



**Criteria for Determining the Medical Necessity for the
Diagnosis and Treatment of Sleep Disordered Breathing in Adults and Children**

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Clinical Guideline: Diagnosis and Treatment of Sleep Disordered Breathing in Adults and Children

This is a guideline only. The guideline does not represent medical advice. Medical decisions are the responsibility of the member and the attending physician. Benefits are determined by the health plan and employer group contract and eligibility of the subscriber at the time services were rendered.

Sleep studies are performed to diagnose sleep disorders, and to determine the effectiveness of treatments prescribed for patients who have been previously diagnosed with sleep disorders. Evaluation of signs and symptoms of sleep-disordered breathing should be conducted as part of routine health evaluations with adequate follow up.

Signs and Symptoms of Sleep Disordered Breathing	<p>Initial testing for the diagnosis of sleep disordered breathing is appropriate via laboratory polysomnography (PSG) or home sleep apnea testing (HSAT), if a member presents with an increased risk of moderate to severe obstructive sleep apnea (OSA), indicated by the presence</p> <ul style="list-style-type: none">• witnessed apnea during sleep, or• at least one sign/symptom from category A and one sign/symptom from category B <p>A. Evidence of Excessive Daytime Sleepiness</p> <ul style="list-style-type: none">• Disturbed or restless sleep• Non restorative sleep• Frequent unexplained arousals from sleep• Fragmented sleep• Epworth Sleepiness Scale (ESS) greater than or equal to 10• Fatigue <p>B. Evidence suggestive of Sleep Disordered Breathing</p> <ul style="list-style-type: none">• Habitual loud snoring• Choking or gasping during sleep• BMI greater than or equal to 30• Neck circumference greater than 17 in. (men) or greater than 16 in. (women)• Sleep related bruxism• Cognitive deficits such as inattention or memory• Unexplained nocturnal reflux• Erectile dysfunction• Apneas or hypoxemia during procedures requiring anesthesia• Morning headaches.
Determining the Appropriate Site of	<p>Sleep testing may be performed in an attended setting in a laboratory facility OR outside of the sleep laboratory using a portable monitoring device. Selection of the appropriate site of service for sleep testing requires evaluation of ALL of the following:</p>



Service for Sleep Testing	<ol style="list-style-type: none"> 1. Medical necessity to perform sleep testing <ul style="list-style-type: none"> • Evaluation of the member's clinical signs and symptoms related to the sleep disorder, including review of the member's medical history and physical examination 2. Evaluation of any comorbid medical conditions 3. Evaluation of any secondary concomitant or associated sleep disorders AND 4. Assessment of the member's cognitive and physical ability to safely and effectively perform the sleep test outside of the sleep laboratory.
Diagnostic Testing	
Home Sleep Apnea Test (HSAT)	<p>Home Sleep Apnea Test (HSAT) meets the definition of medical necessity when all of the following conditions are met (A,B,C,&D):</p> <p>A. Signs/symptoms of sleep-disordered breathing as noted above, in the Signs and Symptoms of Sleep Disordered Breathing section, are present (witnessed apnea OR at least one sign/symptom from category A and one sign/symptom from Category B)</p> <p>B. Absence of other comorbid medical conditions or concomitant sleep disorders such as:</p> <p>Comorbid medical conditions</p> <ul style="list-style-type: none"> • Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include: <ul style="list-style-type: none"> ◦ Chronic use oxygen for the treatment of pulmonary disease • Severe, persistent asthma as defined by use of: <ul style="list-style-type: none"> ◦ Daily oral corticosteroids ◦ Immunomodulator/biologics • Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40% • Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg • Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and Guillian-Barré syndrome • Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation, such as: <ul style="list-style-type: none"> ◦ Recurrent palpitations, nocturnal ◦ Syncope-dizziness, or light headedness ◦ Short of breath, chest pain associated with arrhythmia • Chronic opioid medication that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months) • Obesity hypoventilation syndrome, defined as pCO₂ greater than 45 mm Hg and pO₂ less than 60 mm Hg on arterial blood gas <p>Secondary concomitant or associated sleep disorders such as:</p> <ul style="list-style-type: none"> • Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal when the arousals are not associated with respiratory events • Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking • Narcolepsy, or narcolepsy-related symptoms (i.e. idiopathic hypersomnia),



	<p>after obstructive sleep apnea has been evaluated and effectively treated as documented by the member's objective adherence to therapy (PAP download)</p> <ul style="list-style-type: none"> Previously diagnosed central sleep apnea or treatment-emergent sleep apnea, defined as central apneas/ hypopneas greater than 50% of the total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour Nocturnal seizures which are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders <p>C. Cognitive and physical ability to safely and effectively perform the sleep test outside of the sleep laboratory</p> <p>D. Age 18 years or older</p> <p>Note: An HSAT (95800, 95801, and 95806, G0398, G0399, and G0400) may be administered over multiple nights, at the discretion of the ordering qualified healthcare professional. The results should be aggregated into one single report. This is considered one diagnostic sleep test and multiple HSAT tests should be reported as a single HSAT procedure.</p> <p>HSAT does not meet the definition of medical necessity to monitor PAP efficacy in a member already diagnosed with OSA and using PAP therapy. The PAP download should provide sufficient efficacy and usage data.</p> <p>Portable monitoring devices used in HSAT are categorized based on the number of channels measured. Portable monitoring devices that measure fewer than 3 channels provide only limited information and therefore does not meet the definition of medical necessity.</p> <p>Sleep testing (PSG or HSAT) does not meet the definition of medical necessity for:</p> <ul style="list-style-type: none"> members with insomnia, circadian rhythm disorders or restless leg syndrome (RLS) screening asymptomatic members who have no sleep-related complaints members who have symptoms of snoring only members required to be tested by an employer or other government or regulatory agency and who have no symptoms of excessive daytime somnolence or other signs/symptoms of OSA- <p>Overnight oximetry testing does not meet the definition of medical necessity for OSA screening or as a diagnostic test for members suspected of obstructive sleep apnea</p>
Attended Sleep Study - Polysomnography (PSG)	<p>An attended sleep study (95808, 95810) meets the definition of medical necessity when a member presents with (A&B, A&C, or D):</p> <p>A. Signs/symptoms of sleep disordered breathing as noted in the Signs and Symptoms of Sleep Disordered Breathing section above (witnessed apnea OR at least one sign/symptom from category A and one sign/symptom from Category B)</p> <p>B. Comorbid medical conditions which may necessitate attended monitoring such as:</p> <ul style="list-style-type: none"> Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include: <ul style="list-style-type: none"> Chronic use oxygen for the treatment of pulmonary disease

	<ul style="list-style-type: none"> • Severe, persistent asthma as defined by use of: <ul style="list-style-type: none"> ○ Daily oral corticosteroids ○ Immunomodulator/biologics • Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40% • Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg • Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation, such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and Guillian-Barré syndrome • Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation such as: <ul style="list-style-type: none"> ○ Recurrent palpitations, nocturnal ○ Syncope-dizziness, or light headedness ○ Short of breath, chest pain associated with arrhythmia • Chronic opioid medication that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months) • Obesity hypoventilation syndrome, defined as pCO₂ greater than 45 mm Hg and pO₂ less than 60 mm Hg on arterial blood gas <p>C. Recent Home Sleep Apnea Test (HSAT) (less than 1 year old) confirmed to be non-diagnostic:</p> <ul style="list-style-type: none"> • A previous home sleep study was technically inadequate and there was a valid attempt to retest the member via HSAT (Of note: there is no minimum required HSAT recording time required for HSAT to be considered diagnostic), OR • A previous home sleep study failed to establish the diagnosis of OSA in a member with a high pretest probability of OSA- <p>D. Presence of a secondary concomitant or associated sleep disorder other than suspected OSA which may necessitate attended monitoring such as:</p> <ul style="list-style-type: none"> • Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal, when the arousals are not associated with respiratory events • Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking • Narcolepsy, or narcolepsy-related symptoms (i.e. idiopathic hypersomnia), after obstructive sleep apnea has been evaluated and effectively treated, as documented by the member's objective adherence to therapy (PAP download) • Previously diagnosed central sleep apnea or treatment emergent sleep apnea, defined as central apneas/ hypopneas greater than 50% of the total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour- • Nocturnal seizures which are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders
Titration Studies for Positive Airway Pressure APAP	<p>APAP titration, unattended, meets the definition of medical necessity when ALL of the following criteria are met (A&B):</p> <p>A. Member has been diagnosed with obstructive sleep apnea:</p>



	<ol style="list-style-type: none">1. Results of a PSG or HSAT indicate Apnea Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI) or Respiratory Event Index (REI) measured on HSAT of greater than or equal to 15 events per hour OR2. AHI or RDI or REI measured on HSAT of greater than or equal to 5 but less than 15, with clinical evidence of one of the following conditions:<ul style="list-style-type: none">• Excessive daytime sleepiness• Impaired cognition• Mood disorders (e.g., depression, anxiety)• Insomnia• Hypertension• Ischemic heart disease• History of stroke. <p>B. Absence of comorbid condition or concomitant secondary sleep disorders that could impact the technical quality or sensitivity of the APAP in adjusting pressure to meet member's needs:</p> <p>Comorbid medical conditions:</p> <ul style="list-style-type: none">• Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include:<ul style="list-style-type: none">○ Chronic use oxygen for the treatment of pulmonary disease• Severe, persistent asthma as defined by use of:<ul style="list-style-type: none">○ Daily oral corticosteroids○ Immunomodulator/biologics• Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40%• Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg• Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation, such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and Guillian-Barré syndrome• Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation, such as:<ul style="list-style-type: none">○ Recurrent palpitations, nocturnal○ Syncope-dizziness, or light headedness○ Short of breath, chest pain associated with arrhythmia• Chronic opioid medication use that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months)• Obesity hypoventilation syndrome, defined as pCO₂ greater than 45 mm Hg and pO₂ less than 60 mm Hg on arterial blood gas <p>Secondary concomitant or associated sleep disorders:</p> <ul style="list-style-type: none">• Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal, when the arousals are not associated with respiratory events• Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking• Narcolepsy, or narcolepsy-related symptoms (i.e. idiopathic hypersomnia), after obstructive sleep apnea has been evaluated and effectively treated, as
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	<p>documented by the member's objective adherence to therapy (PAP download)</p> <ul style="list-style-type: none"> • Central sleep apnea or treatment emergent sleep apnea, defined as central apneas/hypopneas greater than 50% of total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour- • Nocturnal seizures which are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders
Full Night, Attended PAP Titration Study	<p>Note: Attended Titration for members (age 6 and older) (CPT code 95811) is appropriate after an initial diagnostic sleep study (PSG or HSAT) has confirmed the presence of significant obstructive sleep apnea and the member is not appropriate for unattended titration using auto-titrating PAP (APAP or auto bi-level PAP) device.</p> <p>A full night, attended titration study (95811) meets the definition of medical necessity when the following conditions are met (A &B, A&C, or A&D):</p> <p>A. Member has been previously diagnosed with significant obstructive sleep apnea:</p> <ol style="list-style-type: none"> 1. Results of a PSG or HSAT indicate AHI or RDI or REI measured on HSAT greater than or equal to 15 events per hour, OR 2. AHI or RDI or REI measured on HSAT greater than or greater than or equal to 5 events per hour but less than 15 with clinical evidence of one of the following conditions: <ul style="list-style-type: none"> • Excessive daytime sleepiness • Impaired cognition • Mood disorders (e.g. depression, anxiety) • Insomnia • Hypertension • Ischemic heart disease • History of stroke <p>B. Results of the initial diagnostic PSG or HSAT indicate significant oxygen desaturations during the study:</p> <ul style="list-style-type: none"> • O2 saturation <90% for greater than 15% of recording time during a diagnostic home sleep apnea test or diagnostic facility based PSG, OR • O2 saturation < 80% for greater than 1% of recording time during a diagnostic home sleep apnea test or diagnostic facility based PSG- <p>C. Presence of a comorbid condition or concomitant secondary sleep disorder that may necessitate an attended titration:</p> <p>Comorbid medical conditions such as:</p> <ul style="list-style-type: none"> • Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include: <ul style="list-style-type: none"> ○ Chronic use oxygen for the treatment of pulmonary disease • Severe, persistent asthma as defined by use of: <ul style="list-style-type: none"> ○ Daily oral corticosteroids ○ Immunomodulator/biologics • Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40% • Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg • Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and



	<p>Guillian-Barré syndrome</p> <ul style="list-style-type: none"> • Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation, such as: <ul style="list-style-type: none"> ○ Recurrent palpitations, nocturnal ○ Syncope-dizziness, or light headedness ○ Short of breath, chest pain associated with arrhythmia • Chronic opioid medication use that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months) • Obesity hypoventilation syndrome, defined as pCO₂ greater than 45 mm Hg and pO₂ less than 60 mmHg on arterial blood gas <p>Secondary concomitant or associated sleep disorders such as:</p> <ul style="list-style-type: none"> • Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal when the arousals are not associated with respiratory events • Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking • Narcolepsy, or narcolepsy-related symptoms (i.e. idiopathic hypersomnia), after obstructive sleep apnea has been evaluated and effectively treated as documented by the member's objective adherence to therapy (PAP download) • Central sleep apnea or treatment emergent sleep apnea, defined as central apneas/greater than 50% of the total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour • Nocturnal seizures which are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders <p>D. The member has failed recent APAP trial at home. APAP failure is defined as:</p> <ul style="list-style-type: none"> • The member has a residual AHI on APAP download of greater than or equal to 5 with adequate objective adherence to therapy (use ≥4 hours per night on 70% of nights during a consecutive 30 day period reported on APAP download), OR • The member has residual symptoms of excessive daytime sleepiness with adequate objective adherence to therapy (use ≥4 hours per night on 70% of nights during a consecutive 30 day period reported on APAP download), OR • The member is not a candidate for auto bi-level therapy or auto bi-level therapy has been tried and has not been effective, OR, • The member was unable to tolerate positive airway pressure therapy following a 1-month minimum trial of APAP and the member did not have a previous attended titration.
Split Night Sleep Study	<p>A facility-based split night sleep study (95811) meets the definition of medical necessity when a member presents with (A&B or A&C or D):</p> <p>A. Signs/symptoms of sleep disordered breathing as noted above</p> <p>B. Presence of a comorbid condition:</p> <ul style="list-style-type: none"> • Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include: <ul style="list-style-type: none"> ○ Chronic use oxygen for the treatment of pulmonary disease • Severe, persistent asthma as defined by use of: <ul style="list-style-type: none"> ○ Daily oral corticosteroids



	<ul style="list-style-type: none"> ○ Immunomodulator/biologics • Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40% Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg • Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and Guillian-Barré syndrome • Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation, such as: <ul style="list-style-type: none"> ○ Recurrent palpitations, nocturnal ○ Syncope-dizziness, or light headedness ○ Short of breath, chest pain associated with arrhythmia • Chronic opioid medication use that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months)- • Obesity hypoventilation syndrome, defined as pCO₂ greater than 45 mm Hg and pO₂ less than 60 mmHg on arterial blood gas <p>C. Recent HSAT (less than 1 year old) confirmed to be non- diagnostic:</p> <ul style="list-style-type: none"> • A previous home sleep study was technically inadequate and there was a valid attempt to retest the member via HSAT there was a valid attempt to retest the member via HSAT (Of note: there is no minimum required HSAT recording time for HSAT to be considered diagnostic), OR • A previous home sleep study failed to establish the diagnosis of OSA in a member with a high pretest probability of OSA. <p>D. Presence of a secondary concomitant or associated sleep disorder other than suspected OSA such as:</p> <ul style="list-style-type: none"> • Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal when the arousals are not associated with respiratory events • Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking • Central sleep apnea or treatment emergent sleep apnea, defined as central apneas/hypopneas greater than 50% of the total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour • Nocturnal seizures which are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders
Repeat Diagnostic Testing	
Repeat Diagnostic Testing: HSAT/PSG/Split Night Study	<p>A repeat PSG, HSAT, or Split Night Study to confirm the diagnosis of sleep disorders meets the definition of medical necessity when the member meets previously stated criteria for a PSG, HSAT, or Split Night as outlined above and at least ONE of the following conditions is met:</p> <ol style="list-style-type: none"> 1. Recent HSAT (less than 1 year old) confirmed to be non-diagnostic: <ul style="list-style-type: none"> • A previous home sleep study was technically inadequate and there was a valid attempt to retest the member via HSAT (Of note: there is no minimum required HSAT recording time for HSAT to be considered



	<p>diagnostic), OR</p> <ul style="list-style-type: none"> • A previous home sleep study failed to establish the diagnosis of OSA in a member with a high pretest probability of OSA- <p>2. Member has had a significant change in weight that has impacted signs/symptoms of obstructive sleep apnea, specifically weight gain or weight loss of greater than or equal to 10% of total body weight, when re-evaluation is warranted to modify therapy.</p> <p>3.- Reassessment of clinical indicators of obstructive sleep apnea to determine the effectiveness of treatment after surgical intervention:</p> <ul style="list-style-type: none"> • Tonsillectomy, • Adenoidectomy, • Uvulopalatoplasty (UPPP), • Maxillomandibular Advancement Surgery (MMA) • Other upper airway surgery/implantation for treatment of obstructive sleep apnea <p>4. Implementation and evaluation of a fabricated oral mandibular advancement appliance (OAT) by a qualified healthcare professional:</p> <p>a. Treatment efficacy of an oral mandibular appliance may be assessed using HSAT, OR</p> <p>b. An oral mandibular appliance may be adjusted manually during polysomnography to eliminate sleep disordered breathing in the sleep laboratory by a sleep technologist, and as prescribed by the qualified healthcare professional.</p> <ul style="list-style-type: none"> • The qualified healthcare professional may request in-facility polysomnography (95810) for manual adjustment of the appliance, if meets current criteria for in lab evaluation • Alternately, the oral appliance may be adjusted in the office empirically and then HSAT may be performed to assess therapeutic efficacy- <p>Note: PAP titration study (CPT code 95811) or split night sleep testing (95811) is not correct coding for adjustment of an oral mandibular appliance.</p> <p>Therapies uses to treat snoring only with diagnosed OSA do not meet the definition of medical necessity.</p>
<p>Repeat Facility (in lab) PAP Titration</p>	<p>A repeat in-lab PAP titration (95811) meets the definition of medical necessity for a member who is known to have OSA when (1&2):</p> <p>1. A diagnostic sleep test has been submitted to confirm the diagnosis of OSA AND, any of the following:</p> <ul style="list-style-type: none"> • The member is documented to have a recurrence of OSA related symptoms, such as snoring, excessive daytime somnolence, fatigue, disrupted sleep, etc. or persistent elevation in AHI documented from PAP device download while adherent to PAP therapy (use ≥ 4 hours per night on 70% of nights during a consecutive thirty (30) day period), • The member has a 10% change in body weight which has resulted in a recurrence of OSA-related symptoms, • The member has upper airway surgery, which has resulted in a recurrence of OSA-related symptoms, • Significant oxygen desaturation found during diagnostic testing: <ul style="list-style-type: none"> ○ O2 saturation $< 90\%$ for greater than 15 % of recording time during a diagnostic home sleep apnea test or diagnostic facility based PSG, OR



- O2 saturation < 80% for greater than 1% of recording time during a diagnostic home sleep apnea test or diagnostic facility based PSG.

NOTE: If previous diagnostic test is not available, physician attestation supporting a diagnosis of OSA will be accepted to support the request.

2. The member is not a candidate for APAP based on the presence of co-morbid medical conditions or concomitant sleep disorders.

Comorbid medical conditions such as:

- Moderate to severe COPD as diagnosed on pulmonary function studies (PFTs). Other evidence of moderate to severe COPD may include:
 - Chronic use oxygen for the treatment of pulmonary disease
- Severe, persistent asthma as defined by use of :
 - Daily oral corticosteroids
 - Immunomodulator/biologics
- Moderate to severe congestive heart failure (NYHA Class III or IV) or LVEF less than or equal to 40%
- Moderate to severe pulmonary hypertension, with pulmonary artery pressure greater than 40 mm Hg
- Neuromuscular/neurodegenerative disorder causing restrictive disease or hypoventilation such as: severe kyphoscoliosis, myasthenia gravis, amyotrophic lateral sclerosis (ALS), post-polio syndrome, polymyositis, and Guillian-Barré syndrome
- Acute, uncontrolled or refractory cardiac arrhythmia(s) supported by clinical documentation, such as:
 - Recurrent palpitations, nocturnal
 - Syncope-dizziness, or light headedness
 - Short of breath, chest pain associated with arrhythmia
- Chronic opioid medication use that would increase risk of central sleep apnea, (chronic use defined as use of opioids on most days per week for greater than 3 months)-
- Obesity hypoventilation syndrome, defined as pCO2 greater than 45 mm Hg and pO2 less than 60 mm Hg on arterial blood gas

Secondary concomitant or associated sleep disorders such as:

- Previously diagnosed periodic limb movement disorder (PLMD), defined as greater than or equal to 15 periodic limb movements per hour resulting in arousal when the arousals are not associated with respiratory events
- Complex parasomnias, with potentially injurious, disruptive or violent behavior, such as REM Behavior Disorder or sleep walking
- Narcolepsy, or narcolepsy-related symptoms (i.e. idiopathic hypersomnia), after obstructive sleep apnea has been evaluated and effectively treated as documented by the member's objective adherence to therapy (PAP download)
- Central sleep apnea or treatment emergent sleep apnea, defined as central apneas/hypopneas greater than 50% of the total apneas/hypopneas and central apneas/hypopneas greater than or equal to 5 times per hour
- Nocturnal seizures that are acute and/or not effectively controlled and occurring concomitantly with other sleep disorders-



<p>Multiple Sleep Latency Test (MSLT) Attended Titration</p>	<p>A Multiple Sleep Latency Test (MSLT) (95805) meets the definition of medical necessity when: The member exhibits documented symptoms suggestive of narcolepsy, either 1 and 2, or 3:</p> <ol style="list-style-type: none"> Excessive daytime sleepiness and at least one of the following: <ul style="list-style-type: none"> Epworth Sleepiness Scale greater than or equal to 10 Recent history of routine unintentional naps or lapses into sleep during the day for more than 30 days. Other recurrent symptoms of narcolepsy and one or more of the following: <ul style="list-style-type: none"> Cataplexy (sudden and transient loss of muscle tone, often triggered by emotions such as laughing or crying) Sleep paralysis Hypnagogic hallucinations Vivid dreams <p>OR</p> <ol style="list-style-type: none"> The member is currently on positive airway pressure therapy for the treatment of OSA, is adherent to therapy, download demonstrates resolution of sleep apnea and has persistent daytime sleepiness. <p>Note: The MSLT should be performed when a member is in a fully rested state, and not experiencing sleepiness due to inadequate prior sleep. For this reason, the MSLT is performed during the member's typical wake hours and always follows a facility-based PSG (95810) or an in lab titration (95811) for persistent hypersomnia for patients on therapy for OSA during which the member's sleep adequacy is objectively measured. The MSLT should not be performed after a split night study (CPT code 95811)</p>
<p>Maintenance of Wakefulness Test MWT</p>	<p>Maintenance of Wakefulness testing (95805) meets the definition of medical necessity to evaluate a member's response to treatment for a sleep disorder, such as obstructive sleep apnea, narcolepsy or periodic limb movement disorder, especially when the member's inability to stay awake constitutes a personal or public safety issue.</p> <p>Note: Only an MWT (not MSLT) may be performed without a preceding PSG (CPT code 95810) or PAP titration (CPT code 95811), at the discretion of the ordering healthcare professional. The MWT can be performed as a stand-alone test.</p>
<p>Actigraphy</p>	<p>Actigraphy (95803) meets the definition of medical necessity as a one-time covered service in lieu of paper or electronic sleep logs to evaluate sufficient sleep and to assess sleep-wake schedules prior to MSLT testing.</p> <p>Note: It is recommended that actigraphy be performed for at least 7 days to assure the validity of MSLT testing data.</p> <p>Actigraphy alone does not meet the definition of medical necessity in evaluating a member for the diagnosis of obstructive sleep apnea.</p>
<p>Diagnostic Testing for Commercial Driver's License (CDL) or other Government Licenses</p>	<p>Diagnostic testing (CPT codes 95808, 95810 and 95811) for CDL (commercial driver's license) or other government license purposes does not meet the definition of medical necessity unless the member meets criteria for in facility testing or home testing as noted in the guideline.</p>
<p>Sleep Testing in Pediatric Members (Younger than age 18 years)</p>	<p>Sleep disordered breathing in pediatric members younger than age 18 years is evaluated when there is the presence of one or more of the following:</p> <ul style="list-style-type: none"> Snoring Labored, paradoxical, or obstructed breathing during the child's sleep Sleepiness, hyperactivity, behavioral problems, or learning problems.



Pediatric in-facility polysomnography (PSG) (95782, 95808, 95810) **meets the definition of medical necessity** for **ANY** of the following indications:

- Obstructive sleep apnea is suspected based on clinical signs/symptoms
- Prior to adenotonsillectomy to treat obstructive sleep apnea or snoring
- Following adenotonsillectomy in a child with mild preoperative obstructive sleep apnea with residual symptoms of obstructive sleep apnea or snoring
- Following adenotonsillectomy to assess for residual obstructive sleep apnea in child with preoperative evidence of moderate to severe obstructive sleep apnea, obesity, craniofacial anomalies that obstruct the upper airway, or neurologic disorder (e.g., Down syndrome, Prader-Willi syndrome, myelomeningocele)
- Suspected congenital central alveolar hypoventilation syndrome or sleep related hypoventilation due to neuromuscular disorders or chest wall deformities
- Primary apnea of infancy
- Evidence of a sleep related breathing disorder in infant who has experienced a brief resolved unexplained event
- Assessment of response to treatment with an oral appliance
- Evaluation of child treated with mechanical ventilation for adjustment of ventilator settings-
- Evaluation prior to decannulation in child treated with tracheostomy
- Clinical suspicion of an accompanying sleep related breathing disorder in a child with chronic asthma, cystic fibrosis, pulmonary hypertension, bronchopulmonary dysplasia, or chest wall abnormality (e.g., kyphoscoliosis).
- Parasomnias --when there is a history of sleep-related injurious or potentially injurious disruptive behaviors-
- Follow-up for child with OSA diagnosis to determine if PAP requirement treatment and diagnosis have changed due to growth and development; if symptoms recur while on PAP

NOTE: If request is for a 95811 split night-must meet criteria for Pediatric in-facility polysomnography

Pediatric in-facility PAP titration (95783, 95811) **meets the definition of medical necessity** when the following are met (A&B or A&C):

- A. The pediatric member is diagnosed with obstructive sleep apnea, defined as (1 or 2):
 - 1. AHI or RDI greater than or equal to 1 on polysomnography
 - 2. A pattern of obstructive hypoventilation, defined as at least 25% of total sleep time with hypercapnia (PaCO₂ greater than or equal to 50 mm Hg) in association with one or more of the following:
 - Snoring
 - Flattening of the inspiratory nasal pressure waveform
 - Paradoxical thoracoabdominal motion
- B. Follow-up for child on chronic PAP support, to determine whether pressure requirements have changed due to growth and development; if symptoms recur while on PAP
- C. Adenotonsillectomy has been unsuccessful, contraindicated, not considered appropriate, or when definitive surgery is indicated but must await complete dental



	<p>and facial development in a pediatric member who is found to have obstructive sleep apnea diagnosis established by PSG</p> <p>Note: PAP Titration may also be undertaken in a child with other sleep –related breathing disorders (not obstructive sleep apnea) when treatment with noninvasive positive pressure ventilation (NIPPV) is recommended.</p>
Experimental or Investigational	<p>The following other diagnostic tests are considered not medically necessary for members with symptoms suggestive of obstructive sleep apnea:</p> <ul style="list-style-type: none"> • Actigraphy testing when used alone is not a validated method of diagnosing obstructive sleep apnea • Acoustic pharyngometry, or SNAP testing with fewer than 3 channels • Cephalographic x-rays for diagnosis of obstructive sleep apnea (Lateral cephalographic x-rays and orthopantograms may be medically necessary for evaluating members for oral appliances; lateral cephalographic x-rays may also be necessary to evaluate members for obstructive sleep apnea surgery) • X-rays of the temporomandibular joint or sella turcica • Laryngeal function studies • Sonography • Static charge sensitive bed • Tomographic x-ray • A limited daytime sleep study sometimes used for PAP desensitization and acclimatization (e.g. PAP-Nap” study)- <p>Attended polysomnography (PSG) or home sleep apnea testing (HSAT) is not medically necessary (in children or adults) for the following indications:</p> <ul style="list-style-type: none"> • Chronic lung disease in the absence of symptoms of a sleep disorder • Circadian rhythm disorders • Transient or chronic insomnia • Seizures in the absence of symptoms of a sleep disorder • Depression or other psychiatric disorders • Snoring without excessive daytime sleepiness- <p>Use of home sleep testing monitors in pediatric members (younger than age 18 years) is not considered medically necessary. The evidence is insufficient to determine the effects of the technology on health outcomes.</p>

POSITIVE AIRWAY PRESSURE THERAPY

Obstructive Sleep Apnea

Treatment for obstructive sleep apnea should be coordinated by a qualified healthcare professional who works with the member to identify an appropriate treatment plan. It is expected that members receive lifestyle counseling, where applicable, for treatment of underlying factors contributing to the obstructive sleep apnea symptoms. Educational interventions at the initiation of PAP therapy a considered a best practice.

Continuous Positive Airway Pressure (CPAP) and Auto titrating Positive Airway Pressure (APAP) (E0601) at an effective pressure level is a standard treatment for obstructive sleep apnea. The appropriate pressure setting for CPAP may be determined during an attended facility titration study. A sleep technologist manually adjusts the CPAP pressure to determine the optimal therapeutic pressure setting, which is then programmed into the CPAP so that a fixed airflow pressure is consistently administered during therapy. Auto-Titrating



Positive Airway Pressure (APAP) devices vary the pressure during treatment, based on measurements of the patient's physiologic response, such as airflow, pressure fluctuations or measures of airway resistance. Auto-adjusting PAP devices apply constant pressure, or bi-level pressure changes, as in bi-level PAP.

For members without significant comorbidities (e.g., CHF, COPD, central or treatment-emergent sleep apnea, obesity hypoventilation syndrome, or other concomitant sleep disorders) APAP devices may be initiated in the home setting and used in the self-adjusting mode for treatment of patients with obstructive sleep apnea.

Clinical practice standards advise that patients being treated with fixed CPAP or APAP (E0601) therapy have close clinical follow up to determine the effectiveness of treatment, especially during the initial weeks of therapy. If obstructive sleep apnea symptoms are not resolved effectively with CPAP or APAP, a clinical re-evaluation, and possibly in-laboratory PAP titration study, may be medically necessary.

CPAP or APAP therapy is considered medically necessary for an initial period of 90 days for members who are diagnosed with obstructive sleep apnea, as evidenced by a positive facility-based PSG, or a positive HSAT, as defined by *either* of the following criteria:

- A. Apnea/Hypopnea (AHI), Respiratory Disturbance Index (RDI) or Respiratory Event Index (REI) greater than or equal to 15 events per hour, in adult members with symptomatic or asymptomatic OSA.
- B. AHI, RDI, or REI greater than or equal to 5 and less than 15 events per hour and at least one of the following is met:
 - 1. History of stroke
 - 2. Hypertension
 - 3. Ischemic heart disease
 - 4. Symptoms of impaired cognition, mood disorders or insomnia
 - 5. Excessive daytime sleepiness

CPAP) or Auto-titrating PAP (APAP) (HCPCS code E0601) with or without a humidifier (HCPCS codes E0561, E0562) for an initial 90-day period is considered medically necessary for the treatment of OSA in a child when ALL of the following criteria are met:

- 1. OSA diagnosis established by diagnostic sleep test
- 2. Child weighs 30 kilograms (66 pounds) or more
- 3. Adenotonsillectomy has been unsuccessful or is contraindicated, or when definitive surgery is indicated but must await complete dental and facial development

Treatment of snoring alone, without significant obstructive sleep apnea, is *not* considered medically necessary

Bi-level Positive Airway Pressure (E0470, E0471)

A bi-level positive airway pressure device is able to deliver separate, adjustable lower expiratory and higher inspiratory positive airway pressure for assisted ventilation and may improve results and comfort for some members. Bi-level devices are considered respiratory assist devices.



Bi-level therapy without a backup rate feature (E0470) is considered medically necessary for an initial period of 90 days for the treatment of obstructive sleep apnea when:

- CPAP has been tried and proven ineffective or is not tolerated-as documented by a qualified health professional.

Bi-level Positive Airway Pressure Therapy for Other Sleep Disordered Breathing Conditions

Bi-level therapy with or without a backup rate feature (E0470/E0471) is considered medically necessary for an initial period of 90 days for members with clinical disorder groups (other than OSA) characterized as one of the following (see specific criteria for each specific disorder) conditions:

- Restrictive thoracic disorder
- Severe COPD with evidence of hypercapnia,
- Central sleep apnea (CSA) or treatment-emergent central sleep apnea.
- Hypoventilation syndrome

Restrictive Thoracic Disorders

An E0470 or E0471* device **is considered medically necessary** when all of the following criteria are met:

1. There is documentation in the member's medical record of a progressive neuromuscular disease (for example, amyotrophic lateral sclerosis) or thoracic cage abnormality (for example, post-thoracoplasty for TB),
2. One of the following:
 - a. An arterial blood gas PaCO₂, done while awake and breathing the member's usual FIO₂ is greater than or equal to 45 mm Hg;
 - b. Sleep oximetry demonstrates oxygen saturation less than or equal to 88% for at least five continuous minutes, done while breathing the member's usual FIO₂;
 - c. For a progressive neuromuscular disease (only), maximal inspiratory pressure is less than 60 cm H₂O or forced vital capacity (FVC) is less than 50% predicted;
3. There is documentation that chronic obstructive pulmonary disease does not contribute significantly to the member's pulmonary limitation.

** NOTE: Most titrations are started with Bi-level without a backup rate; the backup rate is added if incomplete resolution of the sleep disordered breathing. Most often, this is due to persistent CSA or in patients with insufficient (variable) respiratory pattern i.e. patients with neuromuscular diagnoses.*

Severe COPD:

An E0470 device **is considered medically necessary** when all of the following criteria are met:

1. An arterial blood gas PaCO₂, done while awake and breathing the member's usual FIO₂, is greater than or equal to 52 mm Hg;
2. Sleep oximetry demonstrates oxygen saturation less than or equal to 88% for at least five continuous minutes, done while breathing oxygen at 2 LPM or the member's usual FIO₂ (whichever is higher);
3. Prior to initiating therapy, Obstructive Sleep Apnea (OSA) and treatment with a continuous positive airway pressure device (CPAP) has been tried and failed, not tolerated or considered and ruled out.



An E0471 device **is considered medically necessary** for a member for either of the following (I or II) depending on the testing performed to demonstrate the need.

I. For members with COPD who qualified for an E0470 device, an E0471 started any time after a period of initial use of an E0470 device **is considered medically necessary** when both criteria A and B are met.

- A. An arterial blood gas PaCO₂, done while awake and breathing the member's prescribed FIO₂, shows that the member's PaCO₂ worsens greater than or equal to 7 mm HG compared to the original result from criterion 1 (above).
- B. A facility-based PSG demonstrates oxygen saturation less than or equal to 88% for greater than or equal to a cumulative 5 minutes of nocturnal recording time (minimum recording time of 2 hours) while using an E0470 device that is not caused by obstructive upper airway events – i.e., AHI less than 5.

II. For members with COPD who qualified for an E0470 device, an E0471 device **is considered medically necessary** if, at a time no sooner than 61 days after initial issue of the E0470 device, both of the following criteria A and B are met:

- A. An arterial blood gas PaCO₂ is done while awake and breathing the member's prescribed FIO₂, still remains greater than or equal to 52 mm Hg.
- B. Sleep oximetry while breathing with the E0470 device, demonstrates oxygen saturation less than or equal to 88% for greater than or equal to a cumulative 5 minutes of nocturnal recording time (minimum recording time of 2 hours), done while breathing oxygen at 2 LPM or the member's prescribed FIO₂ [whichever is higher].

Central Sleep Apnea or Treatment-Emergent Central Sleep Apnea

An E0470 or E0471* device **is considered medically necessary** when:

Prior to initiating therapy, a complete facility-based, attended polysomnogram must be performed documenting **ALL** of the following:

1. The diagnosis of central sleep apnea (CSA) or treatment-emergent central sleep apnea;
2. The ruling out of CPAP as effective therapy if either CSA or OSA is a component of the initially observed sleep-associated hypoventilation;
3. Significant improvement of the sleep-associated hypoventilation with the use of a bi-level therapy or APAP on the settings that will be prescribed for initial use at home, while breathing the member's usual FIO₂.

NOTE: Adaptive Servo-Ventilation, auto SV/Bopp and auto SV advanced devices (E0471) should not be used in individuals with symptomatic chronic congestive heart failure (CHF) with reduced ejection fraction (LVEF less than or equal to 45%). Resumed Ltd[®] identified a significant increase in the risk of cardiovascular death in individuals with symptomatic, chronic heart failure (NYHA II – IV) with reduced ejection fraction (LVEF less than or equal to 45%) and moderate to severe predominant central sleep apnea (AHI greater than or equal to 15, CAHI/AHI greater than or equal to 50% and CAI greater than or equal to 10). Philips Respironics[®] issued the same warning for at-risk individuals using Bopp autoSV/Bopp auto SV Advanced devices. In individuals with LVEF greater than 45% or mild CHF-related central sleep apnea, ASV may be used as an option for treatment, at the clinical discretion of the prescribing qualified healthcare professional



Central sleep apnea (CSA) or treatment-emergent central sleep apnea is defined as:

- An apnea-hypopnea index (AHI) greater than or equal to 5, and
- Central apneas or hypopneas greater than 50% of the total apneas/hypopneas, and
- Central apneas or hypopneas greater than or equal to 5 times per hour, and
- Symptoms of either excessive sleepiness or disrupted sleep.

** NOTE: Most titrations are started with Bi-level without a backup rate; the backup rate is added if incomplete resolution of the sleep disordered breathing. Most often, this is due to persistent CSA or in patients with insufficient (variable) respiratory pattern i.e. patients with neuromuscular diagnoses.*

Hypoventilation Syndrome

An E0470 device **is considered medically necessary** when both criteria A and B and either criterion C or D are met.

A. An initial arterial blood gas PaCO₂, done while awake and breathing the member's prescribed FIO₂, is greater than or equal to 45 mm Hg

B. Spirometry shows an FEV₁/FVC greater than or equal to 70%. (Refer to SEVERE COPD (above) for information about device coverage for members with FEV₁/FVC less than 70 %.)

C. An arterial blood gas PaCO₂, done during sleep or immediately upon awakening, and breathing the member's prescribed FIO₂, shows the member's PaCO₂ worsened greater than or equal to 7 mm HG compared to the original result in criterion A (above).

D. A facility-based PSG or HST while on CPAP and prescribed FiO₂ demonstrates oxygen saturation less than or equal to 88% for greater than or equal to 5 minutes of nocturnal recording time (minimum recording time of 2 hours) that is not caused by obstructive upper airway events – i.e., AHI less than 5.

If the above criteria are not met, E0470 and related accessories **will be considered not medically necessary**.

An E0471 device **is considered medically necessary** when both criteria A, B and either criterion C or D are met:

A. A covered E0470 device is being used and found to be ineffective.

B. Spirometry shows an FEV₁/FVC greater than or equal to 70%. (Refer to SEVERE COPD (above) for information about device coverage for members with FEV₁/FVC less than 70%).

C. An arterial blood gas PaCO₂, done while awake, and breathing the member's prescribed FIO₂, shows that the member's PaCO₂ worsens greater than or equal to 7 mm HG compared to the ABG result performed to qualify the member for the E0470 device (criterion A under E0470).

D. A facility-based PSG or HST while using E0470 and prescribed FiO₂ demonstrates oxygen saturation less than or equal 88% for greater than or equal to 5 minutes of nocturnal recording time (minimum recording time of 2 hours) that is not caused by obstructive upper airway events – i.e., AHI less than 5 while using an E0470 device.

If the criteria above are not met, an E0471 device **will be considered not medically necessary**



PAP Adherence

Treatment of obstructive sleep apnea with PAP therapy is dependent on patient adherence to the prescribed treatment. Close follow-up by a qualified healthcare professional and review of objective adherence data is recommended during PAP treatment to assure that the patient is prescribed the appropriate therapeutic pressure and is fit with an appropriate interface to encourage maximum use.

The first 90 days of PAP therapy are frequently considered an important trial period to assess patients' ability to comply with the treatment, and to evaluate the overall efficacy of PAP in resolving and/or minimizing the obstructive sleep apnea symptoms. If PAP is considered inadequate, based on objective adherence monitoring and symptom evaluation, efforts should be implemented to improve PAP adherence, or alternative therapies should be considered.

When PAP therapy is not successful, as evidenced by lack of patient adherence to prescribed therapy, and/or inadequate clinical response to therapy, the ordering qualified healthcare professional should discuss other treatment options with the patient.

CONTINUED COVERAGE BEYOND THE FIRST THREE MONTHS (90 days) OF THERAPY:

CPAP/APAP (E0601) Devices and Bi-level Device (E0470) for Obstructive Sleep Apnea

Continued coverage of a PAP device beyond the first three months (90 days) of therapy requires that, no sooner than the 31st day but no later than the 91st day after initiating therapy, there must be documentation the member is adhering to PAP therapy.

Objective evidence of adherence use of PAP therapy for the diagnosis of OSA is defined as:

- Use of PAP ≥ 4 hours per night on 70% of nights during a consecutive thirty (30) day period anytime during the first three (3) months of initial usage.

Bi-level device (E0470 AND E0471) for diagnoses other than Obstructive Sleep Apnea require the following documentation:

A signed and dated statement completed by the treating practitioner no sooner than 61 days after initiating use of the device, declaring that the member is compliantly using the device (an average of 4 hours per 24 hour period) and that the member is benefiting from its use.

If the above criterion is not met, continued coverage of a PAP device and related accessories will be considered not medically necessary.

In cases of lack of adherence, coverage of the PAP equipment and supplies may be discontinued based upon the health plan's coverage policy.



PAP REPLACEMENT

A replacement of a PAP device/supplies is considered medically necessary with a prescription from a qualified health professional. Confirmation must exist the device is nonfunctioning, non-repairable and out of warranty may come from the physician or rendering provider.

NOTE: If above criteria are met and a previous diagnostic test is not available, physician attestation supporting a diagnosis of OSA will be accepted to support replacement device.

Other:

Duplicate equipment is considered a convenience (e.g., travel PAP) and is not considered medically necessary. Replacement of a PAP device for the purposes of upgrading technology is not considered medically necessary.

Accessories and Supplies

The following accessories and supplies are considered medically necessary for members who meet criteria for PAP therapy. Guidelines for use and frequency of replacement should be based on industry standard practice and medical necessity, and are acceptable to most patients with normal usage. (See section titled **PAP Supply Guidance**)

- Chinstrap
- Disposable and/or non-disposable filters
- Nasal mask or oronasal mask (full face mask)
- Headgear
- Humidifier – heated or non-heated
- Replacement cushion or nasal pillows for nasal application device
- Replacement interface for oronasal mask
- Tubing - heated or non-heated

PAP Cleaning Machines or devices are considered items of convenience and not covered. In addition, the FDA has not evaluated the safety and effectiveness of ozone gas or UV light products claiming to clean, sanitize or disinfect CPAP machines and accessories in the home or healthcare setting.

Other non-surgical therapies

PAP therapy remains the “gold standard” for treatment for obstructive sleep apnea. However, other non-surgical therapies may be considered when PAP cannot be tolerated or when an alternate therapeutic option is considered medically appropriate.

Coverage for oral appliances may be subject to the terms, conditions and limitations of the applicable benefit plan’s External Prosthetic Appliances and Devices (EPA) or Durable Medical Equipment (DME) benefit and schedule of copayments.

A tongue-retaining device or a mandibular repositioning appliance (HCPCS codes E0485, E0486, S8262), also referred to as mandibular advancement appliance or mandibular advancement splint, as medically necessary for an individual with mild or moderate obstructive sleep apnea when EITHER of the following criteria is met:



- Apnea/hypopnea index (AHI), respiratory disturbance index (RDI) or respiratory event index (REI) greater than or equal to 15 but less than 30, as documented by polysomnography (PSG) or HSAT
- AHI, RDI or REI greater than or equal to 5 and less than 15 as documented by PSG or HSAT, when accompanied by symptoms of obstructive sleep apnea (e.g., excessive daytime sleepiness, impaired cognition, mood disorders or insomnia) or when individual has hypertension, ischemic heart disease or history of stroke
- AHI, RDI or REI greater than or equal to 30, in a patient who is unable to adhere to PAP therapy

The qualified healthcare professional must provide clinical documentation:

- PAP therapy has been tried and failed
- A tongue retaining device or mandibular repositioning device is medically necessary to treat obstructive sleep apnea

A tongue retaining device or mandibular repositioning device may be used in combination with PAP therapy, at the discretion of the qualified healthcare professional. This combined therapy typically allows PAP pressure to be reduced and often facilitates patient comfort and therapy adherence.

Over-the-counter (OTC) oral appliances obtained without a prescription are not considered medically necessary.

Experimental and Investigational

The following other **diagnostic tests** are considered experimental and investigational or unproven in members with symptoms suggestive of obstructive sleep apnea:

- Actigraphy testing when used alone is not a validated method of diagnosing obstructive sleep apnea.
- Acoustic pharyngometry, or SNAP testing with fewer than 3 channels
- Cephalographic x-rays for diagnosis of obstructive sleep apnea. Lateral cephalographic x-rays and orthopantomograms may be medically necessary for evaluating persons for oral appliances; lateral cephalographic x-rays may also be necessary to evaluate persons for obstructive sleep apnea surgery
- X-rays of the temporomandibular joint or sella turcica
- Laryngeal function studies
- Sonography
- Static charge sensitive bed
- Tomographic x-ray
- A limited daytime sleep study sometimes used for PAP desensitization and acclimatization (e.g., "PAP-Nap" study, CPT code 95807, modifier 52)

The following **OSA therapies** are considered experimental and investigational or unproven. Sleep testing related to the application or assessment of these therapies are not considered medically necessary.

- Sleep Strip
- Oral pressure therapy (e.g., Winx[®] Sleep Therapy System)
- Provent[™] Professional Sleep Apnea Therapy Device
- Atrial overdrive pacing
- Cautery-assisted palatal stiffening operation (CAPSO)



- Electrical devices (e.g., Night Shift™ Sleep Positioner, Night Balance) as therapy for positional obstructive sleep apnea
- Electrosleep therapy
- Injection Snoreplasty
- Laser-assisted uvulopalatoplasty (LAUP)
- Over-the-counter, non-customized mandibular appliances
- Pillar™ Palatal Implant System
- Radiofrequency volumetric tissue reduction (RFVTR) of the soft palate, uvula, or tongue base (e.g., Coblation®, Somnoplasty®)
- Tongue-base suspension (e.g., AIRVance System)
- Transpalatal advancement pharyngoplasty
- Diaphragmatic-Phrenic Nerve Stimulation for the treatment of CSA

Attended polysomnography (PSG) or home sleep apnea testing (HSAT) in an adult or child for any of the following indications because each is considered experimental, investigational or unproven:

- Chronic lung disease in the absence of symptoms of a sleep disorder
- Circadian rhythm disorders
- Transient or chronic insomnia
- Seizures in the absence of symptoms of a sleep disorder
- Depression or other psychiatric disorders
- Snoring without excessive daytime sleepiness

Use of home sleep testing monitors in pediatric members younger than age 18 years, is not considered medically necessary. The evidence is insufficient to determine the effects of the technology on health outcomes

BILLING/CODING INFORMATION:

CPT Coding:

95782	Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95783	Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi- level ventilation, attended by a technologist
95800	Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis(e.g., by airflow or peripheral arterial tone), and sleep time
95801	Sleep study, unattended, simultaneous recording; minimum of heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone)
95803	Actigraphy testing, recording, analysis, interpretation, and report (minimum of 72 hours to 14 consecutive days of recording)
95805	Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness
95806	Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist



95808	Polysomnography; any age, sleep staging with 1 – 3 additional parameters of sleep, attended by a technologist
95810	Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95811	Polysomnography; age 6 or older, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by technologist

HCPCS Coding:

G0398	Home sleep study test (HST) with type II portable monitor, unattended; minimum of 7 channels: EEG, EOG, EMG, ECG/heart rate, airflow, respiratory effort and oxygen saturation
G0399	Home sleep test (HST) with type III portable monitor, unattended; minimum of 4 channels: 2 respiratory movement/airflow, 1 ECG/heart rate and 1 oxygen
G0400	Home sleep test (HST) with type IV portable monitor, unattended; minimum of 3 channels

REIMBURSEMENT INFORMATION:

Reimbursement for Sleep Testing (95782, 95783, 95800, 95801, 95806, 95807, 95808, 95810, 95811, G0398, G0399, and G0400) is limited to two (2) in 12 months.

Reimbursement for multiple sleep latency (95805) is limited to one (1) day of testing in 12 months.

NOTE: Services in excess of the above limitations are subject to medical review of documentation that supports medical necessity. The following information is required documentation to support medical necessity: physician history and physical, physician procedure note, treatment plan, plan of treatment, electroencephalogram study, and polysomnography (sleep) study.

PAP SUPPLY GUIDANCE

The following supply table represents the usual maximum of supplies expected to be reasonable and necessary.

A4604	TUBING WITH INTEGRATED HEATING ELEMENT FOR USE WITH POSITIVE AIRWAY PRESSURE DEVICE	1 per 3 months
A7027	COMBINATION ORAL/NASAL MASK, USED WITH CONTINUOUS POSITIVE AIRWAY PRESSURE DEVICE, EACH	1 per 3 months
A7028	ORAL CUSHION FOR COMBINATION ORAL/NASAL MASK, REPLACEMENT ONLY, EACH	2 per 1 month
A7029	NASAL PILLOWS FOR COMBINATION ORAL/NASAL MASK, REPLACEMENT ONLY, PAIR	2 per 1 month



A7030	FULL FACE MASK USED WITH POSITIVE AIRWAY PRESSURE DEVICE, EACH	1 per 3 months
A7031	FACE MASK INTERFACE, REPLACEMENT FOR FULL FACE MASK, EACH	1 per 1 month
A7032	CUSHION FOR USE ON NASAL MASK INTERFACE, REPLACEMENT ONLY, EACH	2 per 1 month
A7033	PILLOW FOR USE ON NASAL CANNULA TYPE INTERFACE, REPLACEMENT ONLY, PAIR	2 per 1 month
A7034	NASAL INTERFACE (MASK OR CANNULA TYPE) USED WITH POSITIVE AIRWAY PRESSURE DEVICE, WITH OR WITHOUT HEAD STRAP	1 per 3 months
A7035	HEADGEAR USED WITH POSITIVE AIRWAY PRESSURE DEVICE	1 per 6 months
A7036	CHINSTRAP USED WITH POSITIVE AIRWAY PRESSURE DEVICE	1 per 6 months
A7037	TUBING USED WITH POSITIVE AIRWAY PRESSURE DEVICE	1 per 3 months
A7038	FILTER, DISPOSABLE, USED WITH POSITIVE AIRWAY PRESSURE DEVICE	2 per 1 month
A7039	FILTER, NON DISPOSABLE, USED WITH POSITIVE AIRWAY PRESSURE DEVICE	1 per 6 months
A7046	WATER CHAMBER FOR HUMIDIFIER, USED WITH POSITIVE AIRWAY PRESSURE DEVICE, REPLACEMENT, EACH	1 per 6 months

Procedure 95805 is allowed in addition to (95807, 95808, 95810, or 95811). One (1) repeat (95805) may be covered if:

- The first test was invalid or uninterpretable in a member with a high clinical pretest probability of a sleep disorder.
- The member has more than one sleep disorder.

Reimbursement for an overnight stay in an Independent Sleep Center, Sleep Disorder Clinic, or outpatient hospital setting is included in the allowance of the sleep test (95805, 95807, 95808, 95810, and 95811.)

Reimbursement for the following supplies is included in the sleep testing procedure (95805, 95807, 95808, 95810 and 95811):

- Electrodes (e.g., Apnea monitor), per pair (A4556)
- Lead wires (e.g., Apnea monitor), per pair (A4557)
- Conductive paste or gel (A4558)
- Oxygen probe for use with oximeter device, replacement (A4606)
- Cannula, nasal (A4615)
- Tubing, (oxygen) per foot (A4616)



- Full face mask used with positive airway pressure device, each (A7030)
- Face mask interface, replacement for full face mask, each (A7031)
- Replacement cushion for nasal application device, each (A7032)
- Replacement pillows for nasal application device, pair (A7033)
- Nasal interface (mask or cannula type) used with positive airway pressure device, with or without head strap (A7034)
- Headgear used with positive airway pressure device (A7035)
- Chinstrap used with positive airway pressure device (A7036)
- Tubing used with positive airway pressure device (A7037)
- Filter, disposable, used with positive airway pressure device (A7038)
- Filter, non-disposable, used with positive airway pressure device (A7039)
- Oral interface used with positive airway pressure device, each (A7044).

DEFINITIONS:

Actigraphy: measures physical activity, typically via a wrist-worn movement sensor, employed to estimate sleep and wakefulness based on relative levels of physical inactivity and activity.

Apnea: temporary cessation of breathing and, therefore, of the body's intake of oxygen and release of carbon dioxide; cessation of airflow for 10 seconds or more

Apnea-Hypopnea Index (AHI): the total number of apneas and hypopneas per hour of sleep. AHI is an index of severity of obstructive sleep apnea. AHI is calculated by dividing the number of apneas plus the number of hypopneas by the number of hours of sleep.

If the AHI is calculated based on less than 2 hours of continuous recorded sleep, the total number of recorded events used to calculate the AHI must be at least the number of events that would have been required in a 2-hour period (i.e., greater than or equal to 10 events).

Cataplexy: sudden attacks of muscular weakness and hypotonia triggered by an emotional stimulus such as laughter, anger, or fear.

Central Sleep Apnea (CSA): the repeated cessation of breathing caused by the temporary signal loss from the brain sent to the breathing muscles. CSA is most often seen in patients with neurologic disorders, congestive heart failure and in patients who take certain medications (e.g., opiates, benzodiazepines).

Electroencephalography (EEG): evaluates brain waves during different stages of sleep.

Electrocardiography (EKG/ECG): measures electrical rhythm of the heart. **Electromyography (EMG):** evaluates muscle movements during sleep. **Electrooculography (EOG):** evaluates eye movement during dream (REM) sleep.

Excessive Daytime Sleepiness: Score greater than or equal to 10 on the Epworth Sleepiness Scale.

Home Sleep Apnea Test (HSAT): also known as portable or unattended sleep test. HAST is conducted in the home setting or in a facility outside of the sleep laboratory. This test is unattended by a sleep technologist and may provide many of the same measurements as an in-lab sleep study, such as brain waves, heart rate, breathing, sleep position and oxygen saturation. This test is used to diagnose OSA in patients without comorbid conditions.

Hypersomnolence: excessive sleepiness during the typical period of wakefulness.



Hypopnea: an abnormal respiratory event lasting at least ten seconds with at least 30% reduction in thoracoabdominal movement or airflow as compared to baseline, and with at least a 4% oxygen desaturation, or a $\geq 3\%$ oxygen desaturation from pre-event baseline and/or the event is associated with an arousal.

Insomnia: an inability to sleep; abnormal wakefulness which may be characterized as difficulty falling asleep or sustained awakenings from sleep.

Maintenance of Wakefulness Test (MWT): measures sleep latency when the patient is instructed to attempt to remain awake in an unstimulated environment. MWT measures wakefulness during a person's typical wake period. It is used to assess a person's response to therapy (wakefulness) when treatment for a sleep disorder (e.g., OSA, PLMD, narcolepsy, etc.) has been undertaken (e.g., PAP, pharmacotherapies, etc.).

Multiple Sleep Latency Test (MSLT): measures how quickly the patient falls asleep when instructed to relax in a quiet and dimly lit room. The MSLT is performed to assess pathologic sleepiness during the patient's typical wake period.

Narcolepsy: recurrent, uncontrollable, episodes of sleep, often associated with hypnagogic hallucinations, sleep paralysis and cataplexy. Patients experience profound daytime sleepiness.

Nocturnal: pertaining to, occurring at, or active at night.

O2 Saturation: percentage of oxygen carried by the blood.

Obstructive Sleep Apnea (OSA): characterized by repetitive apneas and/or hypopneas during sleep, caused by complete or partial collapse of pharyngeal airway during sleep. In adults, an apnea/hypopnea index (AHI) greater than or equal to 5 but less than 15 is considered mild OSA. AHI greater than or equal to 15 but less than 30 is considered moderate OSA. AHI greater than or equal to 30 is considered severe OSA. In pediatric patients, an AHI greater than or equal to 1 is considered abnormal.

PAP-NAP: limited sleep study during which sleep technologists provide behavioral coaching and PAP therapy desensitization to sleep patients

Parasomnia: abnormal sleep behavior during sleep, such as sleepwalking, sleep talking, sleep eating, sleep terrors, dream enactment.

Periodic Limb Movement Disorder (PLMD): characterized by an involuntary, repetitive limb movement that may occur during sleep and usually involve the legs. This causes frequent arousals from sleep and often results in excessive daytime sleepiness.

Polysomnography: test performed in the sleep laboratory to evaluate the parameters of sleep.

REM Behavior Disorder (RBD): parasomnia occurring in REM sleep that primarily afflicts men of middle age or older; with a history of cerebrovascular disease. Presenting symptoms include violent behavior during sleep and dream enactment, typically with memory of the event.

Respiratory Disturbance Index (RDI): number of apneas + hypopneas + respiratory-related events during the sleep test divided by the total number of hours slept.

Respiratory-Event Index (REI): a measurement of sleep disordered breathing on home sleep apnea testing defined as number of apneas + hypopneas during the sleep test divided by the total sleep or recording time reported in hours.



Restless Leg Syndrome (RLS): an unpleasant discomfort typically inside the calves when sitting or lying down, especially just before sleep. This produces an irresistible urge to move the legs and may interfere with the ability to fall asleep. Other extremities or other body parts may also be affected.

Seizure: a paroxysmal event resulting from a sudden excessive discharge of the neurons of the cerebral cortex. Lack of sleep facilitates epileptic activity and seizures.

Sleep paralysis: experience of being awake but unable to move and lasting a few seconds. By itself, sleep paralysis may be a normal phenomenon. However, when present with other symptoms, it may be a part of the symptomatology of narcolepsy.

Sleep terrors: similar to nightmares, but occurring in non-REM sleep. The patient may enact the nightmare without memory of the event.

Snoring: noisy breathing occurring during sleep, due to vibration of the uvula and soft palate.

Split-Night Study: the initial diagnostic portion of the polysomnography followed by PAP titration therapy occurring during the same sleep test.

Treatment-Emergent Central Sleep Apnea is a form of central sleep apnea specifically identified by the persistence or emergence of central apneas and/or hypopneas upon exposure to CPAP, bi-level therapy, or APAP, when obstructive events have disappeared. These members have predominately obstructive or mixed apneas during the diagnostic sleep study occurring at greater than or equal to 5 times per hour. With use of a CPAP, bi-level therapy, or APAP, they show a pattern of central apneas and/or central hypopneas that meets the definition of CSA described above.

Type I Sleep Study Devices: for sleep studies performed attended in a sleep laboratory. Minimum requirements include recording of EEG, EOG, chin EMG, anterior tibialis EMG, ECG, airflow, respiratory effort and oxygen saturation. Body position is documented. The sleep technologist is in attendance during Type I sleep studies

Type II Sleep Study Devices: for sleep studies performed unattended outside of a sleep lab facility. Type II devices are portable devices that have a minimum of 7 channels (e.g., EEG, EOG, EMG, ECG or heart rate, airflow, respiratory effort, and oxygen saturation and monitor sleep staging). A sleep technologist is not in attendance during Type II studies.

Type III Sleep Study Devices: for sleep studies performed unattended outside of a sleep laboratory facility. Type III devices are portable devices that monitor and record a minimum of four channels and must record airflow, heart rate or ECG, and oxygen saturation. The sleep technologist is not in attendance during Type III studies.

Type IV Sleep Study Devices: for sleep studies performed unattended outside a sleep laboratory. Type IV devices are portable devices that monitor and record a minimum of three channels. Other measurements may include oximetry and heart rate. The technologist is not in attendance during Type IV sleep studies.

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GUIDELINE UPDATE INFORMATION:

12/19/2013	New coverage guideline
5/22/2015	<ul style="list-style-type: none">• Scheduled review. Adherence criteria, criteria related to Adaptive• Servo Ventilation and definitions added. Experimental/Investigational diagnostic tests updated: Actigraphy used alone, and use of Acoustic pharyngometry, or SNAP testing with fewer than three channels.• Guideline reformatted, references updated
5/25/2016	<ul style="list-style-type: none">• Updated definitions of comorbid conditions and secondary sleep disorders• Updated ASV indications with most current recommendations• Expanded definition of MWT• Provided list of standard PAP supply replacement schedule• Added REI as a measurement of sleep disordered breathing• Updated oxygen saturation requirements for PAP titration (CPT 95811)• Extensive reformatting changes
3/28/2017	Sleep disorders without suspected OSA identified as criteria for in- facility testing
6/21/2017	Scheduled review: added PAP replacement language, in-facility diagnostic testing for sleep disorders not associated with OSA
8/9/2018	Scheduled review: describe snoring as habitual vs. disruptive as suggestive evidence of sleep disordered breathing; inclusion of chronic opioid use as a comorbid condition; expand measurement of compliance over a 24 hour period.



6/8/2020	<p>Scheduled Review:</p> <p>Sleep Testing</p> <p>Witnessed apnea as standalone risk condition for OSA</p> <p>Updated LVEF from 45 % to 40% for moderate to severe CHF</p> <p>OHS moved from sleep disordered breathing to comorbid condition list</p> <p>Align definition of PAP compliance with CMS</p> <p>Increase timeframe from 90 days to 1 year for allowance of HSAT</p> <p>Include implantation of hypoglossal nerve stimulator for testing reassessment of efficacy of device</p> <p>Treatment of OSA and Other Sleep Disordered Breathing</p> <p>Indication of bi-level therapy for non-OSA conditions</p> <p>Continued use criteria for bi-level therapy for non-OSA conditions</p> <p>Remove HNS from list of E/I</p> <p>Updated definitions</p> <p>Updated references</p>
5/24/2021	<p>Scheduled Review:</p> <p>Further defined the evidence supporting conditions requiring a lab based sleep study pertaining to:</p> <ul style="list-style-type: none">• COPD• Asthma• Refractory cardiac arrhythmia• Chronic opioid medication use• Significant oxygen desaturations during diagnostic testing• Update for requirements for replacement positive airway pressure devices (PAP) when broken and patient has been previously diagnosed with OSA and doing well on therapy.• Streamline and clarify sleep study re-testing for adults and children• Parasomnias in children <p>Updated references</p> <p>Updated definitions</p>