GUIDEPOINT
Reimbursement Resources

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2015 Billing and Coding Guide

Rhythm Management

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Links to sections are clickable.

Dear GuidePoint User,

The Boston Scientific Health Economics and Reimbursement team is pleased to bring you the 2015 GuidePoint materials. GuidePoint is our suite of health economics and reimbursement resources for hospitals, physicians, clinicians, and reimbursement professionals. GuidePoint members have access to the following resources:

Reimbursement Customer Support Line — Get your reimbursement questions answered. Call 1.800.CARDIAC (227.3422) and ask for the Reimbursement Customer Support Line.

Billing and Coding Guide — Quickly find coding and billing information, including common scenarios relevant to your medical practice.

Procedural Payment Guide — Locate facility and physician payment information for cardiology, rhythm, and intervention procedures in conveniently organized summaries.

Webcasts — Hear from nationally acclaimed experts addressing basic and advanced CRM and EP reimbursement topics.

Physician Website — Keep current with the latest reimbursement news and find other reimbursement education resources.

For over 36 years, Boston Scientific CRM and EP have been committed to making more possible through innovation, clinical science, and collaboration. We're dedicated to providing physicians and allied health professionals with world class programs and services to help advance the standard of patient care. We are proud to continue this spirit of partnership with GuidePoint.

We welcome your feedback. Please send comments to crm.reimbursement@bsci.com. If you have questions about GuidePoint resources or would like additional guides, contact Boston Scientific at 1.800.CARDIAC (227.3422). To access additional reimbursement resources, visit our website at http://www.bostonscientific.com/crm/reimbursement.

Boston Scientific
Health Economics & Reimbursement

The information in this guide is current as of January 1, 2015. The Centers for Medicare and Medicaid Services (CMS) may initiate changes to coverage, coding, or payment guidelines at any time. Check the CMS website (http://www.cms.gov) for current information.

A Word to Our Customers

Boston Scientific is pleased you have chosen to partner with us to help you save and improve patients' lives. We are committed to working directly with you to ensure timely patient access to innovative medical solutions. As part of this commitment, we also work with the Centers for Medicare and Medicaid Services (CMS), private insurers, and other industry stakeholders to ensure appropriate reimbursement for physicians and hospitals.

Explanation of Contents

This document contains commonly used billing codes for physicians and hospitals related to Boston Scientific devices and procedures.

Disclaimer

Please note: this coding information may include codes for procedures for which Boston Scientific currently offers no cleared or approved products. In those instances, such codes have been included solely in the interest of providing users with comprehensive coding information and are not intended to promote the use of any Boston Scientific products for which they are not cleared or approved.

Health economics and reimbursement information provided by Boston Scientific Corporation is gathered from third-party sources and is subject to change without notice as a result of complex and frequently changing laws, regulations, rules and policies. This information is provided for illustrative purposes only and does not constitute reimbursement or legal advice. Boston Scientific encourages providers to submit accurate and appropriate claims for services. It is always the provider's responsibility to determine medical necessity, the proper site for delivery of any services and to submit appropriate codes, charges, and modifiers for services that are rendered. Boston Scientific recommends that you consult with your payers, reimbursement specialists and/or legal counsel regarding coding, coverage and reimbursement matters. Boston Scientific does not promote the use of its products outside their FDA-approved label.

Payer policies will vary and should be verified prior to treatment for limitations on diagnosis, coding or site of service requirements. The coding options listed within this guide are commonly used codes and are not intended to be an all-inclusive list. We recommend consulting your relevant manuals for appropriate coding options.

CPT® Disclaimer

Introduction

GuidePoint Reimbursement Resources at a Glance

REIMBURSEMENT CUSTOMER SUPPORT LINE

Certified reimbursement professionals answer reimbursement questions related to Boston Scientific products and procedures.

» Call 1.800.CARDIAC (227.3422). Ask to be connected with the Reimbursement Customer Support Line available Monday through Friday, 9 am to 4 pm Central.

BILLING AND CODING GUIDE

The 2015 Billing and Coding Guide is a useful tool for hospital and physician billers and coders. The guide includes practical coverage and coding reference materials for Boston Scientific products and procedures.

PROCEDURAL PAYMENT GUIDE

The 2015 Procedural Payment Guide provides facility and physician payment information for cardiology, rhythm, and intervention procedures in convenient summaries.

WEBCAST PROGRAMS

Attend a live webcast or view on-demand topics related to coverage, coding, and payment. Webcast registration will open approximately three weeks before the live event. The webcasts are approximately one hour in length and will be available on the website for future viewing. On-demand courses are made available for you to access at your viewing convenience.

Our webcast programs are intended for hospitals, physicians, clinicians, and reimbursement professionals seeking a better understanding of reimbursement for Boston Scientific products and procedures.

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Dedicated to topics associated with reimbursement, the website provides resources for those seeking a better understanding of reimbursement for Boston Scientific products and procedures.

» Make the website your first stop for all your Boston Scientific reimbursement needs; access http://www.bostonscientific.com/reimbursement.

Medicare Payment Overview

OVERVIEW OF MEDICARE PAYMENT SYSTEMS

Medicare is a federally-funded, national health insurance program providing coverage to Americans who are 65 years of age or older, certain younger people with disabilities, and individuals with end-stage renal disease (ESRD). Payment by Medicare is predicated on Medical Necessity.

Note: Medical Necessity is defined by CMS as services or supplies that are: proper and needed for the diagnosis or treatment of the patient's medical condition; are provided for the diagnosis, direct care, and treatment of the patient's medical condition; meet the standards of good medical practice in the local area; and are not mainly for the convenience of the patient's doctor. CMS's definition of Medical Necessity can be found at: https://www.cms.gov/apps/glossary/default.asp?Letter=M&Language=English

There are several payment systems within the Medicare program, including payment for inpatient hospital services, outpatient hospital services, ambulatory surgery centers, home health, physicians, and skilled nursing. In this guide, you will find information specific to facility and physician payment systems.

Hospital Inpatient Payment

The hospital inpatient payment system is a prospective payment system (PPS) that classifies patients according to diagnosis, type of treatment, age, and other relevant criteria using the ICD-9-CM coding system. Under this system, hospitals typically receive a predefined payment for treating patients within a particular category or Medicare Severity Diagnosis Related Group (MS-DRG).

Note: Medicare's hospital inpatient payment information in this document is effective for Fiscal Year (FY) 2015 (October 1, 2014 – September 30, 2015).

Note: Maryland hospitals are paid under a program waiver (section 1814(b)(3) of the Social Security Act) in which the state establishes hospital inpatient and outpatient payment rates for Medicare, Medicaid, and private payers.[1,2]

Hospital Outpatient Payment

The hospital outpatient payment system, OPPS, is also a prospective payment system. In this system, hospitals receive a fixed payment, called an Ambulatory Payment Classification (APC), for a specific procedure. Each procedure described by a CPT® (Current Procedural Terminology) code is assigned directly to an APC. Unlike the inpatient (MS-DRG) payment system, if multiple procedures are performed, the hospital may be eligible to receive more than one APC payment per outpatient admission.

Note: Medicare's hospital outpatient payment information in this document is effective for Calendar Year (CY) 2014 (January 1, 2015 – December 31, 2015).

Ambulatory Surgery Center (ASC) Payment

The Medicare ASC payment system, effective January 1, 2015, is a prospective payment system based on Medicare's OPPS using APCs. The new ASC payment rates for most surgical procedures are set at ~ 65% of the APC payment rate for OPPS. Device intensive procedures (such as pacemakers and defibrillators) will be paid at a higher rate (~ 86–96%) of the OPPS rate. ASCs should bill Medicare using a CMS-1500 claim form and use CPT® codes to describe procedures performed.

Note: Medicare's ASC payment information in this document is effective for Calendar Year (CY) 2015 (January 1, 2015 – December 31, 2015).

Physician Payment

Physicians receive payment for each CPT® procedure code based on a fee schedule called the Physician Fee Schedule. The Physician Fee Schedule is based on a scale of national uniform values for all physician services, commonly referred to as the Resource-Based Relative Value Scale (RBRVS).

Note: Medicare's physician payment information in this document is effective for Calendar Year (CY) 2015 (January 1, 2015 – December 31, 2015).

OVERVIEW OF MEDICARE PAYMENT PROCESS

All Medicare payment processes include these common steps:

1. Physician documentation in patient medical record
2. Transfer of information to billing/coding department
3. Selection of appropriate diagnosis and procedure codes
4. Submission of billing form to Medicare Administrative Contractor (MAC)
5. Review of coding and physician documentation for medical necessity
6. Payment from MAC to hospital or physician (if deemed medically necessary)

Payer Coverage + Correct Coding + Compliance = Payment

***Note**: ICD-9-CM codes and HCPCS/CPT® codes are also recognized by non-Medicare payers.*

Coverage
Reasonable and necessary
National coverage determinations (NCDs)
Local coverage determinations (LCDs)

ICD-9-CM diagnosis codes
Why patient received treatment

CPT® HCPCS procedure codes
Treatment patient received

ICD-9-CM procedure codes
Treatment patient received

Fee schedule payment
physician

APC payment
(hospital outpatient)

MS-DRG payment
(hospital inpatient)

Medicare National Coverage Determination (NCD) Policies

MEDICARE NCD FOR CARDIAC PACEMAKERS[3]

Benefit Category

» Inpatient Hospital Services

» Physicians' Services

» Prosthetic Devices

Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Item/Service Description

A. General

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

The implantation procedure is typically performed under local anesthesia and requires only a brief hospitalization. A catheter is inserted into the chest and the pacemaker's leads are threaded through the catheter to the appropriate chamber(s) of the heart. The surgeon then makes a small "pocket" in the pad of the flesh under the skin on the upper portion of the chest wall to hold the power source. The pocket is then closed with stitches.

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

Indications and Limitations of Coverage

B. Nationally Covered Indications

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

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

C. Nationally Non-Covered Indications

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

1. Reversible causes of bradycardia such as electrolyte abnormalities, medications or drugs, and hypothermia,
2. Asymptomatic first degree atrioventricular block,
3. Asymptomatic sinus bradycardia,
4. Asymptomatic sino-atrial block or asymptomatic sinus arrest,

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

D. Other

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

MEDICARE NCD FOR CARDIAC PACEMAKER – EVALUATION SERVICES[4]

Effective date of this version: October 1, 1984

Benefit Category

» Diagnostic Services in Outpatient Hospital

» Diagnostic Tests (other)

Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Coverage Topic

» Diagnostic Tests, X-rays, and Lab Services

Item/Service Description

There are two general types of pacemakers in current use—single-chamber pacemakers which sense and pace the ventricles of the heart, and dual-chamber pacemakers which sense and pace both the atria and the ventricles. These differences require different monitoring patterns over the expected life of the units involved.

Indications and Limitations of Coverage

Medicare covers a variety of services for the post-implant follow-up and evaluation of implanted cardiac pacemakers. The following guidelines are designed to assist contractors in identifying and processing claims for such services.

Note: These new guidelines are limited to lithium battery-powered pacemakers, because mercury-zinc battery- powered pacemakers are no longer being manufactured and virtually all have been replaced by lithium units. Contractors still receiving claims for monitoring such units should continue to apply the guidelines published in 1980 to those units until they are replaced.

One fact of which contractors should be aware is that many dual-chamber units may be programmed to pace only the ventricles; this may be done either at the time the pacemaker is implanted or at some time afterward. In such cases, a dual-chamber unit, when programmed or reprogrammed for ventricular pacing, should be treated as a single-chamber pacemaker in applying screening guidelines.

The decision as to how often any patient's pacemaker should be monitored is the responsibility of the patient's physician, who is best able to take into account the condition and circumstances of the individual patient. These may vary over time, requiring modifications of the frequency with which the patient should be monitored. In cases where monitoring is done by some entity other than the patient's physician, such as a commercial monitoring service or hospital outpatient department, the physician's prescription for monitoring is required and should be periodically renewed (at least annually) to assure that the frequency of monitoring is proper for the patient.

Where a patient is monitored both during clinic visits and transtelephonically, the contractor should be sure to include frequency data on both types of monitoring in evaluating the reasonableness of the frequency of monitoring services received by the patient.

Since there are more than 200 pacemaker models in service at any given point, and a variety of patient conditions that give rise to the need for pacemakers, the question of the appropriate frequency of monitorings is a complex one. Nevertheless, it is possible to develop guidelines within which the vast majority of pacemaker monitorings will fall, and contractors should do this, using their own data and experience, as well as the frequency guidelines that follow, in order to limit extensive claims development to those cases requiring special attention.

PACEMAKER – TRANSTELEPHONIC MONITORING[5]

Benefit Category

» Outpatient Hospital Services Incident to a Physician's Service

Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

A. General

Transtelephonic monitoring of pacemakers is furnished by commercial suppliers, hospital outpatient departments, and physicians' offices.

Telephone monitoring of cardiac pacemakers as described below is medically efficacious in identifying early signs of possible pacemaker failure, thus reducing the number of sudden pacemaker failures requiring emergency replacement. All systems that monitor the pacemaker rate (bpm) in both the free-running and/or magnetic mode are effective in detecting subclinical pacemaker failure due to battery depletion. More sophisticated systems are also capable of detecting internal electronic problems within the pulse generator itself and other potential problems. In the case of dual-chamber pacemakers in particular, such monitoring may detect failure of synchronization of the atria and ventricles, and the need for adjustment and reprogramming of the device.

Note: The transmitting device furnished to the patient is simply one component of the diagnostic system, and is not covered as durable medical equipment. Those engaged in transtelephonic pacemaker monitoring should reflect the costs of the transmitters in setting their charges for monitoring.

B. Definition of Transtelephonic Monitoring

In order for transtelephonic monitoring services to be covered, the services must consist of the following elements:

» A minimum 30-second readable strip of the pacemaker in the free-running mode

» Unless contraindicated, a minimum 30-second readable strip of the pacemaker in the magnetic mode

» A minimum 30 seconds of readable ECG strip

Indications and Limitations of Coverage

C. Frequency Guidelines for Transtelephonic Monitoring

The guidelines below constitute a system that contractors should use, in conjunction with their knowledge of local medical practices, to screen claims for transtelephonic monitoring prior to payment. It is important to note that they are not recommendations with respect to a minimum frequency for such monitorings, but rather a maximum frequency (within which payment may be made without further claims development). As with previous guidelines, more frequent monitorings may be covered in cases where contractors are satisfied that such monitorings are medically necessary; e.g., based on the condition of the patient, or with respect to pacemakers exhibiting unexpected defects or premature failure. Contractors should seek written justification for more frequent monitorings from the patient's physician and/or any monitoring service involved.

These guidelines are divided into two broad categories—Guideline I, which will apply to the majority of pacemakers now in use, and Guideline II, which will apply only to pacemaker systems (pacemaker and leads) for which sufficient long-term clinical information exists to assure that they meet the standards of the Inter-Society Commission for Heart Disease Resources (ICHD) for longevity and end-of-life decay. (The ICHD standards are:

(1) 90% cumulative survival at five years following implant; and (2) an end-of-life decay of less than a 50% drop of output voltage and less than 20% deviation of magnet rate, or a drop of five beats per minute or less, over a period of three months or more). Contractors should consult with their medical advisers and other appropriate individuals and organizations (such as the North American Society of Pacing and Electrophysiology, which publishes product reliability information) should questions arise over whether a pacemaker system meets the ICHD standards.

The two groups of guidelines are then further broken down into two general categories – single-chamber and dual-chamber pacemakers. Contractors should be aware that the frequency with which a patient is monitored may be changed from time to time for a number of reasons, such as a change in the patient's overall condition, a reprogramming of the patient's pacemaker, the development of better information on the pacemaker's longevity or failure mode, etc. Consequently, changes in the proper set of guidelines may be required. Contractors should inform physicians and monitoring services to alert contractors to any changes in the patient's monitoring prescription that might necessitate changes in the screening guidelines applied to that patient. (Of particular importance is the reprogramming of a dual-chamber pacemaker to a single-chamber mode of operation. Such reprogramming would shift the patient from the appropriate dual-chamber guideline to the appropriate single chamber guideline).

MEDICARE'S FREQUENCY GUIDELINES FOR TRANSTELEPHONIC MONITORING OF CARDIAC PACEMAKERS

Guideline I

Single-chamber pacemakers:

» 1st month: every 2 weeks

» 2nd through 36th month: every 8 weeks

» 37th month to failure: every 4 weeks

Dual-chamber pacemakers: 1st month: every 2 weeks

» 2nd through 6th month: every 4 weeks

» 7th through 36th month: every 8 weeks

» 37th month to failure: every 4 weeks

Guideline II

Single-chamber pacemakers:

13. 1st month: every 2 weeks
14. 2nd through 48th month: every 12 weeks
15. 49th through 72nd month: every 8 weeks
16. Thereafter: every 4 weeks

Dual-chamber pacemakers:

» 1st month: every 2 weeks

» 2nd through 30th month: every 12 weeks

» 31st through 48th month: every 8 weeks

» Thereafter: every 4 weeks

D. Pacemaker Clinic Services

General

Pacemaker monitoring is also covered when done by pacemaker clinics. Clinic visits may be done in conjunction with transtelephonic monitoring or as a separate service; however, the services rendered by a pacemaker clinic are more extensive than those currently possible by telephone. They include, for example, physical examination of patients and reprogramming of pacemakers. Thus, the use of one of these types of monitoring does not preclude concurrent use of the other.

Frequency Guidelines

As with transtelephonic pacemaker monitoring, the frequency of clinic visits is the decision of the patient's physician taking into account, among other things, the medical condition of the patient. However, contractors can develop monitoring guidelines that will prove useful in screening claims. The following are recommendations for monitoring guidelines on lithium-battery pacemakers:

MEDICARE'S FREQUENCY GUIDELINES FOR PACEMAKER CLINIC SERVICES

» For single-chamber pacemakers: twice in the first 6 months following implant, then once every 12 months

» For dual-chamber pacemakers: twice in the first 6 months, then once every 6 months

Pacemaker – Temporary

At this time there is no specific Medicare National Coverage Determination (NCD) for temporary pacemakers. It is important for medical providers to check with their local MAC or non-Medicare payer(s) to determine patient coverage and coding/billing guidelines.

Note: Search the Medicare Coverage Database on the CMS website (http://www.cms.hhs.gov/mcd/search.asp) for coverage descriptions and updates.

MEDICARE NCD FOR IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS[6] (ICDS)

» Effective date of this version: January 27, 2005

» Implementation date: January 27, 2005

Benefit Category

» Prosthetic Devices

Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Item/Service Description

A. General

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.

Indications and Limitations of Coverage

B. Covered Indications

1. Documented episode of cardiac arrest due to ventricular fibrillation (VF), not due to a transient or reversible cause (effective July 1, 1991).
2. Documented sustained ventricular tachyarrhythmia (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 (effective July 1, 1999).
3. Documented familial or inherited conditions with a high risk of life-threatening VT, such as long QT syndrome or hypertrophic cardiomyopathy (effective July 1, 1999).

Additional indications effective for services performed on or after October 1, 2003:

4. Coronary artery disease with a documented prior MI, a measured left ventricular ejection fraction (LVEF) < 0.35, and inducible, sustained VT or VF at EP study. (The MI must have occurred more than 40 days prior to defibrillator insertion. The EP test must be performed more than four weeks after the qualifying MI.)
5. Documented prior MI and a measured LVEF / < 0.30 and a QRS duration of > 120 milliseconds (the QRS restriction does not apply to services performed on or after January 27, 2005). Patients must not have:

    a) New York Heart Association (NYHC) classification IV;

    b) Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm;

    c) Had a coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) within past three months;

    d) Had an enzyme positive MI within the past month (Effective for services on or after January 27, 2005, patients must not have had an acute MI in the past 40 days);

    e) Clinical symptoms or findings that would make them a candidate for coronary revascularization; or

    f) Any disease, other than cardiac disease (e.g., cancer, uremia, liver failure), associated with a likelihood of survival less than 1 year.

Additional indications effective for services performed on or after January 27, 2005:

6. Patients with ischemic dilated cardiomyopathy (IDCM), documented prior MI, NYHA Class II and III heart failure, and measured LVEF < 35%;
7. Patients with non-ischemic dilated cardiomyopathy (NIDCM) > 9 months, NYHA Class II and III heart failure, and measured LVEF < 35%;
8. Patients who meet all current Centers for Medicare and Medicaid Services (CMS) coverage requirements for a cardiac resynchronization therapy (CRT) device and have NYHA Class IV heart failure.

All indications must meet the following criteria:

a) Patients must not have irreversible brain damage from preexisting cerebral disease;

b) 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.7

Indications 3–8 (primary prevention of sudden cardiac death) must also meet the following criteria:

a) Patients must be able to give informed consent;

b) Patients must not have:

- » Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm;
- » Had a CABG or PTCA within the past three months;
- » Had an acute MI within the past 40 days;
- » Clinical symptoms or findings that would make them a candidate for coronary revascularization;
- » Any disease, other than cardiac disease (e.g., cancer, uremia, liver failure), associated with a likelihood of survival less than one year.

c) Ejection fractions must be measured by angiography, radionuclide scanning, or echocardiography;

d) The beneficiary receiving the defibrillator implantation for primary prevention is enrolled in either a Food and Drug Administration (FDA)-approved category B investigational device exemption (IDE) clinical trial (42 CFR §405.201), a trial under the CMS Clinical Trial Policy (National Coverage Determination (NCD) Manual §310.1), or a qualifying data collection system including approved clinical trials and registries. Initially, an implantable cardiac defibrillator (ICD) database will be maintained using a data submission mechanism that is already in use by Medicare participating hospitals to submit data to the Iowa Foundation for Medical Care (IFMC), a Quality Improvement Organization (QIO) contractor, for determination of reasonable and necessary quality improvement. Initial hypothesis and data elements are specified in this decision (Appendix VI) and are the minimum necessary to ensure that the device is reasonable and necessary. Data collection will be completed using the ICDA (ICD Abstraction Tool) and transmitted via QNet (Quality Network Exchange) to the IFMC, who will collect and maintain the database. Additional stakeholder-developed data collection systems to augment or replace the initial QNet system, addressing at a minimum the hypotheses specified in this decision, must meet the following basic criteria:

- » Written protocol on file;
- » Institutional review board review and approval;
- » Scientific review and approval by two or more qualified individuals who are not part of the research team;
- » Certification that investigators have not been disqualified.

For purposes of this coverage decision, CMS will determine whether specific registries or clinical trials meet these criteria.

e) Providers must be able to justify the medical necessity of devices other than single lead devices. This justification should be available in the patient's medical record.

9. Patients with NIDCM > 3 months, NYHA Class II or III heart failure, and measured LVEF < 35%, only if the following additional criteria are also met:

a) Patients must be able to give informed consent;

b) Patients must not have:

- » Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm;
- » Had a CABG or PTCA within the past three months;
- » Had an acute MI within the past 40 days;
- » Clinical symptoms or findings that would make them a candidate for coronary revascularization;
- » Irreversible brain damage from preexisting cerebral disease;
- » Any disease, other than cardiac disease (e.g., cancer, uremia, liver failure), associated with a likelihood of survival less than one year;

c) Ejection fractions must be measured by angiography, radionuclide scanning, or echocardiography;

d) 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;7

e) The beneficiary receiving the defibrillator implantation for this indication is enrolled in either an FDA- approved category B IDE clinical trial (42 CFR §405.201), a trial under the CMS Clinical Trial Policy (NCD Manual §310.1), or a prospective data collection system meeting the following basic criteria:

- » Written protocol on file;
- » Institutional Review Board review and approval;
- » Scientific review and approval by two or more qualified individuals who are not part of the research team;
- » Certification that investigators have not been disqualified.

For purposes of this coverage decision, CMS will determine whether specific registries or clinical trials meet these criteria.

f) Providers must be able to justify the medical necessity of devices other than single lead devices. This justification should be available in the patient's medical record.

C. Other Indications

All other indications for implantable automatic defibrillators not currently covered in accordance with this decision will continue to be covered under Category B IDE trials (42 CFR §405.201) and the CMS routine clinical trials policy (NCD Manual §310.1). (This NCD last reviewed February 2005).

MEDICARE NCD FOR CARDIAC RESYNCHRONIZATION THERAPY PACEMAKERS (CRT-PS)

A cardiac resynchronization therapy pacemaker (CRT-P) utilizes biventricular pacing to coordinate the contraction of the ventricles with the intent of improving the hemodynamic status of the patient. This technology utilizes both conventional pacing technology as well as the addition of a third electrode that provides sensing and pacing capabilities in the left ventricle.

At this time there is no specific NCD for CRT-Ps. However, some MACs have developed Local Coverage Determinations (LCDs) for CRT-P that apply to certain regions. It is important for medical providers to check with their local MAC for non-Medicare payer(s) to determine patient coverage and coding/billing guidelines.

MEDICARE NCD FOR CARDIAC RESYNCHRONIZATION THERAPY DEFIBRILLATORS (CRT-DS)

A cardiac resynchronization therapy defibrillator (CRT-D) utilizes biventricular pacing to coordinate the contraction of the ventricles and ICD capabilities to prevent ventricular tachyarrhythmias and ultimately the prevention of sudden cardiac death.

At this time there is no specific NCD for CRT-Ds. However, some MACs have developed Local Coverage Determinations (LCDs) for CRT-D that apply to certain regions. It is important for medical providers to check with their local MAC or non-Medicare payer(s) to determine patient coverage and coding/billing guidelines.

MEDICARE NCD FOR INTRACARDIAC ELECTROPHYSIOLOGY AND RELATED PROCEDURES

Some cardiovascular procedures, such as pacemakers and cardioverter-defibrillators, contain very clear national coverage criteria as defined by CMS. Other procedures, such as electrophysiology studies (EPS), do not have clearly defined coverage criteria at the national level. Some MACs have developed Local Coverage Determinations (LCDs) for EPS that apply to certain regions. It is important for providers to check with their local MAC or non-Medicare payer(s) to determine patient coverage and coding/billing guidelines.

Note: Search the Medicare Coverage Database on the CMS website (http://www.cms.hhs.gov/mcd/search.asp) for coverage descriptions and updates.

1. Centers for Medicare and Medicaid Services: Clarification of payments and billing procedures for hospitals subject to the Maryland waiver, Transmittal R156CP (change request 3200, issued April 30, 2004, effective October 1, 2004), Internet-only Medicare Claims Processing Manual (CMS Pub. 100–04). Available at: http://www.cms.hhs.gov/transmittals/Downloads/R156CP.pdf. Accessed October 15, 2013.
2. Health Services Cost Review Commission: About HSCRC available at: http://www.hscrc.state.md.us/aboutUs.cfm. Accessed October 15, 2013.
3. Centers for Medicare and Medicaid Services. National Coverage Determination for Cardiac Pacemakers (20.8). In: Medicare Coverage Database. Effective April 30, 2004. Available at: https://www.cms.gov/medicare-coverage-database/details/ncd- details.aspx?NCDId=238&ncdver=2&CoverageSelection=National&KeyWord=pacemakers&KeyWordLookUp=Title&KeyWordLookUp=Title&KeyWordSearchType=And&KeyWordSearchType=And&bc=gAAAABAAAAAA&. Accessed October 15, 2013.
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5. Centers for Medicare and Medicaid Services. Coverage determinations: Transtelephonic monitoring of cardiac pacemakers. In: Medicare National Coverage Determinations Manual. CMS Pub. 100-3; Chapter 1, Part 1, Section 20.8.1.1. October 3. 2003. Available at: http://www.cms.gov/manuals/downloads/ncd103c1_Part1.pdf. Accessed October 15, 2013.
6. Centers for Medicare and Medicaid Services. National Coverage Determination for Implantable Automatic Defibrillators (20.4). In: Medicare Coverage Database. Effective January 27, 2005. Available at: http://www.cms.gov/medicare-coverage-database/details/ncd- details.aspx?NCDId=110&ncdver=3&NCAId=148&ver=16&NcaName=Implantable+Defibrillators+&x28;3rd+Recon&x29;&bc=BEAA
7. Alpert and Thygesen et al., 2000. Criteria for acute, evolving or recent MI. Either one of the following criteria satisfies the diagnosis for an acute, evolving or recent MI:
    1) Typical rise and gradual fall (troponin) or more rapid rise and fall (CK-MB) of biochemical markers of myocardial necrosis with at least one of the following:
        a) ischemic symptoms;
        b) development of pathologic Q waves on the ECG;
        c) ECG changes indicative of ischemia (ST segment elevation or depression); or
        d) coronary artery intervention (e.g., coronary angioplasty).
    2) Pathologic findings of an acute MI.

    Criteria for established MI. Any one of the following criteria satisfies the diagnosis for established MI:
    1) Development of new pathologic Q waves on serial ECGs. The patient may or may not remember previous symptoms. Biochemical markers of myocardial necrosis may have normalized, depending on the length of time that has passed since the infarct developed.
    2) Pathologic findings of a healed or healing MI.

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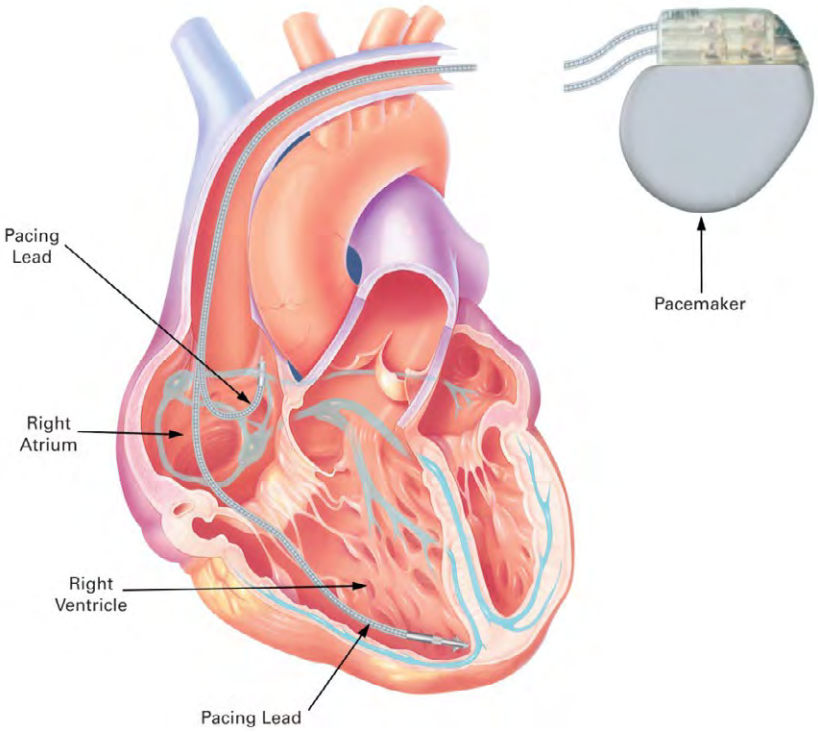
1 Pacemakers

RM129704-AC FEB2015

Pacemaker Coding Overview



Pacemaker Implant Procedure

The implant of a permanent pacemaker system requires the use of a pacemaker pulse generator and one electrode or lead for a single chamber system, or two electrodes or leads for a dual chamber system. The leads monitor and deliver electrical stimulation to the right atrium or right ventricle for a single chamber system, or both the right atrium and right ventricle for a dual chamber system. The lead(s) are inserted through the subclavian vein and are positioned in the right atrium and/or right ventricle. In some cases, the cephalic or internal jugular vein may be used as an alternative to the subclavian vein.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL INITIAL PACEMAKER SYSTEM IMPLANT PROCEDURE

1. The subclavian vein is accessed and a pulse generator pocket is formed.
2. Under fluoroscopy, the pacing lead(s) are inserted into the right atrium (33206) or right ventricle (33207) for a single chamber system, or into the right atrium and right ventricle for a dual chamber system (33208).
3. Lead measurement tests, including pacing and sensing thresholds and lead impedances, are performed.
4. The pacemaker pulse generator (included in 33206, 33207, and 33208) is connected to the lead(s) that are in place.
5. Additional testing of the lead(s) is completed.
6. The lead(s) and device are secured and the pulse generator pocket is closed.

Note: This document is for reference purposes only and does not replace physicians' medical documentation. Scenarios included within this document do not encompass all possible procedures.

Commonly Billed Pacemaker Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

✚ **Add-on** code

Physician CPT® Codes[1] | **Hospital** Outpatient CPT® Codes[2] | **Hospital** Inpatient ICD-9-CM® Codes[3]

1.1 Initial single chamber *rate-responsive pacemaker system implant with right atrial lead*

Scenario 1.1: Physician CPT® Codes[1]

⊙ 33206 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial

Scenario 1.1: Hospital Outpatient CPT® Codes[2]

⊙ 33206 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial

Scenario 1.1: Hospital Inpatient ICD-9-CM Codes[3]

37.73 Initial insertion of transvenous lead [electrode] into atrium

Excludes:
- Insertion of temporary transvenous pacemaker system (37.78)
- Replacement of atrial and/or ventricular lead(s) (37.76)

37.82 Initial insertion of single chamber device, rate responsive
- Rate responsive to physiologic stimuli other than atrial rate

Excludes:
- Replacement of existing pacemaker device (37.85–37.87)

1.2 Initial single chamber *rate-responsive pacemaker system implant with right ventricular lead*

Scenario 1.2: Physician CPT® Codes[1]

⊙ 33207 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular

Scenario 1.2: Hospital Outpatient CPT® Codes[2]

⊙ 33207 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular

Scenario 1.2: Hospital Inpatient ICD-9-CM Codes[3]

37.71 Initial insertion of transvenous lead [electrode] into ventricle

Excludes:
- Insertion of temporary transvenous pacemaker system (37.78)
- Replacement of atrial and/or ventricular lead(s) (37.76)

37.82 Initial insertion of single chamber device, rate responsive
- Rate responsive to physiologic stimuli other than atrial rate

Excludes:
- Replacement of existing pacemaker device (37.85-37.87)

1.3 Initial dual chamber *pacemaker system implantation*

Scenario 1.3: Physician CPT® Codes[1]	
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular

Scenario 1.3: Hospital Outpatient CPT® Codes[2]	
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular

Scenario 1.3: Hospital Inpatient ICD-9-CM Codes[3]	
37.83	Initial insertion of dual chamber device • Atrial ventricular sequential device Excludes: • Replacement of existing pacemaker device (37.85-37.87)
37.72	Initial insertion of transvenous leads [electrodes] into atrium and ventricle Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)

1.4 Initial dual chamber *pacemaker insertion with external cardioversion performed prior to device implant session for treatment of patient in atrial fibrillation*

Scenario 1.4: Physician CPT® Codes[1]	
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular
92960-59, 51[4]	Cardioversion, elective, electrical conversion of arrhythmia; external

Scenario 1.4: Hospital Outpatient CPT® Codes[2]	
33208	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular
92960-59	Cardioversion, elective, electrical conversion of arrhythmia; external

Scenario 1.4: Hospital Inpatient ICD-9-CM Codes[3]	
37.83	Initial insertion of dual chamber device • Atrial ventricular sequential device Excludes: • Replacement of existing pacemaker device (37.85–37.87
37.72	Initial insertion of transvenous leads [electrodes] into atrium and ventricle Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)
99.62	Other electric countershock of heart • Cardioversion: NOS, external • Conversion to sinus rhythm • Defibrillation, external electrode stimulation

1.5 Replacement of single chamber *rate-responsive pulse generator*

Scenario 1.5: Physician CPT® Codes[1]

33227	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single lead system

Scenario 1.5: Hospital Outpatient CPT® Codes[2]

33227	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single lead system

Scenario 1.5: Hospital Inpatient ICD-9-CM Codes[3]

37.86	Replacement of any type pacemaker device with single chamber device, rate responsive • Rate responsive to physiologic stimuli other than atrial rate

1.6 Replacement of dual chamber *pacemaker, insertion of new atrial lead, capping of existing atrial lead*

Scenario 1.6: Physician CPT® Codes[1]

33206	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial
33233-51[4]	Removal of permanent pacemaker pulse generator only

Scenario 1.6: Hospital Outpatient CPT® Codes[2]

33206	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial
33233	Removal of permanent pacemaker pulse generator only

Scenario 1.6: Hospital Inpatient ICD-9-CM Codes[3]

37.76	Replacement of transvenous atrial and/or ventricular lead(s) [electrode] • Removal or abandonment of existing transvenous or epicardial lead(s) with transvenous lead(s) replacement Excludes: • Replacement of epicardial lead [electrode] (37.74)
37.87	Replacement of any type pacemaker device with dual chamber device • Atrial ventricular sequential device

1.7 Replacement of dual chamber *pacemaker, insertion of new ventricular lead, capping of existing ventricular lead*

Scenario 1.7: Physician CPT® Codes[1]

33207	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular
33233-51[4]	Removal of permanent pacemaker pulse generator only

Scenario 1.7: Hospital Outpatient CPT® Codes[2]

33207	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); ventricular
33233	Removal of permanent pacemaker pulse generator only

Scenario 1.7: Hospital Inpatient ICD-9-CM Codes[3]

37.76	Replacement of transvenous atrial and/or ventricular lead(s) [electrode] • Removal or abandonment of existing transvenous or epicardial lead(s) with transvenous lead(s) replacement Excludes: • Replacement of epicardial lead [electrode] (37.74)
37.87	Replacement of any type pacemaker device with dual chamber device • Atrial ventricular sequential device

1.8 Replacement of dual chamber *pacemaker on a pacemaker-dependent patient with temporary pacemaker insertion*

Scenario 1.8: Physician CPT® Codes[1]

⊙ 33228 Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system

Effective 2013 the National Correct Coding Initiative Edits (NCCI) no longer allow temporary pacing codes 33210-33211 to be reported with open or percutaneous cardiac procedures performed at the same patient encounter.

Scenario 1.8: Hospital Outpatient CPT® Codes[2]

⊙ 33228 Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system

Effective 2013 the National Correct Coding Initiative Edits (NCCI) no longer allow temporary pacing codes 33210-33211 to be reported with open or percutaneous cardiac procedures performed at the same patient encounter.

Exceptions to NCCI edits for Hospital Services Only: Since the hospital incurs the cost for the temporary pacemaker device, for hospital billing (not physician) the NCCI edits allow a -59 modifier based on medical necessity.

- Inserted in an emergency setting and the patient is monitored until a decision is made for an appropriate definitive surgery. The insertion of the temporary pacemaker is at a separate session and requires routine care involving regular cardiovascular assessment, level of consciousness, heart rhythm, pacer activity and hemodynamic response. Following this period of monitoring, a subsequent procedure or surgery may be performed at a separate session from the temporary pacemaker insertion

Scenario 1.8: Hospital Inpatient ICD-9-CM Codes[3]

37.87 Replacement of any type pacemaker device with dual chamber device
- Atrial ventricular sequential device

37.78 Insertion of temporary transvenous pacemaker system
Excludes:
- Intraoperative cardiac pacemaker (39.64)

1.9 Replacement of dual chamber *pulse generator*

Scenario 1.9: Physician CPT® Codes[1]

⊙ 33228 Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system

Scenario 1.9: Hospital Outpatient CPT® Codes[2]

⊙ 33228 Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system

Scenario 1.9: Hospital Inpatient ICD-9-CM Codes[3]

37.87 Replacement of any type pacemaker device with dual chamber device
- Atrial ventricular sequential device

1.10 Upgrade from single chamber *pacemaker with a ventricular lead to a dual chamber pacemaker with the addition of the right atrial lead*

Scenario 1.10: Physician CPT® Codes[1]		
⊙	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)
Scenario 1.10: Hospital Outpatient CPT® Codes[2]		
⊙	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)
Scenario 1.10: Hospital Inpatient ICD-9-CM Codes[3]		
	37.87	Replacement of any type pacemaker device with dual chamber device • Atrial ventricular sequential device
	37.73	Initial insertion of transvenous lead [electrode] into atrium Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)

1.11 Insertion of one permanent *transvenous pacing electrode*

Scenario 1.11: Physician CPT® Codes[1]		
⊙	33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
Scenario 1.11: Hospital Outpatient CPT® Codes[2]		
⊙	33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
Scenario 1.11: Hospital Inpatient ICD-9-CM Codes[3] *ICD-9-CM procedural coding specifies lead placement into atrium or ventricle*		
	37.71	Initial insertion of transvenous lead [electrode] into ventricle Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)
or	37.73	Initial insertion of transvenous lead [electrode] into atrium Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)

1.12 Insertion of two permanent *transvenous pacing electrode*

Scenario 1.12: Physician CPT® Codes[1]		
⊙	33217	Insertion of two transvenous electrodes, permanent pacemaker or implantable defibrillator
Scenario 1.12: Hospital Outpatient CPT® Codes[2]		
⊙	33217	Insertion of two transvenous electrodes, permanent pacemaker or implantable defibrillator
Scenario 1.12: Hospital Inpatient ICD-9-CM Codes[3]		
	37.72	Initial insertion of transvenous leads [electrodes] into atrium and ventricle Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)

See page ii for important information about the uses and limitations of this document. See page 2-13 for Sources and Footnotes pertaining to this section.

1.13 Single lead extraction from a single lead system *pacemaker electrode*

Scenario 1.13: Physician CPT® Codes[1]

33234	Removal of transvenous pacemaker electrode(s); single lead system, atrial or ventricular

Scenario 1.13: Hospital Outpatient CPT® Codes[2]

33234	Removal of transvenous pacemaker electrode(s); single lead system, atrial or ventricular

Scenario 1.13: Hospital Inpatient ICD-9-CM Codes[3]

37.77 Removal of lead(s) [electrode] without replacement

Removal:
- Epicardial lead (transthoracic approach)
- Transvenous lead(s)

Excludes:
- Removal of temporary transvenous pacemaker system – omit code
- That with replacement of:
  - atrial and/or ventricular lead(s) [electrode] (37.76)
  - epicardial lead [electrode] (37.74)

1.14 Repositioning of right atrial or right ventricular *electrode within 90 days of implant performed by the implanting physician*

Scenario 1.14: Physician CPT® Codes[1]

33215-78	Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular) electrode

Scenario 1.14: Hospital Outpatient CPT® Codes[2]

33215-78*	Repositioning of previously implanted transvenous pacemaker or implantable defibrillator (right atrial or right ventricular) electrode **78 Modifier for Hospitals only applies to the same day of the original procedure.*

Scenario 1.14: Hospital Inpatient ICD-9-CM Codes[3] *ICD-9-CM procedural coding specifies lead placement into atrium or ventricle*

37.75 Revision of lead [electrode]
- Repair of electrode [removal with re-insertion]
- Repositioning of lead(s) (AICD) (cardiac device) (CRT-D) (CRT-P) (defibrillator) (pacemaker) (pacing) (sensing) [electrode]
- Revision of lead NOS

Excludes:
- Repositioning of temporary transvenous pacemaker system – omit code

1.15 Single chamber *pacemaker follow-up (in person)*

Scenario 1.15: Physician CPT® Codes[1]		
	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
or	93288	Programming device evaluation (in person) with iterative adjustments 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
Scenario 1.15: Hospital Outpatient CPT® Codes[2]		
	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
or	93279	Programming device evaluation (in person) with iterative adjustments 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
Scenario 1.15: Hospital Inpatient ICD-9-CM Codes[3]		
	89.45	Artificial pacemaker rate check • Artificial pacemaker function check NOS • Bedside device check of pacemaker or cardiac resynchronization pacemaker [CRT-P] • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

1.16 Dual chamber *pacemaker follow-up (in person)*

Scenario 1.16: Physician CPT® Codes[1]		
	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
or	93280	Programming device evaluation (in person) with iterative adjustments 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; dual lead pacemaker system
Scenario 1.16: Hospital Outpatient CPT® Codes[2]		
	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
or	93280	Programming device evaluation (in person) with iterative adjustments 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; dual lead pacemaker system
Scenario 1.16: Hospital Inpatient ICD-9-CM Codes[3]		
	89.45	Artificial pacemaker rate check • Artificial pacemaker function check NOS • Bedside device check of pacemaker or cardiac resynchronization pacemaker [CRT-P] • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

1.17 Device programming evaluation dual chamber *with wound check* performed by implanting physician 14 days post-op in clinic*

Scenario 1.17: Physician CPT® Codes[1]		
	93280	Programming device evaluation (in person) with iterative adjustments 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; dual lead pacemaker system **Wound checks are included in the 90-day global surgical package and not separately billable*
Scenario 1.17: Hospital Outpatient CPT® Codes[2]		
	93280	Programming device evaluation (in person) with iterative adjustments 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; dual lead pacemaker system **Wound checks are included in the 90-day global surgical package and not separately billable*
Scenario 1.17: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

1.16 Dual chamber *device follow-up – device permanently programmed VVIR due to damaged atrial lead.. At same office visit, patient seen by physician for medication adjustment*

Scenario 1.18: Physician CPT® Codes[1]		
	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
or	93279	Programming device evaluation (in person) with iterative adjustments 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
	99211-99215-25	Office or other outpatient visit for the evaluation and management of an established patient (The correct level of service will depend on the documented elements; please refer to the AMA's 2014 Current Procedural Terminology manual). Definition of -25 Modifier: Significant, Separately Identifiable Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional on the Same Day of the Procedure or Other Service.
Scenario 1.18: Hospital Outpatient CPT® Codes[2]		
	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
or	93279	Programming device evaluation (in person) with iterative adjustments 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
Scenario 1.18: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

1.19 Single, dual or multi chamber *pacemaker follow-up (remote)*

Scenario 1.19: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days 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
Scenario 1.19: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days 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
Scenario 1.19: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

1.20 Single, dual, or multi chamber *pacemaker follow-up (remote) with analysis of Implantable Cardiovascular Monitor (ICM)*

Scenario 1.20: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days 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
and	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
Scenario 1.20: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days 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
and	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
Scenario 1.20: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

1. American Medical Association: *2014 Current Procedural Terminology (CPT), Professional Edition*, Chicago, IL. Current Procedural Terminology (CPT) is copyright 2013 by the American Medical Association (AMA). All Rights Reserved. No fee schedules, basic units, relative values, or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use. CPT is a registered trademark of the American Medical Association.
2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

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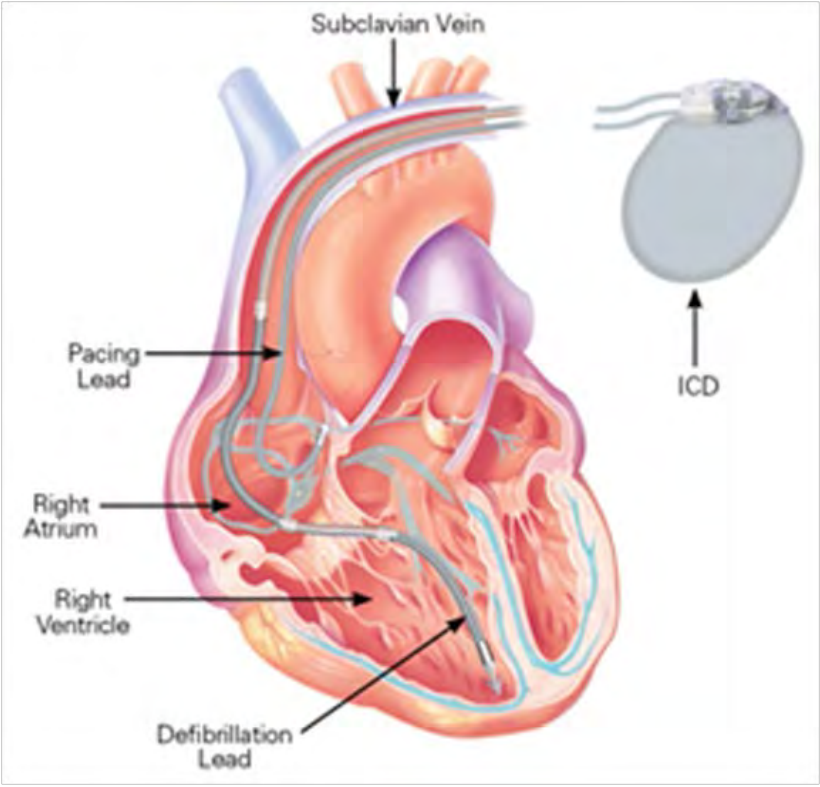
2

Implantable Cardioverter Defibrillators (ICDs)

RM129704-AC FEB2015

Implantable Cardioverter-Defibrillator (ICD) Coding Overview



ICD Implant Procedure

The implant of an ICD system requires the use of an ICD pulse generator and a defibrillation electrode, or lead, placed in the right ventricle for a single chamber system. If a dual chamber ICD system is required, a defibrillation lead is placed in the right ventricle and a pacing electrode or lead is placed in the right atrium. The defibrillation lead delivers electrical shock therapy if a lethal arrhythmia is detected. In addition, the lead system monitors and delivers electrical pacing stimulation if required. The leads are inserted through the subclavian vein. In some cases, the cephalic or internal jugular vein may be used as an alternative to the subclavian vein.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL INITIAL ICD SYSTEM IMPLANT PROCEDURE

1. The subclavian vein is accessed and a pulse generator pocket is formed.
2. Using fluoroscopy, a defibrillation lead is inserted into the right ventricle.
3. If implanting a dual chamber system, a pacing lead is also inserted into the right atrium under fluoroscopy.
4. Lead measurement tests, including pacing and sensing thresholds and lead impedances, are performed.
5. The ICD pulse generator (33249 includes the generator and one or two leads) is connected to the lead(s).
6. Testing of defibrillation thresholds (93641), including arrhythmia induction, is performed.
7. Additional testing of the lead(s) is completed.
8. The lead(s) and device are secured and the pulse generator pocket is closed.

Note: This document is for reference purposes only and does not replace physicians' medical documentation. Scenarios included within this document do not encompass all possible procedures.

See page ii for important information about the uses and limitations of this document. See page 2-13 for Sources and Footnotes pertaining to this section.

Commonly Billed Implantable Cardioverter-Defibrillator (ICD) Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

\+ **Add-on** code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

2.1 Initial single or dual chamber *ICD system implant, with defibrillator threshold testing at time of implant*

Scenario 2.1: Physician CPT® Codes[1]		
⊙	33249	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial
⊙	93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.1: Hospital Outpatient CPT® Codes[2]		
⊙	33249	Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.1: Hospital Inpatient ICD-9-CM Codes[3]		
	37.94	Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] Note: Device testing during procedure – omit code • Implantation of defibrillator with leads (epicardial patches), formation of pocket (abdominal fascia) (subcutaneous), any transvenous leads, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • Techniques: lateral thoracotomy, medial sternotomy, subxiphoid procedure Excludes: • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)

2.2 Replacement of single chamber *ICD pulse generator with defibrillator threshold testing at time of replacement*

Scenario 2.2: Physician CPT® Codes[1]	
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.2: Hospital Outpatient CPT® Codes[2]	
33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; single lead system
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.2: Hospital Inpatient ICD-9-CM Codes[3]	
37.98	Replacement of automatic cardioverter-defibrillator pulse generator only Note: Device testing during procedure – omit code Excludes: • Replacement of cardiac resynchronization defibrillator, pulse generator device only [CRT-D] (00.54)

2.3 Single chamber ICD upgrade to dual chamber ICD *with retention of right ventricular ICD lead and insertion of new right atrial pacing lead, and defibrillator threshold testing at the time of replacement*

Scenario 2.3: Physician CPT® Codes[1]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
33241-51[4]	Removal of implantable defibrillator pulse generator
93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.3: Hospital Outpatient CPT® Codes[2]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
33241	Removal of implantable defibrillator pulse generator
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.3: Hospital Inpatient ICD-9-CM Codes[3]	
37.94	Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] Note: Device testing during procedure – omit code • Implantation of defibrillator with leads (epicardial patches), formation of pocket (abdominal fascia) (subcutaneous), any transvenous leads, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • Techniques: lateral thoracotomy, medial sternotomy, subxiphoid procedure Excludes: • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)

2.4 Dual chamber pacemaker upgrade to dual chamber ICD *with capping of pacemaker leads and insertion of new right atrial and right ventricular ICD leads, with defibrillator threshold testing at the time of implant*

Scenario 2.4: Physician CPT® Codes[1]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
33233–51[4]	Removal of permanent pacemaker pulse generator only
93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.4: Hospital Outpatient CPT® Codes[2]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
33233	Removal of permanent pacemaker pulse generator only
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.4: Hospital Inpatient ICD-9-CM Codes[3]	
37.94	Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] Note: Device testing during procedure – omit code • Implantation of defibrillator with leads (epicardial patches), formation of pocket (abdominal fascia) (subcutaneous), any transvenous leads, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • Techniques: lateral thoracotomy, medial sternotomy, subxiphoid procedure Excludes: • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)

2.5 Replacement of single chamber *cardioverter-defibrillator lead, extraction of existing lead(s), with defibrillator threshold testing of ICD system*

Scenario 2.5: Physician CPT® Codes[1]	
33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
33244-51[3]	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction
93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.5: Hospital Outpatient CPT® Codes[2]	
33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator
33244	Removal of single or dual chamber implantable defibrillator electrode(s); by transvenous extraction
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 2.5: Hospital Inpatient ICD-9-CM Codes[3]	
37.97	Replacement of automatic cardioverter-defibrillator lead(s) only Excludes: • Replacement of epicardial lead [electrode] into epicardium (37.74) • Replacement of transvenous lead [electrode] into left ventricular coronary venous system (00.52)

2.6 Removal of right atrial and right ventricular leads, insertion of new right atrial and ventricular leads *with defibrillator threshold testing of ICD system*

Scenario 2.6: Physician CPT® Codes[1]		
⊙	33217	Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator
⊙	33244–51[4]	Removal of single or dual chamber pacing cardioverter-defibrillator electrode(s); by transvenous extraction
⊙	93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.6: Hospital Outpatient CPT® Codes[2]		
⊙	33217	Insertion of 2 transvenous electrodes, permanent pacemaker or implantable defibrillator
⊙	33244	Removal of single or dual chamber pacing cardioverter-defibrillator electrode(s); by transvenous extraction
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.6: Hospital Inpatient ICD-9-CM Codes[3]		
	37.97	Replacement of automatic cardioverter-defibrillator lead(s) only Excludes: • Replacement of epicardial lead [electrode] into epicardium (37.74) • Replacement of transvenous lead [electrode] into left ventricular coronary venous system (00.52)

2.7 Insertion of Sub-Q Array *with defibrillator threshold testing of ICD system*

Scenario 2.7: Physician CPT® Codes[1]			
		33999	Unlisted procedure, cardiac surgery
or	⊙	33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator **The HRS Coding Guide indicates many carriers/payers will accept existing codes for Sub-Q Array; however some carriers/payers may request use of the unlisted code. HRS recommends confirming payers requirements prior to claim submission.[5]**
	⊙	93641–26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.7: Hospital Outpatient CPT® Codes[2]			
		33999	Unlisted procedure, cardiac surgery
or	⊙	33216	Insertion of a single transvenous electrode, permanent pacemaker or implantable defibrillator **The HRS Coding Guide indicates many carriers/payers will accept existing codes for Sub-Q Array; however some carriers/payers may request use of the unlisted code. HRS recommends confirming payers requirements prior to claim submission.[5]**
	⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 2.7: Hospital Inpatient ICD-9-CM Codes[3]			
		37.70	Initial insertion of lead [electrode], not otherwise specified Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)

2.8 Single chamber ICD *follow-up (in person) in clinic*

Scenario 2.8: Physician CPT® Codes[1]		
	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
or	93282	Programming device evaluation (in person) with iterative adjustments 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
Scenario 2.8: Hospital Outpatient CPT® Codes[2]		
	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
or	93282	Programming device evaluation (in person) with iterative adjustments 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
Scenario 2.8: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

2.9 Dual chamber ICD *follow-up (in person) in clinic*

Scenario 2.9: Physician CPT® Codes[1]		
	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
or	93283	Programming device evaluation (in person) with iterative adjustments 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; dual lead transvenous implantable defibrillator system
Scenario 2.9: Hospital Outpatient CPT® Codes[2]		
	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
or	93283	Programming device evaluation (in person) with iterative adjustments 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; dual lead transvenous implantable defibrillator system
Scenario 2.9: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

2.10 Single, dual or multi chamber *ICD follow-up (remote)*

Scenario 2.10: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 2.10: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 2.10: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

2.11 Single, dual or multi chamber *ICD follow-up (remote) with analysis of Implantable Cardiovascular Monitor (ICM)*

Scenario 2.11: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 2.11: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 2.11: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

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2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.
5. Heart Rhythm Society 2012 Coding Guide for Heart Rhythm Procedures and Services, Washington, DC.

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3

Subcutaneous Implantable Defibrillator (S-ICD®)

RM129704-AC FEB2015

Subcutaneous Implantable Defibrillator (S-ICD) Coding Overview

S-ICD Implant Procedure

The S-ICD System is designed to be positioned using anatomical landmarks. The device and electrode are typically implanted subcutaneously in the left thoracic region. Specifically, the S-ICD System is implanted in the vicinity of the left 5th and 6th intercostal spaces at the mid-axillary line with an electrode capable of sensing or delivering defibrillation energy running to the xiphoid and then vertically along the lateral sternal margin.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL INITIAL S- ICD SYSTEM IMPLANT PROCEDURE

1. Determine the ideal location for the implanted PG by placing a demo device on the patient's skin between the 5th and 6th intercostal space in the mid-axillary line.
2. Make the device pocket incision in accordance with the ideal device location identified in step 1.
3. Locate the tip of the xyphoid process and make a 2 – 3 centimeter horizontal incision beginning at the xyphoid midline extending horizontally to the left, toward the device pocket.
4. Using an electrode insertion tool, tunnel the lead electrode from the xyphoid incision to the pocket.
5. Complete the distal electrode insertion by making a two-centimeter insertion in the sternum and tunnel the distal tip electrode up from the xyphoid to the superior incision.
6. Connect the electrode to the device header and place the device in the pocket (33270).
7. Automatic Setup of the device is performed and the device is prepared for defibrillation testing.
8. Testing of defibrillation thresholds including arrhythmia induction, is performed.
9. The lead(s) and device are secured and the pulse generator pocket is closed.

Note: This document is for reference purposes only and does not replace physicians' medical documentation. Scenarios included within this document do not encompass all possible procedures.

See page ii for important information about the uses and limitations of this document. See page 2-13 for Sources and Footnotes pertaining to this section.

Commonly Billed Subcutaneous Implantable Defibrillator (S-ICD) Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

\+ **Add-on** code

Physician CPT® Codes[1] | **Hospital** Outpatient CPT® Codes[2] | **Hospital** Inpatient ICD-9-CM® Codes[3]

3.1 Initial *S-ICD system implant, with defibrillator threshold testing at time of implant*

Scenario 3.1: Physician Category III Codes[1]

⊙	33270[4]	Insertion or replacement of subcutaneous implantable defibrillator system with subcutaneous electrode, including defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing of arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters, when performed

Scenario 3.1: Hospital Outpatient Category III Codes[2]

⊙	33270	Insertion or replacement of subcutaneous implantable defibrillator system with subcutaneous electrode, including defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing of arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters, when performed

Scenario 3.1: Hospital Inpatient ICD-9-CM Codes[3]

	37.94	Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] Note: Device testing during procedure – omit code • Implantation of defibrillator with leads (epicardial patches), formation of pocket (abdominal fascia) (subcutaneous), any transvenous leads, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • Techniques: lateral thoracotomy, medial sternotomy, subxiphoid procedure Code also extracorporeal circulation, if performed (39.61) Code also any concomitant procedure [e.g., coronary bypass (36.10 – 36.19) or CCM, total system (17.51)] Excludes: • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)

3.2 Replacement of *S-ICD pulse generator using existing lead with defibrillator threshold testing*

Scenario 3.2: Physician Category III Codes[1]

⊙	33262	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator only; single lead system
⊙	93644	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)

Scenario 3.2: Hospital Outpatient Category III Codes[2]

Scenario 3.2: Hospital Inpatient ICD-9-CM Codes[3]

	37.98	Replacement of automatic cardioverter-defibrillator pulse generator only Note: Device testing during procedure – omit code Excludes: • Replacement of cardiac resynchronization defibrillator, pulse generator device only [CRT-D] (00.54)

3.3 S-ICD Follow-up *(in person)*

Scenario 3.3: Physician CPT® Codes[1]			
		93261	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
or		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
Scenario 3.3: Hospital Outpatient CPT® Codes[2]			
	⊙	93261	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
or	⊙	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
Scenario 3.3: Hospital Inpatient ICD-9-CM Codes[3]			
		89.49	Automatic implantable cardioverter-defibrillator (AICD) check • Bedside check of an AICD or cardiac resynchronization defibrillator [CRT-D] • Checking pacing thresholds of device • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

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3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. CPT Category III codes 0319T-0328T were accepted at the May 2013 AMA CPT Editorial Panel meeting for the 2014 CPT production cycle. Therefore, these codes will not appear in the 2014 CPT codebook. However, due to the Category III code early release policy, these codes are effective on January 1, 2014. Readers should reference full details, descriptions and notes for CPT Category III codes 0319T-0328T on the AMA Web site at ww w.ama-assn.org/go/cpt.
5. CPT Category III codes are temporary codes that allow data collection for emerging technology, services, and procedures. These codes are intended to be used to substantiate widespread usage. CPT Category III codes are not referred to the AMA-Specialty RVS Update Committee (RUC) for valuation because no relative value units (RVUs) are assigned to Category III codes. Physician and hospital outpatient payment is based on the policies of payers and not on a yearly fee schedule.

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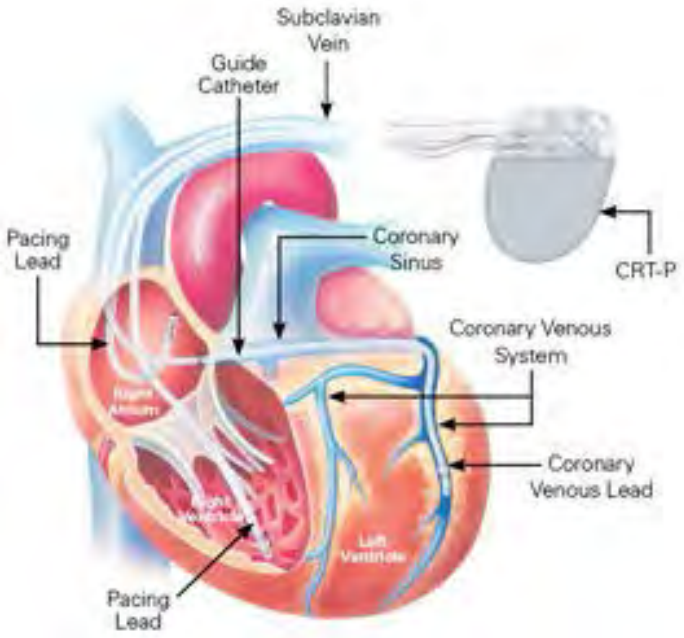
4

Cardiac Resynchronization Therapy Pacemakers (CRT-Ps)

RM129704-AC FEB2015

Cardiac Resynchronization Therapy Pacemakers (CRT-P) Coding Overview



CRT-P Implant Procedure

The implant of a CRT-P system typically requires the use of a cardiac resynchronization therapy pulse generator and three electrodes, or leads. The three leads monitor and deliver electrical stimulation to the right atrium, right ventricle, and left ventricle. As in conventional pacemaker procedures, the leads are inserted through the subclavian vein and positioned in the right atrium and right ventricle. In some cases, the cephalic or internal jugular vein may be used as an alternative to the subclavian vein. In addition, a CRT-P system requires the implantation of a third lead into the coronary venous system to pace the left ventricle in order to coordinate, or resynchronize, ventricular contractions. This left ventricular lead is inserted into the subclavian vein, introduced into the coronary sinus and advanced into a coronary vein located on the exterior wall of the left ventricle.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL INITIAL CRT-P SYSTEM IMPLANT PROCEDURE

1. The subclavian vein is accessed and a device pocket is formed.
2. Pacing leads are inserted into the right ventricle and right atrium, under fluoroscopy.
3. A guiding catheter is inserted into the subclavian vein.
4. The coronary sinus (CS) is cannulated with the guide catheter via the coronary sinus ostium (opening).
5. In most cases, a venogram is required to visualize the coronary venous system prior to inserting the left ventricular lead.
6. A guide wire is inserted through the guide catheter, into the coronary venous system to the desired branch vein.
7. Under fluoroscopy, the left ventricular coronary venous lead is inserted (+33225) over the guide wire and advanced into a branch of the coronary venous system.
8. Lead measurement tests, including pacing and sensing thresholds and lead impedances, are performed.
9. The guide wire is removed and replaced with a finishing wire to stabilize the lead upon removal of the guide catheter.
10. The guide catheter is removed while maintaining LV lead position.
11. The finishing wire is removed and the left ventricular coronary venous lead is secured.
12. A CRT-P pulse generator (33208) is connected to the three leads that are in place.
13. Additional testing of all lead combinations is completed.
14. The leads and device are secured, and the pulse generator pocket is closed.

Note: This document is for reference purposes only and does not replace physicians' medical documentation. Scenarios included within this document do not encompass all possible procedures.

Commonly Billed Cardiac Resynchronization Therapy Pacemaker (CRT-P) Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

✚ **Add-on** code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

4.1 Initial CRT-P system implant *with venogram of the coronary sinus*

Scenario 4.1: Physician CPT® Codes[1]		
⊙	33208	Insertion of new or replacement of permanent pacemaker with transvenous electrodes; atrial and ventricular
✚	33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.1: Hospital Outpatient CPT® Codes[2]		
⊙	33208	Insertion of new or replacement of permanent pacemaker with transvenous electrodes; atrial and ventricular
✚	33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.1: Hospital Inpatient ICD-9-CM Codes[3]		

	1.50	Implantation of cardiac resynchronization pacemaker without mention of defibrillation, total system [CRT-P]
		Note: Device testing during procedure – omit code
		• Biventricular pacemaker
		• Biventricular pacing without internal cardiac defibrillator
		• BiV pacemaker
		• Implantation of cardiac resynchronization (biventricular) pulse generator pacing device, formation of pocket, transvenous leads including placement of lead into left ventricular coronary venous system, and intraoperative procedures for evaluation of lead signals
		• That with CRT-P generator and one or more leads
		Excludes:
		• Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)
		• Insertion or replacement of any type pacemaker device (37.80–37.87)
		• Replacement of cardiac resynchronization:
		  • defibrillator, pulse generator only [CRT-D] (00.54)
		  • pacemaker, pulse generator only [CRT-P] (00.53)

	88.63	Phlebography of other intrathoracic veins using contrast material

4.2 Upgrade of dual chamber pacemaker to CRT-P system *(using existing RA and RV leads), insertion of LV lead with venogram of the coronary sinus*

Scenario 4.2: Physician CPT® Codes[1]		
⊙	33229	Removal of permanent pacemaker pulse generator with replacement of pacemaker 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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.2: Hospital Outpatient CPT® Codes[2]		
⊙	33229	Removal of permanent pacemaker pulse generator with replacement of pacemaker 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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.2: Hospital Inpatient ICD-9-CM Codes[3]		
	1.53	Implantation or replacement of cardiac resynchronization pacemaker, pulse generator only [CRT-P] Note: Device testing during procedure – omit code • Implantation of CRT-P device with removal of any existing CRT-P or other pacemaker device Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54) • Insertion or replacement of any type pacemaker device (37.80-37.87)
	1.52	Implantation or replacement of transvenous lead [electrode] into left ventricular coronary venous system Excludes: • Implantation of cardiac resynchronization: • Defibrillator, total system [CRT-D] (00.51) • Pacemaker, total system [CRT-P] (00.50) • Initial insertion of transvenous lead [electrode] (37.70-37.72) • Replacement of transvenous atrial and/or ventricular lead(s) [electrodes] (37.76)
	88.63	Phlebography of other intrathoracic veins using contrast material

4.3 Replacement of CRT-P *pulse generator only utilizing existing right atrial lead, right ventricular lead and left ventricular lead*

Scenario 4.3: Physician CPT® Codes[1]		
⊙	33229	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; multiple lead system
Scenario 4.3: Hospital Outpatient CPT® Codes[2]		
⊙	33229	Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; multiple lead system
Scenario 4.3: Hospital Inpatient ICD-9-CM Codes[3]		
	1.53	Implantation or replacement of cardiac resynchronization pacemaker, pulse generator only [CRT-P] Note: Device testing during procedure – omit code • Implantation of CRT-P device with removal of any existing CRT-P or other pacemaker device Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54) • Insertion or replacement of any type pacemaker device (37.80-37.87)

4.4 Single chamber *pacemaker upgrade to CRT-P, with insertion of right atrial lead, and insertion of left ventricular lead with coronary sinus venogram*

Scenario 4.4: Physician CPT® Codes[1]		
⊙	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)
+	33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.4: Hospital Outpatient CPT® Codes[2]		
⊙	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)
+	33225	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
Scenario 4.4: Hospital Inpatient ICD-9-CM Codes[3]		

	1.50	Implantation of cardiac resynchronization pacemaker without mention of defibrillation, total system [CRT-P]
		Note: Device testing during procedure – omit code
		• Biventricular pacemaker
		• Biventricular pacing without internal cardiac defibrillator
		• BiV pacemaker
		• Implantation of cardiac resynchronization (biventricular) pulse generator pacing device, formation of pocket, transvenous leads including placement of lead into left ventricular coronary venous system, and intraoperative procedures for evaluation of lead signals
		• That with CRT-P generator and one or more leads
		Excludes:
		• Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)
		• Insertion or replacement of any type pacemaker device (37.80–37.87)
		• Replacement of cardiac resynchronization:
		  • defibrillator, pulse generator only [CRT-D] (00.54)
		  • pacemaker, pulse generator only [CRT-P] (00.53)

	88.63	Phlebography of other intrathoracic veins using contrast material

4.5 CRT-P *follow-up (in person) in clinic*

Scenario 4.5: Physician CPT® Codes[1]		
	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
or	93281	Programming device evaluation (in person) with iterative adjustments 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; multiple lead pacemaker system
Scenario 4.5: Hospital Outpatient CPT® Codes[2]		
	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
or	93281	Programming device evaluation (in person) with iterative adjustments 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; multiple lead pacemaker system
Scenario 4.5: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

4.5 CRT-P *follow-up (in person) in clinic*

Scenario 4.5: Physician CPT® Codes[1]		
	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
or	93281	Programming device evaluation (in person) with iterative adjustments 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; multiple lead pacemaker system
Scenario 4.5: Hospital Outpatient CPT® Codes[2]		
	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
or	93281	Programming device evaluation (in person) with iterative adjustments 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; multiple lead pacemaker system
Scenario 4.5: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

4.6 CRT-P *follow-up (remote)*

Scenario 4.6: Physician CPT® Codes[1]		
	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
or	93296	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 4.6: Hospital Outpatient CPT® Codes[2]		
	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
or	93296	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 4.6: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

4.7 CRT-P *follow-up (in person) in clinic*

Scenario 4.7: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 4.7: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 4.7: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

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2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

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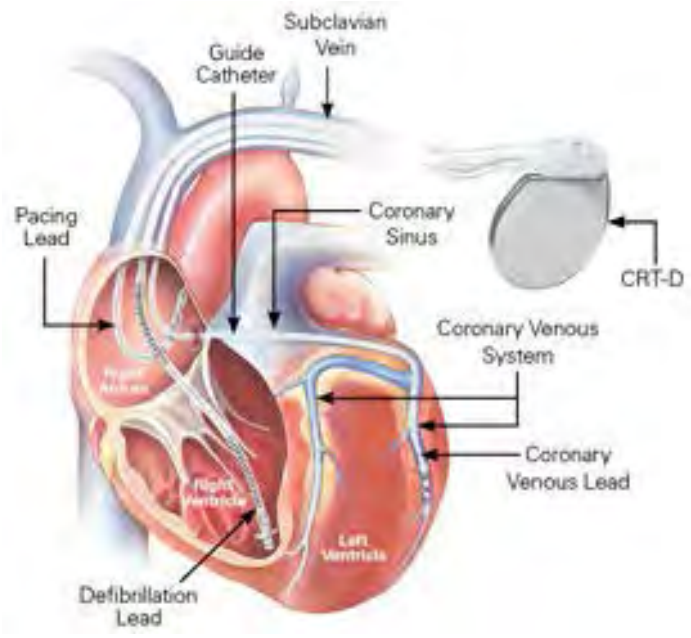
5

Cardiac Resynchronization Therapy Defibrillators (CRT-Ds)

RM129704-AC FEB2015

Cardiac Resynchronization Therapy Defibrillators (CRT-Ds) Coding Overview



CRT-D Implant Procedure

The implant of a CRT-D system typically requires the use of a cardiac resynchronization therapy pulse generator and three electrodes, or leads. The three leads monitor and deliver electrical stimulation to the right atrium, right ventricle, and left ventricle. As in conventional implantable cardioverter-defibrillator (ICD) procedures, a defibrillation lead is inserted into the subclavian vein and positioned in the right ventricle. In some cases, the cephalic or internal jugular vein may be used as an alternative to the subclavian vein. In a similar manner, a pacing lead is positioned in the right atrium. In addition, a CRT-D system requires the implantation of a third lead into the coronary venous system of the left ventricle to coordinate, or resynchronize, ventricular contractions. This left ventricular lead is inserted into the subclavian vein, introduced into the coronary sinus, and advanced into a coronary vein located on the exterior wall of the left ventricle.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL INITIAL CRT-D SYSTEM IMPLANT PROCEDURE

1. The subclavian vein is accessed and a pulse generator pocket is formed.
2. A pacing lead is inserted into the right atrium, and the defibrillation lead is inserted into the right ventricle, under fluoroscopy.
3. A guide catheter is inserted into the subclavian vein.
4. The coronary sinus (CS) is cannulated with the guide catheter via the coronary sinus ostium (opening).
5. In most cases a venogram is required in order to visualize the coronary venous system prior to inserting the left ventricular lead.
6. A guide wire is inserted through the guide catheter, into the coronary venous system to the desired branch vein.
7. Under fluoroscopy the left ventricular lead (+33225) is positioned over the guide wire and into a branch of the coronary venous system.
8. Lead measurement tests, including pacing and sensing thresholds and lead impedances, are performed.
9. The guide wire is removed and replaced with a finishing wire to stabilize the lead upon removal of the guide catheter.
10. The guide catheter is removed, maintaining LV lead position.
11. The finishing wire is removed, and the left ventricular lead is secured.
12. A CRT-D pulse generator (33249) is connected to the three leads that are in place.
13. Testing of defibrillation thresholds (93641), including arrhythmia induction, is conducted.
14. Additional testing of all lead combinations is completed.
15. The leads and device are secured, and the pulse generator pocket is closed.

Note: This document is for reference purposes only and does not replace physicians' medical documentation. Scenarios included within this document do not encompass all possible procedures.

Commonly Billed Cardiac Resynchronization Therapy Defibrillator (CRT-D) Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

✚ **Add-on** code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

5.1 Initial CRT-D system implant *with coronary sinus venogram, with defibrillator threshold testing at the time of implant*

Scenario 5.1: Physician CPT® Codes[1]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.1: Hospital Outpatient CPT® Codes[2]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.1: Hospital Inpatient ICD-9-CM Codes[3]		
	1.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D] Note: Device testing during procedure – omit code • BiV defibrillator • Biventricular defibrillator • Biventricular pacing with internal cardiac defibrillator • BiV ICD • BiV pacemaker with defibrillator • BiV pacing with defibrillator • Implantation of cardiac resynchronization (biventricular) pulse generator with defibrillator [AICD], formation of pocket, transvenous leads, including placement of lead into left ventricular coronary venous system, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • That with CRT-D generator and one or more leads Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] (37.94) • Replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54)
	88.63	Phlebography of other intrathoracic veins using contrast material

5.2 Initial CRT-D implant *with atrial and ventricular lead insertion, inability to place LV lead, with defibrillator threshold testing at the time of implant*

Scenario 5.2: Physician CPT® Codes[1]		
⊙	33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
✚	33225-53[4]	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.2: Hospital Outpatient CPT® Codes[2]		
⊙	33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
✚	33225-53[4]	Insertion of pacing electrode, cardiac venous system, for left ventricular pacing, at time of insertion of implantable defibrillator or pacemaker pulse generator (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.2: Hospital Inpatient ICD-9-CM Codes[3]		
	1.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D] Note: Device testing during procedure – omit code • BiV defibrillator • Biventricular defibrillator • Biventricular pacing with internal cardiac defibrillator • BiV ICD • BiV pacemaker with defibrillator • BiV pacing with defibrillator • Implantation of cardiac resynchronization (biventricular) pulse generator with defibrillator [AICD], formation of pocket, transvenous leads, including placement of lead into left ventricular coronary venous system, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • That with CRT-D generator and one or more leads Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] (37.94) • Replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54)
	88.63	Phlebography of other intrathoracic veins using contrast material

5.3 Replacement of dual lead *CRT-D pulse generator with defibrillator threshold testing at the time of implant*

Scenario 5.3: Physician CPT® Codes[1]	
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.3: Hospital Outpatient CPT® Codes[2]	
33263	Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator pulse generator; dual lead system
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.3: Hospital Inpatient ICD-9-CM Codes[3]	
1.54	Implantation or replacement of cardiac resynchronization defibrillator, pulse generator device only [CRT-D] Note: Device testing during procedure – omit code • Implantation of CRT-D device with removal of any existing CRT-D, CRT-P, pacemaker, or defibrillator device Excludes: • Implantation of automatic cardioverter-defibrillator, pulse generator only (37.96) • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51) • Implantation or replacement of cardiac resynchronization pacemaker, pulse generator only [CRT-P] (00.53)

5.4 Single or dual chamber *ICD upgrade to CRT-D (capping previous RA/RV leads, placing a new RA and/or RV lead(s), left ventricular lead insertion, with coronary sinus venogram with defibrillator threshold testing at the time of implant)*

Scenario 5.4: Physician CPT® Codes[1]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	33241-51[4]	Removal of implantable defibrillator pulse generator only
⊙	93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.4: Hospital Outpatient CPT® Codes[2]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	33241	Removal of implantable defibrillator pulse generator only
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
Scenario 5.4: Hospital Inpatient ICD-9-CM Codes[3]		
	1.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D] Note: Device testing during procedure – omit code • BiV defibrillator • Biventricular defibrillator • Biventricular pacing with internal cardiac defibrillator • BiV ICD • BiV pacemaker with defibrillator • BiV pacing with defibrillator • Implantation of cardiac resynchronization (biventricular) pulse generator with defibrillator [AICD], formation of pocket, transvenous leads, including placement of lead into left ventricular coronary venous system, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • That with CRT-D generator and one or more leads Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] (37.94) • Replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54)
	88.63	Phlebography of other intrathoracic veins using contrast material

5.5 Dual chamber *ICD upgrade to CRT-D (using existing RA and RV leads) with left ventricular lead insertion, coronary sinus venogram with defibrillator threshold testing at the time of implant*

Scenario 5.5: Physician CPT® Codes[1]	
⊙ 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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙ 93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 5.5: Hospital Outpatient CPT® Codes[2]	
⊙ 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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙ 93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator

Scenario 5.5: Hospital Inpatient ICD-9-CM Codes[3]	
1.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D] Note: Device testing during procedure – omit code • BiV defibrillator • Biventricular defibrillator • Biventricular pacing with internal cardiac defibrillator • BiV ICD • BiV pacemaker with defibrillator • BiV pacing with defibrillator • Implantation of cardiac resynchronization (biventricular) pulse generator with defibrillator [AICD], formation of pocket, transvenous leads, including placement of lead into left ventricular coronary venous system, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • That with CRT-D generator and one or more leads Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] (37.94) • Replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54)
88.63	Phlebography of other intrathoracic veins using contrast material

5.6 Insertion of left ventricular *transvenous pacing lead only, with coronary sinus venogram, LV lead inserted into previously placed CRT-D device*

Scenario 5.6: Physician CPT® Codes[1]

⊙	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)

Scenario 5.6: Hospital Outpatient CPT® Codes[2]

⊙	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)

Scenario 5.6: Hospital Inpatient ICD-9-CM Codes[3]

1.52	Implantation or replacement of transvenous lead [electrode] into left ventricular coronary venous system
	Excludes:
	• Implantation of cardiac resynchronization:
	  • –defibrillator, total system [CRT-D] (00.51)
	  • –pacemaker, total system [CRT-P] (00.50)
	• Initial insertion of transvenous lead [electrode] (37.70–37.72)
	• Replacement of transvenous atrial and/or ventricular lead(s) [electrodes] (37.76)

88.63	Phlebography of other intrathoracic veins using contrast material

5.7 CRT-D (3-leads) *follow-up (in person)*

Scenario 5.7: Physician CPT® Codes[1]

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
93284	Programming device evaluation (in person) with iterative adjustments 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; multiple lead transvenous implantable defibrillator system

Scenario 5.7: Hospital Outpatient CPT® Codes[2]

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
93284	Programming device evaluation (in person) with iterative adjustments 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; multiple lead transvenous implantable defibrillator system

Scenario 5.7: Hospital Inpatient ICD-9-CM Codes[3]

89.49	Automatic implantable cardioverter-defibrillator (AICD) check • Bedside check of an AICD or cardiac resynchronization defibrillator [CRT-D] • Checking pacing thresholds of device • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20

5.8 CRT-D *follow-up (remote)*

	Scenario 5.8: Physician CPT® Codes[1]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 5.8: Hospital Outpatient CPT® Codes[2]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 5.8: Hospital Inpatient ICD-9-CM Codes[3]	
		N/A

5.9 CRT-D *follow-up (remote) with analysis of Implantable Cardiovascular Monitor (ICM) data*

	Scenario 5.9: Physician CPT® Codes[1]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
	Scenario 5.9: Hospital Outpatient CPT® Codes[2]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
	Scenario 5.9: Hospital Inpatient ICD-9-CM Codes[3]	
		N/A

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2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

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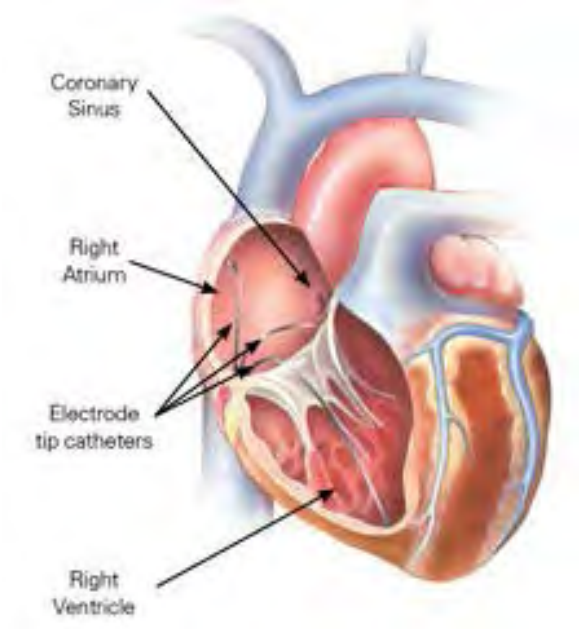
6

Intracardiac Electrophysiology and Related Scenarios

RM129704-AC FEB2015

Intracardiac Electrophysiology Study Coding Overview



Electrophysiology (EP) Studies

Electrophysiology (EP) studies are done to assess a patient's cardiac arrhythmias. These studies are invasive diagnostic medical procedures requiring the insertion of several electrode catheters. EP studies are done to determine if an arrhythmia is the cause of the patient's clinical symptoms and to assess the mechanism of the cardiac arrhythmia.

EP studies "include the insertion and repositioning of electrode catheters, recording of electrograms before and during pacing or programmed stimulation of multiple locations in the heart, analysis of recorded information, and report of the procedure. Electrophysiology studies are most often performed with three or more electrode catheters."[1]

The studies are performed using ECG, blood pressure, and pulse oximetry monitoring. Signal processing and amplification equipment to display and assess the intracardiac electrical recordings are used.

Intracardiac electrophysiology studies are coded using a variety of CPT® codes in the 93600–93656 CPT® code range.

A STEP-BY-STEP DESCRIPTION OF A TYPICAL COMPREHENSIVE INTRACARDIAC ELECTROPYSIOLOGY STUDY

1. Introducer sheaths are inserted in the femoral vein.
2. Multiple electrode catheters are inserted into the sheaths and, under fluoroscopic guidance, are advanced into the right atrium, His bundle region, and right ventricle.
3. Once in position, the electrode catheters are attached to a monitor allowing display of the intracardiac electrograms obtained from the catheter.
4. Right atrial pacing and recording, His bundle recording, and right ventricular pacing and recording are performed. The catheters may be repositioned numerous times and pacing and recording are done at various areas within the heart.
5. If an arrhythmia is induced, it may be terminated by rapidly pacing the heart or by defibrillation or cardioversion.
6. Once all pacing and recording is completed, the catheters are withdrawn and the introducer sheaths are removed.
7. The physician documents the procedure and results of the study along with any recommendations for treatment.

Note: This document is for reference purposes only and does not replace physicians' medical documentation.
Scenarios included within this document do not encompass all possible procedures.

See page ii for important information about the uses and limitations of this document. See page 2-13 for Sources and Footnotes pertaining to this section.

Commonly Billed Intracardiac Electrophysiology Study Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

✚ **Add-on** code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

6.1 Comprehensive EP Study *with induction or attempted induction of arrhythmia*

Scenario 6.1: Physician CPT® Codes[1]

⊙	93620-26[4]	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

Scenario 6.1: Hospital Outpatient CPT® Codes[2]

⊙	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

Scenario 6.1: Hospital Inpatient ICD-9-CM Codes[3]

	37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code

6.2 Comprehensive EP Study *with induction or attempted induction of arrhythmia and dual chamber ICD implant with defibrillation threshold testing at implant*

Scenario 6.2: Physician CPT® Codes[1]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
93620-51[4]	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
Scenario 6.2: Hospital Outpatient CPT® Codes[2]	
33249	Insertion or replacement of permanent implantable defibrillator system with transvenous lead(s), single or dual chamber
93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
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
Scenario 6.2: Hospital Inpatient ICD-9-CM Codes[3]	
37.94	Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] Note: Device testing during procedure – omit code • Implantation of defibrillator with leads (epicardial patches), formation of pocket (abdominal fascia) (subcutaneous), any transvenous leads, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • Techniques: lateral thoracotomy, medial sternotomy, subxiphoid procedure Code also extracorporeal circulation, if performed (39.61) Code also any concomitant procedure [e.g., coronary bypass (36.10 – 36.19) or CCM, total system (17.51)] Excludes: • Implantation of cardiac resynchronization defibrillator, total system [CRT-D] (00.51)
37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code

6.3 Comprehensive EP Study *with pacing and recording of multiple sites in the right atrium, right ventricle, His bundle and left atrium with induction of arrhythmia*

Scenario 6.3: Physician CPT® Codes[1]

⊙	93620-26[4]	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
⊙ ✚	93621-26[4]	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with left atrial pacing and recording from coronary sinus or left atrium *(List separately in addition to code for primary procedure)*

Scenario 6.3: Hospital Outpatient CPT® Codes[2]

⊙	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	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with left atrial pacing and recording from coronary sinus or left atrium *(List separately in addition to code for primary procedure)*

Scenario 6.3: Hospital Inpatient ICD-9-CM Codes[3]

37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
37.29	Other diagnostic procedures on heart and pericardium Excludes: • Angiocardiography (88.50–88.58) • Cardiac function tests (89.41–89.69) • Cardiovascular radioisotopic scan and function study (92.05) • Coronary arteriography (88.55–88.57) • Diagnostic pericardiocentesis (37.0) • Diagnostic ultrasound of heart (88.72) • X-ray of heart (87.49)

6.4 Partial (limited) EP Study *pacing and recording in the RA and His bundle*

Scenario 6.4: Physician CPT® Codes[1]	
93600-26[4]	Bundle of His recording
93602-26[4]	Intra-atrial recording
93610-26[4]	Intra-atrial pacing
Scenario 6.4: Hospital Outpatient CPT® Codes[2]	
93600	Bundle of His recording
93602	Intra-atrial recording
93610	Intra-atrial pacing
Scenario 6.4: Hospital Inpatient ICD-9-CM Codes[3]	
37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
37.29	Other diagnostic procedures on heart and pericardium Excludes: • Angiocardiography (88.50–88.58) • Cardiac function tests (89.41–89.69) • Cardiovascular radioisotopic scan and function study (92.05) • Coronary arteriography (88.55–88.57) • Diagnostic pericardiocentesis (37.0) • Diagnostic ultrasound of heart (88.72) • X-ray of heart (87.49)

6.5 Follow-up EP Study *with attempted induction of arrhythmia to assess the efficacy of medication for suppression of arrhythmia*

Scenario 6.5: Physician CPT® Codes[1]

⊙	93624-26[4]	Electrophysiologic follow-up study with pacing and recording to test effectiveness of therapy, including induction or attempted induction of arrhythmia

Scenario 6.5: Hospital Outpatient CPT® Codes[2]

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

Scenario 6.5: Hospital Inpatient ICD-9-CM Codes[3]

	37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code

Note: Some of the codes presented above may be used to code for a variety of procedures (diagnostic and therapeutic) employed in the field of electrophysiology, including atrial fibrillation, atrial flutter, AV Node, SVT and VT ablations. Please note that no Boston Scientific products are approved for sale in the US for atrial fibrillation ablations.

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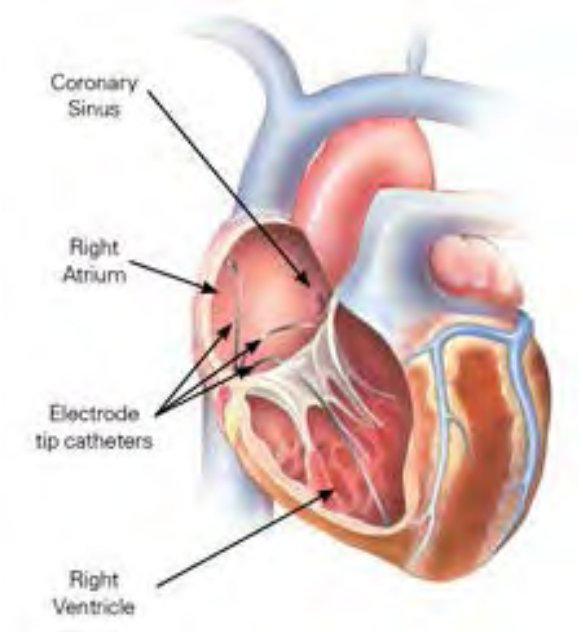
2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

Intracardiac Catheter Ablation Coding Overview



Intracardiac Catheter Ablation

Intracardiac catheter ablation is a procedure in which electrode tip catheters are placed in the heart and energy is delivered through the catheter to destroy cardiac tissue that is either causing an arrhythmia or allowing an arrhythmia to perpetuate.

The ablation catheter is placed adjacent to the cardiac tissue responsible for the arrhythmia, and the tissue is destroyed using radiofrequency electrical energy, microwave, or extreme cold temperatures (cryoablation). The ablation creates a block through which the electrical impulses can no longer cross and is intended to restore the normal electrical pathways of the heart, allowing it to beat normally again. Arrhythmias arising in the:

- Right atrium or right ventricle are ablated with catheters placed transvenously in the appropriate cardiac chamber
- Left atrium can be ablated using a catheter placed via a retrograde aortic approach (through the aorta, across the aortic valve, and through the mitral valve) or, more commonly, via a transseptal approach[1] (across the intra-atrial septum).

A STEP-BY-STEP DESCRIPTION OF A TYPICAL CATHETER ABLATION

1. Introducer sheaths are placed in the femoral vein.
2. Under fluoroscopic guidance, multiple electrode catheters are advanced through the sheaths into the heart.
3. The catheters are attached to a recording device allowing display of the intracardiac electrograms obtained from the catheter tip.
4. An arrhythmia is induced (or attempted), and the origin of the tachycardia is confirmed and localized
5. The ablation catheter tip is moved to the arrhythmogenic focus or pathway guided by the electrical recordings and fluoroscopy.
6. Radiofrequency electrical energy, microwave energy, or cryoablation is applied to the cardiac tissue, ablating the focus or pathway.
7. Post-ablation testing is performed to verify that the tachycardia cannot be induced.
8. The catheters and sheaths are withdrawn.

Note: This document is for reference purposes only and does not replace physicians' medical documentation.
Scenarios included within this document do not encompass all possible procedures.

Commonly Billed Intracardiac Catheter Ablation Scenarios

KEY

⊙ **Moderate sedation** (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

✚ **Add-on** code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

6.6 Partial (limited) EP Study *pacing and recording in the RA and His bundle*

Scenario 6.6: Physician CPT® Codes[1]		
⊙	93620-26[4]	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
⊙ ✚	93609-26[4]	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)*
⊙	93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
⊙	33208-51[4]	Insertion of new or replacement of permanent pacemaker with transvenous electrodes; atrial and ventricular
Scenario 6.6: Hospital Outpatient CPT® Codes[2]		
⊙	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
⊙ ✚	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)*
⊙	93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
⊙	33208	Insertion of new or replacement of permanent pacemaker with transvenous electrodes; atrial and ventricular

6.6 Partial (limited) EP Study *pacing and recording in the RA and His bundle*

Scenario 6.6: Hospital Inpatient ICD-9-CM Codes[3]

37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
37.27	Cardiac Mapping • Code also any concomitant procedure Excludes: • Electrocardiogram (89.52) • His bundle recording (37.29)
37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)
37.72	Initial insertion of transvenous leads (electrodes) into atrium and ventricle Excludes: • Insertion of temporary transvenous pacemaker system (37.78) • Replacement of atrial and/or ventricular lead(s) (37.76)
37.83	Initial insertion of dual chamber device • Atrial ventricular sequential device Excludes: • Replacement of existing pacemaker device (37.85–37.87)

6.7 AV node ablation *with CRT-D implant*

Scenario 6.7: Physician CPT® Codes[1]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641-26/51[4]	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
	93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
Scenario 6.7: Hospital Outpatient CPT® Codes[2]		
⊙	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 (eg, for upgrade to dual chamber system) *(List separately in addition to code for primary procedure)*
⊙	93641	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator
	93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement
Scenario 6.7: Hospital Inpatient ICD-9-CM Codes[3]		
	1.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D] Note: Device testing during procedure – omit code • BiV defibrillator • Biventricular defibrillator • Biventricular pacing with internal cardiac defibrillator • BiV ICD • BiV pacemaker with defibrillator • BiV pacing with defibrillator • Implantation of cardiac resynchronization (biventricular) pulse generator with defibrillator [AICD], formation of pocket, transvenous leads, including placement of lead into left ventricular coronary venous system, intraoperative procedures for evaluation of lead signals, and obtaining defibrillator threshold measurements • That with CRT-D generator and one or more leads Excludes: • Implantation of cardiac resynchronization pacemaker, total system [CRT-P] (00.50) • Implantation or replacement of automatic cardioverter-defibrillator, total system [AICD] (37.94) • Replacement of cardiac resynchronization defibrillator, pulse generator only [CRT-D] (00.54)
	88.63	Phlebography of other intrathoracic veins using contrast material
	37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)

6.8 Comprehensive Electrophysiology Study with Ablation for AVNRT *(SVT Ablation) and mapping*

Scenario 6.8: Physician CPT® Codes[1]

⊙	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
⊙ ✚	93609-26[4]	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)*

Scenario 6.8: Hospital Outpatient CPT® Codes[2]

⊙	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
⊙ ✚	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)*

Scenario 6.8: Hospital Inpatient ICD-9-CM Codes[3]

	37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
	37.27	Cardiac Mapping • Code also any concomitant procedure Excludes: • Electrocardiogram (89.52) • His bundle recording (37.29)
	37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)

6.9 Comprehensive EP study and ablation of single accessory pathway *with mapping*

Scenario 6.9: Physician CPT® Codes[1]		
⊙	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
⊙ ✚	93609-26[4]	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)*
Scenario 6.9: Hospital Outpatient CPT® Codes[2]		
⊙	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
⊙ ✚	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)*
Scenario 6.9: Hospital Inpatient ICD-9-CM Codes[3]		
	37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
	37.27	Cardiac Mapping • Code also any concomitant procedure Excludes: • Electrocardiogram (89.52) • His bundle recording (37.29)
	37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)

6.10 SVT ablation *with comprehensive EP study, mapping and intracardiac echocardiography (ICE)*

Scenario 6.10: Physician CPT® Codes[1]

⊙	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
⊙ ✚	93609-26[4]	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)*
✚	93662-26[4]	Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation *(List separately in addition to code for primary procedure)*

Scenario 6.10: Hospital Outpatient CPT® Codes[2]

⊙	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
⊙ ✚	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)*
✚	93662	Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation *(List separately in addition to code for primary procedure)*

Scenario 6.10: Hospital Inpatient ICD-9-CM Codes[3]

37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
37.27	Cardiac Mapping • Code also any concomitant procedure Excludes: • Electrocardiogram (89.52) • His bundle recording (37.29)
37.28	Intracardiac echocardiography • Echocardiography of heart chambers • ICE • Code also any synchronous Doppler flow mapping (88.72) Excludes: • Intravascular imaging of coronary vessels (intravascular ultrasound) (IVUS) (00.24)
37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)

6.11 VT ablation *with 3D mapping and intracardiac echocardiography (ICE)*

Scenario 6.11: Physician CPT® Codes[1]

⊙	93654	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, HIS recording with intracardiac catheter ablation of arrhythmogenic focus; 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
⊙ ✚	93662-26[4]	Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation *(List separately in addition to code for primary procedure)*

Scenario 6.11: Hospital Outpatient CPT® Codes[2]

⊙	93654	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, HIS recording with intracardiac catheter ablation of arrhythmogenic focus; 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
⊙ ✚	93662	Intracardiac echocardiography during therapeutic/diagnostic intervention, including imaging supervision and interpretation *(List separately in addition to code for primary procedure)*

Scenario 6.11: Hospital Inpatient ICD-9-CM Codes[3]

37.26	Catheter based invasive electrophysiologic testing • Electrophysiologic studies [EPS] Code also any concomitant procedure Excludes: • Device interrogation only without arrhythmia induction (bedside check) (89.45– 89.49) • His bundle recording (37.29) • Non-invasive programmed electrical stimulation (NIPS) (37.20) • That as part of intraoperative testing – omit code
37.27	Cardiac Mapping • Code also any concomitant procedure Excludes: • Electrocardiogram (89.52) • His bundle recording (37.29)
37.28	Intracardiac echocardiography • Echocardiography of heart chambers • ICE • Code also any synchronous Doppler flow mapping (88.72) Excludes: • Intravascular imaging of coronary vessels (intravascular ultrasound) (IVUS) (00.24)
37.34	Excision or destruction of other lesion or tissue of heart, enodovascular approach • Ablation of heart tissue (cryoablation) (electrocurrent) (laser) (microwave) (radiofrequency) (ultrasound), via peripherally inserted catheter • Modified maze procedure, percutaneous approach Excludes: • Ablation, excision or destruction of lesion of tissue of heart: • Open approach (37.33) • Thoracoscopic approach (37.37)

Note: For transseptal puncture, use code 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 93452, 93453, 93458-93461, 93653, 93654. Do NOT report 93462 in conjunction with 93656.

Note: Some of the codes presented above may be used to code for a variety of procedures (diagnostic and therapeutic) employed in the field of electrophysiology, including atrial fibrillation, atrial flutter, AV Node, SVT and VT ablations. Please note that no Boston Scientific products are approved for sale in the US for atrial fibrillation ablations.

1. American Medical Association: *2014 Current Procedural Terminology (CPT), Professional Edition*, Chicago, IL. Current Procedural Terminology (CPT) is copyright 2013 by the American Medical Association (AMA). All Rights Reserved. No fee schedules, basic units, relative values, or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use. CPT is a registered trademark of the American Medical Association.
2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

See page ii for important information about the uses and limitations of this document. See page 2-13 for Sources and Footnotes pertaining to this section.

GUIDEPOINT
Reimbursement Resources

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7

Cardiac Device Monitoring

Commonly Billed Cardiac Device Monitoring Scenarios 7-1

RM129704-AC FEB2015

Commonly Billed Cardiac Device Monitoring Scenarios

KEY

Moderate sedation (For these procedures, moderate [conscious] sedation is included and cannot be billed separately when provided by the same physician. See AMA's 2014 Current Procedural Terminology for specific guidelines.)

Add-on code

Physician CPT® Codes[1]

Hospital Outpatient CPT® Codes[2]

Hospital Inpatient ICD-9-CM® Codes[3]

7.1 Comprehensive EP Study *with induction or attempted induction of arrhythmia*

Scenario 7.1: Physician CPT® Codes[1]

	93288	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
or	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

Scenario 7.1: Hospital Outpatient CPT® Codes[2]

	93288	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
or	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

Scenario 7.1: Hospital Inpatient ICD-9-CM Codes[3]

	89.45	Artificial pacemaker rate check • Artificial pacemaker function check NOS • Bedside device check of pacemaker or cardiac resynchronization pacemaker [CRT-P] • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.2 Dual chamber *pacemaker follow-up (in person)*

Scenario 7.2: Physician CPT® Codes[1]		
	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
or	93280	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent values with analysis, review and report by a physician or other qualified health care professional; dual lead pacemaker system
Scenario 7.2: Hospital Outpatient CPT® Codes[2]		
	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
or	93280	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent values with analysis, review and report by a physician or other qualified health care professional; dual lead pacemaker system
Scenario 7.2: Hospital Inpatient ICD-9-CM Codes[3]		
	89.45	Artificial pacemaker rate check • Artificial pacemaker function check NOS • Bedside device check of pacemaker or cardiac resynchronization pacemaker [CRT-P] • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.3 Dual chamber *pacemaker follow-up (remote)*

Scenario 7.3: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 7.3: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 7.3: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

7.4 Single chamber *ICD follow-up (in person)*

	Scenario 7.4: Physician CPT® Codes[1]	
	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
or	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
	Scenario 7.4: Hospital Outpatient CPT® Codes[2]	
	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
or	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
	Scenario 7.4: Hospital Inpatient ICD-9-CM Codes[3]	
	89.49	Automatic implantable cardioverter-defibrillator (AICD) check • Bedside check of an AICD or cardiac resynchronization defibrillator [CRT-D] • Checking pacing thresholds of device • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.5 Dual chamber *ICD follow-up (in person)*

	Scenario 7.5: Physician CPT® Codes[1]	
	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
	93283	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; dual lead transvenous implantable defibrillator system
	Scenario 7.5: Hospital Outpatient CPT® Codes[2]	
	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
	93283	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; dual lead transvenous implantable defibrillator system
	Scenario 7.5: Hospital Inpatient ICD-9-CM Codes[3]	
	89.49	Automatic implantable cardioverter-defibrillator (AICD) check • Bedside check of an AICD or cardiac resynchronization defibrillator [CRT-D] • Checking pacing thresholds of device • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.6 ICD *follow-up (remote)*

Scenario 7.6: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 7.6: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
Scenario 7.6: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

7.7 ICD *follow-up (remote) with analysis of Implantable Cardiovascular Monitor (ICM)*

Scenario 7.7: Physician CPT® Codes[1]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 7.7: Hospital Outpatient CPT® Codes[2]		
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
Scenario 7.7: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

7.8 CRT-P *(3 leads) follow-up (in person)*

	Scenario 7.8: Physician CPT® Codes[1]	
	93288-26[4]	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
or	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 health care professional; multiple lead pacemaker system
	Scenario 7.8: Hospital Outpatient CPT® Codes[2]	
	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
or	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 health care professional; multiple lead pacemaker system
	Scenario 7.8: Hospital Inpatient ICD-9-CM Codes[3]	
	89.45	Artificial pacemaker rate check • Artificial pacemaker function check NOS • Bedside device check of pacemaker or cardiac resynchronization pacemaker [CRT-P] • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.9 CRT-P *follow-up (remote)*

	Scenario 7.9: Physician CPT® Codes[1]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 7.9: Hospital Outpatient CPT® Codes[2]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 7.9: Hospital Inpatient ICD-9-CM Codes[3]	
		N/A

7.10 CRT-P *follow-up (remote) with analysis of Implantable Cardiovascular Monitor (ICM) data*

Scenario 7.10: Physician CPT® Codes[1]		
	93294	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
	93296	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent values with analysis, review and report by a physician or other qualified health care professional; dual lead pacemaker system
and	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
Scenario 7.10: Hospital Outpatient CPT® Codes[2]		
	93294	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
	93296	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent values with analysis, review and report by a physician or other qualified health care professional; dual lead pacemaker system
and	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
Scenario 7.10: Hospital Inpatient ICD-9-CM Codes[3]		
		N/A

7.11 CRT-D *(3 leads) follow-up (in person)*

Scenario 7.11: Physician CPT® Codes[1]		
	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
or	93284	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; multiple lead transvenous implantable defibrillator system
Scenario 7.11: Hospital Outpatient CPT® Codes[2]		
	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
or	93284	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; multiple lead transvenous implantable defibrillator system
Scenario 7.11: Hospital Inpatient ICD-9-CM Codes[3]		
	89.49	Automatic implantable cardioverter-defibrillator (AICD) check • Bedside check of an AICD or cardiac resynchronization defibrillator [CRT-D] • Checking pacing thresholds of device • Interrogation only without arrhythmia induction Excludes: • Catheter based invasive electrophysiologic testing (37.26) • Non-invasive programmed electrical stimulation [NIPS] (arrhythmia induction) (37.20)

7.12 CRT-D *follow-up (remote)*

	Scenario 7.12: Physician CPT® Codes[1]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 7.12: Hospital Outpatient CPT® Codes[2]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
	Scenario 7.12: Hospital Inpatient ICD-9-CM Codes[3]	
		N/A

7.13 CRT-D *follow-up (remote)*

	Scenario 7.13: Physician CPT® Codes[1]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
	Scenario 7.13: Hospital Outpatient CPT® Codes[2]	
	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	Interrogation device evaluation(s) (remote), up to 90 days; 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
and	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
	Scenario 7.13: Hospital Inpatient ICD-9-CM Codes[3]	
		N/A

7.14 Remote analysis *of Implantable Cardiovascular Monitor (ICM)*

Scenario 7.14: Physician CPT® Codes[1]	
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	Interrogation device evaluation(s), (remote) up to 30 days; 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
Scenario 7.14: Hospital Outpatient CPT® Codes[2]	
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	Interrogation device evaluation(s), (remote) up to 30 days; 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
Scenario 7.14: Hospital Inpatient ICD-9-CM Codes[3]	
	N/A

1. American Medical Association: *2014 Current Procedural Terminology (CPT), Professional Edition*, Chicago, IL. Current Procedural Terminology (CPT) is copyright 2013 by the American Medical Association (AMA). All Rights Reserved. No fee schedules, basic units, relative values, or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use. CPT is a registered trademark of the American Medical Association.
2. As of January 1, 2005, the Centers for Medicare and Medicaid Services (CMS) require hospitals to report all device category codes (C- codes) on Medicare outpatient claims when medical devices are used in conjunction with procedure(s) billed. If C-codes are not identified on submitted Medicare outpatient claims, the claim(s) will be returned to the hospital for correction. Find C-codes for CRM devices at http://www.bostonscientific.com/crm/reimbursement. Also find C-codes for CRM devices and related accessories (e.g., introducers, catheters, sheaths) at http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf.
3. *2014 ICD-9-CM Expert for Hospitals & Payers, Volumes 1, 2 and 3, Professional Edition*, Copyright 2013 OptumInsight, Inc.
4. Modifiers 26 (professional component) and 51 (multiple procedures) are for physician billing only. See the AMA's *2014 Current Procedural Terminology* for complete descriptions. Always verify appropriate usage with payers.

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8 C-Codes

Cardiac Rhythm Management Category Codes (C-Codes) for Medical Devices 8-2

Electrophysiology Category Codes (C-Codes) for Medical Devices 8-9

RM129704-AC FEB2015

Background

Ambulatory Payment Classifications (APC) refers to the hospital outpatient payment system that took effect on August 1, 2000. This system, mandated by federal law to replace the former retrospective cost-based reimbursement system, utilizes pre-set, capped payments for each APC. APCs cluster outpatient procedures into groups based on comparable resource use and clinical similarities. APCs pertain to Medicare outpatient services only and have no bearing on Medicare inpatient or physician reimbursement.

Cardiac Rhythm Management Category Codes (C-Codes) for Medical Devices[1]

Pacemakers

Pacemaker, dual chamber, rate-response (implantable)

Device Name	Model #	C-Code
ALTRUA® DR	S203, S204, S205, S208, S403, S404, S602, S603, S606	C1785
VITALIO™ DR	K273, K274	C1785
INGENIO™ DR	K173, K174	C1785
ADVANTIO™ DR	K063, K064	C1785
ESSENTIO™ DR	L101	C1785
ACCOLADE™ DR	L301	C1785
ESSENTIO™ EL DR	L121	C1785
ACCOLADE™ EL DR	L321	C1785

Pacemaker, single chamber, rate-response (implantable)

Device Name	Model #	C-Code
ALTRUA SR	S201, S204, S401, S601	C1786
VITALIO™ SR	K272	C1786
INGENIO™ SR	K172	C1786
ADVANTIO™ SR	L062	C1786
ESSENTIO™ SR	L100	C1786
ACCOLADE™ SR	L300	C1786

Pacemaker, other than single or dual chamber (implantable)

Device Name	Model #	C-Code
INVIVE™ CRT-P	V173, V172	C2621
INTUA™ CRT-P	V273, V272	C2621
VALITUDE™ X4 CRT-P	U128	C2621

Defibrillators

Cardioverter-defibrillator, dual chamber (implantable)

Device Name	Model #	C-Code
ENERGEN™ DR	E142, E143	C1721
INCEPTA™ DR	E162, E163	C1721
PUNCTUA™ DR	E052, E053	C1721
DYNAGEN™ EL DR	D152, D153	C1721
INOGEN™ EL DR	D142, D143	C1721
DYNAGEN™ MINI DR	D022, D023	C1721
INOGEN™ MINI DR	D012, D013	C1721

Cardioverter-defibrillator, single chamber (implantable)

Device Name	Model #	C-Code
ENERGEN VR	E140, E141	C1722
INCEPTA VR	E160, E161	C1722
PUNCTUA™ VR	E050, E051	C1722
DYNAGEN™ EL VR	D150, D151	C1722
INOGEN™ EL VR	D140, D141	C1722
S- ICD®	1010	C1722
DYNAGEN™ MINI VR	D020, D021	C1722
INOGEN™ MINI VR	D010, D011	C1722

Cardioverter-defibrillator, other than single or dual chamber (implantable)

Device Name	Model #	C-Code
COGNIS® HE	N119	C1882
ENERGEN ™ CRT-D	N140, N141	C1882
INCEPTA™ CRT-D	N160, N161, N164	C1882
PUNCTUA™ CRT-D	N050, N051	C1882
DYNAGEN™ CRT-D	G150, G151, G152, G154	C1882
INOGEN™ CRT-D	G140, G141	C1882
DYNAGEN™ X4 CRT-D	G156, G158	C1882
INOGEN™ X4 CRT-D	G146, G0148	C1882

Leads

Lead, cardioverter-defibrillator, endocardial single coil (implantable)

Device Name	Model #	C-Code
ENDOTAK® RELIANCE S	0127, 0128, 0137, 0138	C1777
ENDOTAK RELIANCE SG	0170, 0171, 0172, 0180, 0181, 0182	C1777
ENDOTAKRELIANCE® 4-SITE GORE	0282, 0283, 0292, 0293,	C1777

Lead, cardioverter-defibrillator, endocardial dual coil (implantable)

Device Name	Model #	C-Code
ENDOTAK RELIANCE	0147, 0148, 149, 0157, 0158, 0159	C1895
ENDOTAK RELIANCE G	0174, 0175, 0176, 0177, 0184, 0185, 0186, 0187	C1895
ENDOTAK RELIANCE® 4-SITE GORE	0285, 0286, 0295, 0296	C1895
ENDOTAK RELIANCE® 4-SITE Non-GORE	0265, 0266, 0275, 0276	C1895

Lead, cardioverter-defibrillator, other than endocardial single or dual coil (implantable)

Device Name	Model #	C-Code
SQ Lead	3400	C1896

Lead, pacemaker, other than transvenous VDD single pass

Device Name	Model #	C-Code
FLEXTEND®	4086, 4087, 4088	C1898
FINELINE® II EZ STEROX	4469, 4470, 4471, 4472, 4473, 4474	C1898
FINELINE II STEROX	4456, 4457, 4458, 4459, 4479, 4480	C1898
OSCOR®	4039	C1898
Greatbatch® Epicardial	4046, 4047	C1898
DEXTRUS®	4135, 4136, 4137	C1898

Lead, coronary venous

Device Name	Model #	C-Code
EASYTRAK® 2	4517, 4518, 4520	C1900
EASYTRAK 2 IS-1	4542, 4543, 4544	C1900
EASYTRAK 3	4524, 4525, 4527	C1900
EASYTRAK 3 IS-1	4548, 4549, 4550	C1900
ACUITY® Steerable	4554, 4555	C1900
ACUITY Spiral	4591, 4592, 4593	C1900

Guiding Catheters and Accessories

Adaptor/extension, pacing lead or neurostimulator lead (implantable)

Device Name	Model #	C-Code
Brady Adapter	6125, 6136, 6986, 6987	C1883
Left Ventricular Lead Adapter	4402, 4403	C1883
Tachy Adapter	6161, 6162, 6931	C1883

Catheter, guiding (may include infusion/perfusion capability)

Device Name	Model #	C-Code
ACUITY™ Break-away™ (Outer)	7067, 7068, 7069, 7070, 7071, 7072, 7073, 7074, 7075, 7076, 7077, 7078, 7079, 7080	C1887
ACUITY™ Break-away™ (Inner)	7063, 7064, 7065, 7066	C1887
ACUITY™ Cut-Away®	7008, 7009, 7011, 7012, 7014, 7015, 7017, 7018, 7020, 7021, 7023, 7024 7026, 7027	C1887
ACUITY™ Cut-Away® (Inner)	7038, 7039, 7041, 7042	C1887
ACUITY™ Pro (Outer)	8104, 8105, 8106, 8107, 8108, 8109, 8110, 8111, 8112, 8113, 8114, 8115, 8116, 8117, 8118, 8119	C1887
ACUITY™ Pro (Inner)	8100, 8101, 8102, 8103	C1887

Introducer/sheath, other than guiding, intracardiac electrophysiological, non-laser

Device Name	Model #	C-Code
Hemostasis Introducer	6264, 6265, 6266, 6267, 6268, 6269, 6270, 6271, 6273, 6274, 6275, 6276, 6277, 6278, 7461, 7462, 7463, 7464, 7465, 7466, 7467, 7469, 7470, 7472, 7473, 7475	C1894
Non-Hemostasis Introducer	7089, 7090, 7091, 7093, 7095, 7096, 7097, 7099, 7127, 7131, 7133	C1894
Safe Sheath II Hemostasis Introducer	7461, 7462, 7463, 7464, 7465, 7466, 7467, 7469, 7470, 7472, 7473, 7475	C1894

Catheter, occlusion

Device Name	Model #	C-Code
Balloon Catheter	6714, 6747	C2628

Guide Wire

Device Name	Model #	C-Code
Guide Wire	4640, 4641, 4642, 4643, 4647, 4648, 6411, 7081, 7082	C1769
SUPPORTRAK Finishing Wire	6667, 6668, 6669, 6681, 6682, 6683, 6684, 6685	C1769

Electrophysiology Category Codes (C-Codes) for Medical Devices[1]

Catheters – Advanced Mapping

Catheter, electrophysiology, diagnostic/ablation, 3-D or vector mapping

Device Name	UPN	Order #	Description	C-Code
CONSTELLATION® MAPPING	M004US8031U0	US8031U	31mm/2mm/64 electrodes	C1732
	M004US8038U0	US8038U	38mm/3mm/64 electrodes	C1732
	M004US8048U0	US8048U	48mm/4mm/64 electrodes	C1732
	M004US8060U0	US8060U	60mm/5mm/64 electrodes	C1732
	M004US58075U0	US8075U	75mm/7mm/64 electrodes	C1732

Device Name	Model #	C-Code
Orbiter PV	320100	C1732

Catheters – Cool-tip Ablation

Catheters, electrophysiology, diagnostic/ablation, other than 3-D or vector mapping cool-tip

Device Name	UPN	Order #	Description	C-Code
CHILLI II® COOLED 7F/4MM TIP	M00490310	90310	7.5F/Standard Curve 2.5mm/Standard Distal	C2630
	M0049031K20	9031K20	7.5F/Large Curve 2.5mm/Standard Distal	C2630
	M0049031N40	9031N40	7.5F/Asymmetric 4 Curve 2.5mm/Standard Distal	C2630

Catheters – Diagnostic

Catheters, electrophysiology, diagnostic, other than 3-D mapping (20 or more electrodes)

Device Name	UPN	Order #	Description	C-Code
BLAZER® DX-20 STEERABLE CATHETER AND CABLE	M00420SL2520	20SL252	DuoDeca/7F/Super Large Curve/2/5/2mm	C1731
	M00420SL2820	20SL282	DuoDeca/7F/Super Large Curve/2/8/2mm	C1731
	M00420SL2220	20SL222	DuoDeca/7F/Super Large Curve/2/2/2mm	C1731
	M00420SL5550	20SL555	DuoDeca/7F/Super Large Curve/5/5/5mm	C1731
	M00420SL21020	20SL2102	DuoDeca/7F/Super Large Curve/2/10/2mm	C1731
	M00420SL28600	20SL2860	DuoDeca/7F/Super Large Curve/ 2/8/2/60mm	C1731
	M00420SL220250	20SL22025	DuoDeca/7F/Super Large Curve/ 2/20/2/25mm	C1731
	M00420M2520	20M252	DuoDeca/7F/Medium Curve/2/5/2mm	C1731
	M00420M2220	20M222	DuoDeca/7F/Medium Curve/2/2/2mm	C1731
	M00420M255050	20M25505	DuoDeca/7F/Medium Curve/2/5/2/50/5mm	C1731
	M00420M270280	20M27028	DuoDeca/7F/Medium Curve/2/70/2/8/2mm	C1731
	M00420M54050	20M5405	DuoDeca/7F/Medium Curve/5/40/5mm	C1731
	M00420M28400	20M2840	DuoDeca/7F/Medium Curve/2/8/2/40mm	C1731
	M00420M210350	20M21035	DuoDeca/7F/Medium Curve/2/10/2/35mm	C1731

Device Name	Model #	C-Code
Radia	320012G, 320013G, 320016G, 320017G, 320018G, 320020G, 7FRAD004G1, 7FRAD003G1	C1731
Orbiter ST	320001, 320002, 320003, 320006, 320007, 320008, 320009, 320010	C1731

Catheters – Fixed Curve Diagnostic

Catheter, electrophysiology, diagnostic, other than 3D mapping (20 or more electrodes)

Device Name	Model #	C-Code
Woven Orbiter HT	242412, 242413, 242415, 242416	C1731
Woven Orbiter	242401, 242403, 242404	C1731

Catheters, electrophysiology, diagnostic, other than 3-D mapping (19 or fewer electrodes)

Device Name	UPN	Order #	Description	C-Code
EXPLORER ST™ FIXED CURVE DIAGNOSTIC CATHETER	M00454180	5418	Quad/5F/Josephson Curve/5mm	C1730
	M00454200	5420	Quad/5F/Cournand Curve/5mm	C1730
	M00454490	5449	Quad/5F/Cournand Curve/2/5/2mm	C1730
	M00454510	5451	Quad/5F/Josephson Curve/2/5/2mm	C1730
	M00454570	5457	Deca/6F/Cournand Curve/2/5/2mm	C1730
	M00454580	5458	Deca/6F/Cournand Curve/2mm	C1730
	M00454590	5459	Deca/6F/Cournand Curve/2/8/2mm	C1730
	M00454690	5469	Quad/6F/Josephson Curve/10mm	C1730
	M00454700	5470	Quad/6F/Josephson Curve/5mm	C1730
	M00454770	5477	Deca/6F/Damato Curve/2/8/2mm	C1730
	M00454800	5480	Quad/6F/Cournand Curve/10mm	C1730
	M00454810	5481	Quad/6F/Cournand Curve/5mm	C1730
	M00455610	5561	Quad/6F/Conduction Study Curve/5mm	C1730
	M00455630	5563	Quad/6F/Multipurpose Curve/5mm	C1730
	M00459200	5920	Quad/6F/K-Curve/2mm	C1730
EXPLORER 360 JR.™ FIXED CURVE DIAGNOSTIC	M0045404S0	5404S	Quad/5F/Josephson Curve/5mm	C1730
	M0045409S0	5409S	Quad/5F/Conduction Curve/5mm	C1730
	M0045413S0	5413S	Quad/5F/Josephson Curve/2mm	C1730
	M0045414S0	5414S	Quad/5F/Cournand Curve/5mm	C1730
	M0045415A1S0	5415A1S	Quad/5F/Multipurpose Curve/10mm	C1730
EXPLORER 360™ FIXED CURVE	M0045222S0	5222S	Quad/6F/Conduction Curve/10mm	C1730
	M0045229S0	5229S	Quad/6F/Conduction Curve/5mm	C1730
	M0045290S0	5290S	Quad/6F/Josephson Curve/10mm	C1730
	M0045291S0	5291S	Quad/6F/Josephson Curve/5mm	C1730
	M0045292S0	5292S	Quad/6F/Josephson Curve/2mm	C1730
	M0045294S0	5294S	Quad/6F/Cournand Curve/5mm	C1730
	M0045295S0	5295S	Quad/6F/Cournand Curve/2mm	C1730
	M0045298S0	5298S	Quad/6F/Cournand Curve/10mm	C1730
	M0045429S0	5429S	Quad/6F/Damato Curve/5mm	C1730
	M0045433S0	5433S	Quad/6F/Multipurpose Curve/5mm	C1730
	M0045461S0	5461S	Quad/6F/Josephson Curve/2/5/2mm	C1730

Catheters – Fixed Curve Diagnostic (CONT.)

Catheters, electrophysiology, diagnostic, other than 3-D mapping (19 or fewer electrodes) (CONT.)

Device Name	Model #	C-Code
Woven	006245S, 200055P, 200056E, 200058E, 200060, 200060E, 20035S, 200150, 200151, 200152, 200153, 200201S, 200205, 200205E, 200207, 200210, 200211, 200212, 200204E, 200473, 200567, 200574, 200578, 200579, 200581, 200582, 200583, 200584, 200586, 200588E, 200591, 200594, 200580E, 2001123, 200577E, 200587E, 200612P, 200624E, 200624S, 200066S,200719S, 201401, 4FMC005931, 4FMC007151, 4FMC008241, 5FMC001211, 5FMC004961, 5FMT0089P1, 6FMC000871, 6FMC002161, 6FMC004721, 6FMC004921, 6FMC005181, 6FMC006081, 6FMC006811, 6FMC006981, 6FMC006991, 6FMC007021, 6FMC007251, 6FMC007261, 6FMC007271, 6FMC007281, 6FMC007491, 6FMC007541, 6FMC007561, 6FMC007571, 6FMC007581, 6FMC007591, 6FMC007721, 6FMC007941, 6FMC007831, 6FMC007851, 6FMC007891, 6FMC007931, 6FMC008001, 6FMC008081, 6FMC008151, 6FMC008231, 6FMC008281, 6FMT0076P1, 6FMT0183P1, 6FSC000071, 6FSC0007S1, 7FMC006751	C1730
Woven Flexie	200596, 200597, 200598, 200599, 500202, 500203, 500205, 5FMC007111, 5FMC007131	C1730
Viking	400001, 400002, 400004, 400005, 400006, 400007, 400008, 400009, 400010, 400011, 400013, 400014, 400023, 400024, 400030, 400033, 400034, 400035, 400036, 400037, 400041, 400042, 400044, 400045, 400047, 400048, 400051, 400057, 400074, 400096, 400097, 400099, 400100, 400103, 400104, 400107, 400118, 400119, 400120, 400121, 400123, 400124, , 5FVS0003S, 5FVS00081, 6FVS0039P	C1730
Viking ST	400504, 400505, 400507, 400510, 400511, 405119, 405120, 405121	C1730
Tango	400544, 400545, 400552, 400553, 405123, 405124	C1730

Catheters – Steerable Diagnostic

Catheter, electrophysiology, diagnostic, 3-D mapping (19 or fewer electrodes)

Device Name	UPN	Order #	Description	C-Code
POLARIS DX™ STEERABLE DIAGNOSTIC CATHETER	M0045427S0	5427S	Quad/7F/Standard Curve/5mm	C1730
	M0045570S0	5570S	Quad/6F/Standard Curve/5mm	C1730
	M0045571S0	5571S	Quad/6F/Standard Curve/10mm	C1730
	M0045572S0	5572S	Quad/6F/Standard Curve/2/5/2mm	C1730
	M0045573S0	5573S	Quad/6F/Longest Curve/5mm	C1730
	M0045574S0	5574S	Quad/6F/Longest Curve/2/5/2mm	C1730
	M00455750	5575	Hexa/6F/Standard Curve/2mm	C1730
	M00455760	5576	Hexa/6F/Standard Curve/2/5/2mm	C1730
	M00455770	5577	Hexa/6F/Longest Curve/5mm	C1730
	M00455780	5578	Hexa/6F/Longest Curve/20/5/5mm	C1730
	M00455790	5579	Octa/6F/Standard Curve/2/5/2mm	C1730
	M0049663S0	9663S	Quad/6F/Standard Curve/5mm	C1730
STEEROCATH-DX™ SPECIAL PROCEDURE OCTAPOLAR CATHETER	M0042027BL0	2027BL	Octa/7F/Standard Curve/2.5mm	C1730
	M0042028BL0	2028BL	Octa/7F/Standard Curve/2.5mm/5/ 2.5mm	C1730
POLARIS X™ STEERABLE MAPPING CATHETE	M0047000D0	70000D	Decapolar/6F/StandardCurve/2.5mm	C1730
	M0047001D0	70001D	Decapolar/6F/StandardCurve/5mm	C1730
	M0047003D0	70003D	Decapolar/6F/StandardCurve/2.5/5/2.5mm	C1730
	M0047004D0	70004D	Decapolar/6F/StandardCurve/2/8/2mm	C1730
	M0047005D0	70005D	Decapolar/6F/StandardCurve/2/10/2mm	C1730

Catheter, electrophysiology, diagnostic, 3-D mapping (19 or fewer electrodes)

Device Name	Model #	C-Code
EP-XT	200769, 200770,200772, 200794, 200795, 200796, 2000797, 201007	C1730
Dynamic XT	201101, 201102, 201103, 201104, 201105, 201106, 201107, 201108, 201109, 201110, 201112, 201113, 201114, 6DYNXT0020, 6DYNXT0140, 6DYNXT0150	C1730
Dynamic Tip	200131, 200344, 6DNYTP0010, 6DNYTP0020, 6DNYTP0060	C1730

Catheters – Temperature Ablation

Catheters, electrophysiology, diagnostic/ablation, other than 3-D or vector mapping, other than cool-tip

Device Name	UPN	Order #	Description	C-Code
POLARIS DX™ STEERABLE DIAGNOSTIC CATHETER	M004P5031TH0	P5031TH	Quad/7F/Standard Curve	C1733
	M004P5031THK20	P5031THK2	Quad/7F/Standard Curve	C1733
	M004P5031THN40	P5031THN4	Quad/7F/Asymmetric Curve	C1733
BLAZER PRIME HTD TEMPERATURE ABLATION CATHETER 8F/5MM	M004P5086TH0	P5086TH	Quad/8F/Standard Curve	C1733
	M004P5086THK20	P5086THK2	Quad/8F/Large Curve	C1733
	M004P5086THN40	P5086THN4	Quad/8F/Asymmetric Curve	C1733
BLAZER PRIME XP TEMPERATURE ABLATION CATHETER 8F/8MM	M004P4500TH0	P4500TH	Quad/8F/Standard Curve	C1733
	M004P4500THK20	P4500THK2	Quad/ 8F/Large Curve	C1733
	M004P4500THN40	P4500THN4	Quad/8F/Asymmetric Curve	C1733
BLAZER PRIME XP TEMPERATURE ABLATION CATHETER 8F/8MM CONTOUR TIP	M004P4770THK20	P4770THK2	Quad/8F/Large Curve/VM Tip	C1733
BLAZER PRIME XP TEMPERATURE ABLATION CATHETER 8F/10MM	M004P4790TH0	P4790TH	Quad/8F/Standard Curve	C1733
	M004P4790THK20	P4790THK2	Quad/8F/Large Curve	C1733
	M004P4790THN40	P4790THN4	Quad/8F/Asymmetric Curve	C1733
BLAZER® II XP TEMPERATURE 8F/8MM CONTOUR TIP	M0044770TH0	4770TH	Quad/7F/Standard Curve/8mm/Standard Distal	C1733
	M0044770THM0	4770THM	Quad/7F/Standard Curve/8mm/Medium Distal	C1733
	M0044770THK20	4770THK2	Quad/7F/Large Curve/8mm/Standard Distal	C1733
	M0044770THMK20	4770THMK2	Quad/7F/Large Curve/8mm/Medium Distal	C1733
	M0044770THN40	4770THN4	Quad/7F/Asymmetric 4 Curve/8mm/Standard Distal	C1733
BLAZER II XP TEMPERATURE 8F/8MM STRAIGHT TIP	M0044500TH0	4770TH	Quad/7F/Standard Curve/8mm/Standard Distal	C1733
	M0044500THM0	4770THM	Quad/7F/Standard Curve/8mm/Medium Distal	C1733
	M0044500THK20	4770THK2	Quad/7F/Large Curve/8mm/Standard Distal	C1733
	M0044500THMK20	4770THMK2	Quad/7F/Large Curve/8mm/Medium Distal	C1733
	M0044500THN40	4770THN4	Quad/7F/Asymmetric 4 Curve/8mm/Standard Distal	C1733
BLAZER® II TEMPERATURE HIGH TORQUE DISTAL 7F/4MM	M0045031TH0	5031TH	Quad/7F/Standard Curve/2.5mm/Standard Distal	C1733
	M0045031THK2	5031THK2	Quad/7F/Large Curve/2.5mm/Standard Distal	C1733
	M0045031THM0	5031THM	Quad/7F/Standard Curve/2.5mm/Medium Distal	C1733
	M0045031THMK20	5031THMK2	Quad/7F/Large Curve/2.5mm/Medium Distal	C1733
	M0045031THMN40	5031THMN4	Quad/7F/Asymmetric Curve/2.5mm/Medium Distal	C1733
	M0045031THN40	5031THN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Standard Distal	C1733

Catheters – Temperature Ablation (CONT.)

Catheters, electrophysiology, diagnostic/ablation, other than 3-D or vector mapping, other than cool-tip (CONT.)

Device Name	UPN	Order #	Description	C-Code
BLAZER II TEMPERATURE 7F/4MM TIP	M0045031T0	5031T	Quad/7F/Standard Curve/2.5mm/Standard Distal	C1733
	M0045031TK10	5031TK1	Quad/7F/Small Curve/2.5mm/Standard Distal	C1733
	M0045031TK20	5031TK2	Quad/7F/Large Curve/2.5mm/Standard Distal	C1733
	M0045031TN40	5031TN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Standard Distal	C1733
	M0045031TM0	5031TM	Quad/7F/Standard Curve/2.5mm/Medium Distal	C1733
	M0045031TMK20	5031TMK2	Quad/7F/Large Curve/2.5mm/Medium Distal	C1733
	M0045031TMN40	5031TMN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Medium Distal	C1733
	M0045031TL0	5031TL	Quad/7F/Standard Curve 20M21035 e/2.5mm/Extended Distal	C1733
BLAZER® II XP TEMPERATURE 8F/10MM STRAIGHT TIP	M0044790TH0	4790TH	Quad/7F/Standard Curve/10mm/Standard Distal	C1733
	M0044790THM0	4790THM	Quad/7F/Standard Curve/10mm/Medium Distal	C1733
	M0044790THK20	4790THK2	Quad/7F/Large Curve/10mm/Standard Distal	C1733
	M0044790THMK20	4790THMK2	Quad/7F/Large Curve/10mm/Medium Distal	C1733
	M0044790THN40	4790THN4	Quad/7F/Asymmetric 4 Curve/10mm/Standard Distal	C1733
BLAZER II HTD TEMPERATURE HIGH TORQUE DISTAL 8F/5MM TIP	M0045086TH0	5086TH	Quad/7F/Standard Curve/2.5mm/Standard Distal	C1733
	M0045086THK20	5086THK2	Quad/7F/Large Curve/2.5mm/Standard Distal	C1733
	M0045086THM0	5086THM	Quad/7F/Standard Curve/2.5mm/Medium Distal	C1733
	M0045086THMK20	5086THMK2	Quad/7F/Large Curve/2.5mm/Medium Distal	C1733
	M0045086THMN40	5086THMN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Medium Distal	C1733
	M0045086THN40	5086THN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Standard Distal	C1733
BLAZER® II TEMPERATURE 8F/5MM TIP	M0045086T0	5086T	Quad/7F/Standard Curve/2.5mm/Standard Distal	C1733
	M0045086TK20	5086TK2	Quad/7F/Large Curve/2.5m/Standard Distal	C1733
	M0045086TN40	5086TN4	Quad/7F/Asymmetric 4 Curve/2.5mm/Standard Distal	C1733
	M0045086TM0	5086TM	Quad/7F/Standard Curve/2.5mm/Medium Distal	C1733
	M0045086TMK20	5086TMK2	Quad/7F/Large Curve/2.5mm/Medium Distal	C1733
	M0045086TL0	5086TL	Quad/7F/Standard Curve/2.5mm/Extended Distal	C1733
	M0045086TK10	5086TK1	Quad/7F/Small Curve/2.5mm/Standard	C1733

Catheters – Temperature Ablation (CONT.)

Catheters, electrophysiology, diagnostic/ablation, other than 3-D or vector mapping, other than cool-tip (CONT.)

Device Name	UPN	Order #	Description	C-Code
IntellaTip MiFi™ XP Temperature Ablation Catheter 8F/8mm TIP	M00PM45000	PM4500	IntellaTip MiFi™ XP 8F / 8mm Standard Curve	C1733
	M004PM4500K20	PM4500K2	IntellaTip MiFi™ XP 8F / 8mm Large Curve	C1733
	M004PM4500N40	PM4500N4	IntellaTip MiFi™ XP 8F / 8mm Asymmetric 4 Curve	C1733
BLAZER® II TEMPERATURE 8F/5MM TIP	M00PM47900	PM4790	IntellaTip MiFi™ XP 8F / 8mm Standard Curve	C1733
	M004PM4790K20	PM4790K2	IntellaTip MiFi™ XP 8F / 8mm Large Curve	C1733
	M004PM4790N40	PM4790N4	IntellaTip MiFi™ XP 8F / 8mm Asymmetric 4 Curve	C1733

Sheaths – Transseptal

Steerable Sheaths

Introducer/sheath, guiding, intracardiac electrophysiological, steerable, other than peel- away

Device Name	UPN	Order #	Description	C-Code
Zurpaz Steerable Sheath	M004 USMC 8510 0	USMC8510	8.5F - Symmetric Curve	C1766
	M004 USMCA 8520 0	USMCA8520	8.5F - Asymmetric Curve	C1766
	M004 566055 0	566055	8.5F/55MH Curve/60cm	C1766
	M004 5660120S 0	5660120S	8.5F/120MH Curve(Short)/60cm	C1766
DiRex Steerable Sheath	M004 DS8501700 0	DS8501700	8.5F – Small Curve Straight Dilator	C1766
	M004 DS8501750 0	DS8501750	8.5F – Small Curve Curved Dilator	C1766
	M004 DS8502200 0	DS8502200	8.5F – Medium Curve Straight Dilator	C1766
	M004 DS8502250 0	DS8502250	8.5F – Medium Curve – Curved Dilator	C1766
	M004 DS8505000 0	DS8505000	8.5F – Large Curve – Straight Dilator	C1766
	M004 DS8505050 0	DS8505050	8.5F – Large Curve – Curved Dilator	C1766
	M004 DS1002200 0	DS1002200	10F – Medium Curve – Straight Dilator	C1766
	M004 DS1002250 0	DS1002250	10F – Medium Curve – Curved Dilator	C1766
	M004 DS1205000 0	DS1205000	12F – Large Curve – Straight Dilator	C1766
	M004 DS1205050 0	DS1205050	12F – Large Curve – Curved Dilator	C1766

Fixed Curve Braided Transseptal Sheath

Introducer/sheath, guiding, intracardiac electrophysiological, fixed curve, other than peel-away

Device Name	UPN	Order #	Description	C-Code
HeartSpan™ Fixed Curve Braided Transseptal Sheath	M004 566015 0	566015	8.5F/15MH Curve/60m	C1893
	M004 566030 0	566030	8.5F/30MH Curve/60cm	C1893
	M004 566055 0	566055	8.5F/55MH Curve/60cm	C1893
DiRex Steerable Sheath	M004 5660120S 0	5660120S	8.5F/120MH Curve(Short)/60cm	C1893
	M004 5660120L 0	5660120L	8.5F/120MH Curve(Long)/60cm	C1893
	M004 56601500 0	5660150	8.5F/150MH Curve/60cm	C1893
	M004 567915 0	567915	8.5F/15MH Curve/79.4cm	C1893
	M004 567955 0	567955	8.5F/55MH Curve/79.4cm	C1893
	M004 567990 0	567990	8.5F/90MH Curve/79.4cm	C1893
	M004 5679120 0	5679120	8.5F/120MH Curve(Long)/79.4cm	C1893
	M004 5610155 0	5610155	8.5F/55MH Curve/101.5cm	C1893

Catheters – Intracardiac Echocardiography

Catheters, intracardiac echocardiography

Device Name	UPN	Order #	Description	C-Code
ULTRA ICE™ CATHETER	M00499000	9900	Uice/9F/9MH Curve/110cm	C1893

Pericardiocentesis

Catheter, drainage

Device Name	UPN	Order #	Description	C-Code
PERIVAC™ PERICARDIO-CENTESIS KIT	M00443051	4305	Pericardiocentesis Kit W/Pigtail	C1729
	M00443151	4315	Pericardiocentesis Kit W/Straight	C1729

Correct coding should always be verified with your Medicare Administrative Contractors and fiscal intermediary and private payers.

Note: Some of the codes presented above may be used to code for a variety of procedures (diagnostic and therapeutic) employed in the field of electrophysiology, including atrial fibrillation, atrial flutter, AV Node, SVT and VT ablations. Please note that no Boston Scientific products are approved for sale in the US for atrial fibrillation ablations.

Direct questions regarding hospital outpatient C-Codes for Boston Scientific CRM and EP products or other reimbursement issues to the departments below.

For questions about market-released products: 1.800.CARDIAC (227.3422), ask for the Reimbursement Customer Support Line.

For questions about investigational products: Clinical Trial Reimbursement Services, 1.800.CARDIAC (227.3422)

1. Centers for Medicare and Medicaid Services: List of Device Category Codes for Present or Previous Pass-Through Payment and Related Definitions. Updated January 2013. Available at: http://www.cms.hhs.gov/HospitalOutpatientPPS/Downloads/DeviceCats_OPPSUpdate.pdf. Accessed October 22, 2013.

GUIDEPOINT Reimbursement Resources

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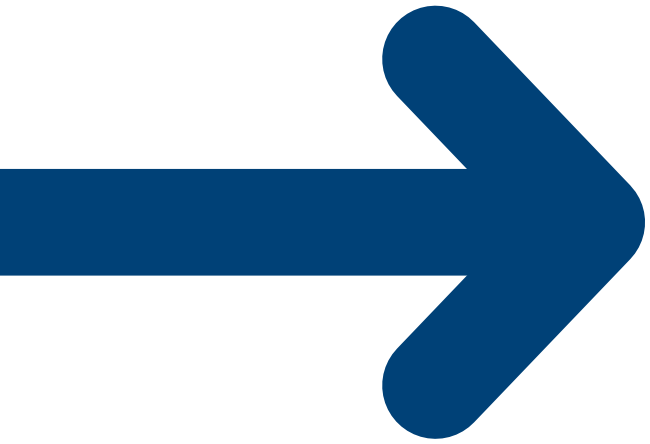

Appendix

CPT® Modifiers

RM129704-AC FEB2015

CPT® Modifiers

The list below provides modifiers applicable to CPT® 2013 codes. See the AMA's 2014 Current Procedural Terminology Professional Edition for full definitions.[1]

-22 Increased Procedural Services
-23 Unusual Anesthesia
-24 Unrelated Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional During a Postoperative Period
-25 Significant, Separately Identifiable Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional on the Same Day of a Procedure or Other Service
-26 Professional Component
-32 Mandated Services
-33 Preventive Services
-47 Anesthesia by Surgeon
-50 Bilateral Procedure
-51 Multiple Procedures
-52 Reduced Services
-53 Discontinued Procedure
-54 Surgical Care Only
-55 Postoperative Management Only
-56 Preoperative Management Only
-57 Decision for Surgery
-58 Staged or Related Procedure or Service by the Same Physician or Other Qualified Health Care Professional During the Postoperative Period
-59 Distinct Procedural Service
-62 Two Surgeons
-63 Procedure Performed on Infants less than 4 kg
-66 Surgical Team
-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 Operating/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 or Other Qualified Health Care Professional During the Postoperative Period
-80 Assistant Surgeon
-81 Minimum Assistant Surgeon
-82 Assistant Surgeon (when qualified resident surgeon not available)
-90 Reference (Outside) Laboratory
-91 Repeat Clinical Diagnostic Laboratory Test
-92 Alternative Laboratory Platform Testing
-99 Multiple Modifiers

CPT® Modifiers for Hospital Outpatient Use

The list below provides modifiers approved for hospital outpatient use (Level 1 [CPT®]). See the AMA's 2014 Current Procedural Terminology Professional Edition for full definitions.[1]

-25 Significant, Separately Identifiable Evaluation, and Management Service by the Same Physician or Other Qualified Health Care Professional on the Same Day of the Procedure or Other Service

-27 Multiple Outpatient Hospital E/M Encounters on the Same Date

-50 Bilateral Procedure

-52 Reduced Service

-58 Staged or Related Procedure or Service by the Same Physician or Other Qualified Health Care Professional During the Postoperative Period

-59 Distinct Procedural Service

-73 Discontinued Outpatient Procedure Prior to Anesthesia Administration

-74 Discontinued Outpatient Procedure After Anesthesia Administration

-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 Operating/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 or Other Qualified Health Care Professional During the Postoperative Period

-91 Repeat Clinical Diagnostic Laboratory Test

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Disclaimer

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Payer policies will vary and should be verified prior to treatment for limitations on diagnosis, coding or site of service requirements. The coding options listed within this guide are commonly used codes and are not intended to be an all-inclusive list. We recommend consulting your relevant manuals for appropriate coding options.

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