

# Cardiac Pacemakers: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers (NCD 20.8.3)

Guideline Number: MPG039.08

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**Related Medicare Advantage Coverage Summaries**

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- [Durable Medical Equipment \(DME\), Prosthetics, Corrective Appliances/Orthotics \(Non-Foot Orthotics\) and Medical Supplies Grid](#)

## Policy Summary

[↪ See Purpose](#)

### Overview

Permanent cardiac pacemakers refer to a group of self-contained, battery operated, implanted devices that send electrical stimulation to the heart through one or more implanted leads. They are often classified by the number of chambers of the heart that the devices stimulate (pulse or depolarize). Single chamber pacemakers typically target either the right atrium or right ventricle. Dual chamber pacemakers stimulate both the right atrium and the right ventricle.

The implantation procedure is typically performed under local anesthesia and requires only a brief hospitalization. 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 power source. The pocket is then closed with stitches.

The Centers for Medicare & Medicaid Services (CMS) has determined that the evidence is sufficient to conclude that implanted permanent cardiac pacemakers, single chamber or dual chamber, are reasonable and necessary for the treatment of non-reversible symptomatic bradycardia due to sinus node dysfunction and second and/or third degree atrioventricular block. Symptoms of bradycardia are symptoms that can be directly attributable to a heart rate less than 60 beats per minute (for example: syncope, seizures, congestive heart failure, dizziness, or confusion).

### Guidelines

#### *Nationally Covered Indications*

The following indications are covered for implanted permanent single chamber or dual chamber cardiac pacemakers:

- Documented non-reversible symptomatic bradycardia due to sinus node dysfunction, and
- Documented non-reversible symptomatic bradycardia due to second degree and/or third degree atrioventricular block.

#### *Nationally Non-Covered Indications*

The following indications are non-covered for implanted permanent single chamber or dual chamber cardiac pacemakers:

- Reversible causes of bradycardia such as electrolyte abnormalities, medications or drugs, and hypothermia,

- Asymptomatic first degree atrioventricular block,
- Asymptomatic sinus bradycardia,
- Asymptomatic sino-atrial block or asymptomatic sinus arrest,
- Ineffective atrial contractions (e.g., chronic atrial fibrillation or flutter, or giant left atrium) without symptomatic bradycardia,
- Asymptomatic second degree atrioventricular block of Mobitz Type I unless the QRS complexes are prolonged or electrophysiological studies have demonstrated that the block is at or beyond the level of the His Bundle (a component of the electrical conduction system of the heart),
- Syncope of undetermined cause,
- Bradycardia during sleep,
- Right bundle branch block with left axis deviation (and other forms of fascicular or bundle branch block) without syncope or other symptoms of intermittent atrioventricular block,
- Asymptomatic bradycardia in post-myocardial infarction patients about to initiate long-term beta-blocker drug therapy,
- Frequent or persistent supraventricular tachycardias, except where the pacemaker is specifically for the control of tachycardia, and
- A clinical condition in which pacing takes place only intermittently and briefly, and which is not associated with a reasonable likelihood that pacing needs will become prolonged.

## Other

Contractors will determine coverage under section 1862(a)(1)(A) of the Social Security Act for any other indications for the implantation and use of single chamber or dual chamber cardiac pacemakers that are not specifically addressed in this national coverage determination.

## Applicable Codes

The following list(s) of codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. 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
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

*CPT® is a registered trademark of the American Medical Association*

Modifier	Description
KX	Requirements specified in the medical policy have been met
SC	Medically necessary service or supply

Diagnosis Code	Description
G90.01	Carotid sinus syncope
I44.0	Atrioventricular block, first degree
I44.1	Atrioventricular block, second degree
I44.2	Atrioventricular block, complete
I44.30	Unspecified atrioventricular block
I44.39	Other atrioventricular block
I44.7	Left bundle-branch block, unspecified
I45.10	Unspecified right bundle-branch block

Diagnosis Code	Description
I45.19	Other right bundle-branch block
I45.2	Bifascicular block
I45.3	Trifascicular block
I47.1	Supraventricular tachycardia
I47.9	Paroxysmal tachycardia, unspecified
I48.0	Paroxysmal atrial fibrillation (Effective 03/25/2021)
I48.11	Longstanding persistent atrial fibrillation
I48.19	Other persistent atrial fibrillation
I48.20	Chronic atrial fibrillation, unspecified (Effective 03/25/2021)
I48.21	Permanent atrial fibrillation (Effective 03/25/2021)
I48.3	Typical atrial flutter
I48.4	Atypical atrial flutter
I48.91	Unspecified atrial fibrillation
I48.92	Unspecified atrial flutter
I49.5	Sick sinus syndrome
Q24.6	Congenital heart block

## Questions and Answers

1	Q:	Is prior authorization required?
	A:	Please check UnitedHealthcareOnline for current status.

## References

### CMS National Coverage Determinations (NCDs)

[NCD 20.8.3 Cardiac Pacemakers: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers](#)

Reference NCDs: [NCD 20.8 Cardiac Pacemakers](#), [NCD 20.8.1 Cardiac Pacemaker Evaluation Services](#), [NCD 10.6 Anesthesia in Cardiac Pacemaker Surgery](#)

### CMS Local Coverage Determinations (LCDs) and Articles

LCD	Article	Contractor	Medicare Part A	Medicare Part B
N/A	<a href="#">A54961 Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers – Coding and Billing</a>	CGS	KY, OH	KY, OH
N/A	<a href="#">A54926 Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers</a> <a href="#">A57078 Single chamber and dual chamber permanent cardiac pacemakers billing and coding for Part A and Part B</a>	First Coast	FL, PR, VI	FL, PR, VI

LCD	Article	Contractor	Medicare Part A	Medicare Part B
N/A	<a href="#">A54909 Single Chamber and Dual Chamber Permanent Cardiac Pacemakers – Coding and Billing</a>	NGS	CT, IL, MA, ME, MN, NH, NY, RI, VT, WI	CT, IL, MA, ME, MN, NH, NY, RI, VT, WI
N/A	<a href="#">A54931 Single Chamber and Dual Chamber Permanent Cardiac Pacemakers – Coding and Billing</a>	Noridian	AK, AZ, ID, OR, MT, ND, SD, UT, WA, WY	AK, AZ, ID, OR, MT, ND, SD, UT, WA, WY
N/A	<a href="#">A54929 Single Chamber and Dual Chamber Permanent Cardiac Pacemakers – Coding and Billing</a>	Noridian	AS, CA, GU, HI, MP, NV	AS, CA, GU, HI, MP, NV
N/A	<a href="#">A54982 Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemakers</a>	Novitas	AR, CO, DC, DE, LA, MD, MS, NM, NJ, OK, PA, TX	AR, CO, DC, DE, LA, MD, MS, NM, NJ, OK, PA, TX
N/A	<a href="#">A54831 Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker</a>	Palmetto	AL, GA, NC, SC, TN, VA, WV	AL, GA, NC, SC, TN, VA, WV
N/A	<a href="#">A54958 Billing and Coding: Single Chamber and Dual Chamber Permanent Cardiac Pacemaker</a>	WPS	AK, AL, AR, AZ, CA, CO, CT, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY	IA, IN, KS, MI, MO, NE,

## CMS Benefit Policy Manual

[Chapter 1: § 40 Supplies, Appliances, and Equipment](#)

[Chapter 15: § 120 Prosthetic Devices](#)

## CMS Claims Processing Manual

[Chapter 4: § 10.2.2 Cardiac Resynchronization Therapy](#)

[Chapter 12: § 30.4 B. Electronic Analyses of Implantable Cardioverter-defibrillators and Pacemakers](#)

## CMS Transmittal(s)

[Transmittal 187, Change Request 9078, Dated 12/10/2015 \(National Coverage Determination \(NCD\) for Single Chamber and Dual Chamber Permanent Cardiac Pacemakers\)](#)

[Transmittal 3421, Change Request 9078, Dated 12/10/2015 \(National Coverage Determination \(NCD\) for Single Chamber and Dual Chamber Permanent Cardiac Pacemakers\)](#)

## MLN Matters

[Article MM9078, NCD for Single Chamber and Dual Chamber Permanent Cardiac Pacemakers](#)

## Guideline History/Revision Information

Revisions to this summary document do not in any way modify the requirement that services be provided and documented in accordance with the Medicare guidelines in effect on the date of service in question.

Date	Summary of Changes
04/14/2021	<p><b>Policy Summary</b></p> <ul style="list-style-type: none"><li>Replaced language indicating “<i>UnitedHealthcare</i> will determine coverage under section 1862(a)(1)(A) of the Social Security Act for any other indications for the implantation and use of single chamber or dual chamber cardiac pacemakers that are not specifically addressed in this <i>policy guideline</i>” with “<i>Contractors</i> will determine coverage under section 1862(a)(1)(A) of the Social Security Act for any other indications for the implantation and use of single chamber or dual chamber cardiac pacemakers that are not specifically addressed in this <i>national coverage determination</i>”</li></ul> <p><b>Applicable Codes</b></p> <ul style="list-style-type: none"><li>Added ICD-10 diagnosis codes I48.0, I48.20, and I48.21</li></ul> <p><b>Supporting Information</b></p> <ul style="list-style-type: none"><li>Updated <i>References</i> section to reflect the most current information</li><li>Archived previous policy version MPG039.07</li></ul>

## Purpose

The Medicare Advantage Policy Guideline documents are generally used to support UnitedHealthcare Medicare Advantage claims processing activities and facilitate providers’ submission of accurate claims for the specified services. The document can be used as a guide to help determine applicable:

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

UnitedHealthcare follows Medicare guidelines such as NCDs, LCDs, LCAs, and other Medicare manuals for the purposes of determining coverage. It is expected providers retain or have access to appropriate documentation when requested to support coverage. Please utilize the links in the [References](#) section below to view the Medicare source materials used to develop this resource document. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

## Terms and Conditions

The Medicare Advantage Policy Guidelines are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates.

These Policy Guidelines are provided for informational purposes, and do not constitute medical advice. 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 the Medicare Advantage Policy Guidelines.

Medicare Advantage Policy Guidelines 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 Policy Guidelines at any time by publishing a new version of the policy on this website. Medicare source materials used to develop these guidelines include, but are not limited to, CMS National Coverage

Determinations (NCDs), Local Coverage Determinations (LCDs), Medicare Benefit Policy Manual, Medicare Claims Processing Manual, Medicare Program Integrity Manual, Medicare Managed Care Manual, etc. The information presented in the Medicare Advantage Policy Guidelines is believed to be accurate and current as of the date of publication and is provided on an "AS IS" basis. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

You are responsible for submission of accurate claims. Medicare Advantage Policy Guidelines are intended to ensure that coverage decisions are made accurately based on the code or codes that correctly describe the health care services provided. UnitedHealthcare Medicare Advantage Policy Guidelines use Current Procedural Terminology (CPT®), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT® or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

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\*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](#).