



Medicare Part C Medical Coverage Policy

Surgical Treatment of Obstructive Sleep Apnea

Origination: June 26, 2000
Review Date: October 3, 2022
Next Review: October 2024

******This policy applies to all Blue Medicare HMO, Blue Medicare PPO, Blue Medicare Rx members, and members of any third-party Medicare plans supported by Blue Cross NC through administrative or operational services. ******

DESCRIPTION OF PROCEDURE OR SERVICE

Breathing related sleep disorders such as Obstructive Sleep Apnea (OSA) are characterized by frequent episodes of hypopnea or apnea during sleep which result in multiple physiologic changes. Non-surgical approaches to obstructive apnea and hypopnea, such as continuous positive airway pressure (CPAP) breathing is the treatment of choice for members who can benefit and tolerate usage. There are surgical approaches that have been developed and indicated depending on the level of obstruction in OSA (retropalatal, retrolingual, and retropalatal/retrolingual).

Sleep apnea is a disorder where breathing nearly or completely stops for periods of time during sleep. In obstructive sleep apnea, 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).

POLICY STATEMENT

Coverage will be provided for treatments for OSA when it is determined to be medically necessary when the medical criteria and guidelines shown below are met.

BENEFIT APPLICATION

Please refer to the member's individual Evidence of Coverage (EOC) for benefit determination. Coverage will be approved according to the EOC limitations if the criteria are met.

Coverage decisions will be made in accordance with:

- The Centers for Medicare & Medicaid Services (CMS) National Coverage Determinations (NCD);
- General coverage guidelines included in Original Medicare manuals unless superseded by operational policy letters or regulations; and

Medical Coverage Policy: Surgical Treatment of Obstructive Sleep Apnea

- Written coverage decisions of local Medicare carriers and intermediaries with jurisdiction for claims in the geographic area in which services are covered.

Benefit payments are subject to contractual obligations of the Plan. If there is a conflict between the general policy guidelines contained in the Medical Coverage Policy Manual and the terms of the member's particular Evidence of Coverage (E.O.C.), the E.O.C. always governs the determination of benefits.

INDICATIONS FOR COVERAGE

1. Preauthorization by the Plan is required for all surgical treatments for OSA. (Does not include nasal surgeries and tonsillectomy)

2. The following surgical treatments are eligible for coverage:

A. Uvulopalatopharyngoplasty (UPPP) is covered for those members who have all of the following:

1. Obstructive sleep apnea diagnosed (prior to any proposed surgery) in a certified sleep disorder laboratory (recognized by the AASM); **and**

2. A Respiratory Disturbance Index (RDI) of 15 or higher; **and**

3. Failed to respond to or cannot tolerate CPAP or appropriate non-invasive treatment; **and**

4. Documented counseling by a physician, with recognized training in sleep disorders, about the potential benefits and risks of surgery; **and**

5. Evidence of retropalatal or combination retropalatal/retrolingual obstruction as the cause of the OSA.

B. Mandibular Maxillary Osteotomy and Advancement and /or genioglossus advancement with or without hyoid suspension is also covered when all of the above criteria are met and:

1. Evidence of retrolingual obstruction as the cause of the obstructive sleep apnea, or previous failure of UPPP to correct the obstructive sleep apnea.

2. Regarding the Mandibular Maxillary Osteotomy and Advancement operation:

i. Separate repositioning of teeth would not be necessary except under unusual circumstances; but if necessary the dental work would be covered.

ii. Application of an interdental fixation device is occasionally necessary and is a covered service.

C. Tracheostomy is covered for obstructive sleep apnea that is in the judgment of the attending physician, unresponsive to other means of treatment or in cases where other means of treatment would be ineffective or not indicated.

- D. When obstructive sleep apnea is caused by discrete anatomic abnormalities of the upper airway (such as, but not limited to, enlarged tonsils or an enlarged tongue), surgery to correct these abnormalities is covered if medically necessary based on adequate documentation in the medical records supporting the significant contribution of these abnormalities to OSA.
- E. Submucous radiofrequency reduction of hypertrophied turbinates is covered as an appropriate treatment for nasal obstruction due to turbinate hypertrophy that significantly contributes to OSA or significantly compromises CPAP therapy.

WHEN COVERAGE WILL NOT BE APPROVED

1. Conditions that do not meet the coverage criteria.
2. The following surgical procedures are not shown effective in OSA and thus are not eligible for coverage:
 - a. Laser-Assisted Uvulopalatoplasty (LAUP)
 - b. Somnoplasty – palate reduction
 - c. The Pillar Procedure – palatal implants
 - d. Submucosal ablation of the tongue base, radiofrequency, one or more sites.

BILLING/ CODING/PHYSICIAN DOCUMENTATION INFORMATION

This policy may apply to the following codes. Inclusion of a code in the section does not guarantee reimbursement.

Applicable codes: 21208, 21685, 30130, 30140, 30520, 30801, 30802, 31600, 31610, 41120, 41500, 41512, 41530, 42140, 42145, 42299, 42950, 21110, 21141, 21145, 21196, C9727.

The Plan 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.

SPECIAL NOTES

- **Upper Airway Resistance Syndrome (UARS):** Members with few or no measurable obstructive events on polysomnography, but who have a history of daytime somnolence and who show significant snoring associated with EEG arousals greater than 10 per hour, with or without desaturations, and who fail the same conservative modalities called for in the treatment of obstructive sleep apnea, will be considered for surgery outside the criteria above on a case by case basis. A recording of negative intrathoracic pressure is helpful in making the diagnosis of UARS.

Medical Coverage Policy: Surgical Treatment of Obstructive Sleep Apnea

- **Surgical treatment of OSA:** The Plan reaffirms its surgical approval criteria in this policy statement and specifically states that failure of CPAP in itself is not an indication for surgical treatment unless all other aspects of the surgical criteria are met.

References:

1. Medicare Local Coverage Determination for Surgical Treatment of Obstructive Sleep Apnea (OSA) – Wisconsin Physicians Service (L34526): Effective date 01/01/2017; Accessed via www.cms.gov 10/3/2022.
2. BCBSNC Corporate Medical Policy “Sleep Apnea: Diagnosis and Medical Management Effective 12/2009; Reviewed on 08/2016; Accessed 10/3/2022.
3. BCBSNC Corporate Medical Policy “Surgery for Obstructive Sleep Apnea and Upper Airway Resistance Syndrome” Effective date 12/2009; Reviewed on 8/2016. Accessed 10/3/2022.

Policy Implementation/Update Information:

Revision Dates: February 14, 2002; June 11, 2002; August 24, 2005; May 16, 2007- Clarified compliance with using the device as prescribed can be obtained from the member, the treating physician and/or the compliance chip.

June 17, 2009: New online policy format; clarified description of procedure; added respiratory assist device section; Clarified first section under Special Notes area re: continued coverage for CPAP, BiPAP and RAD after three months.

Revision Dates: 3/2011, 4/2011. Separated policy from PAP Therapy and RAD policies and removed related language. Description of Procedure or Service: Language updated per current CMS policy; Indications for Coverage: CPT codes 21198 and 21199 are not on the PA list, therefore removed language referencing items 2B and 2C; Coding section updated per Senior Coding Analyst; Reference section updated with current CMS policies; Glossary section updated to reflect this policy.

Revision Date: Annual review. Criteria mirrors LCD; Revised codes. October 29, 2015 updated LCD due to ICD-10 update only.

Revision Date: 1/18/2017; Annual Review. Policy mirrors LCD. No Changes made, minor revisions only.

Revision Date: 1/16/19; Annual Review. No CMS Updates. Minor revisions only.

Revision Date: 11/18/20; Annual Review. Minor Revisions Only.

Revision Date: 10/3/2022: Annual Review. No CMS updates. Updated policy to mirror LCD.

Approval Dates:

Medical Coverage Policy Committee: October 19, 2022

Policy Owner: Beth Sell, RN, BSN
Medical Policy Coordinator

GLOSSARY OF TERMS

I. Basic terms for diagnosis

Continuous Positive Airway Pressure (CPAP) - is a single-level continuous positive airway pressure device that delivers a constant level of positive air pressure (within a single respiratory cycle) from a flow generator, via a nasal, oral, or facial mask. The

purpose is to assist spontaneous respiratory efforts and supplement the volume of inspired air into the lungs.

Mueller Maneuver- an examination in which a fiberoptic endoscope is used to see the cross-sectional airway at level of the palate (oropharynx) and hypopharynx. With the nose occluded and mouth closed, the patient attempts to inhale. The degree of collapse of the pharyngeal tissue (and thus airway) is estimated. The intent is to predict whether surgical improvement may be expected from an operation on the area. It is an imprecise procedure and not universally favored.

Obstructive Sleep Apnea (OSA) - the most severe form of Sleep Disordered Breathing (SDB) characterized by repetitive episodes of upper airway obstruction that occur during sleep.

- Medical management of OSA includes lifestyle modification (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 (**CPAP** [continuous positive airway pressure], **BiPAP** [bilevel positive airway pressure], and **DPAP** [demand positive airway pressure]). On average, a 10% weight loss produces an improvement of 50% in the apnea-hypopnea index. Oral appliances act by holding the mandible and tongue forward during sleep. While these methods do not result in a cure, they can reduce the AHI; however, compliance is a problem with all of these methods.
- Surgical management may be indicated to treat OSA in patients who have an underlying specific abnormality that is causing the disorder. 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.

Obstructive apnea- refers to a period of complete obstruction and absent airflow for a minimum of 10 seconds.

Respiratory Arousal- a significant lightening of the sleep stage (measured by EEG) associated with an obstructive event or other phenomenon (such as periodic leg movements).

II. Basic Terms for Procedures

Genioglossus Advancement (GA)- surgical procedure in which the attachment of the genioglossus (main tongue) muscle to the inner side of the mandible is shortened (“advanced”) in order to attempt to improve the airway at the level of the base of the tongue

GAHM or GAHS- combination of the geniohyoid advancement and hyoid myotomy or suspension procedures.

Hypoid Myotomy and/or Suspension (HM/HS)- surgical procedure involving partial severance of the muscles attached to the hypoid bone, which is then sutured to the mandible or the thyroid cartilage in an attempt to enlarge the hypopharyngeal airway

Injection snoreplasty- procedure in which sclerosing agent is injected into the uvula and soft palate in order to stiffen these tissues and reduce the tendency for vibration. Electrocautery may be used for a similar effect.

Laser Assisted Uvulopalatoplasty (LAUP)- office procedure that uses a laser to remove full thickness “V” wedges of the soft palate on either side of the uvula; results in OSA are generally not good.

Maxillary/Mandibular Osteotomy (MMO) or Advancement (MMA)- Orthognathic surgery where maxilla and mandible are moved anteriorly to try to enlarge the airway.

Radiofrequency Volumetric Reduction (RVR, or Somnoplasty)- involves the use of electromagnetic energy to try and reduce the volume of the palate or base of tongue and is not effective treatment for OSA.

Submucous radiofrequency reduction of hypertrophied turbinates. Is a minimally invasive surgical option that can reduce tissue volume in a precise, targeted manner. This technique uses radiofrequency to create lesions within the submucosal tissue of the turbinate, reducing tissue volume with minimal impact to surrounding tissues.

Tracheostomy: Prior to CPAP, tracheostomy was a more frequently used surgical treatment for OSA. Usually used when a member is in respiratory failure and standard therapy, as CPAP or BiPAP is not tolerated. This may be more common in Obesity – Hypoventilation syndrome.

Uvulopalatopharyngoplasty (UPPP)- a surgical procedure that attempts to relieve obstruction at the level of the oropharynx by removing the uvula along with tissue from the soft palate, tonsillar pillars, and pharyngeal walls. If the tonsils are present, they are removed as well. The operation has a relatively unsatisfactory success rate for OSA.

