/Pharmacy Coverage Policies

None

## Related Documents

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

Type	Title	ID Number	Jurisdiction Medicare Administrative Contractors (MACs)	Applicable States/Territories
NCD	Cardiac Pacemakers: Single Chamber and Dual	20.8.3		

	Chamber Permanent Cardiac Pacemakers			
NCD	Cardiac Pacemaker Evaluation Services	20.8.1		
NCD	Leadless Pacemakers	20.8.4		
NCD	Self-Contained Pacemaker Monitors	20.8.2		
NCD	Transtelephonic Monitoring of Cardiac Pacemakers	20.8.1.1		
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54958	J5 - Wisconsin Physicians Service Insurance Corporation J8 - Wisconsin Physicians Service Insurance Corporation	IA, KS, MO, NE IN, MI
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54961	J15 - CGS Administrators, LLC (Part A/B MAC)	KY, OH
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54929	JE - Noridian Healthcare Solutions, LLC	CA, HI, NV, American Samoa, Guam, Northern Mariana Islands
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54931	JF - Noridian Healthcare Solutions, LLC	AK, AZ, ID, MT, ND, OR, SD, UT, WA, WY
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54982	JH - Novitas Solutions, Inc. (Part A/B MAC) JL - Novitas Solutions, Inc. (Part A/B MAC)	AR, CO, NM, OK, TX, LA, MS DE, D.C., MD, NJ, PA
LCD LCA	Cardiac Rhythm Device Evaluation Billing and Coding: Cardiac Rhythm Device Evaluation	L34833 A56602	JH - Novitas Solutions, Inc. (Part A/B MAC)	DE, D.C., MD, NJ, PA DE, D.C., MD, NJ, PA

			JL - Novitas Solutions, Inc. (Part A/B MAC)	
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54831	JJ - Palmetto GBA (Part A/B MAC) JM - Palmetto GBA (Part A/B MAC)	AL, GA, TN NC, SC, VA, WV
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker	A54909	J6 - National Government Services, Inc. (Part A/B MAC) JK - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI CT, NY, ME, MA, NH, RI, VT
LCA	Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers	A54926	JN - First Coast Service Options, Inc. (Part A/B MAC)	FL, PR, U.S. VI

## Description

### Permanent Pacemakers

Permanent cardiac pacemakers are self-contained, battery-operated devices that send electrical stimulation to the heart through one or more implanted leads. Single chamber pacemakers use a single atrial or ventricular lead to deliver electrical stimulation. Dual chamber pacemakers stimulate both the atrium and the ventricle with a lead in both chambers.

Cardiac arrhythmias occur when the heart beats irregularly, too slow or too fast. These arrhythmias develop due to dysfunction in the generation and/or conduction of signals in the electrical system of the heart. Symptoms of bradycardia (heart rate less than 60 beats per minute) attributable to electrical system dysfunction include confusion, congestive heart failure, dizziness, seizures and/or syncope. Pacemakers treat bradycardia arising from sinus node dysfunction or atrioventricular block by delivering electrical stimulation to the cardiac muscle to pace activity in the absence of intrinsic (natural) pacing and to sense the heart's intrinsic signals to pace accordingly.

The implantation procedure is typically performed under local anesthesia. A catheter is inserted into the chest and the pacemaker's leads are threaded through the catheter to the appropriate chamber(s) of the heart. The surgeon then makes a small pocket in the pad of the flesh under the skin on the upper portion of the chest wall to hold the pulse generator (pacemaker). The pocket is then closed with stitches.

### **Leadless Pacemakers**

A single-chamber leadless cardiac pacemaker is a small, battery-operated electrical device placed in the right ventricle of the heart that is reported to aid in maintaining a regular heart rhythm. The device is delivered directly to the ventricle through a catheter inserted into the femoral vein and attaches to the cardiac tissue with fixation tines or coils. Unlike traditional pacemakers, leadless cardiac pacemakers do not require intravascular leads. Examples of single-chamber leadless cardiac pacemakers approved by the US Food & Drug Administration (FDA) include, but may not be limited to, Aveir VR Leadless System and Micra Transcatheter Pacing System (Micra AV2, Micra VR2).

Leadless pacemakers are also available as dual-chamber devices which purportedly regulate the heart rate synchronously between leadless pacemakers placed in the right ventricle and the right atrium. The Aveir DR Dual Chamber Leadless Pacemaker System is an example of an FDA-approved dual-chamber leadless pacemaker.

Purported benefits of a leadless cardiac pacemaker include elimination of lead failure or migration and reduction of blood clots or infection that may occur with conventional transvenous pacemakers. A pacemaker is generally indicated for a symptomatic individual experiencing conditions including, but not limited to, bradycardia and/or atrial fibrillation.

All pacemakers require routine in-person or telephonic checks by a cardiologist every 3 to 6 months to ensure they are working as intended. Batteries for both permanent and leadless pacemakers are intended to last for 5 to 17 years.

### **Coverage Determination**

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

Please refer to the above CMS guidance for **permanent cardiac pacemakers, leadless pacemakers and pacemaker monitoring.**

*The use of the criteria in this Medicare Advantage Medical Coverage Policy provides clinical benefits highly likely to outweigh any clinical harms (eg, infection, lead migration, venous thrombus<sup>15</sup>). 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](#)

## 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
33206	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial	
33207	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular	
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular	
33214	Upgrade of implanted pacemaker system, conversion of single chamber system to dual chamber system (includes removal of previously placed pulse generator, testing of existing lead, insertion of new lead, insertion of new pulse generator)	
33210	Insertion or replacement of temporary transvenous single chamber cardiac electrode or pacemaker catheter (separate procedure)	
33211	Insertion or replacement of temporary transvenous dual chamber pacing electrodes (separate procedure)	
33212	Insertion of pacemaker pulse generator only; with existing single lead	
33213	Insertion of pacemaker pulse generator only; with existing dual leads	
33221	Insertion of pacemaker pulse generator only; with existing multiple leads	
33227	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single lead system	
33228	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system	
33229	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; multiple lead system	
33233	Removal of permanent pacemaker pulse generator only	
33235	Removal of transvenous pacemaker electrode(s); dual lead system	

33274	Transcatheter insertion or replacement of permanent leadless pacemaker, right ventricular, including imaging guidance (eg, fluoroscopy, venous ultrasound, ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed	
33275	Transcatheter removal of permanent leadless pacemaker, right ventricular, including imaging guidance (eg, fluoroscopy, venous ultrasound, ventriculography, femoral venography), when performed	
<b>CPT® Category III Code(s)</b>	<b>Description</b>	<b>Comments</b>
0795T	Transcatheter insertion of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; complete system (ie, right atrial and right ventricular pacemaker components)	
0796T	Transcatheter insertion of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; right atrial pacemaker component (when an existing right ventricular single leadless pacemaker exists to create a dual-chamber leadless pacemaker system)	
0797T	Transcatheter insertion of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; right ventricular pacemaker component (when part of a dual-chamber leadless pacemaker system)	
0798T	Transcatheter removal of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography), when performed; complete system (ie, right atrial and right ventricular pacemaker components)	

0799T	Transcatheter removal of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography), when performed; right atrial pacemaker component	
0800T	Transcatheter removal of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography), when performed; right ventricular pacemaker component (when part of a dual-chamber leadless pacemaker system)	
0801T	Transcatheter removal and replacement of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; dual-chamber system (ie, right atrial and right ventricular pacemaker components)	
0802T	Transcatheter removal and replacement of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; right atrial pacemaker component	
0803T	Transcatheter removal and replacement of permanent dual-chamber leadless pacemaker, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography, right ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed; right ventricular pacemaker component (when part of a dual-chamber leadless pacemaker system)	
0804T	Programming device evaluation (in person) with iterative adjustment of implantable device to test the function of device and to select optimal permanent programmed values, with analysis, review, and report, by a physician or other qualified health care professional, leadless pacemaker system in dual cardiac chambers	

0823T	Transcatheter insertion of permanent single-chamber leadless pacemaker, right atrial, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography and/or right ventriculography, femoral venography, cavography) and device evaluation (eg, interrogation or programming), when performed	
0824T	Transcatheter removal of permanent single-chamber leadless pacemaker, right atrial, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography and/or right ventriculography, femoral venography, cavography), when performed	
0825T	Transcatheter removal and replacement of permanent single-chamber leadless pacemaker, right atrial, including imaging guidance (eg, fluoroscopy, venous ultrasound, right atrial angiography and/or right ventriculography, femoral venography, cavography) and device evaluation (eg, interrogation or programming), when performed	
0826T	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional, leadless pacemaker system in single-cardiac chamber	
HCPCS Code(s)	Description	Comments
C1605	Pacemaker, leadless, dual chamber (right atrial and right ventricular implantable components), rate-responsive, including all necessary components for implantation	
C1779	Lead, pacemaker, transvenous VDD single pass	
C1785	Pacemaker, dual chamber, rate-responsive (implantable)	
C1786	Pacemaker, single chamber, rate-responsive (implantable)	
C1898	Lead, pacemaker, other than transvenous VDD single pass	
C1900	Lead, left ventricular coronary venous system	
C2619	Pacemaker, dual chamber, nonrate-responsive (implantable)	
C2620	Pacemaker, single chamber, nonrate-responsive (implantable)	
C2621	Pacemaker, other than single or dual chamber (implantable)	

## References



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2. Centers for Medicare & Medicaid Services (CMS). Local Coverage Article (LCA). Billing and coding: single chamber and dual chamber permanent cardiac pacemaker (A54909). <https://www.cms.gov>. Published April 15, 2016. Updated October 1, 2023.
3. Centers for Medicare & Medicaid Services (CMS). Local Coverage Article (LCA). Billing and coding: single chamber and dual chamber permanent cardiac pacemaker (A54926). <https://www.cms.gov>. Published May 1, 2016. Updated October 1, 2023.
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9. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Cardiac rhythm device evaluation (L34833). <https://www.cms.gov>. Published October 1, 2015. Updated August 13, 2020.
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11. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD). Cardiac pacemaker evaluation services (20.8.1). <https://www.cms.gov>. Published October 1, 1984.
12. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD). Leadless pacemakers (20.8.4). <https://www.cms.gov>. Published January 18, 2017.

13. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD). Self-contained pacemaker monitors (20.8.2). <https://www.cms.gov>. Published January 1, 1966.
14. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD). Transtelephonic monitoring of cardiac pacemakers (20.8.1.1). <https://www.cms.gov>. Published October 3, 2003.
15. UpToDate, Inc. Permanent cardiac pacing: overview of devices and indications. <https://www.uptodate.com>. Updated August 2024.

## Change Summary

01/01/2024 New Policy.

01/23/2024 Update, No Coverage Change

07/01/2024 Provider Claims Codes Update, No Coverage Change

09/24/2024 Update, No Coverage Change Updated Coding Information