

**MEDICAL ASSOCIATES HEALTH PLANS  
HEALTH CARE SERVICES POLICY AND PROCEDURE MANUAL  
POLICY NUMBER: PP 81**

**POLICY TITLE: OBSTRUCTIVE SLEEP APNEA SYNDROME**

**POLICY STATEMENT:** This document provides guidelines for the authorization and coverage of the diagnosis, evaluation, and treatment of sleep-related breathing disorders.

**Definitions:**

**Obstructive Sleep Apnea Syndrome (OSAS):** A chronic condition characterized by the nocturnal loss of airway patency with a variety of associated physical changes and symptoms. The condition becomes clinically significant with an apnea plus hypopnea index (AHI) of ten or more with recurrent oxygen desaturation below 80 percent and excessive daytime sleepiness (EDS). Accompanying hypertension and/or heart disease further increases the clinical significance.

Excessive snoring, observed apneic periods, or both characterize a lesser form of the condition. Most individuals with this lesser form do not present with excessive daytime somnolence or unexplained cardiovascular symptoms and do not have documented significant apneic or hypopneic periods. In most cases, the symptoms of transient airway obstruction associated with snoring are more annoying to family members than injurious to the individual.

**Upper Airway Resistance Syndrome (UARS):** A recently described sleep-related breathing phenomenon related to OSAS. UARS is characterized by increased respiratory effort during sleep due to high upper airway resistance, frequent transient arousal's, and no significant hypoxemia.

**Apnea Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI):** The most useful measure for rating the severity of sleep disordered breathing. RDI is measured by a polysomnographic study. The index identifies the number of apneic and/or hypopneic episodes per hour of sleep. Healthy individuals typically have fewer than five apneas and hypopneas per hour of sleep. The RDI further defines apnea and hypopnea as follows:

**Obstructive Apnea:** Refers to the total cessation of air-flow at the nose and mouth lasting greater than ten seconds when respiratory cessation occurs despite continued ventilator effort due to obstruction of the pharyngeal airway.

**Central Apnea:** A central nervous system (CNS) phenomenon unrelated to airway obstruction and refers to the total cessation of air-flow at the nose and mouth lasting greater than ten seconds when simultaneous cessation of respiratory effort and airflow occurs. Pure central sleep apnea is uncommon, occurring in individuals with primary alveolar hypoventilation or with lesions of the brain stem.

**Mixed Apnea:** Begins as central apnea followed by the resumption of ventilator effort against an obstructed pharyngeal airway.

**Hypopnea, or partial apnea :**Defined as at least a 50 percent decrease in air-flow, thoracoabdominal movement, or both persisting at least ten seconds and is often associated with a decrease in oxygen saturation of four percent or greater or with arousal from sleep.

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**Excessive Daytime Sleepiness (EDS):** Characterized by a persistent pattern for at least one month in duration of daily episodes of drowsiness or falling asleep that cannot be explained by life style or poor sleep hygiene (e.g., caffeine before bedtime, frequent crossing of time zones resulting in sleep/wake disruption), and that results in serious impairment of social or occupational role performance.

**Sleep studies and polysomnography:** Refers to the continuous and simultaneous monitoring and recording of various physiologic and pathologic parameters of sleep for six or more hours. Included are physician review, interpretation, and report.

**Split night sleep study:** Sleep studies performed to diagnose both the sleep disorders **and** to evaluate an individual's response to continuous positive airway pressure or bi-level positive airway pressure (CPAP or BiPAP). The individual is evaluated by polysomnography during the first part of the night. Once sufficient data is obtained to identify a moderate to severe sleep apnea, CPAP or BiPAP is added and titrated during the same evaluative session to determine the appropriate therapeutic level.

**Polysomnography:** Includes sleep recording and sleep staging. Sleep staging includes at least one and up to four channels of electroencephalogram (EEG), continuous monitoring of eye movements using an electro-oculogram (EOG), and a chin muscle tracing (EMG). The polysomnogram report should include a complete description of **all** of the following:

- a. Specific number of RDI/AHI within a given time frame
- b. Oxygen saturation, especially episodes below 90 percent
- c. Point of lowest saturation
- d. How frequently low saturation's (below 90 percent) were observed
- e. How long the individual remained at the lowest level of saturation
- f. Response to CPAP or BiPAP
- g. Duration of sleep
- h. Presence, duration, and frequency of REM sleep
- i. Percent of sleep time while supine versus on side
- j. Periodic leg movement during sleep (particularly if UARS suspected)

- Follow up polysomnogram is reserved for those who continue to manifest EDS despite CPAP or tracheostomy, or for those who have undergone UPPP, multistaged surgeries, or have been fitted with oral appliances.
- Repeat testing should be reserved until six or more weeks after the intervention.
- Follow up polysomnogram is not necessary to routinely assess the response to treatment by CPAP or tracheostomy.
- Evaluation of effectiveness can be documented by a reduction in symptoms
  - a. If symptoms continue or recur during the first year of CPAP therapy, titration, usually in increments of one centimeter of water pressure, is indicated: formal study in a sleep laboratory is not indicated unless above are not successful.

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b. If symptoms recur or increase after one year or more of CPAP or BiPap therapy, follow up polysomnogram may be considered:

- Following reevaluation of the significant change and/or causative condition
  - Failure of medical therapeutics measures to correct the condition
  - Authorization is restricted to re-titration of CPAP or BiPAP only using CPT code 95811 with a 52 modifier to indicate reduced services.
- Multiple sleep latency testing is restricted to the following situations:
    - Hypersomnolence with low suspicion of sleep apnea
    - Symptoms suggestive of narcolepsy (e.g., cataplexy, hypnagogic hallucinations, sleep paralysis)
    - Symptoms suggestive of idiopathic central nervous system hypersomnolence

**Home Sleep Study:** MAHP covers a home/portable sleep study as medically necessary as an alternative to a Polysomnogram (PSG) or the diagnosis of OSA in an adult when **all** of the following criteria are met:

- Type II or Type III device is used, with the ability to record, at a minimum, ventilation (at least 2 channels of respiratory movement, or respiratory movement and airflow); electro-cardiograph of heart rate; and oxygen saturation.
- Individual meets **ANY** of the following criteria:
  - High pretest probability of OSA (e.g. loud snoring, awakening with gasping or choking, excessive daytime sleepiness, observed cessation of breathing during sleep)
  - OSA is suspected and in-laboratory PSG is not possible.
  - Diagnosis of OSA has been established, therapy has been initiated, and response to treatment is to be evaluated.
- No significant co-morbid conditions that could impact the accuracy of the study (e.g. moderate to severe pulmonary disease, neuromuscular disease, congestive heart failure).
- No sleep disorders other than OSA are suspected (e.g. central sleep apnea, periodic limb movement disorder, insomnia, parasomnia, circadian rhythm disorders narcolepsy).

**PROCEDURE:**

**I. Scope**

This document applies to eligible individuals who meet the clinical criteria and who have coverage under the scope and limitations of their benefit package. Services which are medically appropriate or indicated may not be approved for coverage based on exclusions and limitations of the benefit package.

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Medicare enrollees who meet **Medicare guidelines** will have authorization entered into system. No letter will be sent. Coverage is dependent upon Medicare approval and payment.

**II. Decision Criteria**

The evaluation of suspected sleep disturbance should be initiated by the Primary Care Physician and continued by the specialist to include documentation of **all** of the following in order to rule out conditions amenable to other medical therapies:

\*Presence, absence, **and** severity of the following symptoms:

- Altered sleep patterns
- Snoring
- Extremely common and not strongly predictive of OSAS. Absence means individual unlikely to have OSAS. As a single symptom, is inadequate justification for polysomnogram or further clinical intervention.
- Observed sleep apnea
- Daytime hypersomnolence or excessive daytime sleepiness (EDS)
- Failing intellect or personality change
- Morning headache and /or nausea
- Symptoms of heart failure
  - a. Decreased exercise tolerance
  - b. Exertional dyspnea

\*Description **and** results of medical therapeutic measures to correct one or more of the following clinical conditions (when present):

- Obesity
- Height /weight **and** changes in weight over past five years
- Body mass index (BMI) 30 percent over ideal body weight is suggestive of OSAS.
- Neck circumference greater than 17 inches is suggestive of OSAS
- Weight reduction attempts. As little as 10-30 pounds or 10 percent weight loss can correct symptoms or significantly reduce the RDI by as much as 50 percent. One recommended end goal for reduction is to return to the weight at which the individual was asymptomatic
- Hypertension
- Cardiac arrhythmia, CHF, Stroke and TIA's
- Sedatives, antihistamines, and /or alcohol use
- Thyroid disease
- Adenotonsillar and /or nasal disease
- Poor sleep hygiene
- Primary depressive disorders management to include pharmacologic intervention

\*Coverage of the supervised sleep study includes **both** of the following within the overnight visit:

- Complete evaluation of the clinical condition

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- Titration of continuous positive airway pressure for RDI of 11 or greater or confirmation of UARS in order to determine the appropriate therapeutic level.
- RDI of 6-10 – with significant symptoms and/or desaturation with sleep will be considered for treatment.

\*CPAP and BiPAP are considered durable medical equipment.

**Two** (2) months rental of the nasal CPAP device is suggested with documentation of **both** of the following required for purchase and/or continued rental with fees applicable to the purchase cost:

Treatment effectiveness as demonstrated by a reduction in symptoms.  
Compliance (i.e., nightly use of nasal CPAP device)

1) Compliance can be monitored by either of the following:

- Use of Smart Card
- Checking the filter which generally turns black after six weeks of appropriate use (less reliable)
- Assessing the number and color of filters used if changed frequently (less reliable).

2) CPAP compliance can be increased with attention to the following:

- Use of decongestants and/or nasal steroids.
- Proper mask fit or use of nasal pillows.
- Use of “ramping” especially for settings over 10 centimeters of water pressure (i.e., beginning with a low pressure and increasing to therapeutic levels over 20-30 minutes).
- Use of nasal saline or room humidification may be helpful.
- Humidifiers attached to the device are rarely necessary and serve as a focus for contamination.
- Gradual increase of pressure settings over three to four weeks at the onset of therapy especially for settings over 10 centimeters of water pressure.
- Use of Smart C – PAP /BIPAP or C Flex

### **III Medical Intervention**

The most effective means for treating significant OSAS is nasal continuous or bi-level positive airway pressure (CPAP or BiPAP) in conjunction with weight loss (where indicated) and other conservative measures.

Treatment of sleep apnea with CPAP or BiPAP is based on the following RDI findings:

- Less than five episodes per hour of sleep is not considered to be clinically significant
- No clinical treatment or further testing is required
- Five to ten episodes per hour of sleep is considered to be mildly abnormal

No clinical treatment is required without symptoms or desaturation

Conservative measures are recommended to include **any** of the following that pertain:

- a. Weight loss

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- b. Avoidance of alcohol / sedatives within four hours of bedtime use
- c. Smoking cessation
- d. Nasal strips (not eligible for coverage, commercially available over the counter)
- e. Body position change with sleep

If symptoms not relieved with conservative treatment CPAP/BiPAP recommended

-Eleven to 19 episodes per hour is clinically significant and may require treatment if overnight sleep study is significantly abnormal or symptoms are significant.

-Conservative treatment as described above should be initiated

-A trial of CPAP should be added to the treatment options for an RDI greater than ten associated with any of the following:

- a. Heart disease
- b. Hypertension
- c. Excessive daytime somnolence
- d. Desaturation with sleep

-Oral appliances (**refer to the applicable benefit language for coverage**) Intraoral appliances may be considered **medically necessary** in patients with clinically significant obstructive sleep apnea, as defined below using **AHI**. Intraoral appliances include either tongue-retaining devices or mandibular advancing/positioning devices.

- An AHI  $\geq 15$ ; **OR**
- AN AHI between 5 and 14 with any of the following associated symptoms:
  - Excessive daytime sleepiness
  - Impaired cognition
  - Mood disorders
  - Insomnia
  - Documented hypertension
  - Ischemic heart disease
  - History of stroke
  - Cannot tolerate CPAP or BiPAP
  - Refuse surgery
  - Are not surgical candidates due to co-morbidities

**Surgical procedures** have been shown in certain limited cases of obstructive sleep apnea syndrome to be efficacious. Oral appliances, designed to improve the patency of the upper airway, are an alternative therapeutic tool with a success rate of approximately 50 percent, similar to uvulopalatopharyngoplasty, and may be appropriate for individuals as an alternative to surgical intervention. Oral appliances may be specifically excluded. **Refer to applicable benefit language for coverage.**

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**IV Exclusions:**

Severe snoring and transient observed apneic periods that occur without other significant clinical symptoms do not meet medical necessity criteria and are not eligible for coverage under the scope of benefits

Polysomnography for more than a one night stay in the sleep laboratory is generally not indicated

In the absence of other features of sleep apnea or other symptomatology, overnight polysomnography is not indicated in individuals with any of the following as a single symptom:

- Systemic hypertension
- Nocturnal nonspecific cardiac arrhythmias
- Obesity
- Snoring
- Insomnia
- Circadian rhythm disorders / affective disorders
- Sleep-related injurious behaviors
- Bruxism
- Enuresis
- Night terrors / dream anxiety attacks
- Somnambulism
- Migraine headaches
- Nocturnal myoclonus
- Parasomnia

Laser Assisted Uvuloplasty (LAUP) is an office procedure requiring two to six procedures in outpatient setting

Although possibly effective in reducing snoring, the procedure has not been proven effective in the treatment of OSAS or UARS.

LAUP is not eligible for authorization or payment

Radio frequency volumetric tissue reduction of the palate is not eligible for coverage as efficacy has not been established.

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|-----------------|----------------|-----------------|-----------------|
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**References**

Other Major Health Plan Payors  
Centers for Medicare and Medicaid