SLEEP DISORDERS DIAGNOSIS AND TREATMENT
Corporate Medical Policy

File name: Sleep Disorders Diagnosis and Treatment
File code: UM.SPSVC.09
Origination: 08/2000
Last Review: 04/2014
Next Review: 06/2015
Effective Date: 06/01/2014

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract language, the member’s contract language takes precedence.

Medical Policy

Description

Obstructive Sleep Apnea is a syndrome defined as repeated periods of complete airway obstruction (apnea) lasting at least 10 seconds during sleep. Hypopnea which is defined as partial airway obstruction with at least 30% reduction in airflow for 10 seconds or more may also be present. Inadequate oxygen intake during these episodes results in a drop in oxygen saturation, which stimulates a brief awakening that is usually accompanied by gasping until the oxygen saturation rises. This cycle usually repeats throughout the night.

Obstructive Sleep Apnea (OSA) is caused by a blockage of the airway, usually when the soft tissue in the rear of the throat collapses during relaxed sleep, closing off the airway. The hallmark clinical symptom of OSA is excessive snoring, although it is important to note that snoring can occur in the absence of OSA.

Other co-morbid conditions which may contribute to Obstructive Sleep Apnea:

1. Unexplained hypertension
2. Obesity, defined as a body mass index greater than 30 kg/m² or increased neck circumference defined as greater than 17 inches in men or greater than 16 inches in women
3. Craniofacial or upper airway soft tissue abnormalities, including adenotonsillar hypertrophy, or neuromuscular disease
4. History of stroke (greater than 30 days previously), ischemic transient attack, coronary artery disease, or sustained supraventricular tachycardia or bradyarrhythmias

Upper Airway Resistance Syndrome (UARS) occurs when the patient has clinically significant UARS defined as greater than 10 alpha EEG arousals per hour.

Type I Polysomnography (PSG) is performed in a sleep lab, hospital, or other dedicated unit and supervised by a sleep technologist. PSG includes measurements of oxygen saturation, electrocardiography (ECG), electroencephalography (EEG), electromyography (EMG), electrooculography (EOG), airflow, and respiratory effort measurements. PSG's document sleep architecture, including rapid eye movement (REM)-related events, and quantify arousals, apneic episodes, oxygen desaturation, cardiac arrhythmias, limb movements, and seizure activity.

Home Portable Monitor (HPM) devices are also used to diagnose obstructive sleep apnea (OSA). There are several different kinds of HPMs (Type II, III, and IV) which differ in the number of channels of information and types of measurements made.

Definitions:

Apnea-hypopnea index (AHI) or Respiratory disturbance index (RDI) - the total number of apneas and hypopneas per hour of sleep.

The following AHI levels are used for the diagnosis of OSA:

- Mild OSA: AHI between 5 and 15
- Moderate OSA: AHI > 15
- Severe OSA: AHI > 30

Central Sleep Apnea (CSA) occurs when the brain fails to send the appropriate signals to the breathing muscles to initiate respirations. CSA is less common than obstructive sleep apnea.

Continuous positive airway pressure (CPAP) is a procedure in which the patient wears a mask over the nose during sleep, and pressure from an air blower forces air through the nasal passages. The air pressure is adjusted so that it is just enough to prevent the throat from collapsing during sleep. The pressure is constant and continuous.

Hypopnea is defined as either a 33% reduction in airflow for at least 10 seconds or a 4% or greater decrease in oxygen saturations while the patient is still breathing.

Polysomnography is a test that records a variety of body functions during sleep, such as the electrical activity of the brain, eye movement, muscle activity, heart rate, respiratory effort, airflow, and blood oxygen levels. These tests are used both to diagnose sleep apnea and to determine its severity.

Multiple Sleep Latency Test (MSLT) measures the speed of falling asleep.
The Epworth Sleepiness Scale

One of the criteria for obtaining a sleep study is abnormal daytime sleepiness. This is usually measured using a tool called the Epworth Sleepiness scale (ESS). An ESS score of greater than or equal to 21 is considered excessive daytime sleepiness, but in clinical practice a score of greater than 10 is considered abnormal and requiring medical attention.

The following scale is used to rate answers to the questions below:
0 = No chance of dozing, 1 = Slight chance of dozing, 2 = Moderate chance of dozing, 3 = High chance of dozing

_____ Sitting and reading;
_____ Watching TV;
_____ Sitting inactive in a public place (theater or a meeting);
_____ As a passenger in a car for an hour without a break;
_____ Lying down to rest in the afternoon when circumstances permit;
_____ Sitting and talking to someone;
_____ Sitting quietly after a lunch without alcohol;
_____ In a car, while stopped for a few minutes in traffic;
_____ Total Score.

The following scale is used to interpret the Total Score Level of Daytime Sleepiness:

0 - 7 Normal sleep function;
8 - 10 Mild daytime sleepiness;
11 - 15 Moderate daytime sleepiness;
16 - 20 Severe daytime sleepiness;
21 - 24 Excessive daytime sleepiness.

Surgical Treatments for OSA and UARS

Medical therapy is considered the first-line treatment for OSA and UARS. These therapies include weight loss, various continuous positive airway pressure (CPAP) devices, or orthodontic repositioning devices. There is insufficient evidence to support surgery as a first line treatment for OSA or upper airway resistance syndrome (UARS). Therefore surgical treatments are considered only after failed medical therapy, including CPAP trials. The following surgical procedures have been proposed as treatments for OSA and UARS.

Uvulopalatopharyngoplasty (UPPP)

Conventional surgeries for OSA include uvulopalatopharyngoplasty (UPPP) and a variety of maxillofacial surgeries such as mandibular-maxillary advancement (MMA). UPPP involves surgical resection of the mucosa and submucosa of the soft palate, tonsillar fossa, and the lateral aspect of the uvula. The UPPP procedure enlarges the oropharynx but cannot correct obstructions in the hypopharynx. Thus patients who fail
UPPP may be candidates for additional procedures such as mandibular and maxillary advancement surgery.

**Mandibular and maxillary advancement surgery (MMA)**

Mandibular and maxillary advancement surgeries are more extensive and are proposed for patients who do not have an adequate response to UPPP. These surgeries may be used to correct obstruction of the hypopharynx, the area at the very back of the throat.

**Laser assisted uvuloplasty (LAUP)**

LAUP is an outpatient procedure that has been proposed as a treatment of snoring with or without associated OSA. In this procedure, the tissues of the soft palate (palatal tissues) are reshaped using a laser. The extent of the surgery is typically different than standard UPPP, since only part of the uvula and associated soft-palate tissues are reshaped. The procedure, as initially described, does not remove or alter tonsils or lateral pharyngeal wall tissues. The patient undergoes from 3 to 7 sessions at 3- to 4-week intervals. LAUP cannot be considered an equivalent procedure to the standard UPPP, with the laser simply representing a surgical tool that the physician may opt to use. LAUP is considered a unique procedure, raising unique issues of safety and effectiveness.

**Radiofrequency ablation of the soft palate/volumetric reduction of the tongue base (RFTBR)**

Radiofrequency ablation of the soft palate and tongue is similar in concept to LAUP, although a different energy source is used. Radiofrequency energy is used to produce thermal lesions within the tissues, rather than using a laser to ablate the tissue surface, which may be painful. These procedures may also be referred to as a somnoplasty after the Somnoplasty sm System device (Somnus Medical Technologies, Sunnyvale, CA) which was FDA approved through the 510(k) process.

**Cautery assisted palatal stiffening procedure (CAPSO)**

This palatal stiffening procedure uses cautery (electrically heated probes) to induce a midline palatal scar designed to stiffen the soft palate to eliminate excessive snoring.

**Pillar palatal implant procedure**

The Pillar™ Palatal Implant System (Restore Medical, St. Paul, MN) is an implantable cylindrical-shaped device that is permanently implanted in the soft palate (the soft area at the back of the upper mouth). The device was cleared for marketing by the FDA through the 510(k) process with the labeled indication as follows:

“The Pillar™ Palatal Implant System is intended for the reduction of the incidence of airway obstructions in patients suffering from mild to moderate OSA (obstructive sleep apnea).”
Suspension of the tongue base

The Repose™ device involves the use of a titanium screw which is inserted into the posterior aspect of the lower jaw at the floor of the mouth. A loop of suture is passed through the tongue base and attached to the mandibular bone screw. The Repose™ procedure achieves a suspension or hammock of the tongue base making it less likely for the base of the tongue to drop backward during sleep.

Uvulectomy

This procedure surgically removes the uvula, the small tissue hanging from the soft palate at the back of the throat above the tongue. The uvula, which helps stiffen and shape the back of the throat and prevents food from going down the airway, is believed to be associated with excessive snoring.

Partial Glossectomy

This procedure surgically removes a portion of the tongue or oral cavity in an effort to widen the hypopharynx.

Tracheostomy is used in persons with severe, life-threatening sleep apnea. In this procedure, a small hole is made in the windpipe and a tube is inserted into the opening.

Policy

Section A: Surgical Treatment of Obstructive Sleep Apnea (OSA) and Upper Airway Resistance Syndrome (UARS)

Uvulopalatopharyngoplasty (UPPP) may be considered medically necessary for the treatment of clinically significant obstructive sleep apnea syndrome (OSA) in appropriately selected adult patients who have not responded to or do not tolerate nasal continuous positive airway pressure (CPAP). Clinically significant OSA in this case is defined as those patients who have:

- Apnea/hypopnea index (AHI) or respiratory disturbance index (RDI) greater than or equal to 15 events per hour, or
- AHI or RDI greater than or equal to 5 events and less than or equal to 14 events per hour with documented symptoms of excessive daytime sleepiness, impaired cognition, mood disorders or insomnia, or documented hypertension, ischemic heart disease, or history of stroke.

Hyoid suspension, surgical modification of the tongue, and/or maxillofacial surgery, including mandibular-maxillary advancement (MMA), may be considered medically necessary in appropriately selected adult patients with clinically significant OSA and objective documentation of hypopharyngeal obstruction who have not responded to or do not tolerate CPAP. Clinically significant OSA in this case is defined as those patients who have:
• AHI or RDI greater than or equal to 15 events per hour, or
• AHI or RDI greater than or equal to 5 events and less than or equal to 14 events per hour with documented symptoms of excessive daytime sleepiness, impaired cognition, mood disorders or insomnia, or documented hypertension, ischemic heart disease, or history of stroke.

Adenotonsillectomy may be considered medically necessary in pediatric patients with clinically significant OSA and hypertrophic tonsils. Clinically significant OSA in this case is defined as those pediatric patients who have:

• AHI or RDI of at least 5 per hour, or
• AHI or RDI of at least 1.5 per hour in a patient with excessive daytime sleepiness, behavioral problems, or hyperactivity.

Investigational

The following minimally-invasive surgical procedures are considered investigational for the sole or adjunctive treatment of obstructive sleep apnea (OSA) or upper airway resistance syndrome (UARS):

• Uvullectomy
• Partial glossectomy
• Radiofrequency volumetric tissue reduction of the tongue base or palatal tissues
• Tongue base suspension procedures, including but not limited to the Repose™
• Laser-assisted palatoplasty (LAUP) or volumetric tissue reduction
• Palatal stiffening procedures, including but not limited to the following:
  a. Cautery-assisted palatal stiffening operation (CAPSO)
  b. Injection of sclerosing agent
• Implantation of palatal implants (also known as the pillar procedure).
• Nasal surgery employing any technique, including nasal valve surgery, septoplasty, turbinectomy, polypectomy and laser or radiofrequency ablation (volumetric tissue reduction) of the nasal turbinates is considered investigational for the treatment of obstructive sleep apnea and other sleep related breathing disorders.

Not Medically Necessary

Surgical Treatment for Snoring Alone

Surgical intervention for the treatment of snoring in the absence of documented obstructive sleep apnea is considered not medically necessary. Snoring in the absence of clinically significant obstructive sleep apnea (OSA) is not considered a medical condition. Therefore, any surgical intervention such as uvulopalatopharyngoplasty (UPPP), laser-assisted uvulopalatoplasty (LAUP), radiofrequency volumetric tissue reduction of the palate, or palatal stiffening procedures, for snoring alone is considered not medically necessary.
• Nasal surgery employing any technique is considered not medically necessary for the treatment of snoring.

Section B. Medical Therapies for OSA and UARS

CPAP (E0601) may be considered medically necessary for:

• Patients in whom polysomnography has documented sleep disordered breathing, with an RDI (respiratory disturbance index) of greater than fifteen, or
• Patients in whom polysomnography has documented sleep disordered breathing, with an RDI (respiratory disturbance index) of greater than five and any of the following associated symptoms:
  ▪ Excessive daytime sleepiness
  ▪ Impaired cognition
  ▪ Mood disorders
  ▪ Insomnia
  ▪ Documented hypertension
  ▪ Ischemic heart disease
  ▪ History of stroke
• Patients who do not have sleep apnea, but who have restrictive lung disease and documented desaturation at night, requiring nocturnal ventilation
• Under individual consideration APAP may be allowed in selective patients in lieu of repeated CPAP titration when the attending sleep center physician indicates that, in his/her opinion the member would be a suitable candidate for this approach based upon member’s knowledge, behavior, and health status.

BiPAP (E0470-E0471) and APAP/CPAP (E0601) may be considered medically necessary in patients with clinically significant obstructive sleep apnea AND who have failed a prior trial of CPAP. A heater and humidifier may be considered medically necessary for use with CPAP, BiPAP, or APAP, and should be provided during the initial trial period and with the rental-to-purchase agreement.

If the above medical necessity criteria are met a 90-day rental trial of CPAP/BiPAP will be authorized. In order to consider benefits beyond the 90-day rental trial the Plan requires a report from the CPAP/BiPAP machine demonstrating the hours of usage from the device itself or from the Smartcard in order to evaluate compliance. The date the CPAP/BiPAP was set up and the date of the compliance report must also be submitted with the hours of usage information. Rental to purchase will be authorized if compliance is greater than or equal to four hours per night, six nights per week. If compliance is less than this, reevaluation and counseling by the sleep specialist is required to ensure that the equipment is properly fitted and being used properly and that the member has a full understanding of the medical necessity of treatment and the risks of under treatment. Following this evaluation an additional 30-day trial will be authorized.

Investigational
In 2010, a nasal expiratory resistance valve (PROVENT, Ventus Medical) received 501 (K) marketing clearance from the FDA for the treatment of OSA (Obstructive Sleep Apnea). PROVENT is a single use device containing valves that are inserted into the nostrils and secured with adhesive. A nasal expiratory positive pressure (EPAP) device is considered to be investigational.

**Not Medically Necessary**

Monitoring during desensitization programs (e.g., PAP-NAP) is considered not medically necessary. This monitoring, reported using CPT code 95807 is not a covered benefit as there is no evidence that monitored CPAP desensitization programs (e.g., PAP-NAP) result in equivalent or superior compliance rates compared to standard desensitization programs without monitoring in patients having difficulty adapting to their CPAP device.

**Home Sleep Studies**

Home Sleep Studies (HSS) may be considered medically necessary when they are clinically indicated in the judgment of the treating physician.

A second home sleep study may be indicated to evaluate the impact of uvulopatatopharyngoplasty (UPPP) or other corrective surgeries for OSA after appropriate recovery from surgery.

The following are contraindications for Home Sleep Studies only. A home sleep study provided in the presence of one of the contraindications below is not a covered benefit. If the patient meets criteria for a PSG, but one of the contraindications below is present, a facility based PSG will be allowed.

1. Moderate or severe chronic obstructive pulmonary disease (COPD) - FEV1/FVC less than or equal to 0.7 and FEV1 less than 80% of predicted
2. Moderate or severe congestive heart failure (CHF) - NYHA Class III or IV
3. Cognitive impairment (inability to follow simple instructions)
4. Neuromuscular impairment
5. Suspicion of a sleep disorder other than OSA (such as central sleep apnea, narcolepsy, restless leg syndrome, circadian rhythm disorder, parasomnias, periodic limb movement disorder)
6. Previous technically suboptimal home sleep study (2 nights of study attempted)
7. Previous 2-night home sleep study which did not diagnose OSA in a patient with ongoing clinical suspicion of OSA
8. Patient is oxygen deprived for any reason
9. History of cerebrovascular accident (CVA) within the preceding 30 days
10. History of ventricular fibrillation or sustained ventricular tachycardia
11. Pediatric patient under age 18

**Polysomnography (PSG):**

We consider a PSG for adults is considered medically necessary when:
Common indications for PSG include (A+B+C):

A. Evidence of Sleepiness
   1. Disruptive Snoring
   2. Disturbed or restless sleep
   3. Non restorative sleep
   4. Excessive daytime sleepiness
   5. Inappropriate daytime napping (during driving, conversation or eating)
   6. Sleepiness which interferes with daily activities
   7. Epworth Sleepiness Scale, ≥ to 10
   8. Unexplained hypertension, AND

B. Evidence suggestive of sleep disturbed breathing
   1. Witnessed apnea events during sleep
   2. Choking during sleep
   3. Gasping during sleep
   4. BMI greater ≥30, or neck circumference >44 cm
   5. Frequent unexplained arousals from sleep, AND

C. Duration of symptoms for more than one month; OR

D. Board-certified sleep specialist recommends a PSG, based on the clinical presentation and physical findings.

A repeat PSG may be considered medically necessary in the following situations (requires one):

A. Diagnosis of OSA with abnormal Apnea Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI)
   1. AHI or RDI ≥ 15; OR
   2. AHI or RDI between 5 and 14 (requires one)
      a. Excessive daytime sleepiness (ESS)
      b. Impaired cognition
      c. Insomnia
      d. Mood disorder
      e. Hypertension; OR

B. Plan to stop PAP therapy after a recent procedure to correct OSA (requires one or two)
   1. Tonsillectomy and/or adenoidectomy and/or uvuloplasty (UPP), and/or maxillomandibular advancement surgery (MMA
   2. Implementation of an oral mandibular advancement appliance, OR

C. To re-evaluate an individual with failure of resolution of symptoms or recurrence of symptoms during treatment; OR

D. To evaluate the impact of an oral appliance with the Apnea-Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI) was greater than 15 pre-treatment; OR
E. To titrate continuous positive airway pressure (CPAP) following an initial PSG where OSA was demonstrated and a split night study was not feasible; Or

F. To re-evaluate the diagnosis of OSA and need for continued CPAP in a person previously diagnosed by PSG and currently using CPAP, if a significant weight loss has occurred since the initial study; Or

G. To titrate CPAP prescription when half night or “split night” PSG with titration of CPAP less than 20 per hour or when initial PSG was not diagnostic in time to allow for at least 3 hours of CPAP titration including both REM and on-REM sleep.

Repeat PSG is considered not medically necessary in the follow-up of individuals with OSA treated with CPAP when symptoms attributable to OSA have resolved.

Section C: Home Portable Monitoring (HPM) Devices:

Medically Necessary

The following Home Portable Monitoring (HPM) devices are considered medically necessary when used for a medically necessary purpose according to the criteria below:

- Type II HPM devices; and
- Type III HPM devices with a minimum of 4 parameters, including ventilation or airflow (at least 2 channels of respiratory movement, or respiratory movement and airflow), heart rate or ECG, and oxygen saturation.

Not Medically Necessary

Type IV and all other HPM devices not listed above are considered not medically necessary for all indications:

HPM devices are considered not medically necessary for children for all indications including, but not limited to as an alternative to PSG.

Section D: Additional Indications for PSG in Children (Age less than 18)

Medically Necessary

PSG for children is considered medically necessary for the diagnosis of sleep disorders when one or more of the following indications are present:

- Habitual snoring associated with one or more of the following (a. through e.):
  - Restless or disturbed sleep; OR
  - Behavioral disturbance, or learning disorders including deterioration in academic performance, hyperactivity, or attention deficit disorder; OR
  - Enuresis; OR
  - Frequent awakenings; OR
  - Failure to thrive or growth impairment; OR
• Witnessed apnea greater than 2 respiratory cycle times (inspiration and expiration); OR
• Hypopnea with 4% desaturation, OR
• Pediatric apnea with two skipped breaths
• Central apnea greater than 20 seconds, or two breaths, or less than 3% desaturation, or heart rate under 50, OR
• Excessive daytime somnolence, or altered mental status unexplained by other conditions or etiologies; OR
• Polycythemia unexplained by other conditions or etiologies; OR
• Cor pulmonale unexplained by other conditions or etiologies; OR
• Increased respiratory efforts, labored breathing, or sternal or intercostal retractions during sleep; OR
• Hypertrophy of tonsils and adenoids associated with noisy daytime respirations where surgical removal poses a significant risk and would be avoided in the absence of sleep disordered breathing; OR
• Suspected congenital central alveolar hypoventilation syndrome or sleep related hypoventilation due to neuromuscular disorders or chest wall deformities; OR
• Clinical evidence of a sleep related breathing disorder in infants who have experienced an apparent life-threatening event.

Repeat PSG for children may be considered medically necessary in the following circumstances:

• Initial PSG is inadequate or non-diagnostic and the accompanying caregiver reports that the child's sleep and breathing patterns during the testing were not representative of the child's sleep at home; OR
• A child with previously diagnosed and treated OSA who continues to exhibit persistent snoring or other symptoms of sleep disordered breathing. In the case of adenotonsillectomy, repeat PSG should also be performed if the pre-operative OSA was severe (RDI or AHI greater than 19 per hour). [If the treatment was surgical, testing should be deferred for 6 to 8 weeks post-operatively]; OR
• To periodically re-evaluate the appropriateness of CPAP settings based on the child's growth pattern or the presence of recurrent symptoms while on CPAP; OR
• If obesity was a major contributing factor and significant weight loss has been achieved, repeat testing may be indicated to determine the need for continued therapy.

Not Medically Necessary

Home Sleep Studies in children under age 18 are not medically necessary.

Repeat PSG is considered not medically necessary in the follow-up of children with OSA treated with CPAP when symptoms attributable to sleep apnea have resolved. PSG for children is considered not medically necessary for the following:
• Sleep walking or night terrors; OR
• Routine evaluation of adenotonsillar hypertrophy alone without other clinical signs or symptoms suggestive of obstructive sleep disordered breathing; OR
• Routine follow-up for children whose symptoms have resolved post-adenotonsillectomy unless the pre-operative RDI or AHI was greater than 19 per hour or the child continues to snore post-operatively or other symptoms related to pre-operative sleep disordered breathing persist or recur.

Split-night PSG for children is considered **not medically necessary** for all indications.

**Section E: Multiple Sleep Latency Testing (MSLT) and Maintenance of Wakefulness Testing (MWT)**

**Medically Necessary**

Multiple sleep latency testing (MSLT) is considered **medically necessary** for the evaluation of the following two conditions: Narcolepsy or suspected idiopathic hypersomnia.

**MSLT** is considered **medically necessary** in **individuals** with any of the following clinical presentations:

- Sleep paralysis, hypnagogic hallucinations, cataplexy or other symptoms suggestive of Narcolepsy; **OR**
- Unusual/atypical parasomnias, such as sleep-related violent or injurious behavior, REM behavior disorder or suspected nocturnal seizures; **OR**
- Nocturnal oxygen desaturation with unexplained right heart failure, polycythemia, cardiac arrhythmias during sleep or pulmonary hypertension; **OR**
- Suspected periodic limb movements during sleep or suspected idiopathic hypersomnia, when excessive daytime sleepiness is demonstrated by any of the following:
  - Inappropriate daytime napping (e.g., during driving, conversation, or eating); **OR**
  - Sleepiness that interferes with daily activities when not explained by other conditions, such as poor sleep hygiene, medication, drugs, alcohol, psychiatric or psychological disorders; **OR**
  - Epworth Sleepiness Scale score greater than 10.

**Not Medically Necessary**

**MSLT** is considered **not medically necessary** in the following four situations:

- When performed for routine diagnosis of obstructive sleep apnea; **OR**
- For routine follow-up after treatment of sleep related disorders; **OR**
- For evaluation of sleepiness in medical or neurological disorders (other than narcolepsy or idiopathic hypersomnia), including, but not limited to, insomnia, circadian rhythm disorders, and Shift Work Sleep Disorder (SWSD); **OR**
- Portable MSLT performed in the home setting.
Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval is required and benefits are subject to all terms, limitations and conditions of the subscriber contract. Home sleep studies do NOT require prior approval.

An approved referral authorization for members of the New England Health Plan (NEHP) is required. A prior approval for Access Blue New England (ABNE) members is required. NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member’s health plan.

Benefits for FEP members may vary. Please consult the FEP Service Plan Brochure.

Coverage varies according to the member’s group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through a self-funded (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member’s plan documents or contact the customer service department.

Eligible Providers

- Allopathic Physicians (M.D.)
- Osteopathic Physicians (D.O.)
- Durable Medical Equipment (DME) providers
- Dentists (DMD, DDS) for oral appliances only

Related Policies

- Durable Medical Equipment (DME)
- Oral Appliances for Obstructive Sleep Apnea (OSA)

Billing and Coding/Physician Documentation Information

Click the links below for attachments, coding tables & instructions.
- Attachment I- CPT (procedure) Code List & Instructions
- Attachment II- Eligible Diagnosis Codes

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.
### Policy Implementation/Update Information

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/2000, 12/02</td>
<td>Added TVHP medical director to signature, removed applies to section, reformatted added when services are covered and not covered sections</td>
</tr>
<tr>
<td>8/03</td>
<td>Updated resources &amp; added definitions and new HCPC codes with the establishment of absolute and relative criteria based upon literature review, research, and BCBSVT Specialty Advisory Committee consensus including Vermont sleep specialty physicians from network community hospitals and tertiary care centers.</td>
</tr>
<tr>
<td>11/05</td>
<td>Reviewed clinical information regarding CPAP/BiPAP compliance was added.</td>
</tr>
<tr>
<td>12/06 - 01/07</td>
<td>Reviewed incorporating feedback from Vermont network sleep specialty physicians and updated BCBSA Medical Policy. Epworth sleepiness scale added to policy.</td>
</tr>
<tr>
<td></td>
<td>This policy was reviewed and approved by the BCBSVT Clinical Advisory Committee in March 2007.</td>
</tr>
<tr>
<td>12/07</td>
<td>Revised with 2 more relative indications added to criteria and criteria for repeat PSG added. To be reviewed by the CAC 1/08.</td>
</tr>
<tr>
<td>12/2011</td>
<td>Updated and transferred to new format. New criteria for surgical procedures to correct OSA added.</td>
</tr>
<tr>
<td>02/2013</td>
<td>AHI index- Severe OSA changed (was ≥50, now ≥30). Indications for Home sleep studies added. Description/criteria added for surgical procedures, UPPP, Hyoid suspension and adenotonsillectomy. Home Sleep Study codes added, CPT 2013 CPT codes added. Changes/Updates to medical necessity criteria. Medical/Coder reviewed- RLJ.</td>
</tr>
<tr>
<td>05/2014</td>
<td>Policy revised. HSS codes updated, they no longer require PA. Removed indications for HSS. Added some not med nec criteria for repeat PSG. HPM clarification. Medical/ Coder reviewed. RLJ.</td>
</tr>
</tbody>
</table>

### Scientific Background and Reference Resources

1. Blue Cross Blue Shield Association Medical Policy Reference Manual 2.01.18


10. Steward, DL. Effectiveness of multilevel (tongue and palate) radiofrequency tissue ablation for patients with obstructive sleep apnea syndrome. *Laryngoscope*. 2004 Dec;114(12):2073-84. PMID: 15564825


36. Atef, A, Moslehi, M, Hesham, M, Fathi, A, Hassan, M, Fawzy, M. Radiofrequency vs laser in the management of mild to moderate obstructive sleep apnea: does the


56. TEC Assessment 5/96


**Approved by BCBSVT Medical Directors**  **Date Approved**

Robert Wheeler MD
Chief Medical Officer

**Attachment I**

**CPT Code Table & Policy Instructions**

<table>
<thead>
<tr>
<th>Code Type</th>
<th>Number</th>
<th>Brief Description</th>
<th>Policy Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>42145</td>
<td>Palatopharyngoplasty (e.g., uvulopalatopharyngoplasty, uvulopharyngoplasty)</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>95782</td>
<td>Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, attended by a technologist</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>Code</td>
<td>Description</td>
<td>Approval Required</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>CPT</td>
<td>95783</td>
<td>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</td>
<td>Titration Study does not require Prior Approval.</td>
</tr>
<tr>
<td>CPT</td>
<td>95800</td>
<td>Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time</td>
<td></td>
</tr>
<tr>
<td>CPT</td>
<td>95801</td>
<td>Sleep study, unattended, simultaneous recording; minimum of heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone)</td>
<td></td>
</tr>
<tr>
<td>CPT</td>
<td>95805</td>
<td>Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>95806</td>
<td>Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)</td>
<td></td>
</tr>
<tr>
<td>CPT</td>
<td>95807</td>
<td>Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>95808</td>
<td>Polysomnography; any age, sleep staging with 1-3 additional parameters of sleep, attended by a technologist</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>Code</td>
<td>Description</td>
<td>Approval Required</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>CPT</td>
<td>95810</td>
<td>Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>CPT</td>
<td>95811</td>
<td>Polysomnography; age 6 years 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 a technologist</td>
<td>Titration Study does not require Prior Approval.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7027</td>
<td>Combination oral/nasal mask, used with continuous positive airway pressure device, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7028</td>
<td>Oral cushion for combination oral/nasal mask, replacement only, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7029</td>
<td>Nasal pillows for combination oral/nasal mask, replacement only, pair</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7030</td>
<td>Full face mask used with positive airway pressure device, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7031</td>
<td>Face mask interface, replacement for full face mask, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7032</td>
<td>Cushion for use on nasal mask interface, replacement only, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
</tbody>
</table>

HCPCS A7027

Combination oral/nasal mask, used with continuous positive airway pressure device, each
Prior Approval is not required unless the purchase price is greater than $500.00.

HCPCS A7028

Oral cushion for combination oral/nasal mask, replacement only, each
Prior Approval is not required unless the purchase price is greater than $500.00.

HCPCS A7029

Nasal pillows for combination oral/nasal mask, replacement only, pair
Prior Approval is not required unless the purchase price is greater than $500.00.

HCPCS A7030

Full face mask used with positive airway pressure device, each
Prior Approval is not required unless the purchase price is greater than $500.00.

HCPCS A7031

Face mask interface, replacement for full face mask, each
Prior Approval is not required unless the purchase price is greater than $500.00.

HCPCS A7032

Cushion for use on nasal mask interface, replacement only, each
Prior Approval is not required unless the purchase price is greater than $500.00.
<table>
<thead>
<tr>
<th>HCPCS</th>
<th>A7033</th>
<th>Pillow for use on nasal cannula type interface, replacement only, pair</th>
<th>Prior Approval is not required unless the purchase price is greater than $500.00.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCPCS</td>
<td>A7034</td>
<td>Nasal interface (mask or cannula type) used with positive airway pressure device, with or without head strap</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7035</td>
<td>Headgear used with positive airway pressure device</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7036</td>
<td>Chinstrap used with positive airway pressure device</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7037</td>
<td>Tubing used with positive airway pressure device</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7038</td>
<td>Filter, disposable, used with positive airway pressure device</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7039</td>
<td>Filter, non disposable, used with positive airway pressure device</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7044</td>
<td>Oral interface used with positive airway pressure device, each</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>A7045</td>
<td>Exhalation port with or without swivel used with accessories for positive airway devices, replacement only</td>
<td>Prior Approval is not required unless the purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>Code</td>
<td>Description</td>
<td>Prior Approval</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>A7046</td>
<td>Water chamber for humidifier, used with positive airway pressure device, replacement, each</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E0470</td>
<td>Respiratory assist device, bi-level pressure capability, without backup rate feature, used with noninvasive interface, e.g., nasal or facial mask</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td></td>
<td>E0471</td>
<td>Respiratory assist device, bi-level pressure capability, with backup rate feature, used with noninvasive interface, e.g., nasal or facial mask</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td></td>
<td>E0472</td>
<td>Respiratory assist device, bi-level pressure capability, with backup rate feature, used with invasive interface, e.g., tracheostomy tube</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td></td>
<td>E0485</td>
<td>Oral device/appliance used to reduce upper airway collapsibility, adjustable or non-adjustable, prefabricated, includes fitting and adjustment</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td></td>
<td>E0486</td>
<td>Oral device/appliance used to reduce upper airway collapsibility, adjustable or non-adjustable, custom fabricated, includes fitting and adjustment</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>HCPCS</td>
<td>E0561</td>
<td>Humidifier, non-heated, used with positive airway pressure device</td>
<td>Prior Approval not required unless purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>HCPCS</td>
<td>E0562</td>
<td>Humidifier, heated, used with positive airway pressure device</td>
<td>Prior Approval not required unless purchase price is greater than $500.00.</td>
</tr>
<tr>
<td>HCPCS</td>
<td>E0601</td>
<td>Continuous airway pressure (cpap) device</td>
<td>Requires Prior Approval</td>
</tr>
<tr>
<td>HCPCS</td>
<td>G0398</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>HCPCS</td>
<td>G0399</td>
<td>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 saturation.</td>
<td></td>
</tr>
<tr>
<td>HCPCS</td>
<td>G0400</td>
<td>Home sleep test (HST) with type IV portable monitor, unattended; minimum of 3 channels.</td>
<td></td>
</tr>
</tbody>
</table>

**The following codes will be deny as investigational**

<table>
<thead>
<tr>
<th>CPT</th>
<th>41512</th>
<th>Tongue base suspension, permanent suture technique</th>
<th>Deny Investigational</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>95803</td>
<td>Actigraphy testing, recording analysis, interpretation, and report (minimum of 72 hours to 14 consecutive days of recording)</td>
<td>Deny Investigational</td>
</tr>
<tr>
<td>HCPCS</td>
<td>S8040</td>
<td>Topographic brain mapping</td>
<td>Deny Investigational</td>
</tr>
</tbody>
</table>

**The following codes will suspend for Medical Review**
<table>
<thead>
<tr>
<th>CPT</th>
<th>Code</th>
<th>Description</th>
<th>Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>42299</td>
<td>Unlisted procedure, palate, uvula</td>
<td>When this code is submitted it will <strong>suspend for medical review</strong> and be denied when specified as Cautery-assisted palatal stiffening (CAPSO)-Coblation, Palatal implants, Injection snoreplasty, The Pillar system, or when specified as Transpalatal Advancement Pharyngoplasty (TAP).</td>
</tr>
<tr>
<td>CPT</td>
<td>92700</td>
<td>Unlisted otorhinolaryngological service or procedure</td>
<td>When this code is submitted it will <strong>suspend for medical review</strong> and will be denied when specified as Acoustic Pharyngometry</td>
</tr>
<tr>
<td>CPT</td>
<td>95999</td>
<td>Unlisted neurological or neuromuscular diagnostic procedure</td>
<td>When this code is submitted it will <strong>suspend for medical review</strong> and will be denied when specified as a Nap Study</td>
</tr>
</tbody>
</table>

**The following codes will be denied as not medically necessary**

<table>
<thead>
<tr>
<th>CPT</th>
<th>Code</th>
<th>Description</th>
<th>Medical Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>41530</td>
<td>Submucosal ablation of the tongue base, radiofrequency, 1 or more sites, per session</td>
<td>Not Medically Necessary</td>
</tr>
<tr>
<td>HCPCS</td>
<td>C9727</td>
<td>Insertion of implants into the soft palate; minimum of three implants</td>
<td>Not Medically Necessary</td>
</tr>
<tr>
<td>HCPCS</td>
<td>S2080</td>
<td>Laser-assisted uvulopalatoplasty (laup)</td>
<td>Not Medically Necessary</td>
</tr>
</tbody>
</table>

**The following codes will be denied as not covered**

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Code</th>
<th>Description</th>
<th>Medical Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCPCS</td>
<td>A9279</td>
<td>Monitoring feature device that stands alone for compliance monitoring</td>
<td>Not a covered benefit</td>
</tr>
</tbody>
</table>

**Type of Service**
- Medical, Durable Medical Equipment

**Place of Service**
- Inpatient, Outpatient, Home
### ICD Code Table

<table>
<thead>
<tr>
<th>Code Type</th>
<th>Number</th>
<th>Diagnosis Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-9</td>
<td>327.10</td>
<td>Organic hypersomnia, unspecified</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.11</td>
<td>Idiopathic hypersomnia with long sleep time</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.12</td>
<td>Idiopathic hypersomnia without long sleep time</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.13</td>
<td>Recurrent hypersomnia</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.14</td>
<td>Hypersomnia due to medical condition classified elsewhere</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.19</td>
<td>Other organic hypersomnia</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.20</td>
<td>Organic sleep apnea, unspecified</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.21</td>
<td>Primary central sleep apnea</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.23</td>
<td>Obstructive sleep apnea (adult) (pediatric)</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.25</td>
<td>Congenital central alveolar hypoventilation syndrome</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.26</td>
<td>Sleep related hypoventilation/hypoxemia in conditions classifiable elsewhere</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.27</td>
<td>Central sleep apnea in conditions classified elsewhere</td>
</tr>
<tr>
<td>ICD-9</td>
<td>327.29</td>
<td>Other organic sleep apnea</td>
</tr>
<tr>
<td>ICD-9</td>
<td>347.00</td>
<td>Narcolepsy without cataplexy</td>
</tr>
<tr>
<td>ICD-9</td>
<td>347.01</td>
<td>Narcolepsy with cataplexy</td>
</tr>
<tr>
<td>ICD-9</td>
<td>347.10</td>
<td>Narcolepsy in conditions classified elsewhere without cataplexy</td>
</tr>
<tr>
<td>ICD-9</td>
<td>347.11</td>
<td>Narcolepsy in conditions classified elsewhere with cataplexy</td>
</tr>
<tr>
<td>ICD-9</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.09</td>
<td>Other alteration of consciousness</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.51</td>
<td>Insomnia with sleep apnea, unspecified</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.53</td>
<td>Hypersomnia with sleep apnea, unspecified</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.54</td>
<td>Hypersomnia, unspecified</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.56</td>
<td>Dysfunctions associated with sleep stages or arousal from sleep</td>
</tr>
<tr>
<td>ICD-9</td>
<td>780.57</td>
<td>Unspecified sleep apnea</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.10</td>
<td>Hypersomnia, unspecified</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.11</td>
<td>Idiopathic hypersomnia with long sleep time</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.12</td>
<td>Idiopathic hypersomnia without long sleep time</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.13</td>
<td>Recurrent hypersomnia</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.14</td>
<td>Hypersomnia due to medical condition</td>
</tr>
<tr>
<td>ICD-10</td>
<td>F51.19</td>
<td>Other hypersomnia not due to a substance or known physiological condition</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.19</td>
<td>Other hypersomnia</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.30</td>
<td>Sleep apnea, unspecified</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.31</td>
<td>Primary central sleep apnea</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.33</td>
<td>Obstructive sleep apnea (adult) (pediatric)</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.35</td>
<td>Congenital central alveolar hypoventilation syndrome</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.36</td>
<td>Sleep related hypoventilation in conditions classified elsewhere</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.37</td>
<td>Central sleep apnea in conditions classified elsewhere</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.39</td>
<td>Other sleep apnea</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.419</td>
<td>Narcolepsy without cataplexy</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.411</td>
<td>Narcolepsy with cataplexy</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.429</td>
<td>Narcolepsy in conditions classified elsewhere without cataplexy</td>
</tr>
<tr>
<td>ICD-10</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>G47.421</td>
<td>Narcolepsy in conditions classified elsewhere with cataplexy</td>
</tr>
<tr>
<td>ICD-10</td>
<td>G47.8</td>
<td>Other sleep disorders</td>
</tr>
<tr>
<td>ICD-10</td>
<td>R40.0</td>
<td>Somnolence</td>
</tr>
</tbody>
</table>