Corporate Medical Policy

Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome

File Name: surgery_for_obstructive_sleep_apnea_and_upper_airway_resistance_syndrome
Origination: 12/2009
Last Review: 3/2024

Description of Procedure or Service

Obstructive sleep apnea (OSA), also referred to as obstructive sleep apnea syndrome (OSAS), or obstructive sleep apnea-hypopnea syndrome (OSAHS) is a treatable form of sleep disordered breathing. OSA is the most common category of sleep disordered breathing. In OSA, the brain sends the message to breathe, but there is a blockage to air flowing into the chest. It is a condition in which repetitive episodes of upper airway obstruction occur during sleep. The obstruction may be localized to one or two areas, or may encompass the entire upper airway passages to include the nasal cavity (nose), oropharynx (palate, tonsils, tonsillar pillars) and hypopharynx (tongue base). The hallmark clinical symptom of OSA is excessive daytime sleepiness.

Consequences of OSA may include excessive daytime sleepiness, hypertension, cardiac arrhythmias, pulmonary hypertension, and stroke. Excessive daytime sleepiness is a result of fragmented sleep due to repeated arousals during sleep which can lead to impairment of almost any daytime activity.

Upper airway resistance syndrome is a variant of OSA and is characterized by a partial collapse of the airway resulting in increased resistance to airflow without apnea or hypopnea. This causes many short episodes of breathing difficulties to occur each night, leading to brief arousals and sleep fragmentation. The individual does not actually stop breathing during sleep. The disruption in sleep can cause excessive daytime sleepiness.

Surgical management may be indicated to treat OSA in individuals who have an underlying specific abnormality that is causing the disorder and who have failed standard non-operative treatments as appropriate for their condition. A pre-surgical evaluation must include, at minimum, a comprehensive sleep history and a complete head and neck physical examination of the upper airway to determine the location of the upper airway obstruction. Flexible nasopharyngoscopy and lateral cephalometric radiographs may be helpful but radiographs are not a substitute for a complete head and neck examination. Surgical therapy must be directed at specific sites of obstruction (as suggested by clinical evidence) to ensure successful surgical treatment.

Related Policies
Sleep Apnea: Diagnosis and Medical Management
Noninvasive Respiratory Assist Devices
Orthognathic Surgery

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

BCBSNC will provide coverage for surgery for obstructive sleep apnea and upper airway resistance syndrome when it is determined to be medically necessary because the medical criteria and guidelines shown below are met.

Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When surgery for obstructive sleep apnea and upper airway resistance syndrome is covered

Any individual that needs a device other than CPAP (e.g., cannot be successfully treated via auto-titrating CPAP) or needs surgery must be evaluated with supervised polysomnography in a sleep laboratory with appropriate monitoring by skilled personnel. The Plan will give primary consideration to data from in-lab polysomnography and pressure titrations in evaluating requests for coverage of bi-level pressure, adaptive servo-ventilation, and sleep apnea surgery.

An individual being evaluated for hypoglossal nerve stimulation may be evaluated with a home sleep test if the individual does not meet criteria for supervised polysomnography.

Conservative measures as appropriate for an individual clinical situation must have been tried and failed prior to considering surgical management (see Corporate Medical Policy titled Sleep Apnea: Diagnosis and Medical Management and Corporate Medical Policy titled Noninvasive Respiratory Assist Devices). Preoperative evaluation must include a comprehensive sleep history with a complete head and neck examination, including a visual examination of the hypopharynx and larynx. A complete head and neck examination for OSA may include, as adjunctive measures only, a flexible fiberoptic examination, Müller maneuver and/or cephalometrics as needed in order to determine the site of obstruction as nearly as clinically possible.

I) Surgical procedures may be considered medically necessary for the treatment of:
   A) Clinically significant OSA defined as:
      1) An AHI or RDI 15 or more events per hour; OR
      2) An AHI or RDI between 5 and 14 per hour with any of the following associated symptoms which must be documented by medical records:
         (a) Excessive daytime sleepiness (as evidence by a pre-testing Epworth score of greater than 10); or
         (b) Impaired cognition; or
         (c) Mood disorders; or
         (d) Insomnia; or
         (e) Documented hypertension; or
         (f) Ischemic heart disease; or
         (g) History of stroke.

      *The above selection criteria were adopted from the Medicare policy for coverage of CPAP.

      The presentation of obstructive sleep apnea (OSA) in pediatric individuals may differ from that of adults. OSA in children is defined as those who have:

      - An AHI or RDI of at least 5 per hour, or
      - An AHI or RDI of at least 1.5 per hour in an individual with excessive daytime sleepiness, behavioral problems or hyperactivity.

      OR

   B) Clinically significant UARS which is defined as greater than 10 alpha EEG respiratory arousals per hour. The presence of abnormally negative intrathoracic pressures (i.e., more negative than -10 cm) in conjunction with the EEG arousals supports the diagnosis. The measurement of intrathoracic pressures requires the use of an esophageal manometer as an adjunct to a polysomnogram.

Objective evidence of hypopharyngeal obstruction is documented by either fiberoptic endoscopy or cephalometric radiographs.

II) Surgical procedures that may be considered include:
   A) Palatopharyngoplasty (e.g., uvulopalatopharyngoplasty, uvulopharyngoplasty, uvulopalatal flap, expansion sphincter pharyngoplasty, lateral pharyngoplasty, palatal advancement pharyngoplasty, relocation pharyngoplasty) may be considered medically necessary for the treatment of clinically significant (moderate to severe) obstructive sleep apnea syndrome or upper airway resistance syndrome (UARS) in individuals who have tried and failed a good faith effort at treatment with continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP) **and** whose physical examination shows obstruction at the palatal level.
      1) UPPP may also be indicated in order to enhance CPAP or BiPAP effectiveness in individuals who have tried and failed a good faith effort at pressure support.
   B) Hyoid suspension, surgical modification of the tongue (including genioglossus advancement), and/or maxillofacial surgery, including mandibular-maxillary advancement (MMA), may be considered medically necessary in individuals:
      1) with clinically significant OSA; **and**
      2) objective documentation of hypopharyngeal obstruction by physical examination; **and**
      3) who have tried and failed a good faith effort at treatment with CPAP or BiPAP or to enhance the effectiveness of either device.
   C) Adenotonsillectomy may be considered medically necessary in children with obstructive sleep apnea and hypertrophic tonsils.

   Orthognathic surgery will not be approved as the first surgical therapy for OSA unless otolaryngology evaluation has ruled out obstruction at a higher anatomic level. (refer to Corporate Medical Policy titled Orthognathic Surgery)

   D) Septoplasty when performed to enhance CPAP or BiPAP effectiveness. Nasal obstruction must be documented. (refer to Corporate Medical Policy titled, Septoplasty)
   E) Tracheostomy
   F) Tonsillectomy and/or adenoidectomy
   G) Turbinate surgery
   H) Hypoglossal nerve stimulation may be considered medically necessary in individuals:
      1) Age ≥ 18 years; and
      2) an AHI ≥ 15 with less than 25% central apneas; and
      3) CPAP or BIPAP failure (residual AHI ≥ 15 or failure to use CPAP/BIPAP ≥ 4 hours per night for ≥ 5 nights per week after appropriate acclimation measures as listed below have been tried) or inability to tolerate CPAP, as documented by attestation supported by medical records from a sleep medicine specialist (see Policy Guidelines for further detail on CPAP failure and intolerance); and
      4) With a body mass index ≤ 40 kg/m^2; and
      5) Who have non-concentric retropalatal obstruction on drug-induced sleep endoscopy (see Policy Guidelines)
   I) Hypoglossal nerve stimulation may be considered medically necessary in adolescents or young adults with Down syndrome and OSA:
      1) Age 10 to 21 years; AND
      2) AHI >10 and <50 with less than 25% central apneas after prior adenotonsillectomy; AND
      3) Who have either tracheotomy or are ineffectively treated with CPAP due to noncompliance, discomfort, un-desirable side effects, persistent symptoms despite compliance use, or refusal to use the device; AND
      4) With a body mass index ≤ 95th percentile for age; AND
      5) Who have non-concentric retropalatal obstruction on drug-induced sleep endoscopy (See Policy Guidelines).

      The hypoglossal nerve stimulation device should only be implanted by a provider who has undergone procedure-specific training.

Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome

When surgery for obstructive sleep apnea and upper airway resistance syndrome is not covered

The following surgical procedures are not covered:

A) Any surgical procedures other than those shown above.
B) Laser-assisted palatoplasty or radiofrequency volumetric tissue reduction of the palatal tissues are considered not medically necessary in the treatment of snoring* alone and are considered investigational as a treatment for UARS or OSA.
C) Radiofrequency volumetric tissue reduction (RFVTR, Somnoplasty) or coblation of nasal turbinates is considered not medically necessary for snoring* and is considered investigational for treatment of OSA.
D) Palatal stiffening procedures, including but not limited to, cautery-assisted palatal stiffening operation (CAPSO), injection of a sclerosing agent, and the implantation of palatal implants (e.g., the "Pillar Procedure") are considered not medically necessary in the treatment of snoring* alone, and are considered investigational as a treatment for UARS or OSA.
E) Radiofrequency volumetric tissue reduction or coblation of the tongue, with or without radiofrequency reduction of the palatal tissues, is considered investigational for UARS or OSA.
F) Tongue base suspension is considered investigational.
G) Injection snoreplasty, injection of a sclerosing agent into the soft palate, is considered investigational.
H) Hypoglossal nerve stimulation is considered investigational for all other indications other than as listed in the when covered section.

***Note:** Because snoring, in the absence of documented obstructive sleep apnea, is not an illness or a disease, treatment of snoring, including **any** surgical intervention is considered not medically necessary and therefore is not covered. Snoring does not fall within the definition of medical necessity.

Policy Guidelines

Conservative measures must have been tried and failed prior to considering surgical management. Conservative medical therapy, when appropriate to the clinical situation, may include: weight loss, avoidance of alcohol, sedatives and caffeine consumption, especially before bedtime, allowing adequate sleep time, body position during sleep (side versus back), oral appliances, positive airway pressure devices and medically supervised smoking cessation programs.

The Plan recognizes and affirms that positive airway pressure (e.g., CPAP, BiPAP) is the treatment of choice for obstructive sleep apnea. For this reason the general rule is that a good faith effort at positive pressure must be tried and failed prior to coverage of surgical treatment. Surgery is to be reserved for individuals who have not responded to appropriate medical alternatives

For any request for prior review of a surgical procedure, current polysomnogram data (including the initial sleep study, any CPAP titration data, and any other studies such as MSLT that have been performed) must be submitted for review with the supporting medical record documentation. Generally, the sleep study upon which approval is requested must be less than 18 months old.

Polysomnography data must include a summary with, at minimum, the following information:

- Total sleep time for the study;
- Total RDI or AHI for the study;
- Average and lowest recorded oxygen saturation;
- For any desaturations below 90%, the length of time at the abnormally low saturation level or range;

- Obstructive event indices for supine and non-supine positions, along with total sleep time spent supine;
- Periodic leg movement (PLM) index;
- A summary table of the polysomnogram results and titration data for all devices used.

The AHI is the total number events (apnea or hypopnea) per hour of recorded sleep. The RDI is the total number events (apnea or hypopnea) per hour of recording time. An obstructive apnea is defined as at least a 10-second cessation of respiration associated with ongoing ventilatory effort. Hypopnea is defined as an abnormal respiratory event lasting at least 10 seconds with at least a 30% reduction in thoracoabdominal movement or airflow as compared to baseline, and with at least a 4% oxygen desaturation.

A polysomnogram that does not distinguish between supine and non-supine obstructive events, to the extent that any possible positional predisposition to obstruction can be determined, is not complete and may not be sufficient to support a request for surgery or pressure therapy.

The Plan may require a repeat polysomnogram to support a request for additional surgical therapy after prior surgical therapy based on the initial polysomnogram.

Hypoglossal nerve stimulation (HGNS)

The FDA approval of HGNS in the adult population (with selection criteria) was based on results of the phase III STAR trial, which showed improved AHI outcomes.

The use of the HGNS in the adolescent population with Down syndrome is limited to a case series of 6 individuals with 12 months follow-up. The individuals are part of a pilot study to evaluate HGNS in adolescents with Down syndrome and OSA (NCT02344108). The estimated enrollment is 50 individuals with an estimated study completion date of Setember 2020.

The FDA label for HGNS contains a precaution for use in the pediatric population and states that "the safety of implantation and the parameters for safe and effective stimulation of the hypoglossal nerve have not been evaluated in clinical studies for individuals less than 22 years of age. There may be increased risk of nerve injury and stimulation-related adverse events in this population, particularly in younger children (e.g. less than 12 years of age)".

Drug-induced sedation endoscopy (DISE):

Prior to the physician undertaking a DISE study, the Plan expects that the coverage policy for HGNS will otherwise have been satisfied. Individuals with complete concentric collapse at the level of the velopharynx during DISE are not considered candidates for HGNS. This is based on the results of a phase II trial in which HGNS was successful in 8 of 10 individuals with an anterior-posterior pattern of velopharyngeal collapse on DISE, but successful in less than half of individuals with concentric collapse. Therefore, individuals in the phase III STAR trial were exluded if they had complete concentric collapse at the level of the velopharynx observed with DISE.

Adherence to and failure of CPAP Treatment:
A good faith effort at CPAP compliance must be documented in the medical record and includes the following:
1) CPAP must be prescribed based on a CPAP titration to obtain the most effective pressure compatible with individual comfort.
2) The CPAP DME supplier and the sleep specialist must undertake appropriate measures to maximize the chance of success with CPAP. Measures to acclimate members to therapy may include, but are not limited to, one or more of the following:

(a) Emotional support to overcome initial reluctance where appropriate, with specific attention to addressing mask intolerance due to anxiety. Mask intolerance must be addressed by the sleep specialist prior to being accepted as a reason for failure of CPAP.
(b) Alternate mask fitting for effect and comfort.
(c) Nasal pillows.
(d) Ramping (which allows for a gradual increase in pressure).
(e) Humidification.

In individuals who are unable to complete a satisfactory CPAP titration because of mask intolerance due to anxiety, unfamiliarity, or other non-physical reasons, a separate, dedicated, in-lab titration may be successful if the initial titration was time-limited due to its being part of a split-night study. If one or more titration efforts are unsuccessful, a one-month trial of home acclimation with autotitrating CPAP including gradual, daytime, non-sleeping exposure to the use of the system with documented follow-up and results must be provided.

Acclimation efforts, when necessary, should be attempted for a minimum of two months, and must be supported by proper documentation and compliance chip information before CPAP therapy will be considered a failure. Multiple visits to the sleep specialist during the acclimation period are expected, with documentation of all above efforts as applicable. Documentation must include ongoing management by the sleep specialist of two months or greater.

Prior to coverage of alternative noninvasive respiratory assist devices or surgery, adequate adherence to CPAP must be demonstrated unless the above efforts at acclimation have been documented as adequately tried and failed.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: 21085, 21121, 21122, 21123, 21125, 21127, 21141, 21142, 21143, 21145, 21146, 21147, 21193, 21194, 21195, 21196, 21198, 21199, 21206, 21685, 30130, 30140, 30520, 30801, 30802, 31600, 31601, 41120, 41512, 41530, 42120, 42140, 42145, 42160, 42299, 42820, 42821, 42825, 42826, 42830, 42831, 42835, 42836, 42950, 42975, 64568, 64582, 64583, 64584, C1767, C1823, S2080

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

For Policy entitled: Surgical Management of Obstructive Sleep Apnea

BCBSA Medical Policy Reference Manual - 3/96

Reaffirmed. 5/99

Medical Policy Advisory Group - 8/99

For Policy entitled: Sleep Apnea and Breathing Related Sleep Disorders

Evidence Report/Technology Assessment No. 1, Systematic Review of the Literature Regarding the diagnosis of Sleep Apnea (AHCPR Publication No. 99-E002).

Ferber R, Millman R, Coppola M, et al. ASDA Standards of Practice. Portable Recording in the Assessment of Obstructive Sleep Apnea. *Sleep*. 1994:17:378-392.

Thorpy M, Chesson A, Ferber R, et al. Practice Parameters for the Use of Portable Recording in the Assessment of Obstructive Sleep Apnea. *Sleep*. 1994:17(4):372-377.

Laser-Assisted Uvulopalatoplasty for the Treatment of Simple (Nonapneic) Snoring and Obstructive Sleep Apnea. ECRI. March 1995.

Indications for Polysomnography Task Force. American Sleep Disorders Association Standards of Practice Committee. Practice Parameters for the Indications for Polysomnography and Related Procedures. *Sleep*. 1997:20(6):406-422.

Chesson Jr A, Ferber R, Fry J, Grigg-Damberger, et al. The Indications for Polysomnography and Related Procedures. *Sleep*. 1997:20(6):423-487.

Consultant Review - 2/1998

Bone: Pulmonary & Critical Care Medicine, 1998 ed., Mosby-Year Book, Inc. www.home.mdconsult.com/ das/book/body/0/744/924.html

Ross SD, Allen IE, Harrison KJ, et al. Review: Screening tests are not as accurate as overnight polysomnography for the diagnosis of adult sleep apnea. *ACP Journal Club*. 2000:March/April:.69.

Sanders M, Costantino J, Strollo P, et al. The Impact of Split-Night Polysomnography for Diagnosis and Positive Pressure Therapy Titration on Treatment Acceptance and Adherence in Sleep Apnea/Hypopnea. *Sleep*. 2000:23(1):17-24.

Specialty Matched Consultant Review - 7/2000

Medical Policy Advisory Group - 9/2000

Specialty Matched Consultant Review - 6/2002

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.18, 2/25/04

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.51, 4/16/04.

Loube DI, Gay PC, Strohl KP, Pack AI, White DP, Collop NA. Indications for positive airway pressure treatment of adult obstructive sleep apnea patients: a consensus statement. *Chest*. 1999 Mar;115(3):863-6.

Specialty Matched Consultant Advisory Panel review - 6/21/04

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 4/1/05.

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.51, 4/1/05.

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.18, 4/1/05.

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.18, 12/14/05.

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 12/14/05.

Specialty Matched Consultant Advisory Panel review - 6/1/06

For New Policy entitled: Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 7/20/06.

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 12/13/07.

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 12/11/08.

Specialty Matched Consultant Advisory Panel review - 3/2/09.

Specialty Matched Consultant review (2) - 10/2009.

Senior Medical Director Review - 12/2009

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 3/11/10

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 4/12/12

Specialty Matched Consultant Advisory Panel – 8/2012

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 5/9/13

Specialty Matched Consultant Advisory Panel – 8/2013

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 5/22/14

Specialty Matched Consultant Advisory Panel – 8/2014

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 5/21/15

Specialty Matched Consultant Advisory Panel – 8/2015

Specialty Matched Consultant Advisory Panel – 8/2016

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 12/8/2016

Specialty Matched Consultant Advisory Panel – 8/2017

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 9/14/2017

Specialty Matched Consultant Advisory Panel – 8/2018

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Woodson BT, Soose RJ, Gillespie MB, et al. Three-Year Outcomes of Cranial Nerve Stimulation for Obstructive Sleep Apnea: The STAR Trial. Otolaryngol Head Neck Surg. 2016 Jan;154(1):181-8.

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BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 6/13/2019

Specialty Matched Consultant Advisory Panel – 8/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 6/18/2020

Specialty Matched Consultant Advisory Panel – 8/2020

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.101, 6/10/2021

Specialty Matched Consultant Advisory Panel – 8/2021

Medical Director review 5/2022

Specialty Matched Consultant Advisory Panel – 8/2022

Medical Director review 8/2023

Specialty Matched Consultant Advisory Panel 8/2023

Center for Devices and Radiological Health. (n.d.). Inspire upper airway stimulation – P130008/S090. U.S. Food and Drug Administration. https://www.fda.gov/medical-devices/recently-approved-devices/inspire-upper-airway-stimulation-p130008s090

Medical Director review 3/2024

Specialty Matched Consultant Advisory Panel 3/2024

Policy Implementation/Update Information

For Policy entitled: Surgical Management of Obstructive Sleep Apnea

7/96 Revised: National Association reviewed 3/96. Policy for OSAS incorporated medical and surgical management. Combined Local and National Policies

11/96 Revised: Added oral appliances under Medical Treatment for OSA.

4/97 Revised: Medical and Surgical policy developed. **See also** 95805-0.MED

5/99 Reaffirmed.

7/99 Reformatted, Description of Procedure or Service changed, Medical Term Definitions added.

8/99 Medical Policy Advisory Group

For Policy entitled: Sleep Apnea and Breathing Related Sleep Disorders

10/00 New Policy issued. Specialty Matched Consultant review. Medical Policy Advisory Group review. Coding revised in billing/coding sections. System coding changes.

10/01 Coding format changes.

11/01 Removed references to automobile accidents related to narcolepsy.

01/02 CPT code 41120 added to the Billing and Coding section of the policy. This code is not covered when used to bill a somnoplasty.

06/02 Reformatted When Treatment of Sleep Apnea and Breathing Related Sleep Disorders are covered section for understanding. Changed When Treatment of Sleep Apnea and Breathing Related Sleep Disorders section to indicate that Somnoplasty is a Trade Mark which refers to radiofrequency tissue volume reduction (Somnoplasty™). The following codes were removed from the policy: DM495, E0452, K0269. The following codes were added to the policy: 30520, 42825, 42826, 99508, K0268, K0531, K0532, K0533, K0534.

07/02 Specialty Matched Consultant Review 6/2002. Removed references regarding patients with an RDI >30 not being candidates for UPPP.

10/02 Changed date of next review.

10/14/04 Specialty Matched Consultant Advisory Panel review – 6/21/04. Multiple updates and clarifications. Under Section I – "When not Covered"- B. Unattended (unsupervised) sleep studies are considered investigational. Under Section II – "When Covered" – A. Medical Management, good faith effort at CPAP compliance added; B. Surgical Management, clinically significant UARS included; "When not Covered" – C. Additional non-covered surgical procedures listed, including RFVTR (Somnoplasty) of nasal turbinates, the Repose System, injection snoreplasty, CAPSO. Section I – "Billing/Coding"- removed deleted CPT code 99508. Section II – "Billing/Coding" – added the following HCPCS codes: A7032, A7033, A7034, A7035, A7036, A7037, A7038, A7039, E0470, E0471, E0472, E0561, E0562, S2080; Removed CPT codes 42825, 42826; Removed the following deleted HCPCS codes: K0183-K0189, K0268, K0531, K0532, K0533, K0534. Sources added. Notification given 10/14/04. Effective date 12/23/04.

12/23/04 Added 2005 CPT code 0088T to Billing/Coding section for Treatment of Sleep Apnea and Breathing Related Sleep Disorders in Adults and to final Billing/Coding section that includes all codes in policy.

1/20/05 Specified "in Adults" to name of policy with 10/14/04 notice and effective date of 12/23/04. This was inadvertently omitted from 10/14/04 information.

05/19/05 Added CPT code 21685 to Billing/Coding section for Treatment of Sleep Apnea and Breathing Related Sleep Disorders in Adults and to final Billing/Coding section that includes all codes in policy.

6/16/05 Section II: "When treatment of sleep apnea and breathing related sleep disorders is not covered"; C.4 now reads "Palatal stiffening procedures, including but not limited to, cautery-assisted palatal stiffening operation (CAPSO), **and the implantation of palatal implants**, are considered not medically necessary in the treatment of snoring alone, and are considered investigational as a treatment for UARS or OSA." Under same section removed C.7 "Cautery-Assisted palatal stiffening operation (CAPSO) is considered investigational." Since it is now included in C.4 above; previous items C.4, 5 and 6 were renumbered to 5, 6, and 7 due to the changes. Reference source and key words added.

9/1/05 Section II.B.2 – added "e. tonsillectomy". CPT code 42826 added to Billing/Coding section.

1/19/06 Added codes E0485 & E0486 to appropriate Billing/Coding sections.

6/4/07 **Description** section: Last two paragraphs revised.

Section I-Diagnostic Sleep Testing in Adults, When Not Covered: Deleted A.4. "Hypersomnia without other signs/symptoms of OSA"; **added F.** "Actigraphy is a method used to study sleep-wake patterns and circadian rhythms by assessing body movement. Actigraphy devices are typically placed on the wrist, ankle, or trunk to record movement. Data are collected and downloaded to a computer for display and analysis. Actigraphy is considered investigational as a technique to record and analyze body movement, including but not limited to its use to evaluate sleep disorders."

Section I-Diagnostic Sleep Testing in Adults, Policy Guidelines: Third sentence of first bullet revised and made a separate bullet: "A follow-up supervised polysomnogram may be indicated for the assessment of treatment results in the following circumstances: after surgical treatment (i.e., Uvulopalatopharyngoplasty [UPPP]), after substantial weight gain or weight loss, or change in symptoms suggesting that CPAP should be retitrated or discontinued." Last sentence of first bullet made third bullet ("More than three polysomnograms..."). "Medically necessary services rendered..." is now fourth bullet.

Section II-Treatment of Sleep Apnea and Breathing Related Sleep Disorders in Adults, When Covered: **A.1.** deleted >5 and inserted "greater than 10 and less than 30 (mild to moderate sleep apnea)" **A.3.** Added underlined wording "These measures to acclimate members to therapy include emotional support to overcome initial reluctance where appropriate, *with specific attention to addressing claustrophobia,...*" At **end of A.3.** added "Documentation must include ongoing management by sleep specialist of 3 months or greater. Claustrophobia must be addressed by sleep specialist prior to being accepted as a reason for failure of CPAP. **B. Surgical Management**: revised "Conservative measures *as appropriate for an individual clinical situation* must have been tried and failed prior to considering surgical management (see Policy Guidelines below). Preoperative evaluation *must* ~~should~~ include a comprehensive *sleep* history with a complete head and neck examination, including a visual examination of the hypopharynx and larynx. A complete head and neck examination for OSA *may* include, *as adjunctive measures*, a flexible fiberoptic examination, Müller maneuver and/or cephalometrics as needed in order to determine the site of obstruction as nearly as clinically possible. **B.1.b.** corrected per minute to per *hour*. **B.2.a.** revised: "Uvulopalatopharyngoplasty (UPPP) may be considered medically necessary for the treatment of clinically significant OSA or clinically significant UARS *if performed to enhance CPAP or BiPAP effectiveness* in patients who have tried and failed a good faith effort at treatment with CPAP, BiPAP or DPAP and whose physical examination evidences obstruction at the palatal level." **B.2.b.** revised: "Hyoid suspension, surgical modification of the tongue (including genioglossus advancement), and/or maxillofacial surgery, including mandibular-maxillary advancement (MMA), may be considered medically necessary in

patients with clinically significant OSA and objective documentation of hypopharyngeal obstruction by physical examination *if performed to enhance CPAP or BiPAP effectiveness*, who have tried and failed a good faith effort at treatment with CPAP, BiPAP or DPAP. Orthognathic surgery will not be approved as the first surgical therapy for OSA unless otolaryngology evaluation has ruled out obstruction at a higher anatomic level (i.e., nose, palate). **B.2.c.** Revised to "Septoplasty when *patient has OSA with a documented AHI greater than 5, and septoplasty is being* performed....." Added **B.2.f.** turbinate surgery.

Section II-Treatment of Sleep Apnea and Breathing Related Sleep Disorders in Adults, When Not Covered: **C.2**. revised: "Laser-assisted uvulopalatoplasty (LAUP) ~~or~~ *and* radiofrequency volumetric tissue reduction (Somnoplasty™) *are* ~~is~~ considered not medically necessary in the treatment of snoring alone and *are* ~~is~~ considered investigational *and not effective* as a treatment of UARS or OSA. **C.3.** Revised to include C.8: "Radiofrequency volumetric tissue reduction (RFVTR, Somnoplasty) of nasal turbinates is considered not medically necessary for snoring *and is considered investigational for treatment of OSA.*" **C.4.** Clarified palatal implants: "Palatal stiffening procedures, including but not limited to, cautery-assisted palatal stiffening operation (CAPSO), and the implantation of palatal implants *(e.g., the "Pillar Procedure")* are considered not medically necessary in the treatment of snoring alone, and are considered investigational as a treatment for UARS or OSA." **C.5.** revised "Radiofrequency volumetric tissue reduction of the ~~soft palate,~~ uvula and/or tongue base (Somnoplasty™) or the nasal passages and soft palate (Coblation) is considered investigational *for treatment of OSA*." **Deleted C.8.** since it is now included in C3. "Note:" re: simple snoring moved to the end of section and revised: "Because snoring, in the absence of documented obstructive sleep apnea, is not an illness or a disease, treatment of snoring, including **any** surgical intervention is considered not medically necessary and therefore is not covered. Snoring does not fall within the definition of medical necessity. (Refer to separate, Medical Necessity.)"

Section II-Treatment of Sleep Apnea and Breathing Related Sleep Disorders in Adults, Policy Guidelines: Rather than bullets, each entry is now numbered. **Second main bullet, now #2**="Conservative measures ~~should~~ *must* have been tried and failed prior to considering surgical management. Conservative *medical therapy, when appropriate to the clinical situation, may include* weight loss, avoidance of alcohol, sedatives and caffeine consumption, especially before bedtime, allowing adequate sleep time, body position during sleep (side versus back), oral appliances, ~~and~~ positive airway pressure devices *and medically supervised smoking cessation program*." **Added #3** "The Plan recognizes and affirms that positive airway pressure (e.g., CPAP, BiPAP) is the treatment of choice for obstructive sleep apnea. For this reason the general rule is that a good faith effort at positive pressure must be tried and failed prior to coverage of surgical treatment." Moved and revised last sentence of second main bullet, **now #4**. "Surgery is to be reserved for patients who have not responded to *appropriate* medical alternatives." **Added #5** "For any request for approval of a surgical procedure, current polysomnogram data (including the initial sleep study, any CPAP titration data, and any other studies such as MSLT that have been performed) must be submitted for review with the supporting medical record documentation. Generally, the sleep study upon which approval is requested must be less than 18 months old." **Added #6** "Polysomnography data should include the entire sleep study record, as opposed to merely a summary. The following information must be available in the study report: Total sleep time for the study; Total RDI or AHI for the study; Average and lowest recorded oxygen saturation; For any desaturations below 90%, the length of time at the abnormally low saturation level or range; Obstructive event indices for supine and non-supine positions, along with total sleep time spent supine; Periodic leg movement (PLM) index; For CPAP titrations: optimum pressure, event index at that pressure, and total sleep time on CPAP. *The Plan may require the complete polysomnogram data at its discretion. **Added #7** "A polysomnogram that does not distinguish between supine and non-supine obstructive events, to the extent that any possible positional predisposition to obstruction can be determined, is

not complete and may not be sufficient to support a surgical request.". **Added #8** "The Plan may require a repeat polysomnogram to support a request for additional surgical therapy after prior surgical therapy based on the initial polysomnogram."

Medical Term Definitions: Added definition of Upper Airway Resistance Syndrome.

Billing/Coding sections: Added CPT codes 21199, 30130, 30140, 30801, 30802 and 0089T.

Scientific Background and Reference Sources: Reference sources added. (pmo)

7/2/07 HCPCS codes K0553, K0554 and K0555, effective July 1, 2007, added to appropriate Billing/Coding section. (pmo)

1/14/08 Under "Billing/Coding" section removed deleted HCPCS codes K0553, K0554 and K0555 and added the codes that replaced them – A7027, A7028 and A7029. (pmo)

01/05/09 Under appropriate "Billing/Coding" sections, removed CPT codes 0088T and 0089T and added the codes that replaced them – 41530 and 95803. Also added CPT codes 41500 and 41512. Code additions and deletions to be effective January 1, 2009. (pmo)

For New Policy entitled: Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome

12/21/09 Notification of new policy entitled Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome. **THIS POLICY IS** NOT EFFECTIVE UNTIL MARCH 30, 2010. **Prior to MARCH 30, 2010** refer to policy number OTH8138, Sleep Apnea and Breathing Related Sleep Disorders in Adults. The policy entitled Sleep Apnea and Breathing Related Sleep Disorders in Adults has been separated into three policies and will be archived on MARCH 30, 2010. Notification given December 21, 2009. Effective date March 30, 2010. (pmo)

6/22/10 Policy Number(s) removed (amw)

7/20/10 Specialty Matched Consultant Advisory Panel review 5/24/10. No change to policy statement or coverage criteria. (adn)

9/4/12 References updated. Specialty Matched Consultant Advisory Panel review 8/15/12. No change to policy statement or coverage criteria. (sk)

7/1/13 Medical Director review. References updated. No change to policy statement or coverage criteria. (sk)

1/28/14 Specialty Matched Consultant Advisory Panel review 8/21/13. No change to policy statement or coverage criteria. (sk)

5/26/15 Reference added. Specialty Matched Consultant Advisory Panel review 8/26/14. The following statement is added to the list of noncovered procedures, "Implantable hypoglossal nerve stimulators are considered investigational for all indications, including but not limited to the treatment of OSA". Notification given 5/26/15 for policy effective date 7/28/15. (sk)

10/1/15 Reference added. Specialty Matched Consultant Advisory Panel review 8/26/15. (sk)

12/30/15 Codes 0424T-0436T added to Billing/Coding section. (sk)

9/30/16 Specialty Matched Consultant Advisory Panel review 8/31/2016. (sk)

12/30/16 Codes 0466T, 0467T, and 0468T added to Billing/Coding section. (sk)

7/28/17 Reference added. Policy statement revised to include variants of palatopharyngoplasty. (sk)

8/10/18 Specialty Matched Consultant Advisory Panel review 8/30/2017. (sk)

12/31/18 Reference added. Specialty Matched Consultant Advisory Panel review 8/22/2018. Code C1823 added to Billing/Coding section. (sk)

1/29/19 References added. Medical Director review. Added hypoglossal nerve stimulation to list of covered surgical procedures, when criteria are met. Information on hypoglossal nerve stimulation and drug-induced sedation endoscopy added to Policy Guidelines section. Adherence to and failure of CPAP Treatment added to Policy Guidelines. (sk)

4/16/19 Code 64568 added to Billing/Coding section. (sk)

11/12/19 Reference added. The indication for hypoglossal nerve stimulation changed to apnea/hypopnea index of ≥15 for alignment with the Food and Drug Administration-approved indication. Criteria for hypoglossal nerve stimulation for adolescents or young adults with Down syndrome and OSA added to When Covered section. Codes 0424T – 0436T removed from Billing/Coding section. These codes are now addressed in medical policy "Phrenic Nerve Stimulation for Central Sleep Apnea". Specialty Matched Consultant Advisory Panel review 8/21/2019. (sk)

12/8/20 Reference added. Specialty Matched Consultant Advisory Panel review 8/19/2020. (sk)

12/14/21 Reference added. Specialty Matched Consultant Advisory Panel review 8/18/2021. (sk)

12/30/21 Added codes 42975, 64582, 64583, and 64584 to Billing/Coding section. Deleted codes 0466T, 0467T, and 0468T from Billing/Coding section. (sk)

5/17/22 Added the following statement to the When Covered section: "An individual being evaluated for hypoglossal nerve stimulation may be evaluated with a home sleep test if the individual does not meet criteria for supervised polysomnography". Replaced the word "patient(s)" with the word "individual(s)" throughout the policy. Medical Director review. (sk)

11/15/22 Specialty Matched Consultant Advisory Panel review 8/17/2022. (sk)

6/13/23 Added HCPCS codes C1767 to Billing/Coding section. (tt)

8/29/23 References updated. Specialty Matched Consultant Advisory Panel review 8/2023. Medical Director review 8/2023. No change to policy statement. (tt)

4/1/24 References updated. When covered section updated for alignment with Food and Drug Administration approved indications: **II.H.1** updated to include hypoglossal nerve stimulation may be considered medically necesary in individuals age ≥ 18 years; and **II.H.4** updated to include hypoglossal nerve stimulation may be considered medically necesary for individuals with BMI ≤ 40 kg/m^2. Billing/Coding section updated to remove deleted CPT code 41500. Specialty Matched Consultant Advisory Panel review 3/2024. Medical Director review 3/2024. No change to policy statement. (tt)