Reference Guide for Cardiac Rhythm and Heart Failure (CRHF) Procedures
CONTENTS

Pacemaker Procedures .................................................................3
Implantable Defibrillator Procedures .........................................5
Electrophysiology Procedures .....................................................9
Implantable Devices for Diagnostic Procedures .........................11
Medtronic CareLink™ Network Procedures ...............................13
This booklet includes the commonly billed physician codes for cardiac rhythm and heart failure devices and procedures. This is not a comprehensive list of all available codes, and it is possible that there is a more appropriate code for any given procedure.

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. Please contact your local payer for interpretation of the appropriate codes to use for specific procedures. Medtronic makes no guarantee that the use of this information will prevent differences of opinion or disputes with Medicare or other third party payers as to the correct form of billing or the amount that will be paid to providers of service.

For questions or for more information, please contact Medtronic at 1-866-877-4102.

Cardiac Rhythm and Heart Failure (CRHF) reimbursement customer information is available at www.medtronic.com/crdmreimbursement.

CPT® copyright 2016 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 AMA assumes no liability for the data contained or not contained herein.

Where reimbursement is requested for the use of a product that may be inconsistent or not expressly specified in the FDA cleared or approved labeling (e.g., instructions for use, operator’s manual, or package insert), consult with your billing advisors or payers for advice on handling such billing issues. Some payers may have policies that make it inappropriate to submit claims for such items or related services.
A FEW NOTES ABOUT PHYSICIAN CODING

Physician Coding and Reimbursement

ICD-10 diagnosis codes became effective for service dates on and after October 1, 2015 for virtually all payers. Physicians or other qualified health care professionals report CPT codes for services regardless of where the service was provided (physician office, inpatient or outpatient hospital).

Typically changes to CPT codes are effective January 1st of each calendar year. Category III codes reflect emerging technology and therefore are temporary codes that may be implemented during the year. Medicare Contractors and private payers will determine the reimbursement for Category III codes.

The information in this document does not identify code pairs that may be subject to the Medicare National Correct Coding Initiatives (NCCI) edits.

Modifiers:

- **KX**: Requirements specified in the medical policy have been met.
- **Q0 (zero)**: Investigational clinical service provided in a clinical research study that is in an approved clinical research study. This modifier also denotes a primary prevention patient for Medicare implantable defibrillator device implants.
- **SC**: Medically necessary service or supply
- 
  - **-22**: Increased procedural services (work required to provide a service is substantially greater than typically required)
  - **-25**: Significant, separately identifiable E/M service by the same physician or other qualified health care professional on the same day of the procedure or other service
  - **-26**: Professional component (certain procedures are a combination of a physician or other qualified health care professional component and a technical component. When the physician or other qualified health care professional component is reported separately, the service may be identified by adding modifier -26 to the usual procedure number).
  - **-51**: Multiple procedures, other than E/M, performed at the same session by the same individual, the primary procedure or service may be reported as listed. The additional procedure(s) or service(s) may be identified by appending modifier -51 to the additional procedure or service code(s).
- **-52**: Reduced services
- **-53**: Discontinued procedure (physician elects to terminate a surgical or diagnostic procedure)
- **-58**: Staged or related procedure or service by the same physician or other qualified health care professional during the postoperative period
- **-76**: Repeat procedure or service by same physician or other qualified health care professional
- **-77**: Repeat procedure by another physician or other qualified health care professional
- **-78**: Unplanned return to the OR/procedure room by the same physician or other qualified health care professional following initial procedure for a related procedure during the postoperative period
- **-79**: Unrelated procedure or service by the same physician during the postoperative period
PACEMAKER PROCEDURES

Insertion
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)
33206 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial
33207 ventricular
33208 atrial and ventricular
33212 Insertion of pacemaker pulse generator only; with existing single lead
33213 with existing dual leads
33221 with existing multiple leads
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)
33216 Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
33217 Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator
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)
+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)
0387T Transcatheter insertion or replacement of permanent leadless pacemaker, ventricular

Insertion or Replacement of Temporary Pacemaker
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)

Removal and Replacement
33227 Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single
lead system
33228 dual lead system
33229 multiple lead system

Removal
33233 Removal of permanent pacemaker pulse generator only
33234 Removal of transvenous pacemaker electrode(s), single lead system, atrial or ventricular
33235 dual lead system
33236 Removal of permanent epicardial pacemaker and electrodes by thoracotomy; single lead system, atrial or
ventricular
33237 dual lead system
33238 Removal of permanent transvenous electrode(s) by thoracotomy
0388T Transcatheter removal of permanent leadless pacemaker, ventricular

Repositioning, Repair, Relocation
33215 Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right
ventricular) electrode
33218 Repair of single transvenous electrode, permanent pacemaker or implantable defibrillator
33220 Repair of 2 transvenous electrodes for permanent pacemaker or implantable defibrillator
33222 Relocation of skin pocket for pacemaker
33226 Repositioning of previously implanted cardiac venous system (left ventricular) electrode (including removal,
insertion and/or replacement of existing generator)

Echocardiography
93303 Transthoracic echocardiography for congenital cardiac anomalies; complete
93304 follow-up or limited study
93306 Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording,
when performed, complete, with spectral Doppler echocardiography, and with color flow Doppler
echocardiography
Pacemaker Procedures, cont’d.

93307  Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, without spectral or color Doppler echocardiography

93308  Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, follow-up or limited study

+93320  Doppler echocardiography, pulsed wave and/or continuous wave with spectral display; complete (List separately in addition to codes for echocardiographic imaging)
  (Use 93320 in conjunction with 93303, 93304, 93312, 93314, 93315, 93317, 93350, 93351)

+93321  follow-up or limited study (List separately in addition to codes for echocardiographic imaging)
  (Use 93321 in conjunction with 93303, 93304, 93308, 93312, 93314, 93315, 93317, 93350, 93351)

+93325  Doppler echocardiography color flow velocity mapping (List separately in addition to codes for echocardiography)
  (Use 93325 in conjunction with 76825, 76826, 76827, 76828, 93303, 93304, 93308, 93312, 93314, 93315, 93317, 93350, 93351)

Cardiac Device Analysis, Interrogation, and Programming Evaluation

93724  Electronic analysis of antitachycardia pacemaker system (includes electrocardiographic recording, programming of device, induction and termination of tachycardia via implanted pacemaker, and interpretation of recordings)

In Person

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 health care professional; single lead pacemaker system

93280  dual lead pacemaker system

93281  multiple lead pacemaker system

93288  Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead pacemaker system

93290  implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors

0389T  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, leadless pacemaker system

0391T  Interrogation device evaluation (in person) with analysis, review and report, includes connection, recording and disconnection per patient encounter, leadless pacemaker system

Transtelephonic/Remote

93293  Transtelephonic rhythm strip pacemaker evaluation(s) single, dual, or multiple lead pacemaker system, includes recording with and without magnet application with analysis, review and report(s) by a physician or other qualified health care professional, up to 90 days

93294  Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional

93296  single, dual, or multiple lead pacemaker system or implantable cardioverter-defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

93297  Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, analysis, review(s) and report(s) by a physician or other qualified health care professional

93299  implantable cardiovascular monitor system or implantable loop recorder system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

Peri-Procedural

93286  Peri-procedural device evaluation (in person) and programming of device system parameters before or after a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; single, dual, or multiple lead pacemaker system

0390T  Peri-procedural device evaluation (in person) and programming of device system parameters before or after a surgery, procedure, or test with analysis, review and report, leadless pacemaker system

Frequency Guidelines:
Medicare identifies the frequency guidelines for pacemaker clinic services in the Cardiac Pacemaker Evaluation Services Medicare National Coverage Determinations Manual (CMS Pub, 100-03) §20.8.1—Cardiac Pacemaker Evaluation Services (Rev. 173, Issued: 09-04-14) CIM 50-1. Contact your local payer to discuss this pacemaker evaluation National Coverage Determination and other Coding/Billing articles.

+ Codes with a + symbol are “add-on” codes. These procedures are always performed in addition to the primary service/procedure, and are never reported as stand-alone codes.
IMPLANTABLE DEFIBRILLATOR PROCEDURES

Insertion
33202 Insertion of epicardial electrode(s); open incision (e.g., thoracotomy, median sternotomy, subxiphoid approach)³
33203 Insertion of epicardial electrode(s); endoscopic approach (e.g., thoracoscopy, pericardioscopy)³
33216 Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
33217 Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator
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)
+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)
33230 Insertion of implantable defibrillator pulse generator only; with existing dual leads
33231 with existing multiple leads
33240 with existing single lead
33249 Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
33270 Insertion or replacement of permanent subcutaneous implantable defibrillator system, with subcutaneous electrode, including defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters, when performed
33271 Insertion of subcutaneous implantable defibrillator electrode

Insertion or Replacement of Temporary Pacemaker
(May be applicable to Implantable Defibrillator Procedures, verify with payers as deemed appropriate)
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)

Removal and Replacement
33262 Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
33263 dual lead system
33264 multiple lead system

Removal
33241 Removal of implantable defibrillator pulse generator only
33243 Removal of single or dual chamber implantable defibrillator electrode(s); by thoracotomy
33244 by transvenous extraction
33272 Removal of subcutaneous implantable defibrillator electrode

Repositioning, Repair, Relocation
33215 Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular) electrode
33218 Repair of single transvenous electrode, permanent pacemaker or implantable defibrillator
33220 Repair of 2 transvenous electrodes for permanent pacemaker or implantable defibrillator
33223 Relocation of skin pocket for implantable defibrillator
33226 Repositioning of previously implanted cardiac venous system (left ventricular) electrode (including removal, insertion and/or replacement of existing generator)
33273 Repositioning of previously implanted subcutaneous implantable defibrillator electrode

Intra-operative Device Testing
93640-26⁴ Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator leads including defibrillation threshold evaluation (induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination) at time of initial implantation or replacement;
93641-26⁴ with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Implantable Defibrillator Procedures, cont’d.

**Follow-Up Device Testing**

- 93642-26[^1] Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)

- 93644-26[^1] Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)

**Echocardiography**

- 93303 Transthoracic echocardiography for congenital cardiac anomalies; complete follow-up or limited study

- 93304 Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, with spectral Doppler echocardiography, and with color flow Doppler echocardiography

- 93305 Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, without spectral or color Doppler echocardiography

- 93307 Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, without spectral or color Doppler echocardiography

- 93308 Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, follow-up or limited study

- 93320 Doppler echocardiography, pulsed wave and/or continuous wave with spectral display; complete (List separately in addition to codes for echocardiographic imaging) (Use 93320 in conjunction with 93303, 93304, 93312, 93314, 93315, 93317, 93350, 93351)^[^2]

- 93321 Follow-up or limited study (List separately in addition to codes for echocardiographic imaging) (Use 93321 in conjunction with 93303, 93304, 93308, 93312, 93314, 93315, 93317, 93350, 93351)^[^2]

- 93325 Doppler echocardiography color flow velocity mapping (List separately in addition to codes for echocardiography) (Use 93325 in conjunction with 76825, 76826, 76827, 76828, 93303, 93304, 93308, 93312, 93314, 93315, 93317, 93350, 93351)^[^2]

**Cardiac Device Analysis, Interrogation, and Programming Evaluation**

**In Person**

- 93260 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; implantable subcutaneous lead defibrillator system

- 93261 Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional; includes connection, recording and disconnection per patient encounter; implantable subcutaneous lead defibrillator system

- 93282 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; single lead transvenous implantable defibrillator system

- 93283 Dual lead transvenous implantable defibrillator system

- 93284 Multiple lead transvenous implantable defibrillator system

- 93289 Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional; includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead transvenous implantable defibrillator system, including analysis of heart rhythm derived data elements

**Remote**

- 93295 Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead implantable defibrillator system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional

- 93296 Single, dual, or multiple lead pacemaker system or implantable defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

**External**

- 93288 External mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real-time data analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and patient selected events transmitted to a remote attended surveillance center for up to 30 days; review and interpretation with report by a physician or other qualified health care professional

- 93291 Technical support for connection and patient instructions for use, attended surveillance, analysis and transmission of daily and emergent data reports as prescribed by a physician or other qualified health care professional

- 93292 Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional; includes connection, recording and disconnection per patient encounter; wearable defibrillator system

- 93745 Initial set-up and programming by a physician or other qualified health care professional of wearable cardioverter-defibrillator includes initial programming of system, establishing baseline electronic ECG, transmission of data to data repository, patient instruction in wearing system and patient reporting of problems or events
Implantable Defibrillator Procedures, cont’d.

Peri-Procedural
93287  Peri-procedural device evaluation (in person) and programming of device system parameters before or after a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; single, dual, or multiple lead implantable defibrillator system

ICD/CRT-D Devices with OptiVol™ Technology
Cardiac Device Analysis Interrogation

In Person
93290  Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors

Remote
93297  Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, analysis, review(s) and report(s) by a physician or other qualified health care professional
93299  implantable cardiovascular monitor system or implantable loop recorder system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

+ Codes with a + symbol are “add-on” codes. These procedures are always performed in addition to the primary service/procedure, and are never reported as stand-alone codes.
Electrophysiology Procedures

Modifier –26 is required for all of the following procedures except 92960, 92961, 93650, 93653, 93654, and 93656 when performed in the facility setting (e.g., hospital).

Recording, Mapping, and Pacing Procedures
93600  Bundle of His recording
93602  Intra-atrial recording
93603  Right ventricular recording
+93609  Intraventricular and/or intra-atrial mapping of tachycardia site(s) with catheter manipulation to record from multiple sites to identify origin of tachycardia (List separately in addition to code for primary procedure)
93610  Intra-atrial pacing
93612  Intraventricular pacing
+93613  Intracardiac electrophysiologic 3-dimensional mapping (List separately in addition to code for primary procedure)
93615  Esophageal recording of atrial electrogram with or without ventricular electrogram(s); with pacing
93618  Induction of arrhythmia by electrical pacing

Electrophysiologic Evaluations
93619  Comprehensive electrophysiologic evaluation with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording, including insertion and repositioning of multiple electrode catheters, without induction or attempted induction of arrhythmia
93620  Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording
+93621  with left atrial pacing and recording from coronary sinus or left atrium (List separately in addition to code for primary procedure)
+93622  with left ventricular pacing and recording (List separately in addition to code for primary procedure)

Pharmacologic Assessment during EPS
+93623  Programmed stimulation and pacing after intravenous drug infusion (List separately in addition to code for primary procedure)

EP Follow-Up Study
93624  Electrophysiologic follow-up study with pacing and recording to test effectiveness of therapy, including induction or attempted induction of arrhythmia

Intra-Operative Cardiac Pacing and Mapping
93631  Intra-operative epicardial and endocardial pacing and mapping to localize the site of tachycardia or zone of slow conduction for surgical correction

Intra-Operative Device Testing
93640–26  Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator leads including defibrillation threshold evaluation (induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination) at time of initial implantation or replacement
93641–26  with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Follow-Up Device Testing
93642–26  Electrophysiologic evaluation of single or dual chamber transvenous pacing cardioverter-defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)
93644–26  Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)

Intracardiac Echocardiography
+93662  Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation (List separately in addition to code for primary procedure)
Electrophysiology Procedures, cont’d.

External and Internal Cardioversion
92960 Cardioversion, elective, electrical conversion of arrhythmia; external
92961 internal (separate procedure)

Catheter Ablation
93650 Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
93653 Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of an arrhythmia with right atrial pacing and recording, right ventricular pacing and recording (when necessary), and His bundle recording (when necessary) with intracardiac catheter ablation of arrhythmogenic focus; with treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathway, accessory atrioventricular connection, cavo-tricuspid isthmus or other single atrial focus or source of atrial re-entry
93654 with treatment of ventricular tachycardia or focus of ventricular ectopy including intracardiac electrophysiologic 3D mapping, when performed, and left ventricular pacing and recording, when performed
+93655 Intracardiac catheter ablation of a discrete mechanism of arrhythmia which is distinct from the primary ablated mechanism, including repeat diagnostic maneuvers, to treat a spontaneous or induced arrhythmia (List separately in addition to code for primary procedure)
93656 Comprehensive electrophysiologic evaluation including transseptal catheterizations, insertion and repositioning of multiple electrode catheters with induction or attempted induction of an arrhythmia including left or right atrial pacing/recording when necessary, right ventricular pacing/recording when necessary, and His bundle recording when necessary with intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation
+93657 Additional linear or focal intracardiac catheter ablation of the left or right atrium for treatment of atrial fibrillation remaining after completion of pulmonary vein isolation (List separately in addition to code for primary procedure)

Transseptal Puncture
+93462 Left heart catheterization by transseptal puncture through intact septum or by transapical puncture (List separately in addition to code for primary procedure)
(Use 93462 in conjunction with 34777, 93452-93453, 93458-93461, 93582, 93653-93654)

Tilt Table Testing
93660 Evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring, with or without pharmacological intervention

Cardiac Device Analysis, Interrogation, and Programming Evaluation
93724 Electronic analysis of antitachycardia pacemaker system (includes electrocardiographic recording, programming of device, induction and termination of tachycardia via implanted pacemaker, and interpretation of recordings)

+ Codes with a + symbol are “add-on” codes. These procedures are always performed in addition to the primary service/procedure, and are never reported as stand-alone codes.
Implantable Devices for Diagnostic Procedures

Implantable Patient-activated Cardiac Event Recorders:

**Insertion**
- 33282 Implantation of patient-activated cardiac event recorder

**Removal**
- 33284 Removal of an implantable, patient-activated cardiac event recorder

**Cardiac Device Analysis, Interrogation, and Programming Evaluation**

**In Person**
- 93285 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; implantable loop recorder system
- 93291 Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; implantable loop recorder system, including heart rhythm derived data analysis

**Remote**
- 93298 Interrogation device evaluation(s), (remote) up to 30 days; implantable loop recorder system, including analysis of recorded heart rhythm data, analysis, review(s) and report(s) by a physician or other qualified health care professional
- 93299 Implantable cardiovascular monitor system or implantable loop recorder system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results
Pacemaker and Implantable Defibrillator Systems
93294 Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional
93295 single, dual, or multiple lead implantable defibrillator system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional
93296 single, dual, or multiple lead pacemaker system or implantable defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

Implantable Cardiovascular Monitor (ICM) and Implantable Loop Recorder (ILR)
93297 Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, analysis, review(s) and report(s) by a physician or other qualified health care professional
93298 implantable loop recorder system, including analysis of recorded heart rhythm data, analysis, review(s) and report(s) by a physician or other qualified health care professional
93299 implantable cardiovascular monitor system or implantable loop recorder system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

Frequency Guidelines:
Medicare identifies the frequency guidelines for pacemaker clinic services in the Cardiac Pacemaker Evaluation Services Medicare National Coverage Determinations Manual (CMS Pub, 100-03) §20.8.1 – Cardiac Pacemaker Evaluation Services (Rev. 173, Issued: 09-04-14) CIM 50-1. Contact your local payer to discuss this pacemaker evaluation National Coverage Determination and other Coding/Billing articles.
ADDITIONAL CODING INFORMATION:

It is important to refer to the CPT® code descriptions to ensure that a billed code meets the specific requirements defined for each individual code. The local Medicare contractor/payer should be contacted for interpretation of applicable policies. In addition, the National Correct Coding Initiative (NCCI) edits should be checked.

Cardiac device evaluation CPT codes include both in person and remote monitoring services. Remote monitoring codes represent either a 30- or 90-day monitoring period and there are separate codes for the professional component (PC) and the technical component (TC).

Physician Billing: Remote monitoring services require billing two different CPT codes for an office Place of Service (POS), when both components of the service are performed by the office. One code represents the professional component (PC) and another code represents the technical component (TC). These code pairs are: CPT 93294 and 93296, 93295 and 93296, 93297 and 93299, and 93298 and 93299. The in person codes are configured as a global code. When the in person device evaluation or interrogation is performed in a facility (hospital) setting, modifier -26 should be appended to the applicable in person code when billing the professional component (PC). This -26 modifier is not applicable for remote monitoring services since there is a separate PC code, CPT 93294, 93295, 93297, and 93298. The professional component reflects physician time and intensity in furnishing the service, including activities before and after direct patient contact.  

The technical component refers to the resources used in furnishing the service, such as office rent, wages of personnel, and other office practice expenses. For remote monitoring, the CPT code description (CPT codes 93296 & 93299) identifies the work involved with remote monitoring technical services, including remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results.

Hospital Inpatient or Outpatient Billing: The service is “split-billed” with the professional component (PC) billed on a 1500 (professional claim form), and the technical component (TC, facility fee) is billed by the hospital on a UB-04 claim form.

Physician Supervision Requirements

Cardiac device monitoring services are defined by Medicare as diagnostic services. As such, Medicare regulations require specific supervision for diagnostic tests. These are applicable to the technical component of the electronic analysis of implanted cardiac devices. These supervision requirements are in addition to any other Medicare coverage requirements. The Medicare supervision requirements for individual CPT codes are available on the Physician Fee Schedule (PFS) lookup function on the Medicare website or under “PFS Relative Value Files” for 2017.

Medicare requires:

- General supervision of the technical component for all remote interrogation services and transtelephonic pacemaker monitoring (codes 93296, 93299, and 93293)
- Direct supervision of the technical component for all in person cardiac device evaluations when performed with an office POS

General supervision means the procedure is furnished under the physician's overall direction and control but the physician's presence is not required during the performance of the procedure. Under general supervision, the training of the non-physician personnel who actually performs the diagnostic procedure and the maintenance of the necessary equipment and supplies are the continuing responsibility of the physician.

Direct supervision in a hospital (facility) setting means that the physician must be immediately available to furnish assistance and direction throughout the performance of the procedure. The physician is not required to be present in the room where the procedure is being performed in this hospital (facility) setting or within any other physical boundary as long as he or she is immediately available.

Medicare diagnostic testing rules state that the supervisor must be a Physician. A Non-Physician Practitioner (NPP) such as a nurse practitioner or a physician assistant cannot supervise staff.

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. Please contact your local payer for interpretation of the appropriate codes to use for specific procedures. Medtronic makes no guarantee that the use of this information will prevent differences of opinion or disputes with Medicare or other third party payers as to the correct form of billing or the amount that will be paid to providers of service.
References

1. Medicare contractors will establish RVUs (Relative Value Units) and payment amounts for these services, typically on a case by case basis following review of documentation, such as an operative report. This information can be found at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/index.html. Click on PFS Relative Value Files, Calendar Year and then access the current file.


3. The Medicare supervision requirements are available by accessing the "PFS Relative Value Files" or "Medicare Physician Schedule Look-Up" located at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/index.html


Medtronic and the Medtronic logo are trademarks of Medtronic.

Third party brands are trademarks of their respective owners.

All other brands are trademarks of a Medtronic company.