Pacemaker & Defibrillator Procedures

Jim Collins, CPC, CCC
President, CardiologyCoder.Com, Inc.
The 4 Pathways to Pacemaker Coverage

MAC Interpretation (symptomatic)
Blocks:
- AV Block unspec (I44.30)
- 1st Degree AV Block (I44.0)
- LBB other/unspecified (I44.7)
- RBB other/unspec (I45.10, I45.19)
- BBB unspec (I45.10, I45.19), RBB w/fasicular block (I45.2), other BBB (I45.2)
- Bifascicular block (I45.2)
- Trifascicular block (I45.3)

SVTs (I47.1, I49.9)
Persistent AF (I48.1)
Unspecified AF (I48.91)
Atrial flutters (I48.3, I48.4, I48.92)
Carotid sinus syncope (G90.01)

MAC Interpretation (asymptomatic)
1st Degree AV Block (I44.0)
2nd Degree AV Block (I44.1)
Complete AV Block (I44.2)
SSS (I49.5)

CMS Published Coverage
Documented non-reversible symptomatic bradycardia due to sinus node dysfunction, or AV Block (2nd or 3rd Degree)

5 MAC Defined Indications (no codes provided):
1. Cardiac resynchronization therapy
2. Obstructive hypertrophic cardiomyopathy
3. Pacemaker/Generator replacements
4. Sustained pause-dependent VT
5. Pacing in children, adolescents, & patients with congenital heart disease

Narrative for indications across all MACs is the same. The ICD-10 codes that correlate with the "asymptomatic" indications were only published in the WPS article – they are summarized above.

Source: Nationwide Local Coverage Analyses

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1) CMS Published Coverage – KX Modifier

- Documented non-reversible **symptomatic bradycardia** due to:
  
  - AV Block Complete (I44.2)
  - AV Block 2nd Degree (I44.1)
  - Sick Sinus Syndrome (I49.5)
  - Congenital Heart Block (Q24.6)

  Add KX Modifier to 33206 – 33208  
  “Requirements specified in the medical policy have been met”

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**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).
2) MAC Interpretation – Symptomatic – KX Modifier

Each MAC published a Local Coverage Article which provides additional diagnosis codes interpreted by the MAC to be covered by CMS national coverage:

- **Heart Blocks:**
  1. Atrioventricular block, unspecified (Symptomatic)
  2. First degree atrioventricular block (Symptomatic with PR interval more than 300 ms)
  3. Left bundle branch block, other or unspecified
  4. Right bundle branch block, unspecified or other
  5. Bundle branch block, unspecified
  6. Right bundle branch block and left posterior fascicular block
  7. Right bundle branch block and left anterior fascicular block
  8. Other bilateral bundle branch block
  9. Bifascicular block
  10. Trifascicular block

- **Atrial Arrhythmias:**
  1. SVT in which a pacemaker is specifically for control of the tachycardia
  2. SVT that is reproducibly terminated by pacing when catheter ablation and/or drugs fail to control the arrhythmia or produce intolerable side effects
  3. Atrial fibrillation with symptomatic bradycardia due to necessary medical therapy
  4. Atrial flutter with symptomatic bradycardia due to necessary medical therapy

- **Other:**
  1. Hypersensitive carotid sinus syndrome and neurocardiogenic syncope (Syncope without clear, provocative events and with a hypersensitive cardioinhibitory response of 3 seconds or longer or for significantly symptomatic neurocardiogenic syncope associated with bradycardia documented spontaneously or at the time of tilttable testing

Source: Nationwide Local Coverage Analyses
3) MAC Interpretation – Asymptomatic – KX Modifier

- Awake, symptom-free patients in sinus rhythm, with documented periods of asystole greater than or equal to 3.0 seconds or any escape rate less than 40 beats per minute (bpm), or with an escape rhythm that is below the AV node

- Awake, symptom free patients with atrial fibrillation and bradycardia with one or more pauses of at least 5 seconds or longer

- Catheter ablation of the AV junction

- Postoperative AV block that is not expected to resolve after cardiac surgery

- Patients with neuromuscular diseases, e.g., myotonic muscular dystrophy, Kearns-Sayre syndrome, Erb dystrophy, and peroneal muscular atrophy, with third degree and advanced second degree AV block at any anatomic level. Asymptomatic persistent third degree AV block at any anatomic site with average awake ventricular rates of 40 bpm or faster if cardiomegaly or LV dysfunction is present or if the site of block is below the AV node

- Second or third degree AV block during exercise in the absence of myocardial ischemia

- Persistent third degree AV block with an escape rate greater than 40 bpm in asymptomatic adult patients without cardiomegaly

- Asymptomatic second degree AV block at intra or infra His levels found at electrophysiological study

- First or second degree AV block with symptoms similar to those of pacemaker syndrome or hemodynamic compromise

- Asymptomatic type II second degree AV block with a narrow QRS.

- Second degree AV block with a wide QRS including isolated right bundle branch block

Source: Nationwide Local Coverage Analyses
4) MAC Defined Indications - SC Modifier

All MACs introduced 5 indications that were not associated with the nationally mandated indications. ICD-10 codes were not provided, possible ICD-10 codes are parenthetically listed:

1. Cardiac resynchronization therapy
   - QRS > 120ms - Abnormal ECG (R94.31)
   - LVEF ≤ 35% - Abnormal: Echo (R93.1), Function Study (R94.30/R94.39)
   - CMS

   **Conclusions:** There is convincing evidence that CRT-D is effective with regard to improvements in multiple clinical outcomes compared to an ICD alone in patients with an LVEF ≤ 35% and a QRS duration ≥ 120ms. Similarly, there is convincing evidence that CRT-P is effective in improving multiple clinical endpoints compared to optimal medical therapy alone in the same population. The certainty of these findings varies based on NYHA class. Female gender, LBBB, a wider QRS duration, sinus rhythm, and non-ischemic cardiomyopathy are associated with

2. Obstructive hypertrophic cardiomyopathy (I42.1)
3. Pacing in children, adolescents, & patients with congenital heart disease (Q20 – Q24)
4. Pacemaker/Generator replacements
   - No ERI/EOL diagnosis codes exist
   - Use clinical indications for device implant
5. Sustained pause-dependent VT (I47.2 – VT)

Source: Nationwide Local Coverage Analyses
In addition, be aware of the following:

- MACs will deny claims for implanted dual chamber for one of the following CPT codes: 33206, 33207, or 33208 and contains at least one of the following ICD-9-CM/ICD-10-CM diagnosis codes (even if submitted with at least one of the acceptable diagnosis codes listed above):
  - 426.11/I44.0
  - 427.31/I48.1/I48.2/I48.91
  - 427.32/I48.2/I48.3/I48.4/ or I48.91
  - 427.89/I49.8/ R00.1
  - 780.2/R55.

Jim’s Paraphrase: 1st Degree AV Block, A Fib, A Flutter, Unspecified arrhythmias, bradycardia, syncope

Bradycardia is the primary indication for implant

Syncope was presented as a textbook perfect symptom

When these ICD-10 codes are on the claim, payment is blocked - even if one of the covered codes is also on the claim.
NCD for Defibrillators: Circa 2005

Primary Prevention
• 6 indications
• 3 wait periods
• Q0 (Q-Zero) modifier
• Registry ID Required:
  • Electronic: 01999140
  • Paper: CT01999140

Secondary Prevention
• Cardiac arrest
  • Not transient
  • Not reversible
• Sustained VT
  • Not transient
  • Not reversible
  • Not MI related
## Primary Prevention Indications

- EF ≤ 30%, Prior MI (> 40 days old), No class IV HF
- EF ≤ 35%, CAD, Old MI (> 40 days), induced, sustained VT/VF > 4 weeks post MI
- EF ≤ 35% IDC, prior MI (> 40 days old), class II or III HF
- EF ≤ 35%, NIDCM > 3 months, class II or III HF
- CRT indication (EF ≤ 35%, QRS ≥ 120 ms*) & class IV HF
  *CRT indication based on CMS Technology Assessment
- Inherited high risk of VT: Long QT, hypertrophic cardiomyopathy

## Secondary Prevention Indications

- Cardiac arrest due to VF - not transient or reversible cause
- Sustained VT - not associated with MI, transient, or reversible
Possible ICD Implant ICD-10 Codes

<table>
<thead>
<tr>
<th>Condition</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long QT Syndrome</td>
<td>I45.81</td>
</tr>
<tr>
<td>Hypertrophic cardiomyopathy</td>
<td>I42.2</td>
</tr>
<tr>
<td>Ischemic cardiomyopathy</td>
<td>I25.5</td>
</tr>
<tr>
<td>Dilated cardiomyopathy</td>
<td>I42.0</td>
</tr>
<tr>
<td>Unspecified cardiomyopathy</td>
<td>I42.9</td>
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<tr>
<td>Coronary artery disease</td>
<td>I25.10</td>
</tr>
<tr>
<td>Old myocardial infarction</td>
<td>I25.2</td>
</tr>
<tr>
<td>Abnormal echo</td>
<td>R93.1</td>
</tr>
<tr>
<td>Other abnormal cardiovascular function study</td>
<td>R94.30</td>
</tr>
<tr>
<td>Ventricular fibrillation</td>
<td>I49.01</td>
</tr>
<tr>
<td>Ventricular tachycardia</td>
<td>I47.2</td>
</tr>
<tr>
<td>Heart failure</td>
<td>I50.9</td>
</tr>
<tr>
<td>Cardiac arrest</td>
<td>I46.9</td>
</tr>
</tbody>
</table>
Primary Prevention Wait Periods

- Must not have had a CABG or PTCA within the past 3 months.
- Must not have had an acute MI within the past 40 days.
- Primary Prevention indication # 7 (NIDCM patients) must have had the diagnosis of Non-Ischemic Dilated Cardiomyopathy for at least 3 months:
  - Listed as 9 months in indication 7, reduced to 3 months by indication 9 if enrolled in a trial or registry.
  - CMS requires enrollment in the registry for all primary prevention indications so the 9 month wait has never applied.
Initial Implant of a System

• Pacemaker:
  • 33206 - Implant a PM generator and an rt. atrial lead
  • 33207 - Implant a PM generator and a rt. ventricular lead
  • 33208 - Implant PM generator, RA lead, & RV lead

• Defibrillator:
  • 33249 – single/dual chamber ICD system implant
    • Add defibrillation threshold test when performed
      • 93640 - DFT of leads only (not the generator)
      • 93641 - DFT of system at time of implant
      • 93642 - DFT of system on subsequent day
  • 33270 – subcutaneous ICD implant & DFT
Left Ventricular Lead Implant

- Left ventricular lead implant is an “add-on” service. The LV lead implant code should be reported in addition to the appropriate system implant or generator change code.
  - 33224 - add LV lead to previously implanted generator
  - 33225 - add LV lead to new generator
  - 33226 - repositioning previously implanted LV lead

- Abandoned LV lead implant:
  - Report the LV lead code with the 53 modifier (33225-53)
    - 53 – “Discontinued Procedure”
    - Document difficulties in laymen’s terms, in the report
    - Denial in about 2 weeks = request for documentation
    - Submit cover letter explaining what happened
    - Submit operative report with laymen’s terms highlighted

- “it is not appropriate to separately report the venous access... and venography (including fluoroscopic guidance) as this is considered inherent” CPT Assistant June, 2012
Venography: Not Billable

- “Diagnostic venography (radiological supervision and interpretation) codes should NOT be used with interventional procedures for: Contrast injections, venography, roadmapping, and/or fluoroscopic guidance for the intervention.”

- “Question: During the insertion of a dual-chamber implantable cardioverter-defibrillator, the physician indicated a left subclavian venogram was obtained to facilitate entry. Is it appropriate to report code 75820... Answer: No. The service described is not a diagnostic venogram, but is rather used for guidance of the leads "obtained to facilitate entry." Therefore, it would not be appropriate to separately report code 75820.”

- 75820 - Venography, extremity, unilateral, radiological supervision and interpretation
- 75860 - Venography, venous sinus (eg, petrosal and inferior sagittal) or jugular, catheter, radiological supervision and interpretation
  - Cerebral Sinus, NOT Coronary Sinus
Generator Change

**Pacemaker**

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

**Defibrillator**

- **33262** - Removal of pacing cardioverter-defibrillator pulse generator with replacement of pacing cardioverter-defibrillator pulse generator; **single** lead system
- **33263** - Removal of pacing cardioverter-defibrillator pulse generator with replacement of pacing cardioverter-defibrillator pulse generator; **dual** lead system
- **33264** - Removal of pacing cardioverter-defibrillator pulse generator with replacement of pacing cardioverter-defibrillator pulse generator; **multiple** lead system

Also report DFT (93640 vs. 93641) when performed.
Generator Change & New RA/RV Lead

• If a right-sided lead (RA or RV) is implanted at the time of a generator change, DO NOT report the generator change codes:
  • Report everything that is removed:
    • Generator: 33233 (PM) vs 33241 (ICD)
    • Electrodes: 33234/33235 (PM), 33244 (ICD)
  • Report everything that is implanted, with the system implant code which accurately describes the hardware personally implanted by the physician:
    • Pacemaker: 33206, 33207, 33208
      • Differentiated by which components are implanted
      • Dual generator change + RA lead = 33233 & 33206 (single chamber syst.)
    • Defibrillator: 33249
      • Also report DFT (93641) when performed
  • Also report pocket relocation (33222/33223) or LV lead implant (33225) when applicable.
Generator Change Out & New LV Lead
(no RA/RV Lead)

• If a left ventricular (LV) lead is implanted at the time of a generator change, report the LV lead code (33225) and the generator change code reflecting the system the patient receives:
  • Pacemaker: single (33227), dual (33228), multi (33229)
  • Defibrillator: single (33262), dual (33263), multi (33264)

• Dual chamber ICD generator change + LV lead = 33264 + 33225

• Guidance from the American Medical Association:
  • “When an existing pacing cardioverter-defibrillator pulse generator is replaced with a system that is different from the existing system, code selection should be based on the final lead system inserted”
  • “if a pacing cardioverter-defibrillator pulse generator dual-lead system is removed and a multiple-lead system is inserted, code 33264 for a multiple-lead system should be reported.”

June, 2012 AMA CPT Assistant
Subcutaneous ICD (S-ICD)

- **SICD Electrode (only) Procedures**
  - Insertion – 33271
  - Removal – 33272
  - Reposition – 33273

- **SICD Generator (only) Procedures**
  - Insertion – 33240
  - Removal – 33241
  - Generator change – 33262

- **Sub-Q DFT (not at time of system implant)**
  - 93644-26 - Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)
Reposition & Repair Services

Pocket Relocation: 33222 (PM), 33223 (ICD)
- The pocket needs to be moved from one location to another
- Pocket revision is no longer billable
- National coding edits necessitate modifier 59 on codes 33222 & 33223 when pocket relocation is performed with the majority of codes in this presentation (59 Modifier - Distinct Procedural Service)

Lead Repositioning: 33215 Reposition RA or RV electrode
- Open the pocket, handle the generator, reposition the lead
- Electronic repositioning is not billed with this code
- If both leads are repositioned bill 33215 & 33215

Lead Repair: PM or ICD
- 33218 Repair single lead
- 33220 Repair multiple leads
Upgrade – Single to Dual Chamber PM

When upgrading from a single chamber pacemaker to a dual chamber pacemaker we must use code 33214:

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)

Don’t bill separately for:

Removal of old generator
Implantation of new generator
Implantation of new lead
Seldom Performed Services

Only apply when a new generator is inserted (by itself) and no old generator is removed – example, hooking up a new generator to epicardially placed leads.

• **Pacemaker**
  • 33212 - Insertion of pacemaker pulse generator only; with existing single lead
  • 33213 - Insertion of pacemaker pulse generator only; with existing dual leads
  • 33221 - Insertion of pacemaker pulse generator only; with existing multiple leads

• **Defibrillator**
  • 33240 - Insertion of pacing cardioverter-defibrillator pulse generator only; with existing single lead
  • 33230 - Insertion of pacing cardioverter-defibrillator pulse generator only; with existing dual leads
  • 33231 - Insertion of pacing cardioverter-defibrillator pulse generator only; with existing multiple leads
Right Atrial or Ventricular Lead Implant

• These codes only apply if no generator is implanted during the case:
  • 33216 - Insertion of a single transvenous electrode, permanent pacemaker or cardioverter-defibrillator
  • 33217 - Insertion of 2 transvenous electrodes, permanent pacemaker or cardioverter-defibrillator
• Same code for pacemakers and defibrillators
• Do not report fluoroscopy (76000)
Moderate Sedation

• Included in procedural payment until 2017
• Sedation, and its associated payment, is now carved out.
  • Expected 2017 payment for dual chamber pacemaker (33208)
    • 2016 payment = $553.53 +
    • 2017 MACRA & Budget Neutrality adj. (0.24%) = $1.32
    • Expected 2017 payment = $554.85
  • Actual 2017 payment = $543.35

• Total reduction for moderate sedation = $11.50

Applies to: implantable loop recorder surgeries, pacemaker surgeries, defibrillator surgeries, EP studies, ablations, cardioversions (internal and external), and transesophageal echo.
Moderate Sedation Coding

• Moderate sedation is billable in 15-minute increments
  • 1st 15 minute code billable after 10 minutes
  • Additional 15-minute code billable after 23 minutes

• 2 sets of codes
  • Sedation by operator:
    • 99152 – 1st 15 minutes (0.25 wRVU)
    • 99153 – each addtl. 15 minutes (no wRVU)
  • Sedation by other qualified professional:
    • 99156 – 1st 15 minutes (1.65 wRVU)
    • 99157 – each addtl. 15 minutes (1.25 wRVU)

• Some procedures are reported with multiple codes that each had moderate sedation carved out of them - unintended payment reduction:
  • Defibrillator implant (33249) & DFT (93641)
  • Electrode removal, electrode repair, or skin pocket relocation at the time of a device procedure (implant, gen change)

For patients <5 yrs. Old substitute 99151 for 99152 and 99155 for 99156

*2017 Medicare Physician Fee schedule – National Average payment
Moderate Sedation Documentation

• The operative report needs to support the codes reported
  • 99152 - Moderate sedation services provided by the same physician or other qualified health care professional performing the diagnostic or therapeutic service that the sedation supports, requiring the presence of an independent trained observer to assist in the monitoring of the patient’s level of consciousness and physiological status; initial 15 minutes of intraservice time, patient age 5 years or older
    • Establish “administration of moderate sedation”
    • Establish duration of intraservice time
      • Starts when sedating agent(s) are administered
      • Ends with the procedure – when face-to-face time concludes
    • Document the presence of a dedicated, trained observer
  • 99156 - Moderate sedation services provided by a physician or other qualified health care professional other than the physician or other qualified health care professional performing the diagnostic or therapeutic service that the sedation supports; initial 15 minutes of intraservice time, patient age 5 years or older
    • Same as above, but no need for a dedicated, trained observer
Services Not Included in PM/ICD Surgery

• Evaluation of the patient to determine the need for surgery.
  • Modifier 57 on E&M for the decision for major surgery.

• Treatment for the underlying condition or unrelated conditions
  • Modifier 24 is needed on the appropriate E&M service.

• Diagnostic tests and procedures
  • Device checks, remote monitoring, etc...

• Complications that require a return trip to the operating room
  • Modifier 78 is needed on the surgical service
  • Examples:
    • 10140-78 - Incision and drainage of hematoma, seroma or fluid collection
    • 10180-78 - Incision and drainage, complex, postoperative wound infection
99024 - $0 Postoperative Charge Code

• Only practitioners who practice in groups with 10 or more practitioners in Florida, Kentucky, Louisiana, Nevada, New Jersey, North Dakota, Ohio, Oregon, and Rhode Island will be required to report.

• Practitioners are encouraged to begin reporting post-operative visits for procedures furnished on or after January 1, 2017, but the mandatory requirement to report will be effective for services related to global procedures furnished on or after July 1, 2017.

• Practitioners who only practice in smaller practices or in other geographic areas are encouraged to report data, if feasible.

• Reporting will be required only for services related to codes reported annually by more than 100 practitioners and that are reported more than 10,000 times or have allowed charges in excess of $10 million annually.
  • 33207 (single chamber PM), 33208 (dual chamber PM), 33228 (dual PM gen change)
  • 33249 (ICD implant), 33263 (dual ICD gen change), 33264 (multi ICD gen change)
  • 33282 (ILR implant)

2017 Physician Fee Schedule
Frequency of In Person Device Checks

JACC October 2, 2012

“Minimum Frequency” Guidelines

- At a minimum, in person programming evaluations should be performed:
  - Within 72 hours of device implantation
  - 2–12 weeks after device implantation
  - At least annually until battery depletion

More frequent checks may be necessary.

Table 3. Minimum Frequency of CIED In-Person or Remote Monitoring*

<table>
<thead>
<tr>
<th>Type and Frequency</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacemaker/ICD/CRT</td>
<td></td>
</tr>
<tr>
<td>Within 72 h of CIED implantation</td>
<td>In person</td>
</tr>
<tr>
<td>2–12 wk postimplantation</td>
<td>In person</td>
</tr>
<tr>
<td>Every 3–12 mo for pacemaker/CRT-Pacemaker</td>
<td>In person or remote</td>
</tr>
<tr>
<td>Every 3–6 mo for ICD/CRT-D</td>
<td>In person or remote</td>
</tr>
<tr>
<td>Annually until battery depletion</td>
<td>In person or remote</td>
</tr>
<tr>
<td>Every 1–3 mo at signs of battery depletion</td>
<td>In person or remote</td>
</tr>
<tr>
<td>Implantable loop recorder</td>
<td></td>
</tr>
<tr>
<td>Every 1–6 mo depending on patient symptoms and indication</td>
<td>In person or remote</td>
</tr>
<tr>
<td>Implantable hemodynamic monitor</td>
<td></td>
</tr>
<tr>
<td>Every 1–6 mo depending on indication</td>
<td>In person or remote</td>
</tr>
<tr>
<td>More frequent assessment as clinically indicated</td>
<td>In person or remote</td>
</tr>
</tbody>
</table>

*More frequent in-person or remote monitoring may be required for all the above devices as clinically indicated.
In Person Device Check Coding

Iterative adjustments to assess programming?

No: (Interrogation Evaluation)
- Pacemaker: 93288
- Defibrillator: 93289
- Sub-Q ICD: 93261

Yes: (Programming Evaluation)
- Pacemaker: Sgl (93279), Dual (93280), Multi (93281)
- Defibrillator: Sgl (93282), Dual (93283), Multi (93284)
- Sub-Q ICD: 93260

“The final program parameters may or may not change after evaluation”

CPT Instruction

Medicare requires direct supervision of device checks done by physician practice employees. Direct supervision means the physician is immediately available in the office suite to furnish assistance but is not required to be in the room where the device check is being done.

Technical Component of Device Clinic Services

2017 Medicare Physician Fee Schedule
93280 (Dual Chamber PM Check)

<table>
<thead>
<tr>
<th>MODIFIER</th>
<th>MAC LOCALITY</th>
<th>NON-FACILITY PRICE</th>
</tr>
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<tr>
<td>0000000</td>
<td>0000000</td>
<td>$59.22</td>
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<td>20</td>
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<td>$39.12</td>
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<tr>
<td>TC</td>
<td>0000000</td>
<td>$20.10</td>
</tr>
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</table>

2017 Medicare Physician Fee Schedule Practice Expense Inputs

- Staff expense included in 93280
  - 0.26 x 10 = $2.60 medical/technical assistant
  - 0.37 x 27 = $9.99 RN/LPN/MTA
  - $12.59 total staff expense

Technical Component = $20.10

Staff Expense 63%
Non-Staff Expense 37%
Specialty Society Guidance

If the physician doesn’t own the equipment or pay the personnel, he or she should bill only the professional component, says Douglas L. Wood, MD, former chairman of the American College of Cardiology’s (ACC) Coding and Nomenclature Committee.

Likewise, the North American Society of Pacing and Electrophysiology (NASPE) states in the latest edition of its coding guide that the “individual performing the evaluation must be employed by the MD in order to bill globally for the professional and technical services when testing and/or reprogramming is performed in the physician’s office.”

Cardiology Coding Alert, 9/03

- “Medicare guidelines prohibit a physician from reporting the technical component of services performed primarily by an IEAP who is not employed by the physician.”

HRS Recommendations on the Role of Industry Employed Allied Professionals (IEAPs)

- “if a practice employee such as a nurse — not a device rep or hospital personnel — performs the interrogation, you should charge the technical component and claim reimbursement for the practice expense incurred.”

Executive Summary: Add the 26 modifier every time a device company representative contributes to a device check. It reduces compensation by about $20.
Less Common Programming Techniques

• Device-based cardioversion & overdrive pacing – 93799 (unlisted)

• AV optimization
  • Automated – no separate bill
  • ECG (93000-59 - $17)
    • 59 Modifier: Distinct Procedural Service
    • Establishes that the ECG is separate from routine device check protocol
  • Limited echo, limited Doppler, color flow (93308, 93321 – $207)
    • A complete echo (93307) is not indicated or performed typically
    • Externally measured impedance

Optimization of atroventricular (A/V) interval for patients with A/V sequential cardiac pacemakers when medical history, physical examination, and standard assessment tools provide insufficient information, and the treating physician has determined that TEB hemodynamic data are necessary for appropriate management of the patient.

- TEB is non-covered when used for patients:
  a. With proven or suspected disease involving severe regurgitation of the aorta;
  b. With minute ventilation (MV) sensor function pacemakers, since the device may adversely affect the functioning of that type of pacemaker; (93200-59)

• Externally measured impedance

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In-Person Interrogations vs. Remote Monitoring

Remote monitoring using LATITUDE™ NXT includes everything in person interrogations do plus...

• In-home data collection
• Programmable alerts for arrhythmias and device malfunction
  • Red alerts trigger notification when therapy delivered by the device may be compromised
  • Yellow alerts trigger notification of cardiac arrhythmias

Notification of alerts using LATITUDE™ NXT may occur via the website or via email alert, if requested.
Remote monitoring pays 42% more than in person interrogation

- Multiple transmissions may take place in 90-day period
- Incentivized by Medicare in other ways:
  - Billable 4x/yr. in addition to in-person programming evaluations
  - The Value Modifier
Consensus on Remote Monitoring

• “HRS Expert Consensus Statement on Cardiovascular Implantable Electronic Devices.”
  - Remote monitoring – a Class 1A recommendation
  - “This consensus document reflects the wealth of recent clinical data generated by large randomized prospective trials from around the world that included patients with pacemakers, ICDs, and CRT-Ds from various manufacturers. These consistently show meaningful patient benefits from the early detection capabilities of automatic RM... These data form the basis of our recommendations that RM represents the new standard of care for patients with CIEDs”

• AHA “Abstract 13944: Early Initiation of Remote Monitoring in CIED Patients is Associated with Reduced Mortality”
  - “Our data show that survival is higher in patients who have a shorter time between device implant and remote monitoring initiation, across all CIED device types. These data suggest RM should be initiated as soon as possible following device implantation.”
  - early initiation of remote monitoring (within 91 days of device implant) reduces mortality by over 16%...”
CPT Codes for Remote Monitoring

• **93294 ($35*)** - Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system with interim **physician analysis, review(s) and report(s)**

• **93295 ($69*)** - Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead implantable cardioverter-defibrillator system with interim **physician analysis, review(s) and report(s)**

• **93296 ($26*)** - Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system or implantable cardioverter-defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results

Subcutaneous ICD remote monitoring = 93295 + 93296

* 2017 Medicare national average payments.
Remote Monitoring Billing Basics

• CPT Definition
  • One or more transmissions may take place during the 90-day period

• American Medical Association
  • “Codes 93293 – 93296 are reported no more than once every 90 days.”
  • Do not report if “the monitoring period is less than 30 days”

• Medicare
  • The date of service/billing = the date of completion
  • “While we do not have a national policy on this, our sense is that the DOS should be the date of completion. If the service is furnished for less than the specified time of the code descriptor then the time span should be indicated on the claims form. This would allow us to know for instance, how many services are billed on the 31st day for a 90 day service.”

• CMS Director of External Affairs
Minimum 30-day monitoring period. Exclude newly implanted devices in the last 30 days of the monitoring period.
Quarterly Billing Agenda

Claims for every monitored patient go out on the last day of each calendar quarter as long as the other two rules are satisfied.
Use Device Company Website as SuperBill

Structure device clinic schedule to facilitate all interrogations within the first 80 days of each quarter.

Run “All Clinic Patients” Report on Day 80 as a “stop loss”
Heart Failure Monitoring

**Non-ECG Derived Data (billable)**

- **Weight**
  - A reliable tell-tale indicator of heart failure exacerbation because lower extremity and pulmonary edema cause sudden weight shift
  - Bluetooth transmission to communicator
- **Blood Pressure**
  - Blue Tooth transmission to the monitor, remote transmission to web site.
  - RV, LA, & pulmonary artery pressure measurements
- **Respiratory Rate Trend**
  - Increased lung water = increased RR
  - Detect heart failure exacerbation by monitoring respiratory rate
- **Thoracic Impedance**
  - Drops in impedance may indicate heart failure exacerbation
  - Not FDA approved to trigger alerts

**Other Data (not billable by itself)**

- **Heart Rate Variability**
  - Not billable because it is ECG derived
  - Decreasing HRV may precede hospitalization by up to three weeks
- **Patient interviews**
  - Fatigue
  - Dizziness
  - Edema
  - Dyspnea, Orthopnea, PND
- **Smart device data**
  - Measurements of physical activity like numbers of steps taken each day
  - Dietary tracking tools
Codes for Heart Failure Monitoring

• **93297** ($27*) - 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, physician analysis, review(s) and report(s)

• **93299** (Contractor Priced) - 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

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* 2017 Medicare national average payment

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When billed on the same day, 93299 is bundled into 93296 (remote device monitoring TC)

Bundling only applies to services billed with the same date of service

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* 2017 Medicare national average payment
## Contractor Pricing for 93299

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palmetto GBA</td>
<td>$29</td>
</tr>
<tr>
<td>Wisconsin Physician Services</td>
<td>$123</td>
</tr>
<tr>
<td>National Government Services</td>
<td>$204</td>
</tr>
<tr>
<td>CGS Administrators</td>
<td>$28</td>
</tr>
<tr>
<td>Noridian Healthcare Solutions</td>
<td>$13</td>
</tr>
<tr>
<td>Novitas</td>
<td>$42</td>
</tr>
<tr>
<td>Cahaba GBA</td>
<td>$28</td>
</tr>
<tr>
<td>First Coast Service Options</td>
<td>$36</td>
</tr>
</tbody>
</table>

- **Average Payment:** $63/month
- **2017 Hospital Outpatient Dept. Pay:** $35/month

*Payments will vary based on geographic location.*
AMA: must monitor the patient for at least 1/3 of the monitoring period (10 days) before submitting claim.

"At least one interrogation/report must be performed during the monitoring period."

CMS: date of service must be the day on which the 30-days of monitoring is completed.
## Common ICD-10 Codes

### Device Specific Diagnosis Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z45.010</td>
<td>Adjust/Manage Pacemaker</td>
</tr>
<tr>
<td>Z45.018</td>
<td>Adjust/Manage Defibrillator</td>
</tr>
<tr>
<td>Z95.0</td>
<td>Pacemaker in situ</td>
</tr>
<tr>
<td>Z95.810</td>
<td>Defibrillator in situ</td>
</tr>
<tr>
<td>T82.110A</td>
<td>Electrode breakdown</td>
</tr>
<tr>
<td>T82.111A</td>
<td>Generator breakdown</td>
</tr>
<tr>
<td>T82.120A</td>
<td>Displacement of electrode</td>
</tr>
<tr>
<td>T82.121A</td>
<td>Displacement of generator</td>
</tr>
<tr>
<td>T82.190A</td>
<td>Other electrode complication</td>
</tr>
<tr>
<td>T82.191A</td>
<td>Other generator complication</td>
</tr>
</tbody>
</table>

### Arrhythmia Diagnosis Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I47.1</td>
<td>Supraventricular tachycardia</td>
</tr>
<tr>
<td>I48.3</td>
<td>Atrial flutter, typical &lt; 340 BPM</td>
</tr>
<tr>
<td>I48.4</td>
<td>Atrial flutter, atypical ≥ 340 BPM</td>
</tr>
<tr>
<td>I48.92</td>
<td>Atrial flutter, unspecified</td>
</tr>
<tr>
<td>I48.0</td>
<td>Atrial fibrillation, paroxysmal</td>
</tr>
<tr>
<td>I48.1</td>
<td>Atrial fibrillation, persistent</td>
</tr>
<tr>
<td>I48.2</td>
<td>Atrial fibrillation, permanent/chronic</td>
</tr>
<tr>
<td>I48.91</td>
<td>Atrial fibrillation, unspecified</td>
</tr>
<tr>
<td>I49.01</td>
<td>Ventricular tachycardia</td>
</tr>
<tr>
<td>I47.0</td>
<td>Re-entry ventricular arrhythmia</td>
</tr>
<tr>
<td>I49.01</td>
<td>Ventricular fibrillation</td>
</tr>
<tr>
<td>R94.31</td>
<td>Abnormal EKG</td>
</tr>
<tr>
<td>R94.39</td>
<td>Abnormal EP study</td>
</tr>
<tr>
<td>I49.1</td>
<td>Premature depolarization: atrial</td>
</tr>
<tr>
<td>I49.2</td>
<td>Premature depolarization: junctional</td>
</tr>
<tr>
<td>I49.3</td>
<td>Premature depolarization: ventricular</td>
</tr>
<tr>
<td>I44.0</td>
<td>AV block: 1st degree</td>
</tr>
<tr>
<td>I44.1</td>
<td>AV block: 2nd degree</td>
</tr>
<tr>
<td>I44.2</td>
<td>AV block: complete</td>
</tr>
</tbody>
</table>

### Pacemaker Dx Codes: KX modifier needed on 33206 - 33208

CMS: Symptomatic, non-reversible, bradycardia (< 60 BPM), due to:

- AV Block - Complete: I44.2
- AV Block - 2nd Degree: I44.1
- Sick Sinus Syndrome: I49.5
- Congenital Heart Block: Q24.6

Bradycardia or atrial fibrillation will cause denial

### Defibrillator Dx Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I45.81</td>
<td>Long QT Syndrome</td>
</tr>
<tr>
<td>I42.2</td>
<td>Hypertrophic cardiomyopathy</td>
</tr>
<tr>
<td>I25.5</td>
<td>Ischemic cardiomyopathy</td>
</tr>
<tr>
<td>I42.0</td>
<td>Dilated cardiomyopathy</td>
</tr>
<tr>
<td>I42.9</td>
<td>Unspecified cardiomyopathy</td>
</tr>
<tr>
<td>I25.10</td>
<td>Coronary artery disease</td>
</tr>
<tr>
<td>I25.2</td>
<td>Old myocardial infarction</td>
</tr>
<tr>
<td>R93.1</td>
<td>Abnormal echo</td>
</tr>
<tr>
<td>R94.30</td>
<td>Other abnormal cardiovascular function study</td>
</tr>
<tr>
<td>I49.01</td>
<td>Ventricular fibrillation</td>
</tr>
<tr>
<td>I47.2</td>
<td>Ventricular tachycardia</td>
</tr>
<tr>
<td>I50.9</td>
<td>Heart failure (unspecified)</td>
</tr>
<tr>
<td>I46.9</td>
<td>Cardiac arrest (unspecified cause)</td>
</tr>
</tbody>
</table>

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*Programming Evaluations*

Remote Monitoring & Interrogations*

*Also report device indication*
Device Malfunction ICD-10 Codes

- Electrode breakdown  T82.110A*
- Generator breakdown  T82.111A
- Displacement of electrode  T82.120A
- Displacement of generator  T82.121A
- Other electrode complication  T82.190A
- Other generator complication  T82.191A

7th Character is A or D:
- A indicates this is the initial episode of care
- D indicates a subsequent episode

* Subsequent encounter: “after the active phase of treatment and when the patient is receiving routine care for the injury during the period of healing or recovery after the active phase of treatment and when the patient is receiving routine care for the injury during the period of healing or recovery. For example a patient with an ankle sprain may return to the office to have joint stability re-evaluated to ensure that the injury is healing properly.”

- CodeitRight Insights 1/12

Routine battery depletion is not a malfunction – do not report it as a generator breakdown.
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Certified Professional Coder, Certified Cardiology Coder
Jim@CardiologyCoder.Com  (518) 320-4376

• Billing Services
• Chart auditing
• Training
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