

**OBSTRUCTIVE SLEEP APNEA
Including Uvulopalatopharyngoplasty (UPPP) and
Laser - Assisted Uvulopalatoplasty (LAUP)**

Effective Date: August 31, 2018

Review Dates: 1/93, 12/94, 12/95, 2/98, 2/99, 6/00, 12/01, 6/02, 5/03, 5/04, 5/05, 4/06, 4/07, 6/07, 4/08, 4/09, 10/09, 4/10, 4/11, 4/12, 6/12, 8/12, 2/13, 2/14, 5/14, 2/15, 2/16, 2/17, 8/17, 2/18, 5/18

Date Of Origin: June 30, 1988

Status: Current

Summary of Changes

Clarifications:

-

Deletions:

- Pg. 2, Section I, A, 2, e, Individual currently being treated with a dental appliance with moderate to severe OSA (AHI>15) at baseline.

Additions:

- Pg.4, Section I A, 4, f, criteria for the coverage of an attended sleep study or polysomnogram (PSG) for periodic limb movement disorder (PLMD) updated. Updated criteria requires complaints by the patient or an observer, of repetitive limb movement during sleep, and a) frequent awakenings, or b) fragmented sleep, or c) difficulty maintaining sleep, or d) excessive daytime sleepiness. Additionally, the patient must have at least one additional risk factor for PLMD including, but not limited to, the following: a) iron deficiency anemia, b) renal disease, c) medication that cannot be discontinued, d) spinal injury, e) peripheral neuropathy or f) diabetes mellitus. If the patient is currently being treated for diagnosed OSA, the criterion for an additional risk factor for PLMD does not apply.

I. POLICY/CRITERIA

Special Note: This policy applies to *adults* age 18 and older only.

A. Testing and Diagnosis

All studies (with the exception of home sleep studies) require prior authorization. The studies must be done by a certified sleep lab facility and be read by a certified sleep specialist. There are no limitations on referrals to in-network sleep specialists. Prior authorization is not required for ages younger than 18 years.

1. Home/portable sleep apnea studies (HSAT) are considered **medically necessary** for individuals clinically suspected of having obstructive sleep apnea (OSA), and who do not have any of the following:
 - a. HF (heart failure) NYHA Class III and IV, EF (Ejection Fraction) < 50%, or Class II Diastolic Dysfunction

- b. Cardiac arrhythmia (e.g. atrial fibrillation, SVT, ventricular arrhythmia)
- c. History of myocardial infarction or coronary artery disease in last 12 months
- d. Moderate to severe pulmonary disease (e.g., chronic respiratory disease, symptomatic lung disease, pulmonary hypertension)
- e. Neuromuscular disease
- f. Stroke or TIA within the last 12 months
- g. Cognitive impairment, behavioral health issues or other social circumstances that compromise administration of a home sleep test (HST)
- h. Seizure disorder

Prior authorization is not required for home sleep apnea studies and may be ordered by any licensed physician or advanced practice provider.

In addition to meeting criteria in #1 above, evaluation using HSAT is covered if clinical interpretation is performed by a board certified sleep specialist and HSAT is provided by Medicare certified participating provider with a device described below.

Unattended (home) sleep studies using *any* of the following diagnostic techniques is medically necessary for members with symptoms suggestive of OSA when the home sleep study is used as part of a comprehensive sleep evaluation:

- a. Sleep monitoring using a Type II device, **or**
- b. Sleep monitoring using a Type III device, **or**
- c. Sleep monitoring using a Type IV(A) device, measuring airflow and at least 2 other channels and providing measurement of apnea-hypopnea index (AHI)

Note: Sleep studies using devices that do not provide a measurement of apnea-hypopnea index (AHI) and oxygen saturation are considered not medically necessary because they do not provide sufficient information to prescribe treatment. Examples include the Biancamed SleepMinder, SNAP testing with fewer than three channels, and the SleepImage Sleep Quality Screener. Note that the ApneaLink does not meet criteria as a covered type IV device because it does not measure airflow; however, the ApneaLink Plus records 5 channels, including airflow, and meets criteria for a covered sleep study device.

- 2. Attended sleep studies or polysomnogram (PSG) may be considered **medically necessary** for individuals with suspected OSA as determined by clinical symptoms and one of the following:

- a. Any of the clinical symptoms outlined in (a - h) in 1 above; **or**
 - b. Two failed, incomplete, or inadequate HSATs with significant indicators of OSA; **or**
 - c. One technically complete or adequate negative HSAT with high suspicion of OSA (presumptive false negative); **or**
 - d. On patients who demonstrate Cheyne-Stokes Respiration (CSR) on HSAT
3. **Split-night studies:** If clinically appropriate, a split-night diagnostic protocol, rather than a full-night diagnostic protocol for PSG, may be used in the diagnosis of OSA. Clinically appropriate is defined as the absence of conditions identified by the clinician that are likely to interfere with successful diagnosis and treatment using a split-night protocol.

In the event that moderate to severe OSA was not anticipated prior to ordering PSG, and to ensure safety during PSG, conversion to a Split Night Study is considered medically necessary if **all** criteria below are met:

- a. OSA is diagnosed by apnea/hypopnea index (AHI) as defined below on PSG.
- b. Oxygen desaturation as defined by $\text{SaO}_2 < 85\%$ is present during PSG.
- c. Member has been counseled in sleep related respiratory events (apnea, hypopnea, sleep arousal, AHI) and the mechanics of PAP therapy for the treatment of OSA have been reviewed.
- d. Criteria to allow for a split-night study have been reviewed with the patient in advance of PSG.

A split-night study is not considered medically necessary if documentation of a specific treatment plan exists that does not include CPAP therapy.

Examples include:

- a planned referral to a dentist for a mandibular advancement appliance,
 - plans for upper airway surgery, or
 - a statement that the patient does not want any treatment until the results of the test are reviewed by the sleep specialist.
4. Attended sleep studies or polysomnogram (PSG) may be considered **medically necessary** when a certified sleep specialist suspects one of the following sleep disorders prior to PSG:
- a. narcolepsy
 - b. idiopathic hypersomnia

- c. clinically significant parasomnia disorders (including nocturnal seizures)
- d. central sleep apnea
- e. obesity hypoventilation syndrome with BMI >45. And hypoventilation with documented hypoxia
- f. periodic limb movement disorder (PLMD): The following additional criteria apply:

There must be complaints, by the patient or an observer, of repetitive limb movements during sleep, and:

- a. frequent awakenings, or
- b. fragmented sleep, or
- c. difficulty maintaining sleep, or
- d. excessive daytime sleepiness,

Additionally, the patient must have at least one additional risk factor for PLMD, including, but not limited to, the following:

- a. iron deficiency anemia
- b. renal disease
- c. medication that cannot be discontinued (e.g., antidepressant, antipsychotic, sedating antihistamine)
- d. spinal injury
- e. peripheral neuropathy
- f. diabetes mellitus

Exception: If the patient is currently being treated for diagnosed OSA, the criterion for an additional risk factor for PLMD does not apply.

- 5. **Repeat facility-based PSG are a covered benefit** when the above criteria in #2 for a PSG are met and for evaluation of one of the following:
 - a. the discontinuation of PAP or oral appliance after surgery (oral surgery, UPPP); **or**
 - b. resolution of OSA after surgical treatment for OSA (oral surgery, UPPP); **or**
 - c. resolution of OSA following significant weight loss >10% such as that associated with bariatric surgery.
 - d. resolution of symptoms with oral appliance.
- 6. CPAP Titration Studies may be covered if any of the following criteria are present:

- Moderate to severe pulmonary disease (e.g. chronic respiratory disease / symptomatic lung disease / pulmonary hypertension)
 - Congestive heart failure or recent MI within the last 6 months
 - Cognitive impairment that compromises administration of a home apnea sleep test (HSAT)
 - OSA with severe desaturation (oxygen desaturations either a) >5 continuous minutes with SaO₂ <87% or b) 5 total minutes with SaO₂ <80%)
 - Other comorbid sleep disorder as listed in 4 above, in addition to OSA
 - Failure of home APAP titration
7. PAP-NAP (95807-52, involving mask fit, patient desensitization and leak control during a daytime nap while monitoring airflow, respiratory effort, EKG and oximetry) in a patient diagnosed with sleep apnea using in center or HSAT testing and meeting criteria for PAP prescription is covered in the following situations:
- a. In patients prescribed PAP who have less than 70% compliance in the first 30 days of use; **or**
 - b. In patients unable to tolerate home titration (i.e. moderate to severe mental illness, cognitive impairment, claustrophobia, insomnia < 6 hours of sleep).
8. The Multiple Sleep Latency Test (MSLT) is covered according to InterQual® criteria.

B. Treatment of OSA

1. The following treatment modalities are covered for OSA when InterQual® are met:
- a. Auto-titrating positive airway pressure (APAP), **or**
 - b. Continuous Positive Airway Pressure (CPAP) if medically indicated.
 - Bilevel Positive Airway Pressure (BPAP), Demand Positive Airway Pressure (DPAP), and Variable Positive Airway Pressure (VPAP) are covered as DME.
 - Humidifiers and heaters for positive airway pressure devices are covered.
 - A nasal/face mask or an oral pressure appliance (Oral Positive Airway Pressure - OPAP) are covered as durable medical equipment.
 - c. Oral Appliance. Covered under Prosthetics and Orthotics benefit level, applicable copays apply.

2. *Uvulopalatopharyngoplasty (UPPP), uvulectomy, or any other procedures to correct obstructive sleep apnea, are covered benefits if **both** of the following apply:
 - a. Obstructive Sleep Apnea (OSA)
 - b. Respiratory Event Index (REI) or Apnea/Hypopnea Index (AHI) is 15 or greater on polysomnography, **or** two or more of the following are met:
 - AHI > 5 and < 15
 - > 20 episodes of oxygen desaturation < 85% or any one episode of oxygen desaturation < 70%
 - Type II second degree heart block or pause > 3 seconds or ventricular tachycardia at a rate > 140/minute lasting > 15 complexes
 - Excessive daytime sleepiness documented by either Epworth Sleepiness Scale > 10 or Multiple Sleep Latency Test (MSLT) < 8

*A three (3) month trial of CPAP must be completed prior to UPPP. UPPP is a surgical procedure in which the oropharynx is enlarged by excision of the uvula and tissue of the soft palate. A tonsillectomy may also be done with the UPPP; payment for the tonsillectomy will be considered incidental to the more comprehensive UPPP procedure. UPPP, when medically necessary, is a covered benefit.

- C. The following are **not covered** benefits (this list is not all-inclusive):
- a. **Laser - Assisted Uvulopalatoplasty (LAUP).** LAUP has not been proven to be an appropriate or effective treatment of OSA or UARS. (The treatment of snoring by LAUP is not a covered benefit.)
 - b. **Radiofrequency Ablation** of the tongue base, uvula or soft palate (Somnoplasty) or of the nasal passages and soft palate (Coblation) is considered experimental and investigational as a treatment for obstructive sleep apnea because there is inadequate scientific evidence to validate the effectiveness of these procedures for this indication.
 - c. **Pillar Procedure.** There is a lack of evidence of short-term or long-term effectiveness of palatal restoration, or Pillar Procedure when performed for either obstructive sleep apnea or snoring.
 - d. **Tongue-base suspension (i.e., Repose).** The suspension of the anterior tongue by fixation of the soft tissue to the mandible using a bone screw is considered to be experimental and investigational.
 - e. **Partial Glossectomy** surgical removal of a portion of the tongue or oral cavity in an effort to widen the hypopharynx is considered to be experimental and investigational.

- f. Hypoglossal neurostimulation for obstructive sleep apnea (e.g. Inspire II, aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System) is considered experimental and investigational
- g. **Maintenance of Wakefulness Test (MWT)** objectively measures the ability of an individual to remain awake for a defined period of time. Although the MWT has been used to evaluate the risk for driving, work, or home-related accidents, its validity for this purpose has not been proven and is not a covered benefit.

Definitions:

The Apnea/Hypopnea Index (**AHI**) is determined by attended polysomnography, equal to the total number of apneas and hypopneas x 60 divided by the total sleep time in minutes. Apnea is scored if airflow is reduced by >90% for at least 10 seconds. Hypopneas are scored if there is a drop by >30% of pre-event baseline airflow lasting at least 10 seconds, resulting in an EEG arousal or >3% oxyhemoglobin desaturation.

The Respiratory Event Index (**REI**) is equal to the average number of episodes of apnea and hypopnea events per hour of recording and must be based on a minimum of 2 hours of time recorded by unattended polysomnography. Apnea is defined as a cessation of airflow for at least 10 seconds. Hypopnea is defined as an abnormal respiratory event lasting at least 10 seconds with at least a 30% reduction in airflow as compared to baseline, resulting in at least a 3% oxyhemoglobin desaturation.

If the AHI or REI is calculated based on less than 2 hours of sleep or recording time, the total number of recorded events used to calculate the AHI or RDI (respectively) must be at least the number of events that would have been required in a 2 hour period (i.e., must reach ≥ 30 events without symptoms or ≥ 10 events with symptoms).

II. MEDICAL NECESSITY REVIEW

- Required - for in-center sleep testing and capped rental positive pressure appliances (see below)
- Not Required – for home sleep testing, surgery; PAP supplies and oral appliances - unless DME/P&O dollar threshold exceeded (greater than \$1,000; \$500 for Priority Health Medicaid – based on claim charge amount).
- Not Applicable

III. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- ❖ **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ❖ **POS:** *This policy applies to insured POS plans.*
- ❖ **PPO:** *This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.*
- ❖ **ASO:** *For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.*
- ❖ **INDIVIDUAL:** *For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.*
- ❖ **MEDICARE:** *Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.*
- ❖ **MEDICAID/HEALTHY MICHIGAN PLAN:** *For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. If there is a discrepancy or lack of guidance in the Michigan Medicaid Provider Manual, the Priority Health contract with Michigan Medicaid will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.*

IV. DESCRIPTION

Obstructive Sleep Apnea (OSA) is characterized by the collapse and obstruction of the upper airway during sleep, leading to sleep fragmentation. In this syndrome, respiratory efforts persist but are ineffective due to obstruction that may occur anywhere in the upper airway. The most common complaints associated with OSA are snoring and excessive daytime sleepiness. Snoring, although it may be a social problem, is not a medical condition. The treatment of snoring alone is not a covered benefit. There must be objective evidence of sleep apnea on polysomnography or Multiple Sleep Latency Test for coverage of treatment. Testing for OSA is a covered benefit

Standard Classifications of OSAS according to Apnea/Hypopnea Index (AHI)¹⁵

Mild	greater than 5 and less than 15
Moderate:	15 to 30
Severe:	greater than 30

The diagnosis of sleep apnea may require confirmation by sleep laboratory studies. Patients' symptoms and the frequency of respiratory events on laboratory

testing are important factors in determining the severity of disease. In patients with mild sleep apnea, conservative treatment measures include getting sufficient sleep, abstaining from the use of alcohol, tobacco, and sedatives, losing weight, and avoiding the supine position during sleep. Many patients with documented sleep apnea require more than conservative therapy. Continuous positive airway pressure (CPAP) is the most consistently effective treatment for clinically significant obstructive sleep apnea.

Palatal surgical procedures tend to alleviate snoring but are not consistently effective in treating sleep apnea. Many patients with sleep apnea have airway obstruction beyond the palatal area that is not treated by soft tissue procedures.

V. CODING INFORMATION

ICD-10 Codes that may apply:

G47.10 – G47.19	Hypersomnia
G47.30	Sleep apnea, unspecified
G47.31	Primary central sleep apnea
G47.33	Obstructive sleep apnea (adult) (pediatric)
G47.34	Idiopathic sleep related nonobstructive alveolar hypoventilation
G47.35	Congenital central alveolar hypoventilation syndrome
G47.36	Sleep related hypoventilation in conditions classified elsewhere
G47.37	Central sleep apnea in conditions classified elsewhere
G47.39	Other sleep apnea
G47.411 – G47.429	Narcolepsy
G47.50 – G47.59	Parasomnia
G47.61	Periodic limb movement disorder
G47.8	Other sleep disorders
G47.9	Sleep disorder, unspecified
R06.00	Dyspnea, unspecified
R06.09	Other forms of dyspnea
R06.3	Periodic breathing
R06.83	Snoring
R06.89	Other abnormalities of breathing

Covered CPT/HCPCS Codes when policy criteria met:

Limitations apply for Priority Health Medicare – see LCD

Home Sleep Studies

95800	Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (eg, by airflow or peripheral arterial tone), and sleep time
95801	Sleep study, unattended, simultaneous recording; minimum of heart rate, oxygen saturation, and respiratory analysis (eg, by airflow or peripheral arterial tone)
95806	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, unattended by a technologist

- G0398 Home sleep study test (HST) with type II portable monitor, unattended; minimum of 7 channels: EEG, EOG, EMG, ECG/heart rate, airflow, respiratory effort and oxygen saturation
- G0399 Home sleep test (HST) with type III portable monitor, unattended; minimum of 4 channels: 2 respiratory movement/airflow, 1 ECG/heart rate and 1 oxygen saturation (*Not covered for Priority Medicaid*)
- G0400 Home sleep test (HST) with type IV portable monitor, unattended; minimum of 3 channels (*Not covered for Priority Medicaid*)

In Center Sleep Studies – Prior Authorization (PA) required

(PA not required for members 0 – 18 years)

- 95807 Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist
Append modifier 52 for PAP NAP billing
- 95808 Polysomnography; any age, sleep staging with 1-3 additional parameters of sleep, attended by a technologist
- 95810 Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
- 95811 Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by a technologist
- 95805 Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness

No prior authorization required:

- 94660 Continuous positive airway pressure ventilation (CPAP), initiation and management
Consultation with a registered respiratory therapist or registered polysomnographic technologist at the time of initial treatment and or during or immediately after the initial 90 days of treatment with any of the PAP therapy devices to ensure appropriate use and fit of equipment and associated devices will be covered.
- 95782 Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
- 95783 Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by a technologist

Check plan benefit limitations for surgical services

- 42140 Uvullectomy, excision of uvula
- 42145 Palatopharyngoplasty (eg, uvulopalatopharyngoplasty, uvulopharyngoplasty)

ICD-10 Code that is payable for the following codes when billed by a dental provider:

- G47.33 Obstructive sleep apnea (adult) (pediatric)

CPT/HCPCS Codes:

E0486 Oral device/appliance used to reduce upper airway collapsibility, adjustable or non-adjustable, custom fabricated, includes fitting and adjustment
(Not covered for Priority Medicaid)

Not covered

E0485 Oral device/appliance used to reduce upper airway collapsibility, adjustable or non-adjustable, prefabricated, includes fitting and adjustment

Authorization required for all plans

- *Capped rental; DME benefit*
- *Prior Authorization waived one time for the 1st three months rental. If treatment is not continued after 3 months but is resumed at a later time, prior authorization will be required from the start of treatment for the first 3 months and to continue for the following 7 months (10 months for Medicare) of the capped rental period.*
- *Requests for prior authorization must include evidence of compliance defined as use of PAP ≥ 4 hours per night for a minimum of 21 nights (70% of nights) during a consecutive thirty (30) day period anytime during the first three (3) months of usage.*

E0470 Respiratory assist device, bi-level pressure capability, without backup rate feature, used with noninvasive interface, e.g., nasal or facial mask (intermittent assist device with continuous positive airway pressure device)

E0471 Respiratory assist device, bi-level pressure capability, with backup rate feature, used with noninvasive interface, e.g., nasal or facial mask (intermittent assist device with continuous positive airway pressure device)

E0472 Respiratory assist device, bi-level pressure capability, with backup rate feature, used with noninvasive interface, e.g., tracheostomy tube (intermittent assist device with continuous positive airway pressure device) *(Not covered for Priority Medicaid)*

E0601 Continuous airway pressure (CPAP) device

Non-covered CPT/HCPCS Codes:

95803 Actigraphy testing, recording, analysis, interpretation, and report (minimum of 72 hours to 14 consecutive days of recording)

41120 Glossectomy; less than 1/2 tongue *(not covered for sleep related conditions)*

41130 Glossectomy; hemiglossectomy *(not covered for sleep related conditions)*

41512 Tongue base suspension, permanent suture technique

41530 Submucosal ablation of the tongue base, radiofrequency, 1 or more sites, per session

42160 Destruction of lesion, palate or uvula (thermal, cryo or chemical) *(covered for non-sleep related indications with prior auth)*

42299 Unlisted procedure, palate, uvula *(Not covered if billed for somnoplasty or any other not covered procedure. Explanatory notes must accompany claim)*

C9727 Insertion of implants into the soft palate; minimum of three implants

- S2080 Laser-assisted uvulopalatoplasty (LAUP)
- E0190 Positioning cushion/pillow/wedge, any shape or size, includes all components and accessories
- E1399 Durable medical equipment, miscellaneous (*Explanatory notes must accompany claim*)
Not covered for devices such as Provent® and/or other devices not recognized as covered in this policy.
- 0424T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; complete system (transvenous placement of right or left stimulation lead, sensing lead, implantable pulse generator)
- 0425T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0426T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0427T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; pulse generator only
- 0428T Removal of neurostimulator system for treatment of central sleep apnea; pulse generator only
- 0429T Removal of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0430T Removal of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0431T Removal and replacement of neurostimulator system for treatment of central sleep apnea, pulse generator only
- 0432T Repositioning of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0433T Repositioning of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0434T Interrogation device evaluation implanted neurostimulator pulse generator system for central sleep apnea
- 0435T Programming device evaluation of implanted neurostimulator pulse generator system for central sleep apnea; single session
- 0436T Programming device evaluation of implanted neurostimulator pulse generator system for central sleep apnea; during sleep study
- 0466T Insertion of chest wall respiratory sensor electrode or electrode array, including connection to pulse generator (List separately in addition to code for primary procedure)
- 0467T Revision or replacement of chest wall respiratory sensor electrode or electrode array, including connection to existing pulse generator
- 0468T Removal of chest wall respiratory sensor electrode or electrode array

VI. REFERENCES

Complete Guide to Medicare Coverage Issues, Centers for Medicare and Medicaid, National Coverage Determinations Manual (Pub. 100-03, 2-88), National Coverage Decision (NCD) 240.4, Continuous Positive airway

- Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA), Effective date: April 4, 2005, E0601, E0407-E0472, Ingenix, Inc., May 2006.
- Complete Guide to Medicare Coverage Issues, Centers for Medicare and Medicaid, Medicare Benefit Policy Manual (Pub. 100-02), Chapter 6, 50 – Sleep Disorders Clinics, Ingenix, Inc., May 2006.
- Obstructive Sleep Apnea, Diagnosis and Treatment*, Coverage Policy Bulletin, Aetna US Healthcare, 2000-2001.
- Surgical Management of Obstructive Sleep Apnea Syndrome and Upper Airway Resistance Syndrome*, Medical Policy Manual, The Regence Group, April 2001.
- Surgeries for Snoring and Obstructive Sleep Apnea Syndrome. Medical Policy Manual. Policy No. 166. Regence Blue Cross Blue Shield. Date of Origin March 31, 2009. <http://blue.regence.com/trgmedpol/surgery/sur166.pdf> (Retrieved January 4, 2018).
- Centers for Medicare and Medicaid (CMS) Coverage Database, National Coverage Determination (NCD), NCD for Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA) (240.4), Pub. 100-3. https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=226&ncdver=3&DocID=240.4&list_type=ncd&bc=gAAAABAAAA& (Retrieved January 4, 2018).
- Centers for Medicare and Medicaid (CMS) Manual System, Pub. 100-03, Medicare National Coverage Determination (NCD) Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA), CR#3843, May 6, 2005. <http://www.cms.hhs.gov/transmittals/downloads/R35NCD.pdf> (Retrieved 3/15/2007).
- Restore Medical. Available on the World Wide Web @ <http://www.pillarprocedure.com/> (Retrieved April 26, 2005 & January 4, 2018)
- Portable Devices for home testing for obstructive sleep apnea – California Technology Assessment Forum June 15, 2005
- Wisconsin Physicians Service (WPS), National Coverage Provision (NCP), Surgical Treatment of Obstructive Sleep Apnea, ENT-012, Michigan effective date: 07/01/2002, Revision effective date: 10/01/2006
- Wisconsin Physicians Service (WPS), National Coverage Provision (NCP), Sleep-Disorder Clinics and Diagnostic Tests, PULM-0003, Michigan effective date: 10/15/1997, Revision date: 10/01/2005.
- Hayes Technology Brief: Repose® Tongue and Hyoid Suspension (THS) system (Medtronic Xomed Inc.) January 31, 2010
- Hayes Technology Brief: Pillar® Palatal Implant System (Medtronic Xomed Inc.) January 28, 2010
- Up-to-Date: Management of obstructive sleep apnea in adults Last literature review version 18.1: January 2010 | This topic last updated: December 7, 2009
- Hayes, Inc. aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System January 2015

- Hayes, Inc. Hypoglossal Nerve Stimulation (Inspire Upper Airway Stimulation; Inspire Medical Systems Inc.) for Treatment of Obstructive Sleep Apnea, November 2014 and March 24, 2016
- Centers for Medicare & Medicaid Services (CMS), Local Coverage Determination (LCD): Surgical Treatment of Obstructive Sleep Apnea (OSA) (L34526), Revision Effective Date: for services performed on or after 01/01/2017. <https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=34526&ver=12&Date=&DocID=L34526&bc=iAAAA&BAAAA&> (Retrieved January 4, 2018).
- Gamaldo CE, Salas RME. Polysomnography in the evaluation of abnormal movements during sleep. Harding SM, Eichler AF, ed. Waltham, MA: UptoDate Inc. <http://www.uptodate.com> (Accessed on April 5, 2018).
- Ondo WG. Clinical features and diagnosis of restless legs syndrome and periodic limb movement disorder in adults. Hurtig HI and Avidan AY, ed. UptoDate inc. <http://www.uptodate.com> (Accessed on April 12, 2018).
- Rosen IM, et al. American Academy of Sleep Medicine Board of Directors. Clinical use of a home sleep apnea test: an American Academy of Sleep Medicine position statement. *J Clin Sleep Med.* 2017;13(10):1205–1207.
- Kapur VK, et al. Clinical practice guideline for diagnostic testing for adult obstructive sleep apnea: an American Academy of Sleep Medicine clinical practice guideline. *J Clin Sleep Med.* 2017;13(3):479–504.
- Zeidler MR, Santiago V, Dzierzewski JM, Mitchell MN, Santiago S, Martin JL. Predictors of obstructive sleep apnea on polysomnography after a technically inadequate or normal home sleep test. *J Clin Sleep Med* 2015;11(11):1313 –1318.
- Kapoor M and Greenough G. Home Sleep Tests for Obstructive Sleep Apnea (OSA). *J Am Board Fam Med* 2015;28:504 –509.
- Kushida CA; Littner MR; Morgenthaler T et al. Practice parameters for the indications for polysomnography and related procedures: An update for 2005. *SLEEP* 2005;28(4):499-521.

AMA CPT Copyright Statement:

All Current Procedure Terminology (CPT) codes, descriptions, and other data are copyrighted by the American Medical Association.

This document is for informational purposes only. It is not an authorization, certification, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of coverage. Eligibility and benefit coverage are determined in accordance with the terms of the member's plan in effect as of the date services are rendered. Priority Health's medical policies are developed with the assistance of medical professionals and are based upon a review of published and unpublished information including, but not limited to, current medical literature, guidelines published by public health and health research agencies, and community medical practices in the treatment and diagnosis of disease. Because medical practice, information, and technology are constantly changing, Priority Health reserves the right to review and update its medical policies at its discretion.

Priority Health's medical policies are intended to serve as a resource to the plan. They are not intended to limit the plan's ability to interpret plan language as deemed appropriate. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment they choose to provide.

The name "Priority Health" and the term "plan" mean Priority Health, Priority Health Managed Benefits, Inc., Priority Health Insurance Company and Priority Health Government Programs, Inc.