



KAISER PERMANENTE®

Mid-Atlantic States

Hypoglossal Nerve Stimulator for Obstructive Sleep Apnea

Medical Coverage Policy

UTILIZATION * ALERT*

- Prior to use of this MCP for evaluation of medical necessity, benefit coverage MUST be verified in the member's EOC or benefit document.
- For Medicare members, please consult the Medicare Coverage Database.
- Note: After searching the Medicare Coverage Database, if no NCD/LCD/LCA is found, then use the policy referenced above for coverage guidelines

I. Procedure: Hypoglossal Nerve Stimulator (HNS) for Treatment of Obstructive Sleep Apnea

II. Specialties: Sleep Study Medicine, Otolaryngology, DME

III. Clinical Guidelines

A. Clinical Indications for Referral

Hypoglossal Nerve Stimulator (HNS) is considered medically necessary for the treatment of Obstructive Sleep Apnea (OSA) when **ALL** of the following criteria are met:

1. Patient is 18 years of age or older; **and**
2. Body Mass Index (BMI) is less than 35 kg/m²; **and**
3. A sleep study evaluation is performed with polysomnography (PSG) or a home sleep study in the last 12 months. The sleep study result should demonstrate moderate to severe obstructive sleep apnea with apnea-hypopnea index (AHI) of 15-65 events per hour within 24 months of initial consultation for HNS implant; **and**
4. Has predominantly obstructive events (defined as central and mixed apneas less than 25% of the total AHI); **and**
5. Shared Decision-Making (SDM) between the patient, sleep physician, and qualified otolaryngologist (if they are not the same) who determines that the patient demonstrates continuous positive airway pressure (CPAP) failure (defined as AHI greater than 15 despite CPAP usage) or CPAP intolerance (defined as CPAP machine-derived compliance reporting with usage less than 4 hours a night for at least 70% of the nights in 1 month, or the CPAP has been returned) despite CPAP interface and/or setting optimizations; **and**
6. Confirmed absence of complete concentric collapse at the soft palate level by a drug-induced sleep endoscopy (DISE) procedure; **and**
7. Absence of anatomical findings that would compromise performance of device (such as tonsil size 3 or 4 per standardized tonsillar hypertrophy grading scale); **and**
8. Absence of any HNS contraindicated condition such as severe obstructive or restrictive lung disease and significant cardiovascular disease including CHF (Congestive Heart Failure), pulmonary hypertension or valvular heart disease. Please refer to section IV-B for the list of HNS



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- contraindications; **and**
9. The HNS device to be used for treatment of OSA has Food and Drug Administration (FDA) approval; **and**
 10. HNS must be furnished in accordance with the accepted standards and medical practice in a setting (either inpatient or outpatient setting) appropriate to the patient's medical needs and condition; **and**
 11. Patients under age 18 will be considered on a case-by-case basis e.g., Down's syndrome

B. Documentation

The following documentation are required for patient evaluation and medical appropriateness determination for HNS:

1. Medical history and physical examination notes;
2. Conservative treatment of OSA has failed;
3. CPAP trial result;
4. Sleep Study result in the last 12 months including apnea-hypopnea index (AHI) score; and
5. Drug-induced sleep endoscopy (DISE) result

IV. Limitation and Contraindication

A. Limitations

HNS is not considered medically necessary for the following:

1. Other indications other than those cited in section III A; and
2. If the patient does not meet all the criteria as cited in section III; and
3. Non-FDA-approved HNS device for treatment of OSA.

B. Contraindications

Hypoglossal Nerve Stimulator is contraindicated in the presence of **any** of the following condition:

1. BMI 35 kg/m² or greater;
2. Patient who is or who plans to become pregnant;
3. Presence of neuromuscular or neurologic disease such as muscular dystrophy, Parkinson's or dementia that compromise the neurological control of the upper airway;
4. Presence of a condition as a result from a procedure that compromise the neurological control of the upper airway such as previous surgery or radiation to larynx, throat, or tongue;
5. Central and mixed apneas that make up more than one-quarter of the total apnea-hypopnea index (AHI);
6. Coexisting non-respiratory sleep disorders that would confound functional sleep assessment;
7. Severe insomnia;



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8. Severe restrictive or obstructive pulmonary disease;
9. Hypoventilation from any cause;
10. Prolonged hypoxia;
11. Moderate-to-severe pulmonary arterial hypertension;
12. Severe valvular heart disease;
13. New York Heart Association class III or IV heart failure;
14. Recent myocardial infarction or severe cardiac arrhythmias (within the past 6 months);
15. Severe co-morbid condition;
16. Hypoglossal-nerve palsy;
17. Patient who is unable to operate the remote for HNS or does not have the necessary assistance to operate the HNS device's external programmer; or
18. Acute psychiatric disorder or unstable psychological status

V. Replacement of HNS device

Replacement of HNS is medically necessary when there is documentation that the stimulator and/or generator is malfunctioning, cannot be repaired, or no longer under warranty.

Definition

Hypoglossal Nerve Stimulation (HNS) is a sleep apnea treatment that involves implantation of a medical device for treatment of obstructive sleep apnea (OSA). The HNS stimulates the hypoglossal nerve in a rhythm synchronized with the patient's breathing to help keep the airway clear during sleep.



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Approval History

Effective June 01, 2016, state filing is no longer required per Maryland House Bill [HB 798](#) – Health Insurance – Reporting

Date approved by RUMC	Date of Implementation
09/27/2023	09/27/2023

*The Regional Utilization Management Committee received delegated authority in 2011 to review and approve designated Utilization Management and Medical Coverage Policies by the Regional Quality Improvement Committee.

Note: Kaiser Permanente Mid-Atlantic States (KPMAS) include referral and authorization criteria to support primary care and specialty care practitioners, as appropriate, in caring for members with selected conditions. Medical Coverage Policies are not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by a practitioner in any particular set of circumstances for an individual member.

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