Cohere Medical Policy - Obstructive Sleep Apnea Surgeries

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Sleep Medicine
Guideline Name: Cohere Medical Policy - Obstructive Sleep Apnea Surgeries
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Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Obstructive Sleep Apnea Surgeries

Recommended Clinical Approach

Obstructive sleep apnea (OSA) is a condition where multiple episodes of partial or complete closure of the upper airway during sleep may occur. These often frequent episodes may lead to pauses in breathing (apnea or hypopnea) that can last for greater than 10 seconds, and may be followed by awakening or rapid breathing. Both adults and children may be affected by OSA. Diagnostic testing is necessary to determine the presence of OSA. While non-surgical treatments exist (e.g., positive airway pressure [PAP]), surgery may be recommended to reduce the high risk of hypertension, atrial fibrillation, heart failure, and other serious associated conditions due to lack of oxygen in the bloodstream.[1-2]

Medical Necessity Criteria

Indications

- ➔ **Obstructive sleep apnea (OSA) surgeries** are considered appropriate if **ALL** of the following are **TRUE**[3-8]:
  - ◆ **ANY** of the following procedures[4-6]:
    - Hyoid myotomy and suspension[5,9]; **OR**
    - Palatopharyngoplasty (uvulopalatopharyngoplasty, uvulopharyngoplasty); **OR**
    - Pharyngoplasty; **AND**
  - ◆ Confirmed diagnosis* of obstructive sleep apnea[7-8, 10]; **AND**
  - ◆ Documentation of anatomic abnormalities (e.g., palatal, nasal, lingual, or dental) by examination, endoscopy, or imaging[11-12]; **AND**
  - ◆ Skeletal maturity has been reached or the patient is 18 years of age or greater[13]; **AND**
  - ◆ **ANY** of the following:
    - Apnea-hypopnea index greater than 15 (moderate to severe OSA)[14]; **OR**

- AHI from 5 to 15 (mild obstructive sleep apnea) with additional diseases or conditions (e.g., hypertension, cardiovascular disease, excessive daytime sleepiness [EDS])[14]; **AND**

◆ Documented failure or intolerance of positive airway pressure (PAP) therapy (e.g., persistent apnea or choking during sleep, claustrophobia, noise or pressure intolerance).[11,15-18]

***NOTE:** OSA diagnosis has been confirmed by a physician specializing in sleep disorders by polysomnography in a facility-based laboratory or with a home-based study using a technically adequate device under the supervision of a physician specializing in sleep disorders.[9]

Non-Indications

➔ **Obstructive sleep apnea surgeries** are not considered appropriate if **ANY** of the following is **TRUE**[1,4,13-14]:

◆ PAP and/or oral appliance therapy have not been attempted; **OR**

◆ The patient is not skeletally mature or is under the age of 18; **OR**

◆ The patient has non-obstructive sleep apnea (e.g., snoring alone).

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
21685	Hyoid myotomy and suspension
42145	Palatopharyngoplasty (eg, uvulopalatopharyngoplasty, uvulopharyngoplasty)
42950	Pharyngoplasty (plastic or reconstructive operation on pharynx)

Medical Evidence

Aurora et al. (2010) developed practice parameters for surgical modifications of the upper airway for obstructive sleep apnea in adults for the American Academy of Sleep Medicine (AASM). In this systematic review, the group recommended diagnosis of sleep apnea before initiating surgery, and included procedures such as tracheostomy, maxillo-mandibular advancement (MMA), laser-assisted uvulopalatoplasty (LAUP), uvulopalato-pharyngoplasty (UPPP), radiofrequency ablation (RFA), and palatal implants. UPPP as a sole procedure was stated not to reliably normalize the apnea-hypopnea index (AHI) in moderate to severe OSA syndrome. The other procedures evaluated were stated generally to be acceptable following a trial of positive airway pressure (PAP) therapy, although the group concluded that there is a lack of rigorous data evaluating outcome measures and which populations would benefit from these surgical treatments.[8]

The American Academy of Sleep Medicine (AASM) (Kent et al.) published a 2021 guideline for referral of adults with OSA for surgical consultation. The committee concluded with a strong recommendation that patients with OSA and a body mass index greater than 40 kg/m^2, when unaccepting or intolerant of PAP therapy, be referred to a sleep surgeon. A strong recommendation was given for discussion of referral to a bariatric surgeon for adults with OSA and BMI greater than 35 kg/m^2. Conditional recommendations were given for sleep surgeon referrals for adults with OSA and BMI less than 40 kg/m^2 with inadequate PAP adherence due to side effects and a PAP trial as initial therapy in adults with OSA and a major upper airway anatomic abnormality prior to surgical consult.[15]

Ong et al. (2017) conducted a retrospective study of 19 patients who underwent hyoid myotomy and suspension (HMS) without concurrent palatal or tongue base sleep surgery. The apnea-hypopnea index (AHI) was required to be greater than 30 indicating severe sleep apnea, and the mean BMI in these patients was 30.6 (range of 22.9-43.4). The mean age of patients studied was 55.3 years (range of 31-76 years of age). Endoscopic sinus surgery and septoplasty were the most commonly performed concurrent procedures. Following the procedure, mean AHI improved in these patients from 39.7 to 22.6. Surgical success was defined as a greater than 50%

reduction in AHI and postoperative AHI less than 20 events per hour, and was achieved in 47.4% of patients (9 of 19). The effect on daytime sleepiness was unclear.[19]

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Clinical Guideline Revision History/Information

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