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Engineering the extraordinary

Reimbursement guide

ICD therapy

Facility & physician coding, coverage, and payment

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Facility & physician reimbursement guide

ICD therapy

This guide has been developed to help you understand Medicare coverage, coding, and payment for implantable cardioverter defibrillators (ICD).

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Overview

ICD therapy

The implantable automatic defibrillator is an electronic device designed to detect and treat life-threatening tachyarrhythmias. The device consists of a pulse generator and electrodes for sensing and defibrillating. When the device senses an arrhythmia, it sends an electrical signal through the leads to terminate the arrhythmia and restore normal heart rhythm.

Section 20.4 of the Medicare National Coverage Determinations (NCD) manual establishes conditions of coverage for ICDs.[1] First issued in 1986, the NCD provided limited coverage of ICDs and the policy has been expanded over the years since then. CMS last reconsidered this NCD in 2018. The most recent changes to the policy removed the registry requirement and added the shared decision making requirement for primary prevention indications.

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Medicare coverage

The Medicare coverage policy for ICD implants occurring on or after February 15, 2018, is printed verbatim in this guide; however, it is reformatted for easier readability.[1]

The following information represents the CMS nationally covered indications for the use of implantable cardioverter defibrillators (ICDs) based on the national coverage determination (NCD) for ICDs (20.4).[1] Effective February 15, 2018. CMS covers ICDs for the following patient indications:

Medicare coverage policy

20.4 IMPLANTABLE AUTOMATIC DEFIBRILLATORS, Medicare National Coverage Determinations Manual (Chapter 1, Part I (Sections 10-80.12) Coverage Determinations)[1]

A. General

An ICD is an electronic device designed to diagnose and treat life-threatening ventricular tachyarrhythmias.

Coverage for ICD therapy

Indications and Limitations of Coverage

B. Nationally Covered Indications

Effective for services performed on or after February 15, 2018, CMS has determined that the evidence is sufficient to conclude that the use of ICDs, (also referred to as defibrillators) is reasonable and necessary:

1 Patients with a personal history of sustained ventricular tachyarrhythmia (VT) or cardiac arrest due to ventricular fibrillation (VF). Patients must have demonstrated:

- An episode of sustained VT, either spontaneous or induced by an electrophysiology (EP) study, not associated with an acute myocardial infarction (MI) and not due to a transient or reversible cause; or
- An episode of cardiac arrest due to VF, not due to a transient or reversible cause.

2 Patients with a prior MI and a measured left ventricular ejection fraction (LVEF) ≤ 0.30. Patients must not have:

- New York Heart Association (NYHA) Classification IV heart failure; or
- Had a coronary artery bypass graft (CABG) or percutaneous coronary intervention (PCI) with angioplasty and/ or stenting, within the past three months; or
- Had an MI within the past 40 days; or
- Clinical symptoms and findings that would make them a candidate for coronary revascularization.

For these patients identified in 2, a formal shared decision making encounter must occur between the patient and a physician (as defined in Section 1861(r)(1) of the Social Security Act (the Act)) or qualified non-physician practitioner (meaning a physician assistant, nurse practitioner, or clinical nurse specialist as defined in §1861(aa) (5) of the Act) using an evidence-based decision tool on ICDs prior to initial ICD implantation. The shared decision making encounter may occur at a separate visit.

Coverage for ICD therapy

3 Patients who have severe, ischemic, dilated cardiomyopathy but no personal history of sustained VT or cardiac arrest due to VF, and have NYHA Class II or III heart failure, LVEF ≤ 35%. Additionally, patients must not have:

- Had a CABG, or PCI with angioplasty and/or stenting within the past three months; or
- Had an MI within the past 40 days; or
- Clinical symptoms and findings that would make them a candidate for coronary revascularization.

For these patients identified in 3, a formal shared decision making encounter must occur between the patient and a physician (as defined in Section 1861(r)(1) of the Act) or qualified non-physician practitioner (meaning a physician assistant, nurse practitioner, or clinical nurse specialist as defined in §1861(aa) (5) of the Act) using an evidence-based decision tool on ICDs prior to initial ICD implantation. The shared decision making encounter may occur at a separate visit.

4 Patients who have severe, nonischemic, dilated cardiomyopathy but no personal history of cardiac arrest or sustained VT, NYHA Class II or III heart failure, LVEF≤ 35%, been on optimal medical therapy for at least three months. Additionally, patients must not have:

- Had a CABG or PCI with angioplasty and/or stenting within the past three months; or
- Had an MI within the past 40 days; or
- Clinical symptoms and findings that would make them a candidate for coronary revascularization.

For these patients identified in 4, a formal shared decision making encounter must occur between the patient and a physician (as defined in Section 1861(r)(1) of the Act) or qualified non-physician practitioner (meaning a physician assistant, nurse practitioner, or clinical nurse specialist as defined in §1861(aa)(5) of the Act) using an evidence-based decision tool on ICDs prior to initial ICD implantation. The shared decision making encounter may occur at a separate visit.

Coverage for ICD therapy

5 Patients with documented, familial, or genetic disorders with a high risk of life-threatening tachyarrhythmias (sustained VT or VF, to include, but not limited to, long QT syndrome or hypertrophic cardiomyopathy.)

For these patients identified in 5, a formal shared decision making encounter must occur between the patient and a physician (as defined in Section 1861(r)(1) of the Act) or qualified non-physician practitioner (meaning a physician assistant, nurse practitioner, or clinical nurse specialist as defined in §1861(aa)(5) of the Act) using an evidence-based decision tool on ICDs prior to initial ICD implantation. The shared decision making encounter may occur at a separate visit.

6 Patients with an existing ICD may receive an ICD replacement if it is required due to the end of battery life, elective replacement indicator (ERI), or device/lead malfunction.

For each of the six covered indications above, the following additional criteria must also be met:

1. Patients must be clinically stable (e.g., not in shock, from any etiology);
2. LVEF must be measured by echocardiography, radionuclide (nuclear medicine) imaging, cardiac magnetic resonance imaging (MRI), or catheter angiography;
3. Patients must not have:
   - Significant, irreversible brain damage; or
   - Any disease, other than cardiac disease (e.g., cancer, renal failure, liver failure) associated with a likelihood of survival less than one year; or
   - Supraventricular tachycardia such as atrial fibrillation with a poorly controlled ventricular rate.

Coverage for ICD therapy

Exceptions to waiting periods for patients that have had a CABG or PCI with angioplasty and/or stenting within the past three months, or had an MI within the past 40 days:

Cardiac pacemakers

Patients who meet all CMS coverage requirements for cardiac pacemakers, and who meet the criteria in this national coverage determination for an ICD, may receive the combined devices in one procedure, at the time the pacemaker is clinically indicated.

Replacement of ICDs

Patients with an existing ICD may receive an ICD replacement if it is required due to the end of battery life, ERI, or device/lead malfunction.

C. Nationally Non-covered Indications

N/A

D. Other

For patients that are candidates for heart transplantation on the United Network for Organ Sharing (UNOS) transplant list awaiting a donor heart, coverage of ICDs, as with cardiac resynchronization therapy, as a bridge-to- transplant to prolong survival until a donor becomes available, is determined by the local Medicare Administrative Contractors (MACs).

All other indications for ICDs not currently covered in accordance with this decision may be covered under Category B Investigational Device Exemption (IDE) trials (42 CFR 405.201).

Please see the following page for a Medicare ICD coverage overview chart.

Medicare ICD coverage overview chart

Primary or secondary prevention	Indication	Left ventricle ejection fraction*	NYHA class	Shared decision making required	Exclusions or other criteria
Secondary	History of sustained ventricular tachyarrhythmia (VT)† or cardiac arrest due to ventricular fibrillation (VF).	N/A	N/A	No	• An episode of sustained VT, either spontaneous or induced by an electrophysiology (EP) study, not associated with an acute myocardial infarction (MI) and not due to a transient or reversible cause; or • An episode of cardiac arrest due to VF, not due to a transient or reversible cause
Primary	Documented prior MI**	≤ 30%	Any except IV	Yes	• Had a CABG or PCI with angioplasty and/or stenting with the past three months‡; or • Had an MI within the past 40 days‡; or • Clinical symptoms and findings that would make them a candidate for coronary revascularization.
Primary	Ischemic, dilated cardiomyopathy but no personal history of sustained VT or cardiac arrest due to VF	≤ 35%	II or III	Yes	
Primary	Nonischemic, dilated cardiomyopathy but no personal history of cardiac arrest or sustained VT† and has been on optimal medical therapy for at least three months	≤ 35%	II or III	Yes	
Primary	Documented, familial, or genetic disorders with a high risk of life- threatening tachyarrhythmias (sustained VT or VF, to include, but not limited to, long QT syndrome or hypertrophic cardiomyopathy)	N/A	N/A	Yes	
N/A	ICD replacement	N/A	N/A	No	• Due to the end of battery life, elective replacement indicator (ERI), or device/lead malfunction

*Ejection fractions must be measured by angiography, radionuclide scanning, or echocardiography.

**MIs must be documented and defined according to the consensus document of the Joint European Society of Cardiology/American College of Cardiology Committee for the Redefinition of Myocardial Infarction.

‡Exceptions to waiting periods for patients that have had a CABG or PCI with angioplasty and/or stenting within the past three months, or had an MI within the past 40 days:

Cardiac pacemakers: Patients who meet all CMS coverage requirements for cardiac pacemakers, and who meet the criteria in this national coverage determination for an ICD, may receive the combined devices in one procedure, at the time the pacemaker is clinically indicated.

Replacement of ICDs: Patients with an existing ICD may receive an ICD replacement if it is required due to the end of battery life, ERI, or device/lead malfunction.

Shared decision making (SDM)

For primary prevention patients, the CMS NCD specifies that a formal shared decision-making encounter must occur between the patient and a physician or qualified non-physician practitioner (physician assistant, nurse practitioner, or clinical nurse specialist) using an evidence-based decision tool on ICDs prior to initial ICD implantation.[4] This encounter can happen during a separate visit.

The NCD references a sample shared decision-making tool that can be found at: https://patientdecisionaid.org/icd/.

In addition, guidelines published in 2017 by AHA/ACC/HRS provide recommendations for the elements of shared decision-making.[5]

A commonly accepted definition for shared decision making includes four components:

01 At least two participants – the clinician and the patient – are involved

02 Both parties share information

03 Both parties take steps to build a consensus about the preferred treatment

04 An agreement is reached on the treatment to implement

Medicare Advantage coverage

Medicare Advantage plans are required to cover at least what is covered by traditional Medicare. Therefore, Medicare coverage policies apply to both traditional Medicare and Medicare Advantage plans.[6] Medicare Advantage plan administrators may have policies and additional requirements such as prior testing and prior authorization. Medtronic recommends that you review the specific payer coverage policies applicable to your patient to verify all the criteria for coverage are met and/or to request a prior authorization. Asking about coverage or requesting authorization after an implant procedure or device interrogation may result in unpaid claims, leaving both the hospital and the physician without compensation.

Coverage with non-Medicare payers

Non-Medicare payers typically determine coverage for procedures based on medical policy and prior authorization requirements. It is recommended that you review the payer's coverage policy to verify that you have met all the criteria for coverage for your specific patient. Not all published policies apply to all patients covered by a specific payer. We recommend you contact the payer to obtain a prior authorization or prior approval. Determining coverage after implant may result in unpaid claims, leaving both the hospital and the physician without compensation.

Coding for ICD therapy

These coding suggestions do not replace seeking coding advice from the payer and/or your own coding staff. The ultimate responsibility for correct coding lies with the provider of services. All diagnosis and procedure codes reported must be supported by clear documentation within the medical record.

Physician procedure codes

The following CPT®[7] codes describe procedures associated with ICD therapy implants. Depending on the type of ICD implanted, one or more of the following codes may be appropriate. This is not an all-inclusive list. These codes are used by physicians to report their services. Additionally, hospitals use CPT® codes to report services rendered in the outpatient hospital setting.

CPT® code	CPT® code description
33202	Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)
33203	Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)
33216	Insertion of a single transvenous electrode, permanent pacemaker, or implantable defibrillator
33217	Insertion of 2 transvenous electrodes, permanent pacemaker, or implantable defibrillator
33230	Insertion of implantable defibrillator pulse generator only; with existing dual leads
33231	Insertion of implantable defibrillator pulse generator only; with existing multiple leads
33240	Insertion of implantable defibrillator pulse generator only; with existing single lead
33241	Removal of implantable defibrillator pulse generator only
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system

CPT® code	CPT® code description
33202	Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)
33203	Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)
33216	Insertion of a single transvenous electrode, permanent pacemaker, or implantable defibrillator
33217	Insertion of 2 transvenous electrodes, permanent pacemaker, or implantable defibrillator
33271	Insert subcutaneous implantable defibrillator electrode
33230	Insertion of implantable defibrillator pulse generator only; with existing dual leads
33231	Insertion of implantable defibrillator pulse generator only; with existing multiple leads
33240	Insertion of implantable defibrillator pulse generator only; with existing single lead
33241	Removal of implantable defibrillator pulse generator only
33215	Reposition previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular)
33218	Repair of single transvenous electrode, pacemaker or implantable defibrillator
33220	Repair of 2 transvenous electrodes, pacemaker or implantable defibrillator
33223	Relocation of skin pocket for implantable defibrillator
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system

Hospital inpatient procedure codes

The following ICD-10-PCS codes describe commonly performed defibrillator procedures. This is not an all-inclusive list. These codes are only used by hospitals for reporting inpatient services.

ICD-10-PCS	Description
Implant cardioverter-defibrillator generator	
0JH608Z	Insertion of defibrillator generator into chest subcutaneous tissue and fascia, open approach
0JH808Z	Insertion of defibrillator generator into abdomen subcutaneous tissue and fascia, Open approach
Insert RA or RV lead, transvenous	
02H63KZ	Insertion of defibrillator lead into right atrium, percutaneous approach
02HK3KZ	Insertion of defibrillator lead into right ventricle, percutaneous approach
Insert subcutaneous defibrillator lead implantation	
0JH60PZ	Insertion of cardiac rhythm-related device into chest subcutaneous tissue and fascia, open approach
Replace epicardial lead	
02HN0KZ	Insertion of defibrillator lead into pericardium, open approach
02PA0MZ	Removal of cardiac lead from heart, open approach
Revise and reposition RA, RV, or LV lead	
02WA3MZ	Revision of cardiac lead in heart, percutaneous approach
Revise or relocate pocket	
0JWT0PZ	Revision of cardiac rhythm-related device in trunk subcutaneous tissue and fascia, open approach
Remove generator	
0JPT0PZ	Removal of cardiac rhythm-related device from trunk subcutaneous tissue and fascia, open approach

Hospital outpatient procedure codes

Please refer to page 13 for CPT procedure codes pertaining to ICD procedures. These same codes would be used by hospitals to report ICD procedures performed in the outpatient setting. This is not an all-inclusive list and the appropriate coding would be dependent on documentation for the procedure(s) performed.

HCPCS (C-codes) (device codes)

Medicare provides device C-codes for hospital use in billing Medicare for medical devices in the outpatient setting.

The following HCPCS (C-codes) (device codes) relate to the implantation of an implantable defibrillator (ICD) and cardiac resynchronization therapy-defibrillator (CRT-D) components. Depending on the type of device implanted and the specific components, one or more of the following codes may be appropriate:

HCPCS codes	HCPCS code description
C1721	Cardioverter-defibrillator, dual chamber (implantable)
C1722	Cardioverter-defibrillator, single chamber (implantable)
C1777	Lead, cardioverter-defibrillator, endocardial single coil (implantable)
C1779	Lead, pacemaker, transvenous VDD single pass (implantable)
C1895	Lead, cardioverter-defibrillator, endocardial dual coil (implantable)
C1896	Lead, cardioverter-defibrillator, other than endocardial single or dual coil (implantable)
C1898	Lead, pacemaker, other than transvenous VDD single pass
C1899	Lead, pacemaker-cardioverter-defibrillator combination(implantable)

Use of HCPCS (C-codes) for Medicare patients

Medicare (CMS) no longer uses procedure-to-device and device-to-procedure edits for device-intensive hospital outpatient services. For a procedure that requires a device to be implanted and is also assigned to a device-intensive ambulatory payment classification (APC), the claim must include a "device code."

The table below provides implantable cardioverter defibrillator device-intensive APCs[8]:

Device-intensive APC number and APC description	Procedure code	Procedure code brief description
5222 Level 2 Pacemaker and Similar Procedures	33216	Insert single lead, pacemaker or ICD
	33217	Insert 2 leads, pacemaker or ICD
	33271	Insert subcutaneous implantable defibrillator electrode
5231 Level 1 ICD and Similar Procedures	33240	Insert ICD pulse generator only; w/existing single lead
	33262	Remove ICD gen, replace ICD gen; single lead system
	33263	Remove ICD gen, replace ICD gen; dual lead system
5232 Level 2 ICD and Similar Procedures	33231	Insert ICD pulse generator only; w/existing multiple leads
	33249	Insert/replace ICD system w/leads single or dual chamber
	33264	Remove ICD gen, replace ICD gen; multiple lead system
	33270	Insert/replace subcutaneous defibrillator system w/subcutaneous electro

Use of HCPCS (C-codes) for Medicare patients

Medicare (CMS) no longer uses procedure-to-device and device-to-procedure edits for device-intensive hospital outpatient services. For a procedure that requires a device to be implanted and is also assigned to a device-intensive ambulatory payment classification (APC), the claim must include a "device code."

The table below provides implantable cardioverter defibrillator device-intensive APCs[8]:

Device-intensive APC number and APC description	Procedure code	Procedure code brief description
5221 Level 1 Pacemaker and Similar Procedures	33218	Insert single lead, pacemaker or ICD
	33220	Insert 2 leads, pacemaker or ICD
5183 Level 3 Vascular Procedures	33215	Insert ICD pulse generator only; w/existing single lead
5054 Level 4 Skin Procedures	33223	Insert ICD pulse generator only; w/existing multiple leads

ICD-10-CM diagnosis codes

The following is a list of examples of possible ICD-10-CM diagnosis codes that can relate to indications associated with ICD procedures. Payers will determine coverage based on their medical policies, criteria, and documented medical necessity. This is not an all-inclusive list and the diagnosis codes reported should be based on documentation of what the individual patient presents with.[9]

ICD-10-CM diagnosis code	ICD-10-CM diagnosis code description
I47.20	Ventricular tachycardia unspecified
I47.21	Torsades de pointe
I47.29	Other ventricular tachycardia
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
I46.2	Cardiac arrest due to underlying cardiac condition
I46.9	Cardiac arrest, cause unspecified
I49.9	Cardiac arrhythmia, unspecified
T82.120A	Displacement of cardiac electrode, initial encounter
T82.121A	Displacement of cardiac pulse generator (battery), initial encounter
T82.190A	Other mechanical complication of cardiac electrode, initial encounter
T82.191A	Other mechanical complication of cardiac pulse generator (battery), initial encounter
Z86.74	Personal history of sudden cardiac arrest (SCA) (successfully resuscitated)

ICD-10-CM diagnosis code	ICD-10-CM diagnosis code description
Ischemic cardiomyopathy	
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
I25.9	Chronic ischemic heart disease, unspecified
Nonischemic cardiomyopathy	
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I42.0	Dilated cardiomyopathy
I42.5	Other restrictive cardiomyopathy
I42.8	Other cardiomyopathies
I42.9	Cardiomyopathy, unspecified
Long QT syndrome	
I45.81	Long QT syndrome
QRS duration, wide and narrow	
R94.31	Abnormal electrocardiogram [ECG] [EKG]

Prior myocardial infarction

With ICD-10-CM diagnosis coding: An acute myocardial infarction (AMI) is identified as “acute” for four weeks from the time of the incident.

Documentation best practices

CMS has posted a "Clinical Concepts in Cardiology" tip sheet on their website identifying several clinical documentation tips for cardiology services and ICD-10-CM diagnosis codes.[10] The tip sheet includes common codes, clinical documentation tips, and clinical scenarios. Some of these tips are:

- Document why the patient encounter took place.
- When known, document whether the patient is compliant with their medications.
- Document lab test results, both normal and abnormal.
- Document any criteria required from policy

Please review the CMS tip sheet for complete information at:
https://www.cms.gov/Medicare/Coding/ICD10/Downloads/ICD10ClinicalConceptsCardiology1.pdf

Heart failure codes requirement

There are three indications in Medicare's NCD that include heart failure as part of the criteria. The reporting of the heart failure codes is required on ICD implant claims even if the heart failure is being appropriately treated and the patient is not in "acute" heart failure. Additional information on this requirement can be found in MLN SE20006 that can be found at https://www.cms.gov/files/document/se20006.pdf

Heart failure can be a CC (complication or comorbidity) or MCC (major complication or comorbidity)

Under the MS-DRG system, heart failure can be considered both a chronic and acute condition. Documentation about the specific type of heart failure is critical to determine if the condition is considered a CC or an MCC.

Heart failure diagnosis codes must be explicitly documented by the physician; it cannot be assumed by the coder on the basis of the ejection fraction. Nondiagnostic and nonspecific terms such as "low ejection fraction" and "ventricular dysfunction" should also be avoided. Low ejection fraction is a characteristic of heart failure, and it is essential that physicians document the diagnosis clearly.

Payment for ICD therapy

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 current site-specific information upon request.

Physician payment[11]

Effective Jan. 1, 2024–Dec. 31, 2024

Physicians use CPT® codes to represent procedures and services performed in all places of service. Under Medicare's methodology for physician payment, each CPT® code is assigned a value, known as relative value units (RVUs). RVUs are part of how Medicare determines a payment amount.

CPT® code[7]	CPT® description	2024 Medicare national non-facility		2024 Medicare national facility	
		Total RVUs[11]	Unadjusted payment rate[11]	Total RVUs[11]	Unadjusted payment rate[11]
33202	Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)	N/A	N/A	22.81	$747
33203	Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)	N/A	N/A	23.97	$785
33216	Insertion of a single transvenous electrode, permanent pacemaker, or implantable defibrillator	N/A	N/A	10.98	$359
33217	Insertion of 2 transvenous electrodes, permanent pacemaker, or implantable defibrillator	N/A	N/A	10.90	$357
33271	Insert subcutaneous implantable defibrillator electrode	N/A	N/A	13.43	$440
33230	Insertion of implantable defibrillator pulse generator only; with existing dual leads	N/A	N/A	11.05	$362
33231	Insertion of implantable defibrillator pulse generator only; with existing multiple leads	N/A	N/A	11.84	$388
33240	Insertion of implantable defibrillator pulse generator only; with existing single lead	N/A	N/A	10.88	$356

Additional work RVU information can be found in the Medtronic relative value units (RVU) guide here.

CPT® code[7]	CPT® description	2024 Medicare national non-facility		2024 Medicare national facility	
		Total RVUs[11]	Unadjusted payment rate[11]	Total RVUs[11]	Unadjusted payment rate[11]
33241	Removal of implantable defibrillator pulse generator only	N/A	N/A	6.37	$209
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction	N/A	N/A	25.44	$833
33215	Reposition previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular)	N/A	N/A	9.17	$300
33218	Repair of single transvenous electrode, pacemaker or implantable defibrillator	N/A	N/A	11.52	$377
33220	Repair of 2 transvenous electrodes, pacemaker or implantable defibrillator	N/A	N/A	11.26	$369
33223	Relocation of skin pocket for implantable defibrillator	N/A	N/A	12.09	$396
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber	N/A	N/A	26.85	$879
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system	N/A	N/A	10.99	$360
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system	N/A	N/A	11.42	$374
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system	N/A	N/A	11.91	$390

Additional work RVU information can be found in the Medtronic relative value units (RVU) guide here.

Hospital outpatient payment[12]

Effective Jan. 1, 2024–Dec. 31, 2024

Hospitals use CPT® codes for outpatient services. The procedure codes below apply to services performed in the hospital outpatient setting.

Under Medicare's Ambulatory Payment Classification (APC) methodology for hospital outpatient payment, each CPT® code is assigned to an ambulatory payment category. Each APC has a relative weight that is then converted to a flat payment amount.

CPT® code[7]	CPT® description	2024 APC[12]	Status indicator[12]	2024 Medicare national unadjusted rate[12]
33202	Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)	N/A	C	N/A
33203	Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)	N/A	C	N/A
33216	Insertion of a single transvenous electrode, permanent pacemaker, or implantable defibrillator	5222	J1	$8,103
33217	Insertion of 2 transvenous electrodes, permanent pacemaker, or implantable defibrillator	5222	J1	$8,103
33271	Insert subcutaneous implantable defibrillator electrode	5222	J1	$8,103

CPT® code[7]	CPT® description	2024 APC[12]	Status indicator[12]	2024 Medicare national unadjusted rate[12]
33230	Insertion of implantable defibrillator pulse generator only; with existing dual leads	5231	J1	$22,482
33231	Insertion of implantable defibrillator pulse generator only; with existing multiple leads	5232	J1	$31,379
33240	Insertion of implantable defibrillator pulse generator only; with existing single lead	5231	J1	$22,482
33241	Removal of implantable defibrillator pulse generator only	5221	Q2	$3,746
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction	5221	Q2	$3,746
33215	Reposition previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular)	5183	J1	$3,040
33218	Repair of single transvenous electrode, pacemaker or implantable defibrillator	5221	T	$3,746
33220	Repair of 2 transvenous electrodes, pacemaker or implantable defibrillator	5221	T	$3,746
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber	5232	J1	$31,379
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system	5231	J1	$22,482
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system	5231	J1	$22,482
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system	5232	J1	$31,379

Ambulatory surgery center (ASC) payment[13]

Effective Jan. 1, 2024–Dec. 31, 2024

ASCs use CPT® codes for their services. Medicare payment for procedures performed in an ambulatory surgery center is generally based on Medicare's Ambulatory Payment Classification (APC) methodology for hospital outpatient payment. However, comprehensive APCs are used only for hospital outpatient services and are not applied to procedures performed in ASCs. Alternately, payment for some CPT codes is based on the physician fee schedule payment, particularly for procedures commonly performed in the physician office.

Each CPT code designated as an approved procedure in an ASC is assigned a comparable relative weight as under the hospital outpatient APC system. This is then converted to a flat payment amount using a formula unique to ASCs. Multiple procedures can be paid for each claim. Certain ancillary services, such as imaging, may also be reimbursed when they are integral to an approved surgical procedure. Some of these ancillary services are not separately payable. There is no separate payment for these devices in the ASC setting; their payment is included in the payment for the procedure.

CPT® code[7]	CPT® description	Subject to multiple procedure discounting[13]	2024 Medicare national unadjusted rate[13]
33216	Insertion of a single transvenous electrode, permanent pacemaker, or implantable defibrillator	Y	$5,643
33217	Insertion of 2 transvenous electrodes, permanent pacemaker, or implantable defibrillator	Y	$5,430

CPT® code[7]	CPT® description	Subject to multiple procedure discounting[13]	2024 Medicare national unadjusted rate[13]
33230	Insertion of implantable defibrillator pulse generator only; with existing dual leads	Y	$19,039
33231	Insertion of implantable defibrillator pulse generator only; with existing multiple leads	Y	$25,183
33240	Insertion of implantable defibrillator pulse generator only; with existing single lead	Y	$19,843
33241	Removal of implantable defibrillator pulse generator only	N	$2,037
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction	Not reimbursed in ASC	Not reimbursed in ASC
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber	Y	$24,843
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system	Y	$19,146
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system	Y	$19,129
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system	Y	$25,027

Hospital inpatient payment[14]

Effective Oct.1 2023-Sept. 30, 2024

Medicare reimbursement for inpatient hospital services is based on a classification system knows 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 that are included in the major complication or comorbidity (MCC) or complication or comorbidity (CC) lists, which are maintained by CMS. Each MS-DRG has a relative weight that is then converted to a flat payment amount. Only one MS-DRG is assigned for each inpatient stay, regardless of the number of procedures performed. If medical necessity criteria are met to support an inpatient admission for the defibrillator implant, the MS-DRG assignment may be:

MS-DRG[15]	MS-DRG description	FY2024 MS-DRG Medicare national unadjusted rate[14]
275	Cardiac defibrillator implant with cardiac catheterization and MCC	$49,262
276	Cardiac defibrillator implant with MCC	$43,481
277	Cardiac defibrillator implant without MCC	$33,484
245	Automatic implantable cardiac defibrillator generator procedures	$31,727
265	Automatic implantable cardiac defibrillator lead procedures	$24,744

Frequently asked questions

01

Does Medicare require prior authorization for ICD procedures?

No, prior authorizations are not required by traditional Medicare for these procedures. Medicare Advantage plans may require it.

02

Is there any criteria to be met when replacing ICDs?

No, the policy does not address criteria for replacing ICDs. Coverage will be determined by the payer based on documented medical necessity.

03

What are the four NYHA (New York Heart Association) functional classifications?

The NYHA functional capacity is an estimation of a patient's limitation during physical activity as shown below.

- NYHA I: No limitation of physical activity. Ordinary physician activity does not cause undue fatigue, palpitation, dyspnea (shortness of breath).
- NYHA II: Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea (shortness of breath).
- NYHA III: Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea.
- NYHA IV: Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases.

Source: https://www.heart.org/en/health-topics/heart-failure/what-is-heart-failure/classes-of-heart-failure

Frequently asked questions

04

Is a heart failure diagnosis required on ICD procedures?

Yes, for primary prevention Medicare requires a heart failure diagnosis to be reported as a secondary diagnosis.[1]

05

Are there any exceptions for the waiting period?

The Medicare NCD has specific exceptions for the waiting period after an intervention. They are when a patient qualifies for both a pacemaker and defibrillator or when a generator is being changed out.[1]

06

Does an ICD have to be at end of life (ERI) for the changeout to be covered?

There is no policy from Medicare on device changeouts. Coverage will be determined by the payer based on documented medical necessity.

Frequently asked questions

07

What diagnosis code is reported for routine generator changeouts?

For ICD's, the diagnosis for a routine generator changeout is Z45.02.

Source: American Medical Association. (2021). ICD-10-CM 2022 the complete official codebook with guidelines.

For additional information, please contact

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