MASSACHUSETTS

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Medical Policy

Embryonic Mesencephalic Transplantation for the Treatment of Parkinsons Disease

Table of Contents

Policy Number: 625

BCBSA Reference Number: 7.01.10A (For Plan internal use only)
NCD/LCD: NA

Related Policies

None

Policy

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

Fetal mesencephalic transplantation for the treatment of Parkinson's disease is **INVESTIGATIONAL**.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	This is **not** a covered service.
Commercial PPO and Indemnity	This is **not** a covered service.
Medicare HMO Blue℠	This is **not** a covered service.
Medicare PPO Blue℠	This is **not** a covered service.

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.

CPT Codes
There is no specific CPT code for this service.

HCPCS Codes

HCPCS codes:	Code Description
S2103	Adrenal tissue transplant to brain

Description
Parkinson's disease is a degenerative disease that includes symptoms of resting tremor, rigidity, and bradykinesia. The condition usually appears after age 40 years 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.

In an effort to modify motor disability of advanced Parkinson's disease, embryonic mesencephalic (midbrain) tissue containing dopamine-producing cells is implanted into the caudate and putamen of the candidate's brain.

Summary
Because of the variability in the therapeutic effect of transplantation, particularly in patients older than 60 years of age, and the risk of severe dyskinesia and dystonia unresponsive to withdrawal of dopamine-agonist medication, the evidence is not sufficient to permit a conclusion that transplantation of embryonic dopamine neurons improves the net health outcomes for patients with advanced Parkinson's disease. Studies have reported a strong placebo effect, since patients reported better scores if they believed they had received the transplant. In a study of cognition 1-year post-procedure in the NINDS study, the authors reported no significant differences in cognitive performance at follow-up for the transplant or placebo group as performance for most measures remained the same. For all these reasons, transplantation of embryonic dopamine neurons for patients with advanced Parkinson's disease is investigational.

Policy History

Date	Action
3/2020	Policy updated with literature review through March 1, 2020, no references added. Policy statements unchanged.
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	Annual 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. 2001 TEC Assessment: Embryonic mesencephalic transplantation for the treatment of Parkinson's disease.
2. 1995 TEC Assessment: Fetal mesencephalic transplantation for the treatment of Parkinson's disease.
3. Olanow CW, Goetz CG, Kordower JH et al. A double-blind controlled trial of bilateral fetal nigral transplantation in Parkinson's disease. Ann Neurol 2003; 54(3):403-14.
4. Gordon PH, Yu Q, Qualls C et al. Reaction time and movement time after embryonic cell implantation in Parkinson disease. Arch Neurol 2004; 61(6):858-61.
5. McRae C, Cherin E, Yamazaki TG et al. Effects of perceived treatment on quality of life and medical outcomes in a double-blind placebo surgery trial. Arch Gen Psychiatry 2004; 61(4):412-20.
6. Trott CT, Fahn S, Greene P et al. Cognition following bilateral implants of embryonic dopamine neurons in PD: a double blind study. Neurology 2003; 60(12):1938-43.