



Coding scenarios

Implantable Cardioverter Defibrillator (ICD) therapy

Common ICD procedure coding scenarios

This document is a reference tool that can be used to assist with selection of codes for the most common procedures for ICDs. This is not an all-inclusive list, nor does it replace the coding advice from your coding department. Documentation needs to support the codes reported. The responsibility for correct coding lies with the provider of service. Each header shaded in light blue is an individual scenario and all codes listed under that header would be reported for the scenario described in the header.

ICD/CRT-D system implant procedures

CPT®1 Code	Description
Implant of ICD generator and right atrial, right ventricular or right atrial and right ventricular leads	
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
Implant of CRT-D system (placement of ICD generator with right atrial, right ventricular and left ventricular leads)	
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)

Pacemaker to ICD/CRT-D upgrade procedures

CPT®1 Code	Description
Upgrade pacemaker to ICD (removing pacemaker generator, placing ICD generator and RA or RV lead)	
33233	Removal of permanent pacemaker pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
Upgrade pacemaker to CRT-D (removing pacemaker generator, placing ICD generator, RA or RV lead and LV lead)	
33233	Removal of permanent pacemaker pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)

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ICD upgrade procedures

CPT®1 Code	Description
Upgrade single lead ICD system to a dual lead ICD system (changing ICD generator and adding RA or RV lead)	
33241	Removal of implantable defibrillator pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
Upgrade single lead ICD system to CRT-D system (changing ICD generator, adding RA or RV lead and LV lead)	
33241	Removal of implantable defibrillator pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)
Upgrade dual lead ICD system to CRT-D system (changing ICD generator and adding LV lead)	
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)
Upgrade single lead ICD system to a dual biventricular ICD system (changing ICD generator and adding LV lead)	
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)

ICD/CRT-D generator only changeouts

CPT®1 Code	Description
Generator only changeout of a single lead ICD system (removing old generator and placing new generator)	
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
Generator only changeout of a dual lead ICD system (removing old generator and placing new generator)	
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
Generator only changeout of a multiple lead ICD system (removing old generator and placing new generator)	
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system

ICD/CRT-D system changeouts

CPT®1 Code	Description
Changeout of ICD generator with placement of new RA, RV or RA and RV leads	
33241	Removal of implantable defibrillator pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
Changeout of CRT-D generator with placement of new RA, RV or RA and RV leads and new LV lead	
33241	Removal of implantable defibrillator pulse generator only
33249	Insertion or replacement of permanent implantable defibrillator system, with transvenous lead(s), single or dual chamber
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)
Changeout of CRT-D generator with placement of new LV lead only	
33264	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; multiple lead system
+33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (e.g., for upgrade to dual chamber system) (List separately in addition to code for primary procedure)

ICD/CRT-D generator removal procedure

CPT®1 Code	Description
Removal of ICD or CRT-D generator only	
33241	Removal of implantable defibrillator pulse generator only

Lead removal procedures

CPT®1 Code	Description
Removal of RA and/or RV leads from an ICD or CRT-D system	
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction

Lead insertion procedures

CPT®1 Code	Description
Insertion of a new lead with an ICD/CRT-D system (no new generator placement at same time)	
33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
Insertion of 2 new leads (RA and RV) with an ICD-CRT-D system (no new generator placement at same time)	
33217	Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator

Lead repositioning procedure

CPT®1 Code	Description
Repositioning a lead that is part of an ICD or CRT-D system (RA and/or RV only)	
33215	Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular) electrode

Left Ventricular (or CS) lead procedures

CPT® ¹ Code	Description
Insertion of left ventricular lead only (not at time of generator implant or replacement)	
33224	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, with attachment to previously placed pacemaker or implantable defibrillator pulse generator (including revision of pocket, removal, insertion, and/or replacement of existing generator)
Repositioning of left ventricular lead	
33226	Repositioning of previously implanted cardiac venous system (left ventricular) electrode (including removal, insertion and/or replacement of existing generator)

Coding, coverage, and reimbursement information is available at: [medtronic.com/crhfreimbursement](https://www.medtronic.com/crhfreimbursement).

For questions or for more information, please contact Medtronic Reimbursement Customer Support at 1-866-877-4102 (8:00 a.m. to 5:00 p.m. CT, Monday-Friday) or rs.healthcareeconomics@medtronic.com.

References

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