

# Pacemaker, ICD, and ICM Evaluations

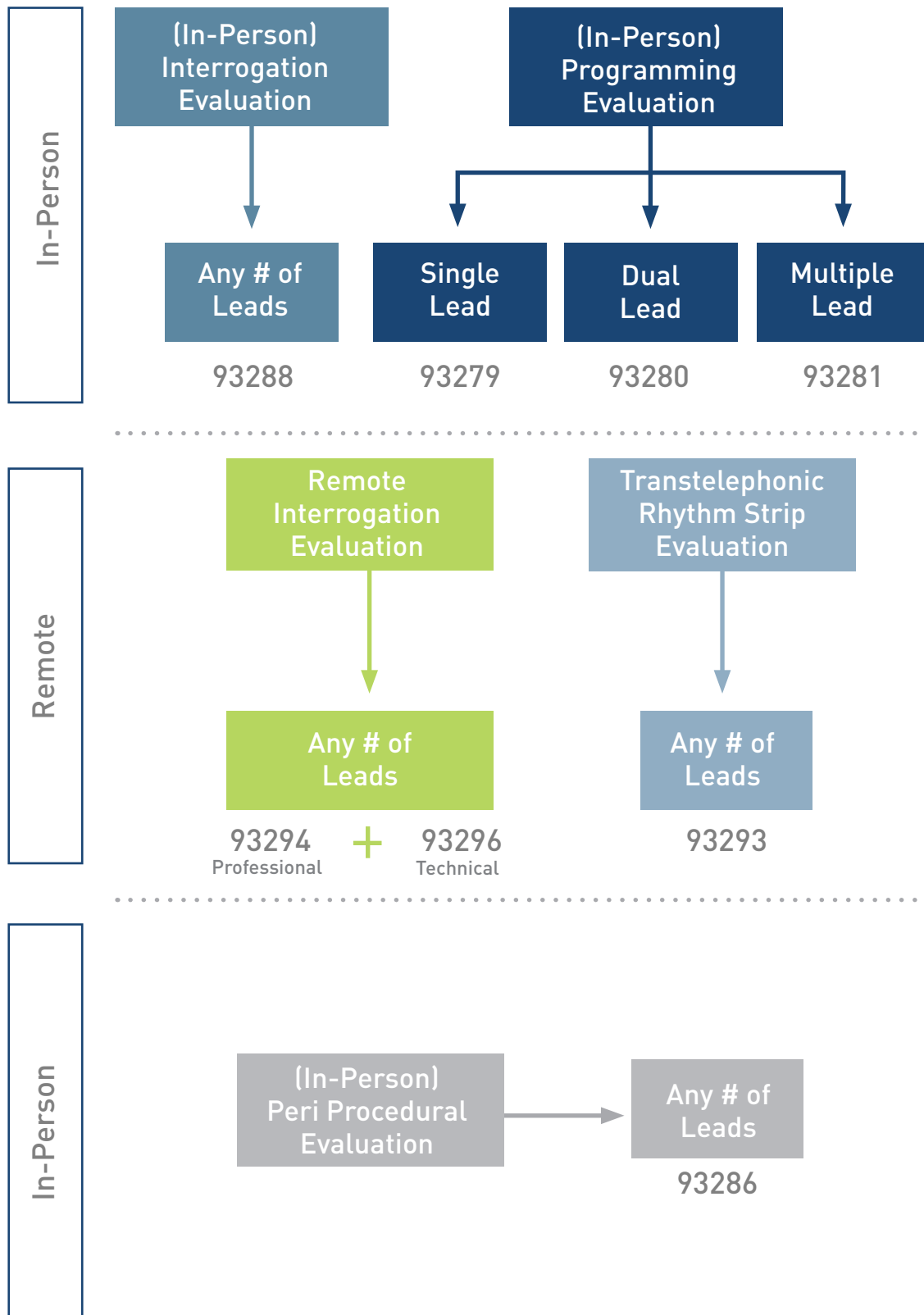
## 2016 Reimbursement Overview



Effective January 1, 2016

# PACEMAKER DEVICE MONITORING

## Common CPT® Codes and National Average Medicare Payment



	CPT Code	CPT Code Definition	2016 Medicare	
			Work RVUs <sup>1</sup>	Avg. Pymt. <sup>2</sup>
(In-Person) Interrogation Evaluation	93288	<i>Interrogation</i> 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; <i>single, dual, or multiple lead</i> pacemaker system	0.43	\$37.24
	93288	<i>(Professional Service Only)</i>		\$21.48
(In-Person) Programming Evaluation	93279	<i>Programming</i> 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; <i>single lead</i> pacemaker system	0.65	\$50.13
	93279	<i>(Professional Service Only)</i>		\$32.58
	93280	<i>Programming</i> 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; <i>dual lead</i> pacemaker system	0.77	\$58.72
	93280	<i>(Professional Service Only)</i>		\$39.03
	93281	<i>Programming</i> 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; <i>multiple lead</i> pacemaker system	0.90	\$68.74
	93281	<i>(Professional Service Only)</i>		\$45.47
Remote Interrogation Evaluation Per 90 Days	93294	<i>Interrogation</i> device evaluation(s) (remote), up to 90 days; <i>single, dual, or multiple lead</i> pacemaker system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional	0.65	\$34.37
	93296	<i>Interrogation</i> device evaluation(s), (remote), up to 90 days; <i>single, dual, or multiple lead</i> pacemaker system or implantable cardioverter-defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results	0.00	\$26.14
Transtelephonic Rhythm Strip Evaluation Per 90 Days	93293	Transtelephonic rhythm strip pacemaker evaluation(s) <i>single, dual or multiple lead</i> pacemaker system, includes recording with and without magnet application with analysis, review and report(s) by a physician or other qualified health care professional, up to 90 days	0.32	\$53.71
	93293	<i>(Professional Service Only)</i>		\$15.75
(In-Person) Peri-Procedural Interrogation	93286	Peri-procedural device evaluation (in person) and <i>programming</i> of device system parameters <i>before or after</i> a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; <i>single, dual or multiple lead</i> pacemaker system	0.30	\$27.57
	93286	<i>(Professional Service Only)</i>		\$15.40

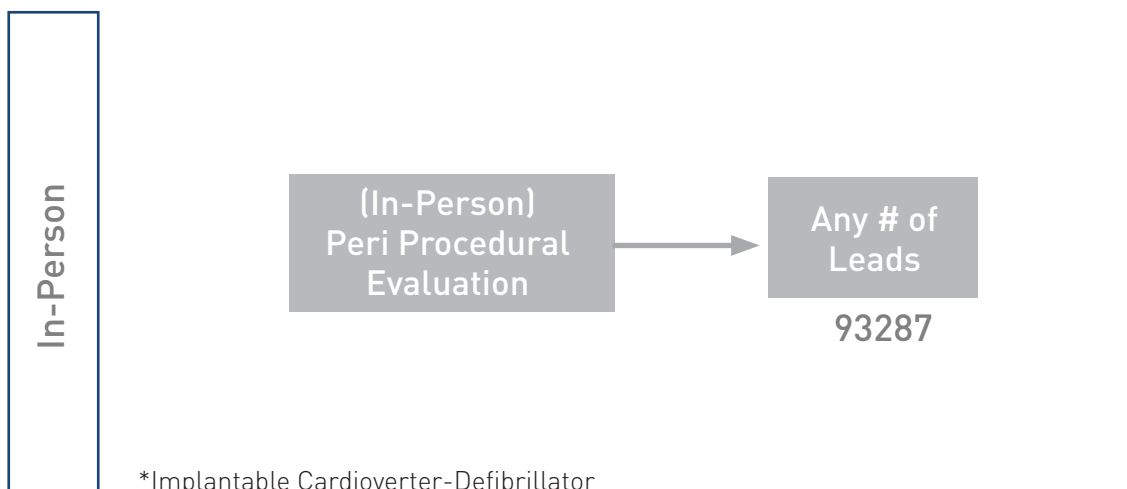
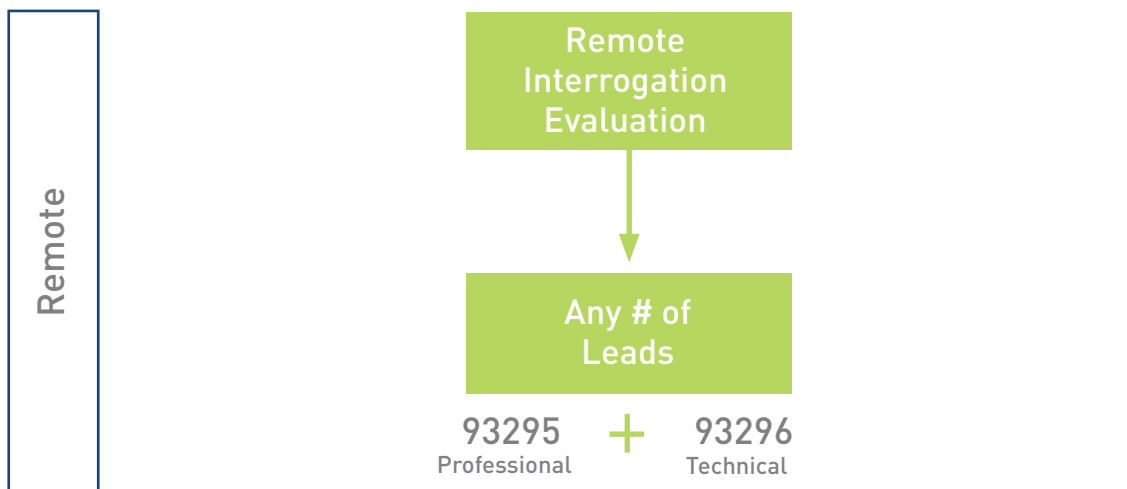
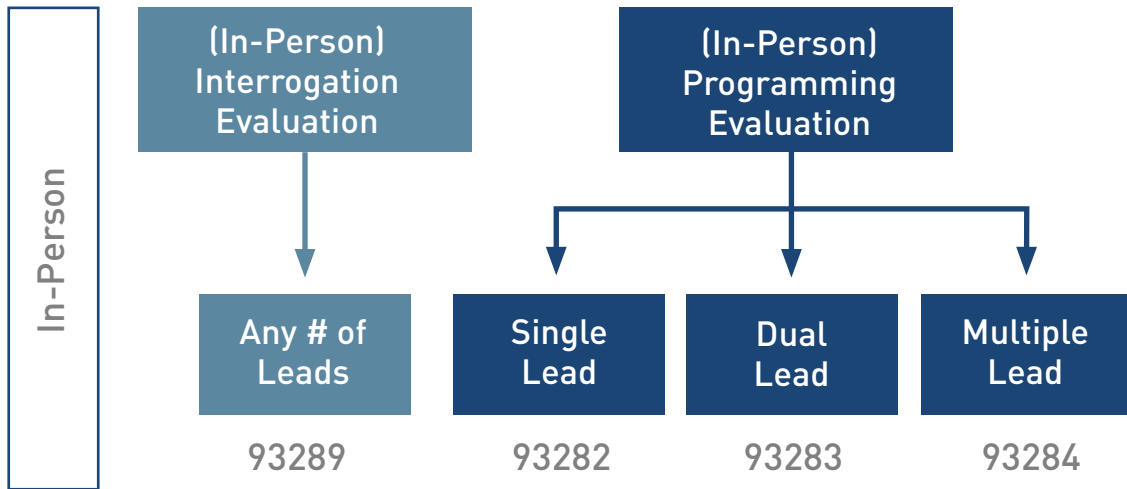
<sup>1</sup> RVU=Relative Value Unit

<sup>2</sup> Based on 2016 Medicare Conversion Factor of 35.8043

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# ICD\* DEVICE MONITORING

## Common CPT® Codes and National Average Medicare Payments



\*Implantable Cardioverter-Defibrillator

	CPT Code	CPT Code Definition	2016 Medicare	
			Work RVUs <sup>1</sup>	Avg. Pymt. <sup>2</sup>
<b>(In-Person) Interrogation Evaluation</b>	93289	<i>Interrogation</i> 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; <i>single, dual, or multiple lead</i> implantable cardioverter-defibrillator system, including analysis of heart rhythm derived data elements	0.92	\$65.88
	93289	<i>(Professional Service Only)</i>		\$46.19
<b>(In-Person) Programming Evaluation</b>	93282	<i>Programming</i> 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; <i>single lead</i> implantable cardioverter-defibrillator system	0.85	\$63.37
	93282	<i>(Professional Service Only)</i>		\$42.97
	93283	<i>Programming</i> 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; <i>dual lead</i> implantable cardioverter-defibrillator system	1.15	\$82.35
	93283	<i>(Professional Service Only)</i>		\$58.36
	93284	<i>Programming</i> 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; <i>multiple lead</i> implantable cardioverter-defibrillator system	1.25	\$90.94
	93284	<i>(Professional Service Only)</i>		\$63.73
<b>Remote Interrogation Evaluation Per 90 Days</b>	93295	<i>Interrogation</i> device evaluation(s) (remote), up to 90 days; <i>single, dual, or multiple lead</i> implantable cardioverter-defibrillator system with interim analysis, and review(s) and report(s) by a physician or other qualified health care professional	1.29	\$68.39
	93296	<i>Interrogation</i> device evaluation(s), (remote), up to 90 days; <i>single, dual, or multiple lead</i> pacemaker system or implantable cardioverter-defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results	0.00	\$26.14
<b>(In-Person) Peri-Procedural Interrogation</b>	93287	Peri-procedural device evaluation (in person) and <i>programming</i> of device system parameters <i>before or after</i> a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; <i>single, dual or multiple lead</i> implantable cardioverter-defibrillator system	0.45	\$36.52
	93287	<i>(Professional Service Only)</i>		\$23.27

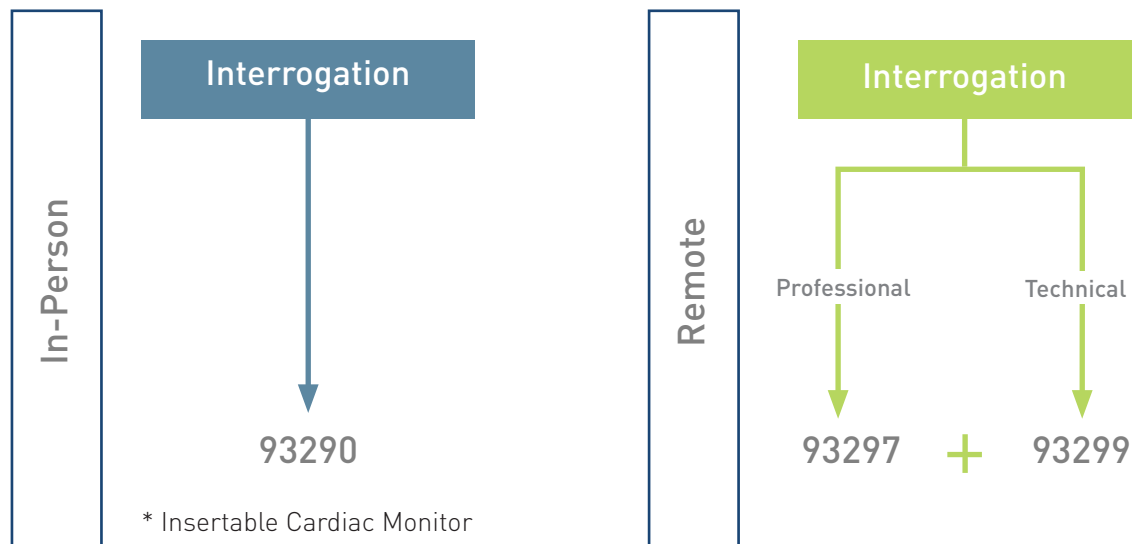
<sup>1</sup> RVU=Relative Value Unit

<sup>2</sup> Based on 2016 Medicare Conversion Factor of 35.8043

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# ICM\* DEVICE MONITORING

## Common CPT® Codes and National Average Medicare Payments



	CPT Code	CPT Code Definition	2016 Medicare	
			Work RVUs <sup>1</sup>	Avg. Pymt. <sup>2</sup>
<b>(In-Person) Interrogation Evaluation</b>	93290	<i>Interrogation</i> device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; implantable cardiovascular monitor system, including analysis of <i>1 or more recorded physiologic cardiovascular data elements from all internal and external sensors</i>	0.43	\$31.51
	93290	<i>(Professional Service Only)</i>		\$21.84
<b>Remote Interrogation Evaluation Per 30 Days</b>	93297	<i>Interrogation</i> device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system, including analysis of <i>1 or more recorded physiologic cardiovascular data elements from all internal and external sensors</i> , analysis, review(s) and report(s) by a physician or other qualified health care professional	0.52	\$22.84
	93299	<i>Interrogation</i> 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	0.00	<i>Determined by Regional Medicare Administrative Contractor (MAC)</i>

1 RVU - Relative Value Unit

2 Based on 2016 Medicare Conversion Factor of 35.8043

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# PACEMAKER, ICD, AND ICM EVALUATIONS

## Reimbursement Summary

The following table contains a summary of common pacemaker, ICD, and ICM device monitoring procedures. Information includes CPT billing codes, CPT frequency rules, and 2016 Medicare unadjusted global payment rates for physicians.

Procedure	Device	CPT Code	Work RVUs <sup>1</sup>	2016 Medicare Payment <sup>2</sup>	CPT Frequency
(In-Person) Interrogation Evaluation	<b>Pacemaker</b> Any number of leads	93288	0.43	\$37	Per encounter
	<b>ICD</b> Any number of leads	93289	0.92	\$66	
	<b>ICM</b>	93290	0.43	\$31	
(In-Person) Programming Evaluation	<b>Pacemaker</b> Single lead	93279	0.65	\$50	Per encounter
	Dual lead	93280	0.77	\$59	
	Multiple lead	93281	0.90	\$69	
	<b>ICD</b> Single lead (Note: includes BIOTRONIK DX ICD)	93282	0.85	\$64	
	Dual lead	93283	1.15	\$82	
	Multiple lead	93284	1.25	\$91	
	<b>S-ICD</b>	93260	0.85	\$66	
Remote Interrogation Evaluation	<b>Pacemaker</b> Any number of leads	93294 + 93296	0.65	\$60	Not more than once every 90 days
	<b>ICD</b> Any number of leads	93295 + 93296	1.29	\$94	
	<b>ICM</b>	93297 + 93299	0.52	\$27 <sup>3</sup>	Not more than once every 30 days
(In-Person) Peri-Procedural Interrogation	<b>Pacemaker</b> Any number of leads	93288	0.43	\$37	Per encounter (may bill for both pre- and post-procedure evaluations)
	<b>ICD or S-ICD</b> Any number of leads	93289	0.92	\$66	

<sup>1</sup> RVU=Relative Value Unit

<sup>2</sup> Based on 2016 Medicare Conversion Factor of 35.8043



## RESPONSES TO COMMON QUESTIONS

The following information is based entirely on third party sources including the Centers for Medicare and Medicaid Services (CMS), the American Medical Association (AMA), the American College of Cardiology (ACC), and the Heart Rhythm Society (HRS).

### GLOBAL PERIOD

**Q: Are device evaluations included in the 90-day surgical global period following a device implant?**

No. Pacemaker and ICD device evaluations are considered diagnostic tests and therefore are not included in the 90-day global period associated with a pacemaker or ICD implant procedure. These procedures may be billed, beginning with the day following the device implant. Device evaluations that occur on the same day of surgery should not be billed.

### REMOTE DEVICE MONITORING

**Q: Can a physician bill for a remote evaluation every 90 days, or up to four times a year?**

Yes. CPT rules allow billing for this procedure no more than once every 90 days.

**Q: In order to bill for remote device monitoring does a physician need to review a remote transmission every 90 days?**

No. CPT rules only require that at least one remote transmission be reviewed and documented in the medical record at least once during the 90-day monitoring period. This review can occur at any time after 30 days of monitoring has occurred during the period. Unless otherwise required by an insurance plan, it is not necessary to review and document the transmission on a specific day such as the last day of the period or day 90.

**Q: Does a physician need to review a stored intracardiac electrogram (IEGM) in order to bill for a remote interrogation evaluation (CPT code 93294 or 93295)?**

No. According to the American Medical Association (AMA) CPT Advisors representing the Heart Rhythm Society (HRS), the review and documentation of an ECG/rhythm strip is not required in order to bill for remote interrogations of pacemaker or ICDs.

**Q: Can a physician bill for both remote monitoring and transtelephonic monitoring of a pacemaker?**

No. A transtelephonic rhythm strip evaluation (i.e., 93293) may not be billed during the same 90-day period of a remote pacemaker evaluation (i.e., 93294 and 93296).

**Q: Can a physician bill for a remote evaluation each time that information is retrieved and reviewed by a physician or qualified health care professional?**

No. It is anticipated that multiple device evaluations may be required within each remote monitoring period. CPT rules allow physicians to bill for remote evaluations no more than once every 90 days.

### FREQUENCY OF IN-PERSON EVALUATIONS

**Q: Has CMS published any Medicare frequency guidelines for pacemaker or ICD evaluations?**

Not recently. CMS published a national coverage guideline nearly 20 years ago for transtelephonic monitoring and in-person clinic evaluations of pacemakers, but not ICDs. This guideline was last updated in October 2003, before the approval of new remote pacemaker evaluation CPT codes.

**Q: Can a physician bill for an in-person *programming* evaluation during the same 90-day period covered by a remote evaluation?**

Yes. A physician can bill for an in-person *programming* evaluation, but not an in-person *interrogation* evaluation.

**Q: How often can a physician bill for an in-person device *programming* evaluation when a patient is being remotely monitored?**

There are currently no frequency limitations for in-person device programming evaluations (i.e., 93279-93284). In general, in-person device programming evaluations may be performed as often as is medically necessary.

**Q: Can a physician bill for an in-person pacemaker or ICD battery check during the same period as for a remote device evaluation?**

No. If the in-person battery check involves *only* a passive download of information from the device (e.g., using a magnet), this procedure is classified as an *interrogation* evaluation (and not a programming evaluation), and therefore it cannot be billed during the same period as a remote evaluation.

**Q: If remote monitoring is terminated at or near the time that a device battery is depleted, or reaches Elective Replacement Indicator (ERI) status, can a physician bill for an in-person device interrogation evaluation each month until the device is replaced?**

Yes, if medically necessary. There are currently no frequency restrictions for completing in-person pacemaker or ICD interrogation evaluations (i.e., 93288 and 93289). In-person *interrogation* evaluations are not billable, however, if the patient is on remote monitoring.

### DOCUMENTATION

**Q: Given that the information obtained from remote device interrogations is stored on a computer, is there a need to keep this information in the patient's medical record?**

Yes. It is the responsibility of the physician to maintain a copy of the documentation specific to each billable service in the patient's medical record.



## RESPONSES TO COMMON QUESTIONS

**Q: What is the minimum amount of information that should be documented in order to bill for a remote or in-person pacemaker interrogation evaluation?**

In order to bill for a pacemaker interrogation evaluation (i.e., 93288), stored and measured information on the programmed parameters, lead(s) when present, battery, capture and sensing function(s) when present and heart rhythm must be evaluated. Therefore, a report showing this information as well any notes that describe the procedure should be documented in the patient's medical record.

**Q: What is the minimum amount of information that should be documented in order to bill for an in-person pacemaker programming evaluation (CPT codes 93279-93282)?**

In order to bill for a pacemaker programming evaluation (i.e., 93279-93281), stored and measured information on the programmed parameters, lead(s) when present, battery, capture and sensing function(s) when present, and heart rhythm must be evaluated. Often, but not always, the sensor rate response, lower and upper heart rates, AV intervals, pacing voltage, and pulse duration, sensing value and diagnostics will be adjusted during a programming evaluation. Therefore, a report showing this information as well any notes that describe the procedure should be documented in the patient's medical record.

**Q: What is the minimum amount of information that should be documented in order to bill for a remote or in-person ICD interrogation evaluation (CPT code 93289)?**

In order to bill for an ICD device interrogation (i.e., 93289), stored and measured information regarding the programmed parameters, lead(s) when present, battery, capture and sensing function(s) when present, presence or absence of therapy for ventricular tachyarrhythmias and the patient's underlying heart rhythm must be evaluated. Therefore, a reporting showing this information as well as any notes that describe the procedure should be documented in the patient's medical record.

**Q: What is the minimum amount of information that should be documented in order to bill for a remote or in-person ICD programming evaluation (CPT codes 93282-93284)?**

In order to bill for an ICD programming evaluation (i.e., 93282-93284), stored and measured information regarding the programmed parameters, lead(s) when present, battery, capture and sensing function(s) when present, presence or absence of therapy for ventricular tachyarrhythmias and the patient's underlying heart rhythm must be evaluated. Often, but not always, the sensor rate response, lower and upper heart rates, AV intervals, pacing voltage and pulse duration, sensing value, and diagnostics will be adjusted during a programming evaluation. In addition, ventricular tachycardia detection and therapies are sometimes altered depending on the interrogated data and the patient's rhythm, symptoms, and condition. Therefore, a report showing this information as well any notes that describe the procedure should be documented in the patient's medical record.

### USE OF DEVICE REPRESENTATIVES

**Q: Can a physician bill for the *technical* service of a remote or in-person device evaluation if a device manufacturer representative completes the entire service?**

No, physicians would only bill for the professional component of the service by appending a -26 modifier to the procedure code. In order to bill Medicare for the technical service of a procedure, physicians must either perform the procedure or appropriately supervise qualified staff who complete the procedure. In general, in-person device evaluations (CPT codes 93279-84, 93288-90) require "direct supervision" and remote device evaluations (CPT codes 93296, 93299) require "general supervision" by a physician. According to CMS claims processing guidelines, however, "supervision requirements for physician billing is *not* met when the test is administered by supplier personnel regardless of whether the test is administered at the physician's office or at another location". Providers should contact their local Medicare MAC or other expert sources for additional clarification as needed.

### OWNERSHIP OF EQUIPMENT

**Q: Can a physician bill for the *technical* service of a pacemaker or ICD device evaluation if the physician or facility does not own the device interrogation and programming equipment?**

Yes. The ownership of the device monitoring and programming equipment is not the determining factor for deciding whether or not a physician can bill for the technical service.

### PATIENT EVALUATIONS

**Q: Can a physician bill for a patient evaluation that occurs on the same day as an in-person device evaluation?**

Physicians may only bill for a patient evaluation (i.e., Evaluation and Management procedure) on *the same* day as an in-person device evaluation if the patient has symptoms that require a distinct clinical assessment above and beyond the device evaluation. A -25 modifier must be appended to the E/M procedure code to identify the procedure as a significant and separately identifiable service. Separate documentation of the procedure must be included in the patient's medical record.

### PATIENT DIAGNOSIS CODES

**Q: What ICD-10-CM<sup>1</sup> patient diagnosis code(s) should be used for pacemaker and ICD device evaluations?**

The following diagnosis codes are commonly used when a patient does not have any symptoms or device complications:  
*Z95.0 Presence of cardiac pacemaker; Z95.810 Presence of automatic (implantable) cardiac defibrillator; Z45.010 Encounter for checking and testing of cardiac pacemaker pulse generator [battery]; Z45.018 Encounter for adjustment and management of other part of cardiac pacemaker; or to Z45.02 Encounter for adjustment and management of automatic implantable cardiac defibrillator. In general, codes Z95.0 and Z95.810 are used for periodic, routine remote, and in-person device monitoring evaluation, and Z45.010, Z45.018 and Z45.02 are used when the device is reprogrammed or other adjustments are necessary.*

If the patient has symptoms or a device complication, the appropriate diagnosis code(s) that describes these conditions should be used.

<sup>1</sup> International Classification of Diseases, 10<sup>th</sup> Revision, Clinical Modification

# RESPONSES TO COMMON QUESTIONS

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## IMPLANTABLE CARDIOVASCULAR MONITORS (ICMs)

### Q: What is an Implantable Cardiovascular Monitor (ICM)?

An Implantable Cardiovascular Monitor, or ICM, is a new term used to describe medical devices that collect *longitudinal, physiologic cardiovascular data elements from one or more internal or external* sensors. This information can be used to assist physicians in managing *non-rhythm* related cardiac conditions, such as heart failure. An ICM may be an additional function of an implantable cardiac device (e.g., a cardiac resynchronization therapy defibrillator [CRT-D]) or a function of a stand-alone device.

### Q: What type of data does an Implantable Cardiovascular Monitor (ICM) collect?

Common data collected by *internal* ICM sensors include right ventricular pressure, left atrial pressure, respiratory rate, and an index of lung water, such as transthoracic impedance. Common data collected by *external* ICM sensors include blood pressure and body weight. The data are stored and transmitted to the physician by either local telemetry or remotely to an Internet-based file server or surveillance technician.

### Q: Can a physician bill for an ICM evaluation in addition to the ICD device evaluation?

Yes. The data and mechanisms used to monitor and control heart rhythms such as sensing, pacing and tachycardia detection are separate and distinct from the physiologic data collected by ICM sensors used to monitor patient conditions. Therefore, the monitoring processes are also intended to be distinct and separately billable events.

### Q: Can a physician bill for reviewing the data when it is collected from an ICD device while the patient is being evaluated in person?

Yes. CPT code [93290] is used to describe an in-person evaluation of an ICM. This CPT code may be billed for each medically necessary in-person ICM evaluation.

### Q: How often can physicians bill for an ICM evaluation?

The CPT codes for remote ICM evaluations [93297 & 93299] can not be billed more than once every 30 days. Therefore, if medically necessary, a physician may bill for remote ICM evaluations as often as every 31 days.

### Q: What is the Medicare payment amount for CPT code 93299?

Neither CMS or the American Medical Association (AMA) CPT panel have assigned a national relative value unit (RVU) for this billing code. Rather, payment rates are assigned by the regional Medicare Administrative Contractor (MAC). Payment rate varies significantly depending on the MAC.

### Q: How much ICM data must be reviewed by a physician during each 30-day monitoring period?

CPT guidelines require that at least 10 days of data be evaluated in order to use CPT codes 93297 and 93299.

## PATIENT COPAY

### Q: Are patients required to pay a copay each time a physician submits a bill for an ICM evaluation?

Yes. Patients with traditional Medicare insurance are responsible for paying 20% of the Medicare-allowed payment rate each time that a physician bills for an ICM evaluation. Many patients with Medicare insurance, however, purchase a secondary insurance plan (called MediGap) that covers the cost of all Medicare coinsurance, copays, and deductibles. In this case, the physician may bill the patient's secondary insurance plan to collect these fees. In addition, most health insurance plans also require patients to pay a copay for each physician service or office visit including remote device evaluations.

## GUIDELINES

### Q: Do any health insurance plans have coverage policies for ICMs, or transthoracic impedance evaluations?

To our knowledge, Medicare has not published any coverage decisions for ICMs or transthoracic impedance. Physicians must determine whether or not the evaluation of ICM data is 'reasonable and necessary' as required by Medicare laws and regulations. Some private insurers may have coverage policies that apply to transthoracic impedance. Providers should check with insurance plans to be sure they cover ICM procedures.

### Q: Are there any published clinical guidelines related to ICMs or transthoracic impedance (TI)?

No. We are not aware of any clinical guidelines or standards published by the Heart Failure Society of America (HFSA), the American College of Cardiology (ACC), or from other professional societies that include a clinical opinion on the appropriate use of TI.



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BIOTRONIK, Inc.  
6024 Jean Road  
Lake Oswego, OR 97035-5369  
(800) 547-0394 (24-hour)  
(800) 291-0470 (fax)  
www.biotronik.com

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