Medtronic

2024 Coding and payment overview: Pacemaker therapy

This document reflects commonly billed codes for pacemaker therapy and the associated 2024 Medicare national reimbursement rates. This is not an all-inclusive list.

The following information reflects the Medicare national allowable amount published by CMS and does not include Medicare payment reductions resulting from sequestration adjustments to the amount payable to the provider, as mandated by the Budget Control Act of 2011. The Medtronic Customer Economics and Reimbursement teams can provide site-specific information upon request.

Physician/Hospital Outpatient

Coding is based on specific procedures that are performed, and multiple procedure codes may be reported. This may result in multiple procedure payment reductions for physician payments. Hospital outpatient reimbursement is subject to various packaging rules, including Comprehensive APCs (C-APCs). Under C-APCs, only one payment is made for all procedures and supplies provided during the outpatient episode of care. Physician and hospital outpatient rates are effective through the 2024 calendar year.

CPT®[1] Code	Description	2024 Medicare National Unadjusted Physician Rate[2]	APC	2024 Medicare National Unadjusted APC Rate[3]
Generator insertion procedures - Transvenous				
33206	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial	$439	5223	$10,185
33207	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular	$461	5223	$10,185
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular	$499	5223	$10,185
Generator insertion procedures – Leadless				
33274 ⓘ	Transcatheter insertion or replacement of permanent leadless pacemaker, right ventricular, including imaging guidance (e.g., fluoroscopy, venous ultrasound, ventriculography, femoral venography) and device evaluation (e.g., interrogation or programming), when performed	$461	5224 ⓘ	$18,585

ⓘ Medicare policy requires specific additional information on claims. See instructions here.

ⓘ Indicates 2024 C-APC reassignment. Previously, was assigned to C-APC 5194

CPT®[1] Code	Description	2024 Medicare National Unadjusted Physician Rate[2]	APC	2024 Medicare National Unadjusted APC Rate[3]
Lead insertion procedures				
33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator	$359	5222	$8,103
33217	Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator	$357	5222	$8,103
Generator insertion procedures with existing leads				
33212	Insertion of pacemaker pulse generator only; with existing single lead	$313	5222	$8,103
33213	Insertion of pacemaker pulse generator only; with existing dual leads	$327	5223	$10,185
33221	Insertion of pacemaker pulse generator only; with existing multiple leads	$346	5224	$18,585
Upgrade single chamber to dual chamber				
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)	$463	5223	$10,185
Insertion or replacement of temporary pacing lead				
33210	Insertion or replacement of temporary transvenous single chamber cardiac electrode or pacemaker catheter (separate procedure)	$155	5222	$8,103
33211	Insertion or replacement of temporary transvenous dual chamber pacing electrodes (separate procedure)	$162	5222	$8,103
Generator-only change out procedures				
33227	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single lead system	$328	5222	$8,103
33228	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system	$343	5223	$10,185
Leadless removal procedure				
33275	Transcatheter removal of permanent leadless pacemaker, right ventricular, including imaging guidance (e.g., fluoroscopy, venous ultrasound, ventriculography, femoral venography), when performed	$487	5183	$3,040
Removal transvenous generator procedure				
33233	Removal of permanent pacemaker pulse generator only	$227	5222	$8,103
Removal transvenous lead procedures				
33234	Removal of transvenous pacemaker electrode(s); single lead system, atrial or ventricular	$467	5221	$3,746
33235	Removal of transvenous pacemaker electrode(s); dual lead system	$614	5221	$3,746
Reposition or repair transvenous leads				
33215	Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular) electrode	$300	5183	$3,040
33218	Repair of single transvenous electrode, permanent pacemaker or implantable defibrillator	$377	5221	$3,746
33220	Repair of 2 transvenous electrodes for permanent pacemaker or implantable defibrillator	$369	5221	$3,746

CPT®[1] Code	Description	2024 Medicare National Unadjusted Physician Rate[2]	APC	2024 Medicare National Unadjusted APC Rate[3]
Pocket relocation				
33222	Relocation of skin pocket for pacemaker	$333	5054	$1,739
Epicardial lead procedures				
33202	Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)	$747	N/A	Inpatient only
33203	Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)	$785	N/A	Inpatient only
33236	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; single lead system, atrial or ventricular	$760	N/A	Inpatient only
33237	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; dual lead system	$815	N/A	Inpatient only
In person interrogation and programming evaluations				
93279	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 healthcare professional; single lead pacemaker system or leadless pacemaker system in one cardiac chamber	$66 $30 (26) $36 (TC)	5741	$36
93280	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 healthcare professional; dual lead pacemaker	$77 $35 (26) $42 (TC)	5741	$36
93281	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 healthcare professional; multiple lead pacemaker	$82 $40 (26) $42 (TC)	5741	$36
93288	Interrogation device evaluation (in person) with analysis, review, and report by a physician or other qualified healthcare professional, includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead pacemaker system, or leadless pacemaker system	$55 $20 (26) $35 (TC)	5741	$36
Remote interrogation evaluations				
93294	Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system, or leadless pacemaker system with interim analysis, review(s), and report(s) by a physician or other qualified healthcare professional	$28	N/A	Physician Only
93296	Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system, leadless pacemaker system, or implantable defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support, and distribution of results	$21	5741	$36

Key
26 – Professional Component
TC – Technical Component

Inpatient Coding

ICD-10-PCS

Inpatient hospital ICD-10-PCS codes do not include system implantation codes. Each specific device-related procedure must be individually coded. The following ICD-10-PCS codes describe commonly performed pacemaker procedures. This is not an all-inclusive list. These codes are only used by hospitals for reporting inpatient services.

ICD-10-PCS	Description
Generator insertion procedures - Transvenous	
0JH606Z or 0JH605Z or 0JH604Z	Insertion of pacemaker, dual chamber into chest subcutaneous tissue and fascia, open approach
	Insertion of pacemaker, single chamber rate responsive into chest subcutaneous tissue and fascia, open approach
	Insertion of pacemaker, single chamber into chest subcutaneous tissue and fascia, open approach
Generator insertion procedures - Leadless	
02HK3NZ ⓘ	Insertion of intracardiac pacemaker into right ventricle, percutaneous approach ⓘ Medicare policy requires specific additional information on claims. See instructions here.
Lead insertion procedures	
02H63JZ and/or 02HK3JZ	Insertion of pacemaker lead into right atrium, percutaneous approach
	Insertion of pacemaker lead into right ventricle, percutaneous approach
Lead removal	
02PA3MZ	Removal of cardiac lead from heart, percutaneous approach
Generator removal - Transvenous	
0JPT0PZ	Removal of cardiac rhythm-related device from trunk subcutaneous tissue and fascia, open approach
0JWT0PZ	Revision of cardiac rhythm-related device in trunk subcutaneous tissue and fascia, open approach
Generation removal – Leadless	
02PA3NZ	Removal of intracardiac pacemaker from heart, percutaneous approach
Revision of leadless pacemaker	
02WA3NZ	Revision of intracardiac pacemaker in heart, percutaneous approach
Noninvasive programmed stimulation	
4B02XSZ	Measurement of cardiac pacemaker, external approach

Inpatient Reimbursement

Medicare reimbursement for inpatient hospital services is based on a classification system known as Medicare Severity Diagnosis Related Groups (MS-DRGs). MS-DRG assignment is determined by patient diagnoses and procedures. Only one MS-DRG is assigned per hospital admission, and one payment is made for all procedures and supplies related to that inpatient stay. MS-DRG assignment may be affected when one or more secondary diagnoses are included in the Major Complication or Comorbidity (MCC) or Complication or Comorbidity (CC) lists, which are maintained by CMS.

MS-DRG	Description	FY 2024 Medicare National Unadjusted Rate[4]
Leadless		
228	Other cardiothoracic procedures w/MCC	$33,279
229	Other cardiothoracic procedures w/o MCC	$22,262
Transvenous		
242	Permanent cardiac pacemaker implant w/MCC	$24,191
243	Permanent cardiac pacemaker implant w/CC	$15,947
244	Permanent cardiac pacemaker implant w/o CC/MCC	$12,809
258	Cardiac pacemaker device replacement w/MCC	$18,965
259	Cardiac pacemaker device replacement w/o MCC	$13,069
260	Cardiac pacemaker revision except device replacement w/MCC	$23,212
261	Cardiac pacemaker revision except device replacement w/CC	$13,176
262	Cardiac pacemaker revision except device replacement w/o CC/MCC	$11,520

Key

MCC – Major Complication or Comorbidity

CC – Complication or Comorbidity

Coding, coverage, and reimbursement information is available at: medtronic.com/crhfreimbursement. For questions or for more information, please contact Reimbursement Customer Support at 1-866-877-4102 (8 a.m. to 5 p.m. CT, Monday- Friday) or rs.healthcareeconomics@medtronic.com.

Frequently asked questions

Q1: Does a pacemaker have to be at end of life (ERI) for the changeout procedure to be covered by Medicare?

There is no policy from Medicare on device changeout coverage. Instead, coverage will be based on documented medical necessity.

Q2: What diagnosis code is reported for routine generator changeouts?

For routine pacemaker generator changeouts, ICD-10-CM diagnosis code Z45.010 would be applicable.[5]

Q3: What is the KX modifier and why is it used?

The KX modifier indicates criteria from Medicare policy have been met. Medicare requires the KX modifier on transvenous pacemaker implant procedures.

Q4: Do all pacemaker implants require the KX modifier?

No, the KX modifier is required for transvenous pacemaker implants only. It is not required for leadless pacemaker implants.

References

[1] CPT codes and descriptions only are ©2023 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association. Applicable FARS/DFARS restrictions apply to government use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The American Medical Association assumes no liability for data contained or not contained herein.

[2] The Medicare Physician Fee Schedule (MPFS) 2024 National payment rates based on information published in the MPFS final rule CMS-1784-F that was released November 2, 2023. PFS Federal Regulation Notices. cms.gov https://www.cms.gov/medicare/medicare-fee-service-payment/physicianfeesched/pfs-federal-regulation-notices/cms-1784-f PFS Relative Value Files. cms.gov https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Relative-Value-Files Local Accessed December 13, 2023. Physician rates will vary based on location specific factors not reflected in this document. CMS may make adjustments to any or all of the data inputs from time to time.

[3] The OPPS 2024 National payment rates based on information published in the OPPS/ASC final rule CMS-1786-FC and corresponding Addendum B table which was released on November 2, 2023. Hospital Outpatient Regulations and Notices. cms.gov. https://www.cms.gov/medicaremedicare-fee-service-paymenthospitaloutpatientppshospital-outpatient-regulations-and-notices/cms-1786-fc Accessed November 21, 2023. Hospital specific rates will vary based on various hospital-specific factors not reflected in this document and CMS may make adjustments to any or all of the data inputs from time to time.

[4] The IPPS FY 2024 National payment rates based on information published in the IPPS final rule CMS-1785-F and correcting amendment CMS-1785-CN and corresponding tables and data files which was published on August 1, 2023. IPPS Final Rule Home Page. cms.gov https://www.cms.gov/medicare/acute-inpatient-pps/fy-2024-ipps-final-rule-home-page Updated November 17, 2023. Accessed November 21, 2023. Hospital specific rates will vary based on various hospital-specific factors not reflected in this document and CMS may make adjustments to any or all of the data inputs from time to time.

[5] American Medical Association. (2023). ICD-10-CM 2024 the complete official codebook with guidelines.

Medtronic
710 Medtronic Parkway
Minneapolis, MN 55432-5604 USA

Toll-free in USA: 800.633.8766
Worldwide: +1.763.514.4000

medtronic.com

Medtronic