MASSACHUSETTS

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Medical Policy

Stereotactic Radiofrequency Pallidotomy for the Treatment of Parkinsons Disease

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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 Blue℠ and Medicare PPO Blue℠ 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.

	Outpatient
Commercial Managed Care (HMO and POS)	No
Commercial PPO and Indemnity	No
Medicare HMO Blue℠	No
Medicare PPO Blue℠	No

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

CPT codes:	Code Description
61720	Creation of lesion by stereotactic method, including burr hole(s) and localizing and recording techniques, single or multiple stages; globus pallidus or thalamus

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 posteroventral 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

Date	Action
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.

1/2012	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.
1/2011	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.
2/2010	BCBSA National medical policy review. Changes to policy statements.
1/2010	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.
1/2009	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.
1/2008	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.
1/2007	Reviewed - Medical Policy Group - Neurology and Neurosurgery. No changes to policy statements.

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
2. Green J, McDonald WM, Vitek JL et al. Neuropsychological and psychiatric sequelae of pallidtomy for PD: clinical trial findings. Neurology 2002;58(6):858-65.
3. Rettig GM, York MK, Lai EC et al. Neuropsychological outcome after unilateral pallidotomy for the treatment of Parkinson's disease. J Neurol Neurosurg Psychiatry 2000;69(3):326-36.
4. Schmand B, de Bie RM, Koning-Haanstra M et al. Unilateral pallidotomy in PD: a controlled study of cognitive and behavioral effects. The Netherlands Pallidotomy Study (NEPAS) group. Neurology 2000;54(5):1058-64.
5. Merello M, Starkstein S, Nouzeilles MI et al. Bilateral pallidotomy for treatment of Parkinson's disease induced corticobulbar syndrome and psychic akinesia avoidable by globus pallidus lesion combined with contralateral stimulation. J Neurol Neurosurg Psychiatry 2001;71(5):611-4.
6. Intemann PM, Masterman D, Subramanian I et al. Staged bilateral pallidotomy for treatment of Parkinson disease. J Neurosurg 2001;94(3):437-44.