DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Medical Coverage Guideline must be read in its entirety to determine coverage eligibility, if any.

The section identified as “Description” defines or describes a service, procedure, medical device or drug and is in no way intended as a statement of medical necessity and/or coverage.

The section identified as “Criteria” defines criteria to determine whether a service, procedure, medical device or drug is considered medically necessary or experimental or investigational.

State or federal mandates, e.g., FEP program, may dictate that any drug, device or biological product approved by the U.S. Food and Drug Administration (FDA) may not be considered experimental or investigational and thus the drug, device or biological product may be assessed only on the basis of medical necessity.

Medical Coverage Guidelines are subject to change as new information becomes available.

For purposes of this Medical Coverage Guideline, the terms "experimental" and "investigational" are considered to be interchangeable.

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Description:

Obstructive Sleep Apnea Syndrome (OSAS):
OSAS is a condition characterized by repetitive episodes of upper airway obstruction that occurs during sleep due to collapse of the upper airway. It is usually associated with a reduction in blood oxygen saturation. OSAS may also be referred to as obstructive sleep apnea (OSA).

Upper Airway Resistance Syndrome (UARS):
A variant of OSAS that is characterized by a partial collapse of the airway resulting in increased resistance to airflow. The increased respiratory effort is associated with multiple sleep fragmentations, as measured by very short alpha electroencephalographic (EEG) arousals (Respiratory Event Related Arousals or RERAs).
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Description: (cont.)

Medical Management of OSAS:
Proposed treatments for adults may include weight loss, avoidance of stimulants, body position adjustment, oral appliances and various types of positive pressure therapy (i.e., fixed continuous positive airway pressure [CPAP], bi-level positive airway pressure [BiPAP] or auto-adjusting continuous positive airway pressure [APAP, also referred to as auto-adjusting CPAP] or expiratory positive airway pressure [EPAP e.g., Provent® Therapy]) or negative pressure therapy known as oral pressure therapy (OPT e.g., Winx® System). Oral appliances can be categorized as mandibular advancing/positioning devices, tongue fixation devices, night guards, occlusal orthotic devices and occlusal guards/splints. Oral surgical splints are used postoperatively and are custom made by the surgeon. Appliances are custom made by a laboratory or similar provider.

For most children, surgery (adenotonsillectomy) is the first-line treatment for OSAS.

Apneic-Hypopneic Index (AHI):
The number of episodes of apnea and hypopnea per hour of sleep as recorded by a polysomnography. The polysomnography must be performed by a certified sleep laboratory, either in an overnight laboratory or home setting, and reviewed by a certified practitioner and BCBSAZ eligible provider. AHI may also be referred to as respiratory disturbance index (RDI).

Excessive Daytime Sleepiness:
A condition evidenced in adults by an Epworth Sleepiness Scale greater than 10, inappropriate daytime napping (e.g., during driving or eating), or sleepiness that interferes with daily activities and is not explained by other conditions. In a child, it may be expressed as learning difficulties or other daytime neurobehavioral problems.

Respiratory Disturbance Index (RDI):
The number of episodes of apnea and hypopnea per hour of sleep as recorded by a polysomnography. The polysomnography must be performed by a certified sleep laboratory, either in an overnight laboratory or home setting, and reviewed by a certified practitioner and BCBSAZ eligible provider. RDI may also be referred to as apneic-hypopneic index (AHI). RDI may be defined as the number of apneas, hypopneas and Respiratory Event Related Arousals (RERAs) per hour of sleep.

Respiratory Event Related Arousals (RERAs):
Increased respiratory effort associated with multiple sleep fragmentations as measured by very short alpha electroencephalographic (EEG) arousals. The resistance to airflow is usually subtle and does not result in score-able apneic or hypopneic episodes. RERAs are scored if there is a sequence of breaths lasting at least 10 seconds characterized by increasing respiratory effort or flattening of the nasal pressure waveform leading to an arousal from sleep when the sequence of breaths does not meet criteria for apnea or hypopnea.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Description: (cont.)

Sleep Studies:
The simultaneous recording of physiological variables during sleep. Polysomnography is another name for sleep study. Sleep studies may be done in a healthcare facility or in the home setting. If done in the home setting, they may or may not be attended by a technologist. Sleep studies may be used to assist in the diagnosis of OSAS.

Sleep studies include sleep staging to assess arousals from sleep and determination of the frequency of apneas and hypopneas from channels measuring oxygen desaturation, respiratory airflow and respiratory effort. Cardiac, muscle, brain and ocular function may also be recorded. Actigraphy, a technique to record and analyze body movement, may also be a component of a sleep study. Available devices include:

- Type I device: full-channel nocturnal polysomnography. The sleep study using this device is performed in a healthcare facility and a technologist is in attendance.
- Type II device: portable monitor using a minimum of 7 channels. The sleep study using this device is performed in the home and may be attended or unattended.
- Type III device: portable monitor using a minimum of 4 channels. The sleep study using this device is performed in the home and may be attended or unattended.
- Type IV device: portable monitor using a minimum of 3 channels. The sleep study using this device is performed in the home, may be attended or unattended and may be referred to as the Watch-PAT device.

Definitions:

Adult:
Individual 18 years of age or older.

Child:
Individual under 18 years of age.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria:

Definitions, Clinically Significant:

Clinically Significant Obstructive Sleep Apnea Syndrome (OSAS):

Obstructive sleep apnea syndrome is considered clinically significant with documentation of ONE of the following:

1. Adult with documentation of ONE of the following:
   - Apneic-hypopneic index (AHI) or respiratory disturbance index (RDI) of 15 or more
   - AHI or RDI between 5 and 14 with documentation of ANY of the following associated symptoms:
     - Excessive daytime sleepiness
     - History of stroke
     - Hypertension
     - Impaired cognition
     - Insomnia
     - Ischemic heart disease
     - Mood disorders

2. Child with documentation of ONE of the following:
   - Apneic-hypopneic index (AHI) respiratory disturbance index (RDI) of 5 or more
   - AHI or RDI between 1.5 and 4 with documentation of ANY of the following associated symptoms:
     - Excessive daytime sleepiness
     - Behavioral problems
     - Hyperactivity

Clinically Significant Upper Airway Resistance Syndrome (UARS):

- Upper airway resistance syndrome is considered clinically significant with documentation of greater than or equal to 10 episodes of electroencephalogram (EEG) arousal per hour of sleep in association with negative intrathoracic pressures.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Attended Sleep Studies:

For actigraphy performed as part of a home sleep study refer to BCBSAZ Medical Coverage Guideline, “Actigraphy”.

➢ Attended (supervised) sleep studies performed in a sleep laboratory for adults and children is considered medically necessary as a diagnostic test with documentation of ANY of the following:

1. Observed apneas during sleep
2. ANY two of the following:
   • Excessive daytime sleepiness evidenced by an Epworth Sleepiness Scale greater than 10, inappropriate daytime napping (e.g., during driving, conversation, or eating), or sleepiness that interferes with daily activities and is not explained by other conditions, (this may be expressed as learning difficulties or other daytime neurobehavioral problems in children)
   • Habitual snoring, or gasping/choking episodes associated with awakenings
   • Unexplained hypertension
   • Obesity, defined as a body mass index greater than 35 kg/m2 in adults or greater than the 90th percentile for the weight/height ratio in children
   • Craniofacial or upper airway soft tissue abnormalities, including adenotonsillar hypertrophy or neuromuscular disease

3. Moderate or severe congestive heart failure, stroke/transient ischemic attack, coronary artery disease, or significant tachycardia or bradycardic arrhythmias in individuals who have nocturnal symptoms suggestive of a sleep-related breathing disorder or otherwise are suspected of having sleep apnea.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Attended Sleep Studies: (cont.)

- A repeated attended (supervised) sleep study performed in a sleep laboratory is considered medically necessary with documentation of ONE of the following:
  
  1. To initiate and titrate continuous positive airway pressure (CPAP) in adults with clinically significant OSAS as documented by ONE of the following:
     - Apnea/hypopnea index (AHI) of at least 15 per hour
     - An AHI of at least 5 per hour in an individual with excessive daytime sleepiness or unexplained hypertension
  
  2. Failure of resolution of symptoms or recurrence of symptoms during treatment
  
  3. To assess efficacy of surgery (including adenotonsillectomy) or oral appliances/devices
  
  4. To re-evaluate the diagnosis of OSAS or UARS and need for continued CPAP, e.g., if there is a significant change in weight or change in symptoms suggesting that CPAP should be retitrated or possibly discontinued

- Abbreviated daytime sleep study (PAP-NAP) as a supplement to standard sleep studies is considered experimental or investigational based upon:
  
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  
  2. Insufficient evidence to support improvement of the net health outcome, and
  
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Unattended Sleep Studies:

- A single unattended (unsupervised) home sleep study with a minimum of 4 recording channels is considered **medically necessary** for adults with documentation of **ALL** of the following:

  1. At high risk for OSAS or UARS as documented by **ALL** of the following:
     - Habitual snoring
     - Observed apneas
     - Excessive daytime sleepiness
     - Body mass index greater than 35

  2. No evidence by history or physical examination of a health condition that might alter ventilation or require alternative treatment to include, **but not limited to ONE** of the following:
     - Central sleep apnea
     - Congestive heart failure
     - Chronic pulmonary disease
     - Obesity hypoventilation syndrome
     - Narcolepsy
     - Periodic limb movements in sleep
     - Restless leg syndrome

- Unattended (unsupervised) sleep studies for adults who are considered at low to moderate risk for OSAS or UARS are considered **experimental or investigational** based upon insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

- Unattended (unsupervised) sleep studies for children are considered **experimental or investigational** based upon insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

- Repeated unattended (unsupervised) home sleep studies with a minimum of four recording channels is considered **medically necessary** for adults with documentation of **ONE** of the following:

  1. To assess efficacy of surgery or oral appliances/devices
  2. To re-evaluate the diagnosis of OSAS or UARS and need for continued CPAP, e.g., if there is a significant change in weight or change in symptoms suggesting that CPAP should be retitrated or possibly discontinued.

- Multiple sleep latency testing is considered **not medically necessary** in the diagnosis of OSAS or UARS except to exclude or confirm narcolepsy in the diagnostic workup of OSAS.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

**CPAP:**

- CPAP for the treatment of clinically significant OSAS or clinically significant UARS in an adult is considered *medically necessary.*

- CPAP for the treatment of clinically significant OSAS or clinically significant UARS in a child is considered *medically necessary* with documentation of ONE of the following:
  1. Child is not a surgical candidate
  2. Child has had an inadequate response to surgery

**APAP:**

- APAP for the treatment of clinically significant OSAS or clinically significant UARS in an individual who has failed a prior trial of CPAP and for whom APAP is found to be more effective in the sleep lab is considered *medically necessary.*

**BiPAP:**

- BiPAP for the treatment of clinically significant OSAS or clinically significant UARS in an individual who has failed a prior trial of CPAP and for whom BiPAP is found to be more effective in the sleep lab is considered *medically necessary.*
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Nasal Expiratory Positive Airway Pressure (EPAP) and Oral Pressure Therapy (OPT):

- Nasal EPAP and OPT for the treatment of OSAS or snoring with the following devices is considered *experimental or investigational* based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

These devices include, *but are not limited to*:

- Provent Therapy
- Winx System

Oral Appliances:

- Custom made oral appliance for the treatment of OSAS or UARS in an adult is considered *medically necessary* with documentation of the following:
  1. Polysomnography indicates five or more episodes of apnea per hour during sleep
  2. A trial with CPAP has failed or is contraindicated

- Custom made oral appliance for the treatment of OSAS or UARS in a child is considered *experimental or investigational* based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome, and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Oral Appliances: (cont.)

- Requests for more than ONE oral appliance within a 6 month period for the treatment of OSAS or UARS in an adult will be reviewed by the medical director(s) and/or dental coordinator.

- The following treatments for OSAS or UARS in an adult are considered not medically necessary based upon the procedure being inconsistent with the diagnosis submitted:
  1. More than one oral appliance within a 6 month period for the treatment of OSAS or UARS when polysomnography indicates less than five episodes of apnea per hour during sleep.
  2. More than one oral appliance within a 6 month period for the treatment of OSAS or UARS that is of central nervous system origin.
  3. Oral appliance for all other indications not previously listed.

Oral Surgical Splints:

Requests for an oral surgical splint will be reviewed by the medical director(s) and/or dental coordinator.

- Oral surgical splint for the treatment of clinically significant OSAS or clinically significant UARS in an adult is considered medically necessary with documentation that the splint is fabricated by the surgeon and used in association with surgical treatment.

- Oral surgical splint for the treatment of OSAS or UARS in a child is considered experimental or investigational based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome, and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

- Oral surgical splints that are not custom made by a surgeon and not used postoperatively are considered not medically necessary based upon the procedure being inconsistent with the diagnosis submitted.
DIAGNOSIS AND MEDICAL MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME (cont.)

Criteria: (cont.)

Treatment of Snoring:

- Treatment of snoring is considered not medically necessary (simple snoring in the absence of documented OSAS is not considered a medical condition). These treatments include, but are not limited to:
  1. APAP
  2. CPAP
  3. Nasal appliances
  4. Oral appliances, i.e., mandibular advancing/positioning devices, tongue fixation devices, night guards, occlusal orthotic devices and occlusal guards/splints
  5. Oral surgical splints

Resources:

Resources prior to 06/19/13 may be requested from the BCBSAZ Medical Policy and Technology Research Department.


