MLN Matters® Number: MM9078  Related Change Request (CR) #: CR 9078

Related CR Release Date: February 20, 2015  Effective Date: August 13, 2013

Related CR Transmittal #: R3204CP and R179NCD  Implementation Date: July 6, 2015

**National Coverage Determination (NCD) for Single Chamber and Dual Chamber Permanent Cardiac Pacemakers**

**Provider Types Affected**

This MLN Matters® Article is intended for physicians, providers, and suppliers submitting claims to Medicare Administrative Contractors (MACs) for single chamber and dual chamber permanent cardiac pacemaker services provided to Medicare beneficiaries.

**Provider Action Needed**

Change Request (CR) 9078 informs MACs that the Centers for Medicare & Medicaid Services (CMS) issued a National Coverage Determination (NCD) and concluded 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. Make sure that your billing staffs are aware of these changes.

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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. Single chamber pacemakers typically target either the right atrium or right ventricle. Dual chamber pacemakers stimulate both the right atrium and the right ventricle. On August 13, 2013, CMS issued an NCD, in which CMS concluded 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).

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.
2. Documented non-reversible symptomatic bradycardia due to second degree and/or third degree atrioventricular block.

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. *(exception)
3. Asymptomatic sinus bradycardia.
4. Asymptomatic sino-atrial block or asymptomatic sinus arrest. *(exception)
5. Ineffective atrial contractions (for example, chronic atrial fibrillation or flutter, or giant left atrium) without symptomatic bradycardia. *(exception)
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. *(exception)
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. *(exception)
10. Asymptomatic bradycardia in post-myocardial infarction patients about to initiate long-term beta-blocker drug therapy.

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11. Frequent or persistent supraventricular tachycardias, except where the pacemaker is specifically for the control of tachycardia. *(exception)
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.

MACs 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 NCD.

NOTES: MACs shall accept the inclusion of the KX modifier on the claim line(s) as an attestation by the practitioner and/or provider of the service that documentation is on file verifying the patient has non-reversible symptomatic bradycardia (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)).

NOTE: The final decision memorandum addresses Medicare policy specific to implanted permanent cardiac pacemakers, single chamber or dual chamber, for the treatment of non-reversible symptomatic bradycardia due to sinus node dysfunction and second and/or third degree atrioventricular block. Medicare coverage of removal/replacement of implanted permanent cardiac pacemakers, single chamber or dual chamber, for the above-noted indications, were not addressed in the final decision. Therefore, it is expected that MACs will continue to apply the reasonable and necessary standard in determining local coverage within their respective jurisdictions for removal/replacement of implanted permanent cardiac pacemakers, single chamber or dual chamber.

**Cardiac Pacemaker Healthcare Common Procedure Coding System (HCPCS) and Current Procedural Terminology (CPT) Codes**

**Professional claims**
Effective for claims with dates of service on or after August 13, 2013, MACs shall pay for implanted permanent cardiac pacemakers, single chamber or dual chamber, for one of the following CPT codes if the claim contains at least one of the designated diagnosis codes in addition to the –KX modifier:

- 33206 - Insertion or replacement of permanent pacemaker with transvenous electrode(s) – atrial;
- 33207 - Insertion or replacement of permanent pacemaker with transvenous electrode(s) – ventricular; or
- 33208 - Insertion or replacement of permanent pacemaker with transvenous electrode(s) – atrial and ventricular.

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Institutional claims
Effective for claims with dates of service on or after August 13, 2013, MACs shall pay for implanted permanent cardiac pacemakers, single chamber or dual chamber, for the following HCPCS codes if the claim contains at least one of the designated CPT codes, and at least one of the designated diagnosis codes, in addition to the –KX modifier:

- C1785 – Pacemaker, dual chamber, rate-responsive (implantable);
- C1786 – Pacemaker, single chamber, rate-responsive (implantable);
- C2619 – Pacemaker, dual chamber, nonrate-responsive (implantable);
- C2620 – Pacemaker, single chamber, nonrate-responsive (implantable);
- 33206 – Insertion or replacement of permanent pacemaker with transvenous electrode(s) – atrial
- 33207 – Insertion or replacement of permanent pacemaker with transvenous electrode(s) – ventricular
- 33208 – Insertion or replacement of permanent pacemaker with transvenous electrode(s) – atrial and ventricular

MACs have discretion to cover or not cover the following CPT codes:
- 33227 – Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; single lead system; or
- 33228 – Removal of permanent pacemaker pulse generator with replacement of pacemaker pulse generator; dual lead system.

Cardiac Pacemaker ICD-9/ICD-10 Diagnosis Codes

Professional claims
Claims with dates of service on and after August 13, 2013, for implanted permanent cardiac pacemakers, single chamber or dual chamber, are covered if submitted with one of the following CPT codes: 33206, 33207, or 33208, and that contain at least one of the following ICD-9/ICD-10 diagnosis codes (upon ICD-10 implementation) listed below in addition to the –KX modifier:

- 426.0 Atrioventricular block, complete/ I44.2 Atrioventricular block, complete;
- 426.12 Mobitz (type) II atrioventricular block/ I44.1 Atrioventricular block, second degree;
- 426.13 Other second degree atrioventricular block/ I44.1 Atrioventricular block, second degree;
- 427.81 Sinoatrial node dysfunction/ I49.5 Sick sinus syndrome; or
- 746.86 Congenital heart block/ Q24.6 – Congenital heart block.

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The following diagnosis codes can be covered at your MACs discretion if submitted with at least one of the CPT codes and diagnosis codes listed above in addition to the –KX modifier:

- 426.10 Atrioventricular block, unspecified/ I44.30 Unspecified atrioventricular block;
- 426.11 First degree atrioventricular block/ I44.0 Atrioventricular block first degree;
- 426.4 Right bundle branch block/ I45.10 Unspecified right bundle-branch block/ I45.19 Other right bundle-branch block;
- 427.0 Paroxysmal supraventricular tachycardia/ I47.1 Supraventricular tachycardia;
- 427.31 Atrial fibrillation/ I48.1 Persistent atrial fibrillation/ I48.91, Unspecified atrial fibrillation;
- 427.32 Atrial flutter/ I48.3 Typical atrial flutter/ I48.4 Atypical atrial flutter or I48.91 Unspecified atrial fibrillation; or
- 780.2 Syncope and collapse/R55 Syncope and collapse (R55 is the ICD-10 dx code but is not payable upon implementation of ICD-10 and is only included here for information purposes).

Institutional claims

For coverage of claims with dates of service on and after August 13, 2013, for implanted permanent cardiac pacemakers, single chamber or dual chamber, using HCPCS codes: C1785, C1786, C2619, C2620, 33206, 33207, or 33208, the claim must contain at least one of the following procedure codes:

- 37.81 Initial insertion of single chamber device, not specified as rate responsive
- 37.82 Initial insertion of single chamber device, rate responsive
- 37.83 Initial insertion of single chamber device

and at least one of the following diagnosis codes in addition to the –KX modifier:

- 426.0 Atrioventricular block, complete;
- 426.12 Mobitz (type) II atrioventricular block;
- 426.13 Other second degree atrioventricular block;
- 427.81 Sinoatrial node dysfunction; or
- 746.86 Congenital heart block.

The following diagnosis codes can be covered, at the MAC's discretion, if submitted with at least one of the diagnosis codes listed above in addition to the –KX modifier:

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• 426.10 Atrioventricular block, unspecified/ I44.30 Unspecified atrioventricular block;
• 426.11 First degree atrioventricular block/ I44.0 Atrioventricular block first degree;
• 426.4 Right bundle branch block/ I45.10 Unspecified right bundle-branch block/ I45.19 Other right bundle-branch block;
• 427.0 Paroxysmal supraventricular tachycardia/ I47.1 Supraventricular tachycardia;
• 427.31 Atrial fibrillation/ I48.1 Persistent atrial fibrillation/ I48.91, Unspecified atrial fibrillation;
• 427.32 Atrial flutter/ I48.3 Typical atrial flutter/ I48.4 Atypical atrial flutter or I48.91 Unspecified atrial fibrillation; or
• 780.2 Syncope and collapse/R55 Syncope and collapse (R55 is the ICD-10 dx code but is not payable upon implementation of ICD-10 and is only included here for information purposes).

**Professional claims**
MACs shall return claims lines for implanted permanent cardiac pacemakers, single chamber or dual chamber, containing one of the following CPT codes: 33206, 33207, or 33208, as unprocessable when the -KX modifier is not present. When returning such claims, MACs shall use the following messages:

- Claim Adjustment Reason Code (CARC) 4 - The procedure code is inconsistent with the modifier used or a required modifier is missing.
- Remittance Advice Remarks Code (RARC) N517 - Resubmit a new claim with the requested information.

**Institutional claims**
MACs shall return to providers claims for implanted permanent cardiac pacemakers, single chamber or dual chamber, when any of the following are not present on the claim: At least one HCPCS code: C1785, C1786, C2619, or C2620, at least one CPT code: 33206, 33207, 33208, 33227, 33228, at least one diagnosis code: 426.0/I44.2, 426.12/I44.1, 426.13/I44.1, 427.81/I49.5, 746.86/Q24.6, at least one procedure code: 37.81/0JH604Z, 0JH634Z, 0JH804Z, 0JH834Z, 0JH805Z, 0JH835Z, 38.83/0JH606Z, 0JH806Z, 0JH836Z, and the -KX modifier is not present on the claim.

**Cardiac Pacemaker Non-covered ICD-ICD-10 Diagnosis Code**
For claims with dates of service on or after implementation of ICD-10, for implanted permanent cardiac pacemakers, single chamber or dual chamber, using one of the following HCPCS and/or CPT codes: C1785, C1786, C2619, C2620, 33206, 33207, 33208, ICD-

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10 diagnosis code R55 is not covered even if the claim contains one of the valid diagnosis codes listed above.

MACs will use the following messages when denying claims for implanted permanent cardiac pacemakers, single chamber or dual chamber, containing one of the following HCPCS and/or CPT codes: C1785, C1786, C2619, C2620, 33206, 33207, or 33208, and ICD-10 diagnosis code R55 with the following messages:

- CARC 96: Non-covered charge(s).
- RARC N569: Not covered when performed for the reported diagnosis.
- Group Code CO assigning financial liability to the provider, if a claim is received with a GZ modifier indicating no signed Advance Beneficiary Notice (ABN) is on file.
- Group Code PR assigning financial liability to the beneficiary, if a claim is received with occurrence code 32 indicating a signed ABN is on file, or occurrence code 32 is present with modifier GA.

Additional Information


If you have questions, please contact your MAC at their toll-free number. The number is available at http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/index.html under - How Does It Work?