AMERICAN ACADEMY OF OTOLARYNGOLOGY– HEAD AND NECK SURGERY

# Clinical Indicators: Palatopharyngoplasty for Obstructive Sleep Apnea

| Procedure | CPT | Days[1] |
|---|---|---|
| Palatopharyngoplasty (eg, uvulopalatopharyngoplasty) | 42145 | 090 |
| Pharyngoplasty | 42950 | 090 |
| Uvulectomy | 42140 | 090 |

**Indications** (One from each category below required)

1. **History** (One or more required)
   a. Chronic snoring
   b. Restless or interrupted sleep
   c. Excessive daytime sleepiness
   d. Witnessed apneas or gasping during sleep
   e. Presence of cardiovascular disease, pulmonary hypertension, or diabetes

2. **Physical Examination** (Required)
   a. Height, weight, BMI
   b. Head and neck examination and fiberoptic endoscopy of nasal, nasopharyngeal, hypopharyngeal, and laryngeal airway

3. **Tests**
   a. Polysomnography, or portable sleep testing, for obstructive sleep apnea with an AHI (apnea hypopnea index) or REI (respiratory event index) ≥5 in presence of one or more factors from history (Required)
   b. Cephalometrics or other imaging (Optional)
   c. Sleep endoscopy (Optional)
   d. Additional biomarkers such as blood pressure, C-Reactive Protein (Optional)

4. Non-adherence to (or non-acceptance of) positive airway pressure therapy for moderate or severe OSA, unless surgically correctible anatomical lesions identified, such as markedly enlarged tonsils.

**Perioperative Care**

a) Communicate with operative (especially anesthesia) and postoperative teams including the site of postoperative care and monitoring.
b) Assess airway -- quiet and unobstructed breathing. If noisy, look for airway edema. Notify surgeon.
c) Assess for bleeding--blood-streaked sputum is normal. If bleeding from mouth, nose, or vomiting fresh blood, notify surgeon.
d) Monitor oximetry--if abnormal, notify surgeon.

[1] RBRVS Global Period

e) Maintain hydration intravenously and do not discharge patient until oral intake is adequate.
f) Ensure adequate analgesia but titrate opiate dosing carefully to avoid respiratory depression. Avoid sedative use.
g) Assess and treat relevant comorbidities post-operatively, including hypertension
h) he level and duration of post-operative care/monitoring will be determined by the surgeon based upon patient factors including the severity of sleep apnea, procedures performed, comorbidities and the assessment of immediate post-operative risk. Encourage use of CPAP postoperatively

## Outcome Review

1. **Postoperatively: One to two Weeks**
   a. Assess for wound dehiscence, occurrence of post-operative bleeding, velopharyngeal insufficiency, and nutritional intake.

2. **Beyond One Month**
   a. Assess respiratory status using polysomnography or portable sleep testing.
   b. Assess for improvement in symptoms by re-administering quality of life questionnaire or other tool
   c. Assess swallowing and voice status.

3. **Beyond One year**
   a. Assess respiratory status using polysomnography or portable sleep testing, if needed.
   b. Assess for improvement in symptoms by re-administering quality of life questionnaire or other tool.
   c. Inquire about cardiovascular and diabetic status, if relevant.

## Associated ICD-9 Diagnostic Codes (Representative, but not all-inclusive codes)

327.23 Obstructive sleep apnea
786.09 Snoring
780.51 Insomnia with sleep apnea
780.53 Hypersomnia with sleep apnea

## Additional Information

Assistant Surgeon – N

## Patient Information

Palatopharyngoplasty procedures such as Uvulopalatopharyngoplasty UPPP are operations performed to improve the status of patients with sleep related breathing disorders, such as obstructive sleep apnea and snoring. These procedures may only result in partial success

depending on the relative importance of the structures modified by surgery. For example, collapse of the airway may be mediated by mechanisms beyond anatomical narrowing, such as loss of neuromuscular tone and loop gain. Some patients may undergo subsequent or simultaneous additional procedures to treat additional obstructive elements such as the tongue. The most common risks of upper pharyngeal surgery include bleeding after surgery, infection, and temporary airway obstruction due to post-operative swelling. Rarely, patients with severe obstruction or post-operative edema may require a temporary tracheostomy. Some patients may note nasal regurgitation and a hypernasal, or hollow-sounding voice, due to an inability of a shortened palate, to make contact with the back of the throat. Narrowing of the space behind the palate (stenosis) is a rare risk. As a general rule, the more carefully patients with sleep-related breathing disorders are evaluated, and selected, the greater the likelihood of improvement after palatopharyngeal surgery.

**References**

Caples SM, Rowley JA, et al Surgical modifications of the upper airway for obstructive sleep apnea in adults: a systematic review and meta-analysis. Sleep. 2010 Oct;33(10):1396-407.

Epstein LJ, Kristo D, et al. Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76.

Lin HC, Friedman M, et al. The efficacy of multilevel surgery of the upper airway in adults with obstructive sleep apnea/hypopnea syndrome. Laryngoscope. 2008 May;118(5):902-8.

Sher AE, Schechtman KB, Piccirillo JF. The efficacy of surgical modifications of the upper airway in adults with obstructive sleep apnea syndrome. Sleep. 1996 Feb;19(2):156-77.

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