



FEP Medical Policy Manual

FEP 2.01.18 Diagnosis of Obstructive Sleep Apnea Syndrome

Effective Policy Date: October 1, 2022

Original Policy Date: December 2011

Related Policies:

- 2.01.73 - Actigraphy
- 2.01.99 - Polysomnography for Non-Respiratory Sleep Disorders
- 8.01.67 - Medical Management of Obstructive Sleep Apnea Syndrome

Diagnosis of Obstructive Sleep Apnea Syndrome

Description

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Obstructive sleep apnea (OSA) syndrome is characterized by repetitive episodes of upper airway obstruction due to the collapse of the upper airway during sleep. Polysomnography and portable sleep apnea testing (with sensors for respiratory effort, airflow, and oxygen saturation, or alternatively with peripheral arterial tone [PAT], actigraphy, and oxygen saturation) are established methods for diagnosing OSA. Other proposed methods of diagnosing OSA include limited channel home sleep monitors.

OBJECTIVE

The objective of this evidence review is to evaluate the evidence for established and novel methods of diagnosing obstructive sleep apnea.

POLICY STATEMENT

A single unattended (unsupervised) home sleep apnea test with a minimum of 3 recording channels with the following sensors: nasal pressure, chest and abdominal respiratory inductance plethysmography, and oximetry; or alternatively peripheral arterial tone (PAT), oximetry, and actigraphy may be considered **medically necessary** in adults who are at high-risk for obstructive sleep apnea (OSA) and have no evidence of a health condition that might alter ventilation or require alternative treatment (ie, central sleep apnea, heart failure, chronic pulmonary disease, obesity hypoventilation syndrome, neuromuscular disorders with sleep-related symptoms, injurious or potentially injurious parasomnias, or narcolepsy). The Policy Guidelines section defines high pretest probability.

A single unattended (unsupervised) home sleep apnea test with a minimum of recording channels as described above, may be considered **medically necessary** as a screening tool in individuals who are scheduled for bariatric surgery and have no evidence of a health condition that might alter ventilation or require alternative treatment (see Policy Guidelines section).

Unattended home sleep studies are considered **investigational** in children (<18 years of age).

Repeated unattended (unsupervised) home sleep apnea test with a minimum of 3 recording channels with the following sensors: nasal pressure, chest and abdominal respiratory inductance plethysmography, and oximetry; or alternatively PAT, oximetry, and actigraphy, may be considered medically necessary in adults under the following circumstances:

1. To assess efficacy of surgery or oral appliances or devices; OR
2. To reevaluate the diagnosis of OSA and need for continuous positive airway pressure (CPAP) (eg, if there is a significant change in weight or change in symptoms suggesting that CPAP should be retitrated or possibly discontinued).

Supervised polysomnography (PSG) performed in a sleep laboratory may be considered **medically necessary** in individuals with a moderate or high pretest probability of OSA in the following situations:

1. Pediatric individuals (ie, <18 years of age); OR
2. When individuals do not meet criteria for an unattended home sleep apnea test as described above; OR
3. A previous home study failed to establish the diagnosis of OSA in an individual with a high pretest probability of OSA; OR
4. A previous home study was technically inadequate; OR
5. Failure of resolution of symptoms or recurrence of symptoms during treatment; OR
6. When testing is done to rule out other sleep disorders such as central sleep apnea, injurious or potentially injurious parasomnias, or narcolepsy (see evidence review 2.01.99); OR
7. Presence of a comorbidity that might alter ventilation or decrease the accuracy of a home sleep apnea test, including, but not limited to heart failure, neuromuscular disease, chronic pulmonary disease, or obesity hypoventilation syndrome.

A repeated, supervised PSG performed in a sleep laboratory may be considered **medically necessary** in individuals who meet the criteria above for an in-laboratory PSG under the following circumstances:

1. To initiate and titrate CPAP in adults who have:
 - An Apnea/Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI) of at least 15 events per hour, OR
 - An AHI or RDI of at least 5 events per hour in an individual with 1 or more signs or symptoms associated with OSA (eg, excessive daytime sleepiness, hypertension, cardiovascular heart disease, or stroke);

Note: A split-night study, in which moderate-to-severe OSA is documented during the first portion of the study using PSG, followed by CPAP during the second portion of the study, can eliminate the need for a second study to titrate CPAP (see Policy Guidelines section for criteria to perform a split-night study).

2. To initiate and titrate CPAP in children:
 - In pediatric individuals, an AHI or RDI of ≥ 5 ; OR
 - An AHI or RDI ≥ 1.5 in an individual with excessive daytime sleepiness, behavioral problems, or hyperactivity.
3. To assess efficacy of surgery (including adenotonsillectomy) or oral appliances/devices.

Supervised or unattended home sleep apnea tests that do not meet the above criteria are considered **investigational**.

Multiple sleep latency testing is considered **investigational** in the diagnosis of OSA.

POLICY GUIDELINES

Specialist Training

Polysomnography (PSG) or home sleep apnea testing should be performed in appropriately selected individuals and the test summary results reviewed by a physician who is trained in sleep medicine.

Medical professionals who interpret a polysomnogram or home sleep apnea test should be trained in sleep medicine and should review the raw data from PSG and home sleep apnea tests to detect artifacts and data loss.

Risk Factors for Obstructive Sleep Apnea

Although not an exclusive list, individuals with all of the following symptoms are considered to be at high risk for obstructive sleep apnea (OSA):

- habitual snoring;
- observed apneas;
- excessive daytime sleepiness;
- a body mass index (BMI) greater than 35 kg/m².

If no bed partner is available to report snoring or observed apneas, other signs and symptoms suggestive of OSA (eg, age of the individual, male gender, thick neck, craniofacial or upper airway soft tissue abnormalities, unexplained hypertension) may be considered. Objective clinical prediction rules are being developed; at present, risk assessment is based primarily on clinical judgment.

The STOP-BANG questionnaire, a method developed for nonsleep specialists, assesses the signs and symptoms of OSA (Snore, Tired, Observed apnea, blood Pressure, BMI, Age, Neck, Gender), has been shown to have 97% sensitivity and 96% negative predictive value (specificity, 33%) for the identification of individuals with severe OSA (Apnea/Hypopnea Index [AHI] >30 events per hour). Overnight oximetry has been used by some sleep specialists as a component of the risk assessment but is inadequate for the diagnosis of OSA. Therefore, a follow-up PSG or home sleep apnea test would still be required to confirm or exclude a diagnosis of OSA.

Obstructive Sleep Apnea in Children

The presentation of OSA in children may differ from that of adults. Children frequently exhibit behavioral problems or hyperactivity rather than daytime sleepiness. Obesity is defined as a BMI greater than the 90th percentile for the weight/height ratio. Although the definition of severe OSA in children is not well established, an AHI or Respiratory Disturbance Index (RDI) greater than 1.5 events per hour is considered abnormal (an AHI or RDI ≥ 10 events per hour may be considered severe).

Bariatric Surgery

Screening for OSA should be performed routinely in individuals scheduled for bariatric surgery, due to the high prevalence of OSA in this population. The optimal screening approach is not certain. An in-laboratory PSG or home sleep apnea test is the most accurate screening method. Some experts recommend a symptom-based screening instrument, followed by PSG in individuals who exceed a certain threshold, as an alternative to performing PSG in all individuals. It should be noted that there is a high prevalence of obesity hypoventilation syndrome in individuals who are candidates for bariatric surgery. Therefore, obesity hypoventilation syndrome should be ruled out prior to home sleep apnea testing in this population.

Significant Weight change

There is no established threshold for significant change in weight. Studies have reported improvements in OSA with an average weight loss of 20 kg or 20% of body weight.

Multiple Sleep Latency Test

The multiple sleep latency test (MSLT) is an objective measure of the tendency to fall asleep in the absence of alerting factors, while the maintenance of wakefulness test is an objective measure of the ability to stay awake under soporific conditions (used to assess occupational safety). The MSLT and maintenance of wakefulness test are not routinely indicated in the evaluation and diagnosis of OSA or in the assessment of change following treatment with CPAP. The MSLT may be indicated in the evaluation of individuals with suspected narcolepsy to confirm the diagnosis (often characterized by cataplexy, sleep paralysis, and hypnagogic/hypnopompic hallucinations) or to differentiate between suspected idiopathic hypersomnia and narcolepsy. Narcolepsy and OSA can co-occur. Because it is not possible to differentiate between the excessive sleepiness caused by OSA and by narcolepsy, OSA should be treated before confirming a diagnosis of narcolepsy with the MSLT.

Split-Night Studies

American Academy of Sleep Medicine practice parameters (2005) have indicated that a split-night study (initial diagnostic PSG followed by CPAP titration during PSG on the same night) is an alternative to 1 full night of diagnostic PSG followed by a second night of titration if the following 4 criteria are met:

1. An AHI of at least 40 events per hour is documented during a minimum of 2 hours of diagnostic PSG. Split-night studies may sometimes be considered at an AHI between 20 and 40 events per hour, based on clinical judgment (eg, if there are also repetitive long obstructions and major desaturations). However, at AHI values below 40, determination of CPAP-level requirements, based on split-night studies, may be less accurate than in full-night calibrations.
2. CPAP titration is carried out for more than 3 hours (because respiratory events can worsen as the night progresses).
3. PSG documents that CPAP eliminates or nearly eliminates the respiratory events during rapid eye movement (REM) and non-REM sleep, including REM sleep with the individual in the supine position.
4. A second full night of PSG for CPAP titration is performed if the diagnosis of a sleep-related breathing disorder is confirmed, but criteria 2 and 3 are not met.

Categorization of Polysomnography and Portable Monitoring

Full correspondence does not exist between Current Procedural Terminology (CPT) codes and the most current categorization scheme for the different types of studies. The 2005 practice parameters from the American Academy of Sleep Medicine list 4 types of monitoring procedures: type 1, standard attended in-lab comprehensive PSG; type 2, comprehensive portable PSG; type 3, modified portable sleep apnea testing (also referred to as cardiorespiratory sleep studies), consisting of 4 or more channels of monitoring; and type 4, continuous single or dual bioparameters, consisting of 1 or 2 channels, typically oxygen saturation, or airflow. Types 1 and 2 would be considered polysomnographic studies, and types 3 and 4 would be considered polygraphic sleep studies. The terms sleep studies and PSG are often used interchangeably. CPT coding distinguishes between sleep studies that do not include electroencephalographic (EEG) monitoring, and PSG, which includes EEG monitoring. PSG is usually conducted in a sleep laboratory and attended by a technologist, but may also be conducted with type 2 portable monitoring. The type of study is further characterized as attended (supervised) or unattended by a technologist. Home or portable monitoring implies unattended sleep studies, typically conducted in the individual's home. There are no specific codes for remotely monitored home sleep studies. They would likely be reported with the CPT code for the sleep study with the GT modifier ("via interactive audio and video telecommunications systems") appended. There is no CPT code for "unattended" PSG.

Cardiorespiratory sleep studies without EEG may be called polygraphic studies and can be attended or unattended by a technologist. CPT codes 95807 and 95806 distinguish polygraphic sleep studies that are attended or unattended, but there are no codes that distinguish between type 3 and type 4 sleep studies. A wide variety of portable monitors and proprietary automated scoring systems are being tested and marketed, but the optimum combination of sensors and scoring algorithms is currently unknown. Current recommendations are that the portable monitoring device have 4 channels (oxygen saturation, respiratory effort, respiratory airflow, heart rate) and permit review of the raw data. Type 4 monitors with fewer than 3 channels are not recommended due to reduced diagnostic accuracy and higher failure rates. As with attended PSG, it is important that the raw data from home sleep studies be reviewed by a professional trained in sleep medicine to detect artifacts and data loss.

BENEFIT APPLICATION

Experimental or investigational procedures, treatments, drugs, or devices are not covered (See General Exclusion Section of brochure).

Weight Loss Programs

Weight loss is frequently recommended for obese patients with obstructive sleep apnea (OSA). Plans may want to review their policies on weight loss programs in general and determine whether such policies should apply to patients with OSA. In some instances, continuous positive airway pressure (CPAP) may also be recommended while the patient is in a weight loss program; if the weight loss program is successful, further therapy may be unnecessary. If the weight loss program is unsuccessful, and the patient does not tolerate CPAP (or auto-adjusting positive airway pressure or bilevel positive airway pressure), surgical therapy may be considered.

FDA REGULATORY STATUS

The novel SleepImage System for diagnosis of OSA is described in Table 1.

Table 1. Novel Devices for OSA Diagnosis and Treatment

Device	Manufacturer	Description	FDA Marketing Clearance	FDA Product Code	Year
Diagnosis					
SleepImage System	MyCardio	Software as a medical device that provides automated analysis of sleep data from a single photoplethysmogram sensor to aid in the evaluation of sleep disorders.	K163696	MNR	2017
Treatment					
Provent®	Ventus Medical	Nasal expiratory resistance valve.		OHP	2010
Winx™		Nasal expiratory resistance valve.		OZR	2012
mRNA Appliance®	BioModeling Solutions	Expandable oral appliance for the treatment of snoring and mild-to-moderate OSA	K130067	LRK	2014
NightBalance Lunoa System	Philips	The positional sleep trainer is worn with an elasticized chest strap, and is intended to keep patients with positional obstructive sleep apnea from sleeping in the supine position.	K180608	MYB	2018
eXciteOSA®	Signifier Medical Technologies	The device delivers neuromuscular stimulation during the day to strengthen the tongue in order to reduce snoring and mild sleep apnea. It is used for 20 minutes once a day for a period of 6 weeks, and once a week thereafter.	DEN200018	QNO	2021

FDA: Food and Drug Administration; OSA: obstructive sleep apnea

RATIONALE

Summary of Evidence

For individuals who have suspected obstructive sleep apnea (OSA) who receive home sleep apnea testing with at least 3 recording channels, the evidence includes randomized controlled trial (RCTs). Relevant outcomes are test accuracy, symptoms, functional outcomes, and resource utilization. The RCTs have reported that home sleep apnea testing (with sensors for respiratory effort, airflow, and oxygen saturation, or alternatively with PAT, actigraphy, and oxygen saturation) is noninferior to testing in the sleep lab for adults with a high pretest probability of OSA and absence of comorbid conditions as determined by clinical evaluation. A positive portable monitoring study with channels that include arterial oxygen saturation, airflow, and respiratory effort has a high positive predictive value for OSA and can be used as the basis for a continuous positive airway pressure (CPAP) trial to determine the efficacy of treatment. A negative portable monitoring study cannot be used to rule out OSA. Patients who have a negative result from portable monitoring or have a positive study but do not respond to CPAP should undergo further evaluation. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected OSA who receive limited channel home sleep apnea testing, the evidence includes studies on diagnostic accuracy. Relevant outcomes are test accuracy, symptoms, functional outcomes, and resource utilization. The ability to detect clinically significant OSA without sensors for respiratory effort, airflow, and oxygen saturation, or alternatively without peripheral arterial tone (PAT), actigraphy, and oxygen saturation, lacks support in the literature. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Academy of Sleep Medicine

In 2017, the American Academy of Sleep Medicine (AASM) published clinical practice guidelines on diagnostic testing for adult OSA.¹¹ AASM provided the following recommendations (Table 2).

Table 2. Recommendations on Diagnostic Testing for Adult OSA

Recommendation Statement	SOR	QOE	Benefits vs Harms
We recommend that clinical tools, questionnaires, and prediction algorithms not be used to diagnose OSA in adults, in the absence of PSG or HSAT	Strong	Moderate	High certainty that harms outweigh benefits
We recommend that PSG, or HSAT with a technically adequate device, be used for the diagnosis of OSA in uncomplicated adult patients presenting with signs and symptoms that indicate an increased risk of moderate to severe OSA.	Strong	Moderate	High certainty that benefits outweigh harms
We recommend that if a single HSAT is negative, inconclusive, or technically inadequate, PSG be performed for the diagnosis of OSA.	Strong	Low	High certainty that benefits outweigh harms
We recommend that PSG, rather than home sleep testing, be used for patients with significant cardiorespiratory disorder, potential respiratory muscle weakness, awake or suspected sleep hypoventilation, chronic opioid medication use, history of stroke or severe insomnia.	Strong	Very low	High certainty that benefits outweigh harms

We suggest that, if clinically appropriate, a split-night diagnostic protocol, rather than a full-night diagnostic protocol for PSG be used for the diagnosis of OSA	Weak	Low	Low certainty that benefits outweigh harms
We suggest that when the initial PSG is negative, and there is still clinical suspicion for OSA, a second PSG be considered for the diagnosis of OSA.	Weak	Very low	Low certainty that benefits outweigh harms

HSAT: home sleep apnea testing; OSA: obstructive sleep apnea; PSG: polysomnography; QOE: quality of evidence; SOR: strength of recommendation.

The AASM considers a technically adequate home sleep apnea test (HSAT) device to incorporate "a minimum of the following sensors: nasal pressure, chest and abdominal respiratory inductance plethysmography, and oximetry; or else PAT [peripheral arterial tone] with oximetry and actigraphy." The guidelines refer to the AASM Manual for the Scoring of Sleep and Associated Events for additional information regarding HSAT sensor requirements.

In 2021, the AASM published a guidance statement that focuses on indications for follow-up sleep apnea testing with PSG or home sleep apnea tests in patients with OSA.¹² The following clinical guidance statements were provided:

- "Follow-up PSG or HSAT is not recommended for routine reassessment of asymptomatic patients with obstructive sleep apnea on PAP therapy, however, follow-up PSG or HSAT can be used to reassess patients with recurrent or persistent symptoms, despite good PAP adherence.
- Follow-up PSG or HSAT is recommended to assess response to treatment with non-PAP interventions.
- Follow-up PSG or HSAT may be used if clinically significant weight gain or loss has occurred since diagnosis of OSA or initiation of its treatment.
- Follow-up PSG may be used for reassessment of sleep-related hypoxemia and/or sleep-related hypoventilation following initiation of treatment for OSA.
- Follow-up PSG or HSAT may be used in patients being treated for OSA who develop or have a change in cardiovascular disease.
- Follow-up PSG may be used in patients with unexplained PAP device-generated data."

The AASM also issued guidelines in 2009 on the evaluation, management, and long-term care of adults with OSA.¹³ The levels of recommendation are "standard" (generally accepted patient-care strategy, with a high degree of certainty; level 1 to 2 evidence), "guideline" (moderate degree of clinical certainty; level 2 to 3 evidence), or "option" (uncertain clinical use; insufficient or inconclusive evidence).

American Academy of Pediatrics

The American Academy of Pediatrics (AAP; 2012) published guidelines on the diagnosis and management of uncomplicated childhood OSA associated with adenotonsillar hypertrophy and/or obesity in an otherwise healthy child treated in the primary care setting, which updated the AAP's 2002 guidelines.^{14,15} AAP recommended that all children or adolescents be screened for snoring, and PSG is performed in children or adolescents with snoring and symptoms or signs of OSA as listed in the guideline. If PSG is not available, an alternative diagnostic test or referral to a specialist may be considered (option). The estimated prevalence rates of OSA in children or adolescents ranged from 1.2% to 5.7%.

American Society of Metabolic and Bariatric Surgery

The American Society of Metabolic and Bariatric Surgery (2012) published guidelines on the perioperative management of OSA (reviewed in October 2015).¹⁶ The guidelines noted that while some reports in the literature have recommended routine screening for OSA prior to bariatric surgery, other reports have suggested clinical screening only does not result in any increase in postoperative pulmonary complications after laparoscopic Roux-en-Y gastric bypass, and that most current surgical practices refer patients with clinical symptoms of OSA for PSG, but do not make this a routine preoperative test prior to bariatric surgery. The Society provided, based on the evidence in the literature to date, the following guidelines on OSA in the bariatric surgery patient and its perioperative management:

1. "OSA is highly prevalent in the bariatric patient population...."
4. [Patients with moderate to severe OSA] should bring their CPAP machines, or at least their masks, with them at the time of surgery and use them following bariatric surgery at the discretion of the surgeon.
7. Routine pulse oximetry or capnography for postoperative monitoring of patients with OSA after bariatric surgery should be utilized, but the majority of these patients do not routinely require an ICU [intensive care unit] setting.

8. No clear guidelines exist upon which to base recommendations for retesting for OSA following bariatric surgery...."

American Heart Association

In 2021, the American Heart Association (AHA) published a scientific statement on OSA and cardiovascular disease.¹⁷ The treatment options for OSA and eligibility for their use are described in the statement.

Recommendations for screening for OSA are as follows:

- "We recommend screening for OSA in patients with resistant/poorly controlled hypertension, pulmonary hypertension, and recurrent atrial fibrillation after either cardioversion or ablation."
- "In patients with New York Heart Association class II to IV heart failure and suspicion of sleep-disordered breathing or excessive daytime sleepiness, a formal sleep assessment is reasonable."
- "In patients with tachy-brady syndrome or ventricular tachycardia or survivors of sudden cardiac death in whom sleep apnea is suspected after a comprehensive sleep assessment, evaluation for sleep apnea should be considered."
- "After stroke, clinical equipoise exists with respect to screening and treatment."

U.S. Preventive Services Task Force Recommendations

The U.S. Preventive Services Task Force (2017) reported on the evidence for screening for OSA in adults and concluded that "the current evidence is insufficient to assess the balance and harms of screening for obstructive sleep apnea (OSA) in asymptomatic adults. Evidence on screening tools to accurately detect persons in asymptomatic populations who should receive further testing and treatment of subsequently diagnosed OSA to improve health outcomes is lacking, and the balance of benefits and harms cannot be determined."^{18,19}

Medicare National Coverage

In 2001, the Centers for Medicare & Medicaid Services published a decision memorandum on CPAP that addressed how to define moderate-to-severe OSA as a guide to a coverage policy for CPAP. This review of the literature suggested there is a risk of hypertension with an AHI greater than 15 events per hour, and thus treatment would be warranted for these patients without any additional signs and symptoms. For patients with an AHI between 5 and 15 events per hour and associated symptoms, CMS concluded that the data from 3 randomized controlled trials demonstrated improved daytime somnolence and functioning in those treated with CPAP.

In March 2009, CMS issued a national coverage decision (CAG-00405N) for the types of sleep testing devices that would be approved for coverage.²⁰ CMS found that the evidence was sufficient to determine that the results of the sleep tests identified below can be used by a beneficiary's treating physician to diagnose OSA:

1. "Type I PSG is covered when used to aid the diagnosis of OSA in beneficiaries who have clinical signs and symptoms indicative of OSA if performed attended in a sleep lab facility.
2. A Type II or Type III sleep testing device is covered when used to aid the diagnosis of OSA in beneficiaries who have clinical signs and symptoms indicative of OSA if performed unattended in or out of a sleep lab facility, or attended in a sleep lab facility.
3. A type IV sleep testing device measuring 3 or more channels, 1 of which is airflow, is covered when used to aid the diagnosis of OSA in beneficiaries who have signs and symptoms indicative of OSA if performed unattended in or out of a sleep lab facility, or attended in a sleep lab facility.
4. Sleep testing devices measuring 3 or more channels that include actigraphy, oximetry, and PAT, are covered when used to aid the diagnosis of OSA in beneficiaries who have signs and symptoms indicative of OSA if performed unattended in or out of a sleep lab facility, or attended in a sleep lab facility."

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POLICY HISTORY - THIS POLICY WAS APPROVED BY THE FEP® PHARMACY AND MEDICAL POLICY COMMITTEE ACCORDING TO THE HISTORY BELOW:

Date	Action	Description
December 2011	New policy	
July 2013	Replace policy	Policy updated with literature review. Numerous references added and reordered; Oral pressure therapy added as not medically necessary, clarification of a single night for a home sleep studies; clarification of adult patients in the statement on oral appliances; PAP-NAP studies considered not medically necessary; telemonitored home sleep studies addressed in Policy Guidelines.
September 2014	Replace policy	Policy updated with literature review, adding references 33, 34, 49, 56, and 57. No change to policy statement.
March 2015	Replace policy	Rationale revised; references 3, 10, 15, 52-53, and 55-56 added and some references removed; statement added that screening of bariatric surgery patients may be medically necessary; revised criteria for home sleep studies and in laboratory polysomnography
March 2016	Replace policy	Policy updated with literature review through October 12, 2015; References 29, 44, and 48 added. Policy statements on parasomnias and sleep-related movement disorders revised for consistency with policy 2.01.99 on polysomnography for non-respiratory sleep disorders.
December 2016	Replace policy	No changes to policy statement.
April 2017	Replace policy	Auto-adjusting positive airway pressure (APAP) may be considered medically necessary for the titration of pressure in adult patients with clinically significant OSA defined as those who have: € An Apnea/Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI) of at least 15 events per hour, or € An AHI or RDI of at least 5 events per hour in a patient with excessive daytime sleepiness or unexplained hypertension. In accordance with MPRM correction, RDI added to CPAP and intraoral appliance criteria.
September 2017	Replace policy	Policy updated with literature review through April 25, 2017; references 27, 34, and 48-49 added. Investigational statement added on palate expansion devices.
September 2018	Replace policy	Policy updated with literature review through April 9, 2018; references 4, 24, and 40 added. Policy statements clarified that sleep studies may report the Respiratory Disturbance Index or Respiratory Event Index. Criteria for changes in weight or changes in symptoms were removed from the policy statement on in-laboratory polysomnography and added to the statement on auto-adjusting positive airway pressure. Clinically significant OSA was defined.
September 2019	Replace policy	Policy updated with literature review through April 16, 2019; references added. Terminology changed from home sleep study to home sleep apnea test. Devices that include a minimum of the following 3 sensors: nasal pressure, chest and abdominal respiratory inductance plethysmography, and oximetry; or alternatively peripheral arterial tone with oximetry and actigraphy may be considered adequate for home sleep apnea testing for obstructive sleep apnea. Policy statements revised to include new terminology of home sleep apnea test and clarify that devices include a minimum of 3 sensors. The following policy statements were revised from "not medically necessary" to "investigational" to align with OPM guidance regarding 510(k) FDA regulatory status for medical devices: Supervised or unattended home sleep studies not meeting criteria; Multiple sleep latency testing in the diagnosis of OSA. New policy statement added: The use of CPAP, bi-level positive airway pressure, APAP, and intraoral appliances that do not meet the above criteria is considered investigational for the treatment of OSA.
September 2020	Replace policy	Policy updated with literature review through May 11, 2020; references added. Policy statements unchanged.
September 2021	Replace policy	Policy updated with literature review through May 6, 2021; references added. Investigational policy statements for sleep positioning trainer and daytime tongue stimulation device added. PAP-NAP statement moved from Diagnosis to Medical Management section of policy statement.

The policies contained in the FEP Medical Policy Manual are developed to assist in administering contractual benefits and do not constitute medical advice. They are not intended to replace or substitute for the independent medical judgment of a practitioner or other health care professional in the treatment of an individual member. The Blue Cross and Blue Shield Association does not intend by the FEP Medical Policy Manual, or by any particular medical policy, to recommend, advocate, encourage or discourage any particular medical technologies. Medical decisions relative to medical technologies are to be made strictly by members/patients in consultation with their health care providers. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that the Blue Cross and Blue Shield Service Benefit Plan covers (or pays for) this service or supply for a particular member.

Date	Action	Description
September 2022	Replace policy	Policy updated with literature review through April 16, 2022; references added. Minor editorial refinements to policy statements; intent unchanged. Information regarding the treatment of OSA was moved to the new Medical Management Policy - 8.01.67.