PROVIDER POLICIES & PROCEDURES

PHRENIC NERVE STIMULATION FOR CENTRAL SLEEP APNEA

The primary purpose of this document is to assist providers enrolled in the Connecticut Medical Assistance Program (CMAP) with the information needed to support a medical necessity determination for phrenic nerve stimulation for central sleep apnea. By clarifying the information needed for prior authorization of services, HUSKY Health hopes to facilitate timely review of requests so that individuals obtain the medically necessary care they need as quickly as possible.

Central sleep apnea (CSA) is a sleep disorder characterized by repetitive reductions or pauses in breathing during sleep. In CSA, the brain stem fails to recognize changes in carbon dioxide levels in the blood. Normally, when carbon dioxide levels are detected as high, the brain stem sends signals to the muscles responsible for respiration to increase the rate and depth of breaths.

CSA can be primary (i.e., idiopathic CSA) or secondary. Examples of secondary CSA include CSA associated with Cheyne-Stokes breathing, an underlying medical condition, a drug or substance, or high-altitude periodic breathing. The goal of therapy in patients with CSA is to normalize sleep-related breathing patterns thereby improving both the quality of sleep and daytime function. Hyperventilation-related CSA is the most common form of CSA. Continuous positive airway pressure (CPAP) is the first-line therapy for symptomatic patients with hyperventilation-related CSA.

An implantable device that causes diaphragmatic contraction via unilateral transvenous phrenic nerve stimulation (e.g., remedē® System) has been proposed as an option for some individuals with symptomatic CSA who fail or do not tolerate CPAP or other therapies. The device consists of a neurostimulator that is implanted in the upper chest and connected to two leads, one of which delivers transvenous stimulation to the phrenic nerve to achieve diaphragmatic contraction similar to a normal breath. The device is programmed to deliver stimulation during sleep and senses respiration via a lead in a thoracic vein. While the device has been approved by the US Food and Drug Administration, additional studies on outcomes and long-term safety are needed.

CLINICAL GUIDELINE

Coverage guidelines for phrenic nerve stimulation for CSA are made in accordance with the DSS definition of Medical Necessity. The following criteria are guidelines *only*. Coverage determinations are based on an assessment of the individual and their unique clinical needs. If the guidelines conflict with the definition of Medical Necessity, the definition of Medical Necessity shall prevail. The guidelines are as follows:

The use of phrenic nerve stimulation as treatment for CSA is considered investigational and therefore not medically necessary.

NOTE: EPSDT Special Provision
Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) is a federal Medicaid requirement that requires the Connecticut Medical Assistance Program (CMAP) to cover services, products, or procedures for Medicaid enrollees under 21 years of age where the service or good is medically necessary health care to correct or ameliorate a defect, physical or mental illness, or a condition identified through a screening examination. The applicable definition of medical necessity is set forth in Conn. Gen. Stat. Section 17b-259b (2011) [ref. CMAP Provider Bulletin PB 2011-36].

PROCEDURE
Prior authorization for phrenic nerve stimulation for CSA is required. Requests for coverage are reviewed in accordance with procedures in place for reviewing requests for surgical procedures. Coverage determinations are based upon a review of requested and/or submitted case-specific information.

The following information is needed to review requests for phrenic nerve stimulation for CSA:
1. Fully completed authorization request via on-line web portal; and
2. Clinical information supporting medical necessity.

EFFECTIVE DATE
This policy for the prior authorization for phrenic nerve stimulation for CSA for individuals covered under the HUSKY Health Program is effective November 01, 2024.

LIMITATIONS
N/A

CODES:
Reviewed Using Policy
Note: The codes listed below replaced Category III CPT codes 0424T-0436T, effective January 1, 2024.

Code	Description
33276	Insertion of phrenic nerve stimulator system (pulse generator and stimulating lead[s]), including vessel catheterization, all imaging guidance, and pulse generator initial analysis with diagnostic mode activation, when performed
33277	Insertion of phrenic nerve stimulator transvenous sensing lead (List separately in addition to code for primary procedure)
33278	Removal of phrenic nerve stimulator, including vessel catheterization, all imaging guidance, and interrogation and programming, when performed; system, including pulse generator and lead(s)
33279	Removal of phrenic nerve stimulator, including vessel catheterization, all imaging guidance, and interrogation and programming, when performed; transvenous stimulation or sensing lead(s) only
33280	Removal of phrenic nerve stimulator, including vessel catheterization, all imaging guidance, and interrogation and programming, when performed; pulse generator only
33281	Repositioning of phrenic nerve stimulator transvenous lead(s)

33287	Removal and replacement of phrenic nerve stimulator, including vessel catheterization, all imaging guidance, and interrogation and programming, when performed; pulse generator
33288	Removal and replacement of phrenic nerve stimulator, including vessel catheterization, all imaging guidance, and interrogation and programming, when performed; transvenous stimulation or sensing lead(s)

Reviewed Using InterQual Criteria

Code	Description
N/A	

DEFINITIONS

1. **HUSKY A**: Connecticut children and their parents or a relative caregiver; and pregnant women may qualify for HUSKY A (also known as Medicaid). Income limits apply.
2. **HUSKY B**: Uninsured children under the age of 19 in higher income households may be eligible for HUSKY B (also known as the Children's Health Insurance Program) depending on their family income level. Family cost-sharing may apply.
3. **HUSKY C**: Connecticut residents who are age 65 or older or residents who are ages 18-64 and who are blind, or have another disability, may qualify for Medicaid coverage under HUSKY C (this includes Medicaid for Employees with Disabilities (MED-Connect), if working). Income and asset limits apply.
4. **HUSKY D**: Connecticut residents who are ages 19-64 without dependent children and who: (1) do not qualify for HUSKY A; (2) do not receive Medicare; and (3) are not pregnant, may qualify for HUSKY D (also known as Medicaid for the Lowest-Income populations).
5. **HUSKY Health Program**: The HUSKY A, HUSKY B, HUSKY C, HUSKY D and HUSKY Limited Benefit programs, collectively.
6. **HUSKY Limited Benefit Program or HUSKY, LBP**: Connecticut's implementation of limited health insurance coverage under Medicaid for individuals with tuberculosis or for family planning purposes and such coverage is substantially less than the full Medicaid coverage.
7. **Medically Necessary or Medical Necessity**: (as defined in Connecticut General Statutes § 17b-259b) Those health services required to prevent, identify, diagnose, treat, rehabilitate or ameliorate an individual's medical condition, including mental illness, or its effects, in order to attain or maintain the individual's achievable health and independent functioning provided such services are: (1) Consistent with generally-accepted standards of medical practice that are defined as standards that are based on (A) credible scientific evidence published in peer-reviewed medical literature that is generally recognized by the relevant medical community, (B) recommendations of a physician-specialty society, (C) the views of physicians practicing in relevant clinical areas, and (D) any other relevant factors; (2) clinically appropriate in terms of type, frequency, timing, site, extent and duration and considered effective for the individual's illness, injury or disease; (3) not primarily for the convenience of the individual, the individual's health care provider or other health care providers; (4) not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the individual's illness, injury or disease; and (5) based on an assessment of the individual and his or her medical condition.
8. **Prior Authorization**: A process for approving covered services prior to the delivery of the service or initiation of the plan of care based on a determination by CHNCT as to whether the requested service is medically necessary.

REFERENCES

- Costanzo MR, Ponikowski P, Javaheri S, et al. Transvenous neurostimulation for central sleep apnoea: a randomised controlled trial. Lancet. 2016;388(10048):974-982. doi:10.1016/S0140-6736(16)30961-8
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- UpToDate. Central Sleep Apnea: Treatment. Topic last updated March 14, 2024.

PUBLICATION HISTORY

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