Medical Policy
Baroreflex Stimulation Devices

Table of Contents
- Policy: Commercial
- Policy: Medicare
- Authorization Information
- Coding Information
- Description
- Policy History
- Information Pertaining to All Policies
- References

Policy Number: 595
BCBSA Reference Number: 8.01.57
NCD/LCD: Local Coverage Determination (LCD): Category III CPT® Codes (L33392)

Related Policies
Radiofrequency Ablation of the Renal Sympathetic Nerves as a Treatment for Resistant Hypertension, #919

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Use of baroreflex stimulation implanted devices is INVESTIGATIONAL in all situations including but not limited to treatment of hypertension and heart failure.

Medicare HMO BlueSM and Medicare PPO BlueSM Members

This is not a covered service.

Local Coverage Determination (LCD): Category III CPT® Codes (L33392)

For medical necessity criteria and coding guidance for Medicare Advantage members living outside of Massachusetts, please see the Centers for Medicare and Medicaid Services website for information regarding your specific jurisdiction at https://www.cms.gov.

Prior Authorization Information
Pre-service approval is required for all inpatient services for all products.
See below for situations where prior authorization may be required or may not be required.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.
N/A indicates that this service is primarily performed in an inpatient setting.

<table>
<thead>
<tr>
<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
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</tbody>
</table>
### CPT Codes

**CPT Codes / HCPCS Codes / ICD Codes**

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following CPT codes are considered investigational for **Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue**:

### CPT Codes

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>0266T</td>
<td>Implantation or replacement of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)</td>
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<tr>
<td>0267T</td>
<td>Implantation or replacement of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning when performed)</td>
</tr>
<tr>
<td>0268T</td>
<td>Implantation or replacement of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning when performed)</td>
</tr>
<tr>
<td>0269T</td>
<td>Revision or removal of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)</td>
</tr>
<tr>
<td>0270T</td>
<td>Revision or removal of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning when performed)</td>
</tr>
<tr>
<td>0271T</td>
<td>Revision or removal of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning when performed)</td>
</tr>
<tr>
<td>0272T</td>
<td>Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor system diagnostics and programmed therapy values, with interpretation and report (e.g., battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day)</td>
</tr>
<tr>
<td>0273T</td>
<td>Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor system diagnostics and programmed therapy values, with interpretation and report (e.g., battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day); with programming</td>
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### Description

Baroreceptors are pressure sensors contained within the walls of the carotid arteries. They are part of the autonomic nervous system that regulates basic physiologic functions such as heart rate and blood pressure (BP). When these receptors are stretched, as occurs with increases in BP, the baroreflex is activated. Activation of the baroreflex sends signals to the brain, which responds by inhibiting sympathetic
nervous system output and increasing parasympathetic nervous system output. The effect of this activation is to reduce heart rate and BP, thereby helping to maintain homeostasis of the circulatory system.

The use of baroreflex stimulation devices (also known as baroreflex activation therapy) is a potential alternative treatment for resistant hypertension and heart failure. Both hypertension and heart failure are relatively common conditions, and are initially treated with medications and lifestyle changes. A substantial portion of patients are unresponsive to conventional therapy and treating these patients is often challenging and can lead to high costs and adverse effects. As a result, there is a large unmet need for additional treatments.

Specific devices for baroreflex stimulation have been developed, but none has been approved by the U.S. Food and Drug Administration (FDA) for any indication. One device, called the Barostim neo™ (CVRx™, Minneapolis, MN, previously called the Rheos® Baroreflex Hypertension Therapy System) is approved for sale in Europe for hypertension and heart failure patients. The system consists of a unilateral electrode and lead that is attached to the carotid sinus and a pulse generator that is implanted subcutaneously in the chest wall. Programming is performed via radiofrequency telemetry using an external laptop computer and software.

Summary
Baroreflex stimulation devices provide electrical stimulation of the baroreceptors in the carotid arteries by means of an implanted device. Activation of the baroreflex causes inhibition of the sympathetic nervous system, resulting in various physiologic changes, including slowed heart rate and decreased blood pressure. Specific devices for baroreflex stimulation have been developed, but none has received U.S. Food and Drug Administration (FDA) approval for any indication.

The evidence on baroreflex stimulation devices for patients with treatment-resistant hypertension includes 1 randomized controlled trial (RCT) and several small uncontrolled feasibility studies. Relevant outcomes are overall survival, functional outcomes, quality of life, hospitalizations, medication use, and treatment resistant morbidity. The uncontrolled studies report short-term reductions in blood pressure, together with adverse events such as infection, hypoglossal nerve injury, and wound complications. The RCT comparing baroreflex stimulation with continued medical management met some efficacy end points but not others. There was no significant increase in the percentage of patients who achieved at least a 10 mm Hg decrease in systolic blood pressure (SBP) at 6 months, but more patients in the treatment group did reach a target SBP of 140 mm Hg or less at 6 months. The trial met 2 of its 3 predefined safety end points. Additional RCTs and FDA approval or clearance are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

The evidence on baroreflex stimulation devices for patients with treatment-resistant heart failure includes 1 RCT. Relevant outcomes are overall survival, functional outcomes, quality of life, hospitalizations, medication use, and treatment-resistant morbidity. The RCT met all 3 efficacy end points but had methodologic limitations, including lack of blinding, relatively small sample size for a common condition, and relatively short intervention period. Additional RCTs and FDA approval or clearance are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy History

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>6/2017</td>
<td>New references added from BCBSA National medical policy.</td>
</tr>
<tr>
<td>12/2013</td>
<td>New references from BCBSA National medical policy.</td>
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</table>
Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References