Medical Policy

Stereotactic Radiofrequency Pallidotomy for the Treatment of Parkinson’s Disease

Table of Contents

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

Policy Number: 626
BCBSA Reference Number: 7.01.16A

Related Policies
None

Policy

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

Stereotactic radiofrequency unilateral pallidotomy may be MEDICALLY NECESSARY for patients who must meet ALL of the following selection criteria:
- The patient has a diagnosis of idiopathic Parkinson’s disease, AND
- The patient's disease was previously responsive to levodopa therapy but is now medically intractable, AND
- The patient has severe levodopa-induced dyskinesia or disease characterized particularly by severe bradykinesia, rigidity, tremor, dystonia, or by marked “on-off” fluctuations, AND
- The patient does not have evidence of dementia, AND
- The patient is fully informed of the risks and benefits of the surgery, including the specific mortality and morbidity experience of the center at which the procedure is to be performed.

Stereotactic radiofrequency unilateral pallidotomy is NOT MEDICALLY NECESSARY for:
- elderly or severely debilitated patients,
- patients who have significant cognitive deficits or
- patients who have medical conditions that would increase their risk of intracerebral hemorrhage.

Stereotactic bilateral radiofrequency pallidotomy is INVESTIGATIONAL.

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 for outpatient services. 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.

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<thead>
<tr>
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<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>No</td>
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<td>Commercial PPO and Indemnity</td>
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<td>Medicare HMO Blue™</td>
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<td>Medicare PPO Blue™</td>
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**CPT Codes / HCPCS Codes / ICD-9 Codes**
The following codes are included below for informational purposes. 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.

**CPT Codes**

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
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<tr>
<td>61720</td>
<td>Creation of lesion by stereotactic method, including burr hole(s) and localizing and recording techniques, single or multiple stages; globus pallidus or thalamus</td>
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**Description**
Parkinson's disease is a degenerative disease that includes symptoms of resting tremor, rigidity, and bradykinesia. The condition usually appears after age 40 and progresses slowly over many years. Drug treatment with levodopa can usually restore smooth motor function for up to 5–10 years after onset of Parkinson's disease by permitting surviving dopaminergic cells to bypass a rate-limiting enzyme, tyrosine hydroxylase, and thus produce enough dopamine to maintain adequate motor function. Eventually, more dopaminergic cells die, leading to progressive disability.

Stereotactic radiofrequency pallidotomy is an ablative procedure during which a radiofrequency electrode is used to create thermal lesions within an anatomically and physiologically defined region of the globus pallidus. Pallidotomy is used to relieve the symptoms of Parkinson's disease. Pallidotomy may be performed in two ways: using stereotactic techniques and monopolar electrode stimulation for identification of the target region; and using electrophysiologic microelectrode mapping of the target region in addition to stereotactic methods. The difference in performing pallidotomy with or without microelectrode mapping is in how the target in the posteroverentral globus pallidus is identified.

**Summary**
Results of small randomized trials and cohort studies have reported that unilateral stereotactic radiofrequency pallidotomy with microelectrode mapping is a relatively safe and effective method of managing symptoms of advanced Parkinson's disease refractory to pharmacological management. These studies have demonstrated that this procedure may be medically necessary in these situations.

Although there was initial interest in bilateral stereotactic radiofrequency pallidotomy, this procedure has been abandoned due to severe motor and psychiatric complications. Bilateral pallidotomy is also associated with a higher incidence of neurologic adverse effects, particularly speech complications. For these reasons it is considered investigational.

**Policy History**

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<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td></td>
<td>No changes to policy statements.</td>
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<td>Date</td>
<td>Reviewer</td>
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**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**

1. 1996 TEC Assessment: Tab 18