

LCD for Polysomnography and Sleep Studies (L26428)

Contractor Information

Contractor Name

National Government Services, Inc.

Contractor Number

00803

Contractor Type

Carrier

LCD Information

LCD ID Number

L26428

LCD Title

Polysomnography and Sleep Studies

Contractor's Determination Number

L26428 – Cor#1

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CMS National Coverage Policy

Language quoted from Centers for Medicare and Medicaid Services (CMS). National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals is italicized throughout the policy. NCDs and coverage provisions in interpretive manuals are not subject to the Local Coverage Determination (LCD) Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, *italicized* text represents quotation from one or more of the following CMS sources:

Title XVIII of the Social Security Act (SSA):

Section 1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

Section 1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

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Code of Federal Regulations:

42 CFR Section 410.32 indicates that diagnostic tests may only be ordered by the treating physician (or other treating practitioner acting within the scope of his or her license and Medicare requirements).

Federal Register:

Federal Register, Vol. 65, No. 68, April 7, 2000, page. 18434 is the Medicare Program Prospective Payment System for Hospital Outpatient Services Final Rule.

CMS Publications:

CMS Publication 100-2, *Medicare Benefit Policy Manual*, Chapter 6:

50 Sleep Disorder Clinics

CMS Publication 100-2, *Medicare Benefit Policy Manual*, Chapter 15:

70 Sleep Disorder Clinics

CMS Publication 100-3, *Medicare National Coverage Determinations Manual*, Chapter 1:

30.4 Electrosleep Therapy

240.4 Continuous Positive Airway Pressure (CPAP) Therapy For Obstructive Sleep Apnea (OSA)
(Effective April 4, 2005)

CMS Publication 100-4, *Medicare Claims Processing Manual*, Chapter 4, provides information on the Outpatient Prospective Payment System (OPPS).

Coverage Decision Memorandum for Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA) (CAG-00093R2)

Primary Geographic Jurisdiction

New York - Downstate

Oversight Region

Region II

Original Determination Effective Date

For services performed on or after 04/01/2008

Original Determination Ending Date

LCD Information

LCD ID Number

Revision Effective Date

For services performed on or after 04/01/2008

Revision Ending Date

Indications and Limitations of Coverage and/or Medical Necessity

Abstract:

Sleep complaints and disorders are widespread. Although approximately 40 million Americans suffer from chronic sleep disorders, 95% of these are undiagnosed and untreated. The aging process places elderly persons at risk for sleep disturbances as the amount of time spent in deeper levels of sleep diminishes. Many sleep disorders can be managed by primary care physicians; however, when abnormal sleep patterns are not easily explainable and further evaluation is necessary, sleep studies may be needed.

Normal nocturnal sleep in adults displays a consistent organization from night to night. Sleep consists of two distinct states: rapid eye movement (REM), also called dream sleep and non-rapid eye movement (NREM), which is divided into four stages. NREM stages 1 and 2 are referred to as light sleep and stages 3 and 4 as deep or slow-wave sleep. Dreaming occurs mostly in REM and to a lesser extent in NREM sleep. Sleep is a cyclic phenomenon, with four or five REM periods during the night accounting for about one-fourth of the total night's sleep (1 1/2 - 2 hours).

Sleep studies and polysomnography refer to the continuous and simultaneous monitoring and recording of various physiological and pathophysiological parameters of sleep for 6 or more hours with physician review, interpretation and report. The studies are performed to diagnose a variety of sleep disorders and to evaluate a patient's response to therapies such as continuous positive airway pressure (CPAP). Polysomnography is distinguished from sleep studies by the inclusion of sleep staging.

Polysomnography is defined to include, but is not limited to, the following:

- A 1-4 lead electroencephalogram (EEG) to measure global neural encephalographic activity using electrodes placed on the scalp
- Electrooculogram (EOG) to measure eye movements using electrodes placed near the outer canthus of each eye
- A submental electromyogram (EMG) to measure submental electromyographic activity using electrodes placed over the mentalis, submental muscle, and/or masseter regions
- Rhythm electrocardiogram (ECG) with two or three chest leads
- Nasal and/or oral airflow via mercury switches or by direct observation

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- Ventilation and respiratory effort by chest-wall and abdominal movement measured using strain gauges, piezoelectric belts, inductive plethysmography, impedance or inductance pneumography, endoesophageal pressure, or by intercostal EMG
- Gas exchange (oxygen saturation (SpO₂)) by oximetry, transcutaneous monitoring, or end-tidal gas analysis
- Extremity muscle activity, motor activity-movement using EMG
- Body positions via mercury switches or by direct observation
- Recordings of vibration (frequency and/or volume) may be recorded
- Transcutaneous CO₂, esophageal pH, penile tumescence, and bipolar EEG

Multiple sleep latency testing (MSLT) involves several 20-minute nap opportunities offered at 2-hour intervals. MSLT objectively assesses sleep tendency by measuring the number of minutes it takes the patient to fall asleep. Conversely, the maintenance of wakefulness test (MWT) requires the patient to try to stay awake. MSLT is the better test for demonstration of sleep-onset REM periods, a determination that is important in establishing the diagnosis of narcolepsy. To insure validity, proper interpretation of the MSLT can only be made following a polysomnography performed on the preceding night.

Sleep disorder clinics are facilities in which certain conditions are diagnosed through the study of sleep. Such clinics are for diagnosis, therapy, and research. Sleep disorder clinics may provide some diagnostic or therapeutic services that are covered under Medicare. These clinics may be affiliated either with a hospital or a freestanding facility. Whether a clinic is hospital-affiliated or freestanding, coverage for diagnostic services under some circumstances is covered under provisions of the law different from those for coverage of therapeutic services. (CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 6, Section 50).

For a study to be reported as a polysomnogram, sleep must be recorded and staged. Sleep studies should be performed in a hospital, sleep laboratory or by an Independent Diagnostic Treatment Facility that is supervised by a physician (MD/DO) trained in analyzing and interpreting the recordings and should be attended by a trained technologist. **(For exception to the attendance requirement, see the section on sleep apnea below.)**

Indications:

A - Criteria for Coverage of Diagnostic Tests

All reasonable and necessary diagnostic tests given for the medical conditions listed in subsection B are covered when the following criteria are met:

- *The clinic is either affiliated with a hospital or is under the direction and control of physicians. Diagnostic testing routinely performed in sleep disorder clinics may be covered even in the absence of direct supervision by a physician;*
- *Patients are referred to the sleep disorder clinic by their attending physicians, and the clinic maintains a record of the attending physician's orders; and*
- *The need for diagnostic testing is confirmed by medical evidence, e.g., physician examinations and laboratory tests.*

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Diagnostic testing that is duplicative of previous testing done by the attending physician to the extent the results are still pertinent is not covered because it is not reasonable and necessary under §1862(a)(1)(A) of the Act. (CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 15, Section 70).

B - Medical Conditions for Which Testing is Covered

Diagnostic testing is covered only if the patient has the symptoms or complaints of one of the conditions listed below. Most of the patients who undergo the diagnostic testing are not considered inpatients, although they may come to the facility in the evening for testing and then leave after testing is over. The overnight stay is considered an integral part of these tests.

1. Narcolepsy - This term refers to a syndrome that is characterized by abnormal sleep tendencies, e.g., excessive daytime sleepiness or disturbed nocturnal sleep. Related diagnostic testing is covered if the patient has inappropriate sleep episodes or attacks (e.g., while driving, in the middle of a meal, in the middle of a conversation), amnesiac episodes, or continuous disabling drowsiness. The sleep disorder clinic must submit documentation that this condition is severe enough to interfere with the patient's well being and health before Medicare benefits may be provided for diagnostic testing. Ordinarily, a diagnosis of narcolepsy can be confirmed by three sleep naps. If more than three sleep naps are claimed,... persuasive medical evidence justifying the medical necessity for the additional test(s) [will be required].

The diagnosis of narcolepsy is usually confirmed by an overnight sleep study (polysomnography) followed by a multiple sleep latency test (MSLT). The following measurements are normally required to diagnose narcolepsy:

- Polysomnographic assessment of the quality and quantity of nighttime sleep;
- Determination of the latency of the first REM episode;
- MSLT; and
- The presence of REM-sleep episodes.

Initial polysomnography and MSLT occasionally fail to identify narcolepsy. Repeat polysomnography may be indicated:

- if the first study is technically inadequate due to equipment failure;
- if the subject could not sleep or slept for an insufficient amount of time to allow a clinical diagnosis;
- if initiation of therapy or confirmation of the efficacy of prescribed therapy is needed; or
- if the results were inconclusive or ambiguous.

2. Sleep Apnea - This is a potentially lethal condition where the patient stops breathing during sleep. Three types of sleep apnea have been described (central, obstructive, and mixed). The nature of the apnea episodes can be documented by appropriate diagnostic testing. Ordinarily, a single polysomnogram and electroencephalogram (EEG) can diagnose sleep apnea. If more than one such testing session is claimed,... persuasive medical evidence justifying the medical necessity for the additional tests [will be required]...(CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 15, Section 70).

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The diagnosis of sleep apnea may be made using the following modalities:

- a. *polysomnography (PSG) performed in a sleep laboratory; or*
- b. *unattended home sleep monitoring device of Type II; or*
- c. *unattended home sleep monitoring device of Type III; or*
- d. *unattended home sleep monitoring device of Type IV, measuring at least three channels (CAG-00093R2)*

Sleep apnea may be due to an occlusion of the airway (obstructive apnea), absence of respiratory effort (central sleep apnea) or a combination of these factors (mixed sleep apnea).

Obstructive sleep apnea (OSA) may be caused by one of the following:

- *Reduced upper airway caliber due to obesity;*
- *Adenotonsillar hypertrophy;*
- *Mandibular deficiency;*
- *Macroglossia;*
- *Upper airway tumor;*
- *Excessive pressure across the collapsible segment of the upper airway;*
- *Activity of the muscles of the upper airway insufficient to maintain patency.*

A positive test for OSA is established if either of the following criterion using the Apnea-Hypopnea Index (AHI) or Respiratory Distress Index (RDI) are met:

- *AHI or RDI greater than or equal to 15 events per hour, or*
- *AHI or RDI greater than or equal to 5 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.*

The AHI is equal to the average number of episodes of apnea and hypopnea per hour.

The RDI is equal to the average number of respiratory disturbances per hour.

If the AHI or RDI is calculated based on less than two hours of continuous recorded sleep, the total number of recorded events to calculate the AHI or RDI during sleep testing is at least the number of events that would have been required in a two hour period. (CAG-00093R2)

CPAP [Continuous Positive Airway Pressure] is a non-invasive technique for providing single levels of air pressure from a flow generator, via a nose mask, through the nares. The purpose is to prevent the collapse of the oropharyngeal walls and the obstruction of airflow during sleep, which occurs in obstructive sleep apnea (OSA). (CMS Publication 100-3, Medicare National Coverage Determinations Manual, Chapter 1, Section 240.4).

The use of CPAP devices is covered under Medicare when ordered and prescribed by the licensed treating physician to be used in adult patients with OSA if either of the AHI criteria mentioned above are met.

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The claim must also certify that the documentation supporting a diagnosis of OSA (described above) is available. (CMS Publication 100-3, Medicare National Coverage Determinations Manual, Chapter 1, Section 240.4 [Rev.35, 05-06-0]).

For patients with severe and unambiguous obstructive sleep apnea, the initiation of treatment with nasal CPAP may be incorporated into the diagnostic study night. A "split-night" study (initial diagnostic polysomnogram followed by CPAP titration during polysomnography on the same night) may be an alternative to one full night of diagnostic polysomnography followed by a second night of titration as long as:

- CPAP titration is carried out for more than 3 hours; and*
- Polysomnography documents that CPAP eliminates or nearly eliminates the respiratory events during REM and NREM sleep.*

Repeat polysomnography for diagnosing sleep apnea requires documentation justifying the medical necessity for the repeated test. Repeat polysomnography may be indicated:

- if the first study is technically inadequate due to equipment failure;*
- if the subject could not sleep or slept for an insufficient amount of time to allow a clinical diagnosis;*
- if the results were inconclusive or ambiguous; or*
- if initiation of therapy or confirmation of the efficacy of prescribed therapy is needed.*

Follow-up polysomnography or cardiorespiratory sleep studies are not routinely indicated for patients treated with CPAP whose symptoms continue to be resolved with CPAP treatment. Follow-up polysomnography or cardiorespiratory sleep studies may be indicated, however, for the following conditions:

- After substantial weight loss has occurred in patients on CPAP for treatment of sleep-related breathing disorders to ascertain whether CPAP is still needed at the previously titrated pressure;*
- After substantial weight gain has occurred in patients previously treated with CPAP successfully, who are again symptomatic despite the continued use of CPAP, to ascertain whether pressure adjustments are needed; or*
- When clinical response is insufficient or when symptoms return despite a good initial response to treatment with CPAP.*

CPAP based on clinical diagnosis alone or using a diagnostic procedure other than PSG or Type II, Type III, or a Type IV HST measuring at least three channels is covered only when provided in the context of a clinical study ... pursuant to Coverage with Evidence Development (CED) ... (CAG00093R2)

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3. Parasomnia - Parasomnias are a group of conditions that represent undesirable or unpleasant occurrences during sleep. Behavior during these times can often lead to damage to the surroundings and injury to the patient or to others. Parasomnia may include conditions such as sleepwalking, sleep terrors, and rapid eye movement (REM) sleep behavior disorders. In many of these cases, the nature of these conditions may be established by careful clinical evaluation. Suspected seizure disorders as possible cause of the parasomnia are appropriately evaluated by standard or prolonged sleep EEG studies. In cases where seizure disorders have been ruled out and in cases that present a history of repeated violent or injurious episodes during sleep, polysomnography may be useful in providing a diagnostic classification or prognosis. (CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 15, Section 70).

Normally, a clinical history, neurologic examination, and routine EEG obtained while the patient is awake and asleep are often sufficient to establish the diagnosis and permit the appropriate treatment of sleep-related epilepsy. In addition, common, uncomplicated, non-injurious parasomnias, such as typical disorders of arousal, nightmares, enuresis, somnoliquy, and bruxism can usually be diagnosed by clinical evaluation alone.

Polysomnography is indicated to provide a diagnostic classification or prognosis when both of the following exist:

- When the clinical evaluation and results of standard EEG have ruled out a seizure disorder; and*
- In cases that present a history of episodes during sleep that result in harm to the patient or others.*

When polysomnography is performed for the diagnosis of parasomnias, the following measurements are obtained:

- Sleep-scoring channels (EEG, EOG, chin EMG);*
- EEG using an expanded bilateral montage;*
- EMG for body movements;*
- Audiovisual recording; and*
- Documented technologist observations.*

C - Polysomnography for Chronic Insomnia Is Not Covered.

Evidence at the present time is not convincing that polysomnography in a sleep disorder clinic for chronic insomnia provides definitive diagnostic data or that such information is useful in patient treatment or is associated with improved clinical outcome. The use of polysomnography for diagnosis of patients with chronic insomnia is not covered under Medicare because it is not reasonable and necessary under §1862(a)(1)(A) of the Act. (CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 15, Section 70).

D. Coverage of Therapeutic Services.

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Sleep disorder clinics may at times render therapeutic as well as diagnostic services. Therapeutic services may be covered in a hospital outpatient setting or in a freestanding facility provided they meet pertinent requirements for the particular type of services and are reasonable and necessary for the patient, and are performed under the direct personal supervision of a physician. (CMS Publication 100-2, Medicare Benefit Policy Manual, Chapter 15, Section 70).

Limitations

Diagnostic testing that is duplicative of previous sleep testing done by the attending physician to the extent that the previous results are still pertinent is not covered, because it is not reasonable and necessary if there have been no significant clinical changes in the patient's medical history since the previous study.

*CPT code 95806 (unattended sleep study) by definition involves the absence of a technologist. **Unattended sleep studies must meet the CPT definition in order to bill CPT code 95806.***

Polysomnography, cardiorespiratory sleep studies, and MSLT are not covered in the following situations:

- For the diagnosis of patients with chronic insomnia;*
- To preoperatively evaluate a patient for laser-assisted uvulopalatopharyngoplasty without clinical evidence that obstructive sleep apnea is suspected;*
- To diagnose chronic lung disease (nocturnal hypoxemia in patients with chronic, obstructive, restrictive or reactive lung disease is usually adequately evaluated by oximetry; however, if the patient's sign/symptoms suggest a diagnosis of obstructive sleep apnea, polysomnography may be considered medically necessary);*
- In cases where seizure disorders have not been ruled out;*
- In cases of typical, uncomplicated and non-injurious parasomnias when the diagnosis is clearly delineated;*
- For patients with epilepsy who have no specific complaints consistent with a sleep disorder;*
- For patients with symptoms suggestive of periodic limb movement disorder or restless leg syndrome unless symptoms are suspected of being related to a covered indication;*
- For the diagnosis of insomnia related to depression;*
- For the diagnosis of circadian rhythm sleep disorders (i.e., rapid time-zone change [jet lag], shift-work sleep disorder, delayed sleep phase syndrome, advanced sleep phase syndrome, and non-24 hour sleep/wake disorder).*

Other Comments

This LCD consolidates and replaces all previous policies and publications on this subject by the carrier and fiscal intermediary predecessors of National Government Services (AdminaStar Federal, Anthem Health Plans of New Hampshire, Associated Hospital Service, Empire Medicare Services, and United Government Services).

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For claims submitted to the fiscal intermediary: This coverage determination also applies within states outside the primary geographic jurisdiction with facilities that have nominated National Government Services to process their claims.

Bill type codes only apply to providers who bill these services to the fiscal intermediary. Bill type codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier.

Limitation of liability and refund requirements apply when denials are based on medical necessity. The provider/supplier must notify the beneficiary in writing, prior to rendering the service, if the provider/supplier is aware that the test, item or procedure may not be considered medically necessary by Medicare. The limitation of liability and refund requirements do not apply when the test, item or procedure is statutorily excluded, has no Medicare benefit category or is rendered for screening purposes. In these instances it is recommended, although not required, that the provider notify the beneficiary in writing with a Notice of Exclusion of Medicare Benefits (NEMB).

For outpatient settings other than CORFs, references to "physicians" throughout this policy include non-physicians, such as nurse practitioners, clinical nurse specialists and physician assistants. Such non-physician practitioners, with certain exceptions, may certify, order and establish the plan of care for Polysomnography and Sleep Study services as authorized by State law. (See Sections 1861[s][2] and 1862[a][14] of Title XVIII of the Social Security Act; 42 CFR, Sections 410.74, 410.75, 410.76 and 419.22; 58 FR 18543, April 7, 2000.)

For all non-hospital based facilities, the facility must have on file, with the contractor, documentation that it is in compliance with the criteria set by the American Sleep Disorders Association or the American Academy of Sleep Medicine. Failure to do so may result in delay in processing or denial of the claim. Medicare does not cover sleep studies performed in mobile sleep laboratories or in the home.

Notes Related to Revision Effective Dates:

04/01/2008-Cor#1

Corrected version of policy published 04/01/2008 (at conclusion of the Notice Period) with no change in the original effective date of 04/01/2008.

Coverage Topic

Diagnostic Tests and X-Rays
Outpatient Hospital Services

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

12x

Hospital-inpatient or home health visits (Part B only)

13x

Coding Information

Bill Type Codes:

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	Hospital-outpatient (HHA-A also) (under OPPS 13X must be used for ASC claims submitted for OPPS payment -- eff. 7/00)
21x	SNF-inpatient, Part A
22x	SNF-inpatient or home health visits (Part B only)
24x	SNF-other (Part B)
85x	Special facility or ASC surgery-rural primary care hospital (eff 10/94)

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

Note: Medicare requires that sleep study clinics must either be affiliated with a hospital or be under the direction and control of physicians (MDs/DOs).

Revenue codes only apply to providers who bill these services to the fiscal intermediary. Revenue codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier.

Please note that not all revenue codes apply to every type of bill code. Providers are encouraged to refer to the FISS revenue code file for allowable bill types. Similarly, not all revenue codes apply to each CPT/HCPCS code. Providers are encouraged to refer to the FISS HCPCS file for allowable revenue codes.

Revenue codes 096X, 097X and 098X are to be used only by Critical Access Hospitals (CAHs) choosing the optional payment method (also called Option 2 or Method 2) and only for services performed by physicians or practitioners who have reassigned their billing rights. When a CAH has selected the optional payment method, physicians or other practitioners providing professional services at the CAH may elect to bill their carrier or assign their billing rights to the CAH. When professional services are reassigned to the CAH, the CAH must bill the FI using revenue codes 096X, 097X or 098X.

0519	Clinic-other
074X	EEG-general classification
0920	Other diagnostic services-general classification
0960	Professional fees-general classification
0976	Professional fees-respiratory therapy
0982	Professional fees-outpatient services

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

0983	Professional fees-clinic
0985	Professional fees-EKG
0987	Professional fees-hospital visit
0988	Professional fees-consultation

CPT/HCPCS Codes

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, SIMULTANEOUS RECORDING OF VENTILATION, RESPIRATORY EFFORT, ECG OR HEART RATE, AND OXYGEN SATURATION, UNATTENDED BY A TECHNOLOGIST
95807	SLEEP STUDY, SIMULTANEOUS RECORDING OF VENTILATION, RESPIRATORY EFFORT, ECG OR HEART RATE, AND OXYGEN SATURATION, ATTENDED BY A TECHNOLOGIST
95808	POLYSOMNOGRAPHY; SLEEP STAGING WITH 1-3 ADDITIONAL PARAMETERS OF SLEEP, ATTENDED BY A TECHNOLOGIST
95810	POLYSOMNOGRAPHY; SLEEP STAGING WITH 4 OR MORE ADDITIONAL PARAMETERS OF SLEEP, ATTENDED BY A TECHNOLOGIST
95811	POLYSOMNOGRAPHY; SLEEP STAGING WITH 4 OR MORE ADDITIONAL PARAMETERS OF SLEEP, WITH INITIATION OF CONTINUOUS POSITIVE AIRWAY PRESSURE THERAPY OR BILEVEL VENTILATION, ATTENDED BY A TECHNOLOGIST

ICD-9 Codes that Support Medical Necessity

It is the responsibility of the provider to code to the highest level specified in the *ICD-9-CM* (e.g., to the fourth or fifth digit). The correct use of an *ICD-9-CM* code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

For sleep studies done due to sleep apnea: Use CPT codes 95806-95811 and applicable ICD-9-CM codes

327.10	ORGANIC HYPERSOMNIA, UNSPECIFIED
327.11	IDIOPATHIC HYPERSOMNIA WITH LONG SLEEP TIME
327.12	IDIOPATHIC HYPERSOMNIA WITHOUT LONG SLEEP TIME
327.20	ORGANIC SLEEP APNEA, UNSPECIFIED
327.21	PRIMARY CENTRAL SLEEP APNEA
327.23	OBSTRUCTIVE SLEEP APNEA (ADULT) (PEDIATRIC)
327.24	IDIOPATHIC SLEEP RELATED NON OBSTRUCTIVE ALVEOLAR HYPOVENTILATION
327.25	CONGENITAL CENTRAL ALVEOLAR HYPOVENTILATION SYNDROME
327.26	SLEEP RELATED HYPOVENTILATION/HYPOXEMIA IN CONDITIONS CLASSIFIABLE ELSEWHERE
327.27	CENTRAL SLEEP APNEA IN CONDITIONS CLASSIFIED ELSEWHERE
327.29	OTHER ORGANIC SLEEP APNEA
780.51	INSOMNIA WITH SLEEP APNEA, UNSPECIFIED
780.53	HYPERSOMNIA WITH SLEEP APNEA, UNSPECIFIED
780.54	HYPERSOMNIA, UNSPECIFIED
780.57	UNSPECIFIED SLEEP APNEA
786.04	CHEYNE-STOKES RESPIRATION

For sleep studies done due to parasomnias: Use CPT codes 95807-95811 and applicable ICD-9-CM codes

307.46	SLEEP AROUSAL DISORDER
307.47	OTHER DYSFUNCTIONS OF SLEEP STAGES OR AROUSAL FROM SLEEP
327.40	ORGANIC PARASOMNIA, UNSPECIFIED
327.41	CONFUSIONAL AROUSALS
327.42	REM SLEEP BEHAVIOR DISORDER
327.51	PERIODIC LIMB MOVEMENT DISORDER
780.56	DYSFUNCTIONS ASSOCIATED WITH SLEEP STAGES OR AROUSAL FROM SLEEP

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

For sleep studies done due to narcolepsy: Use CPT codes 95807-95811 plus 95805 and applicable ICD-9-CM codes

307.48	REPETITIVE INTRUSIONS OF SLEEP
347.00	NARCOLEPSY, WITHOUT CATAPLEXY
347.01	NARCOLEPSY, WITH CATAPLEXY
347.10	NARCOLEPSY IN CONDITIONS CLASSIFIED ELSEWHERE, WITHOUT CATAPLEXY
347.11	NARCOLEPSY IN CONDITIONS CLASSIFIED ELSEWHERE, WITH CATAPLEXY

Diagnoses that Support Medical Necessity

Not applicable

ICD-9 Codes that DO NOT Support Medical Necessity

Any code not listed in the "ICD-9 Codes That Support Medical Necessity" section of this policy.

ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation

Diagnoses that DO NOT Support Medical Necessity

Not applicable

General Information

Documentation Requirements

The patient's medical record must contain documentation that fully supports the medical necessity and frequency for overnight sleep studies as covered by Medicare (see "Indications and Limitations of Coverage"). This documentation includes, but is not limited to, relevant medical history, physical examination and results of pertinent diagnostic tests or procedures.

For services to be reported as sleep studies or polysomnography, the patient must sleep six or more hours, with physician review, interpretation and report of the study. (*Current Procedural Terminology (CPT) 2004*)

The following minimal information must be included in the sleep disorders evaluation report:

General Information

Documentation Requirements

- Parameters monitored;
- Start time and duration of day/night of study;
- Total sleep time, sleep efficiency, number/duration of awakenings;
- For tests involving sleep staging: time and percent time spent in each stage;
- For tests monitoring sleep latency or maintenance of wakefulness testing: latency to both NREM and REM sleep;
- Individual sub-test sleep latencies, mean sleep latency, and the number of REM occurrences on MSLT.
- Respiratory patterns including type (central/obstructive/periodic), number and duration, effect on oxygenation, sleep stage/body position relationship, and response to any diagnostic/therapeutic maneuvers;
- Cardiac rate/rhythm and any effect of sleep disordered breathing on EKG,
- Detailed behavioral observations; and
- EEG or EMG abnormalities.

The sleep clinic must be affiliated with a hospital or be under the direction and control of a physician (MD/DO), even though the diagnostic test may be performed in the absence of direct physician supervision. This information must be documented and available upon request. It is recommended that the clinic physician director have a sufficient understanding of sleep disorders as evidenced by completion of a pulmonary fellowship or a sleep fellowship, and is either a diplomate or board-eligible for the American Board of Sleep Medicine.

The patient is to be referred to the clinic by the attending physician. The physician's order must be kept in the medical record.

The sleep disorder clinic must maintain and provide to Medicare, when requested, sufficient documentation that narcolepsy is severe enough to interfere with the patient's well being and health before Medicare benefits are provided for diagnostic testing.

If more than two nights of testing are performed, documentation justifying the medical necessity for the additional test(s) must be available in the patient's medical record.

Appendices

Glossary:

Apnea - cessation or near cessation of respiration for a minimum of 10 seconds.

Apnea-Hypopnea Index - the average number of episodes of apnea and hypopnea per hour; also referred to as the respiratory disturbance index.

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Cataplexy - a condition in which there are abrupt attacks of muscular weakness and hypotonia triggered by an emotional stimulus such as mirth, anger, fear or surprise.

Hypersomnolence - need for excessive amounts of sleep and sleepiness when awake.

Hypnagogic Hallucinations - vivid dream-like experiences at the time of falling asleep which the patient cannot distinguish from reality.

Hypnapopnic Hallucinations - vivid dream-like experiences at the time of waking which the patient cannot distinguish from reality.

Hypopnea - an abnormal respiratory event lasting at least 10 seconds with at least a 30% reduction in thoracoabdominal movement or airflow as compared to baseline, and with at least a 4% oxygen desaturation.

Insomnia - the complaint of inadequate sleep. Insomnia is subdivided into difficulty falling asleep, frequent or sustained awakenings, early morning awakenings, or persistent sleepiness despite sleep of adequate duration.

Multiple Sleep Latency Test (MSLT) - a tool used to assess daytime functioning as an index of the adequacy of sleep. MSLT involves repeated measurement of sleep latency (time to onset of sleep) under standardized conditions during a day following quantified nocturnal sleep. The average latency across four to six tests (administered every 2 hours across the waking day) is taken as an objective measure of daytime sleep tendency. (Note: MSLT studies for suspected narcolepsy usually consist of up to three naps.)

Parasomnia - a behavior disorder during sleep that is associated with brief or partial arousals but not with marked sleep disruption or impaired daytime alertness.

Periodic Limb Movement Disorder - also known as myoclonus and is characterized by involuntary, stereotypic, repetitive limb movements that may occur during sleep and usually involve the legs. This causes frequent arousals and leads to insomnia or excessive daytime sleepiness.

REM Sleep Behavior Disorder - a rare parasomnia that primarily afflicts men of middle age or older, many of whom have a history of prior neurological disease. Presenting symptoms are of violent behavior during sleep reported by a bed partner. In contrast to sleepwalking, injury to patient or bystander is common, and upon awakening, the patient reports vivid, often unpleasant dream imagery.

Respiratory-Arousal Index - the total number of arousals per hour of sleep from apneas, hypopneas, and periodic increases in respiratory effort. Respiratory arousals may occur in the absence of sleep apneas or hypopneas but in association with snoring due to increased upper airway resistance, a condition called upper airway resistance syndrome (UARS).

Restless Leg Syndrome - a neurologic disorder characterized by disagreeable leg sensations that usually occur at rest or before sleep and are alleviated by motor activity. Patients with this dyssomnia report an irresistible urge to move their legs when awake and inactive, especially when lying in bed just prior to sleep. This interferes with the ability to fall asleep. They report a creeping or crawling sensation deep within the calves or thighs, or sometimes even in the upper limbs, that is only relieved briefly by movement, particularly walking. Nearly all patients with restless legs also experience periodic limb movement disorder during sleep, although the reverse is not the case.

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Sleep Bruxism - an involuntary, forceful, grinding of the teeth during sleep that affects 10-20 percent of the population. The patient is usually aware of the problem with a typical age of onset at 17-20 years of age with spontaneous remission usually occurring by age 40.

Sleep Enuresis - bedwetting. Before age five or six, nocturnal enuresis should probably be considered a normal feature of development. The condition usually spontaneously improves at puberty, has a prevalence in late adolescence of one to three percent, and is rare in adulthood.

Sleep paralysis - the experience of being awake but unable to move that usually occurs near sleep onset or offset and lasts a few seconds.

Sleep Terrors - a disorder primarily occurring in children that is characterized by the child's sudden screaming and exhibition of autonomic arousal with sweating, tachycardia and hyperventilation. The individual may be difficult to arouse and rarely remembers the episode on awakening in the morning.

Snoring - a rough, rattling, inspiratory noise produced by vibration of the pendulous palate, or sometimes of the vocal cords, during sleep or coma.

Somnambulism - sleepwalking that is usually characterized by the carrying out of automatic motor activities that range from minor to complex.

Somniloquy - the act of talking during sleep or in a hypnotic condition.

Upper Airway Resistance Syndrome (UARS) - a type of sleep apnea in which the patient demonstrates heavy snoring (stridor) without true hypopnea/apnea episodes.

Wakefulness Test - measurement of the ability to stay awake while the patient sits up in a dimly lit room (also referred to as Maintenance of Wakefulness Test (MWT)).

Utilization Guidelines

If more than one testing session is performed for sleep studies for suspected sleep apnea, persuasive medical evidence justifying the medical necessity for the additional tests will be required.

Sources of Information and Basis for Decision

This bibliography presents those sources that were obtained during the development of this policy. National Government Services is not responsible for the continuing viability of Web site addresses listed below.

AdminaStar Federal and other Medicare contractors' Local Coverage Determinations/Local Medical Review Policies.

American Academy of Sleep Medicine. Assessment and management of sleep disorders in a primary care practice. Available at: [http://www.asda.org/MEDSleep/Products/\(RosenG\)primarycare.pdf](http://www.asda.org/MEDSleep/Products/(RosenG)primarycare.pdf). Accessed April 2, 2002.

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American Academy of Sleep Medicine. (Released 1997 [reviewed 2000]). Practice parameters for the indications for polysomnography and related procedures. Available at: <http://www.guidelines.gov/VIEWS/summary.asp?guideline=000902&summary>. Accessed April 3, 2002.

American Academy of Sleep Medicine. (Released 1995 [reviewed 2000]). Practice parameters for the use of actigraphy in the clinical assessment of sleep disorders. Available at: <http://www.guidelines.gov/VIEWS/summary.asp?guideline=000899&summary>. Accessed April 3, 2002.

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American Sleep Disorders Association. (1998 Practice Guidelines Updates, June 22, 1998). Report practice parameters for the indications for polysomnography and related procedures. Available at: http://www.guidelines.faulknergray.com/updates/80798_0.htm

American Thoracic Society. (1989). Indications and standards for cardiopulmonary sleep studies. Available at: <http://www.thoracic.org/adobe/statements/sleepstudy1-11.pdf>.

American Thoracic Society/American Sleep Disorder Association. (1998). Statement on health outcomes research in sleep apnea. Available at: <http://www.thoracic.org/adobe/statements/sleepap1-7.pdf>. Accessed April 3, 2002.

Littner M, Hirshkowitz M, et al. Practice parameters for the use of auto-titrating continuous positive airway pressure devices for titrating pressures and treating adult patients with obstructive sleep apnea syndrome, American Academy of Sleep Medicine report. *Sleep*. 2002;15:25(2):143-147.

National Institutes of Health Consensus Development Conference Statement. (March 26-28, 1990). Available at: <http://text.nlm.nih.gov/nih/cdc/www/78txt.html>. Accessed April 2, 2002.

Advisory Committee Meeting Notes

Carrier Advisory Committee Meeting Date(s):

10/22/2007 Indiana
10/22/2007 New Jersey
10/24/2007 New York
10/25/2007 Kentucky

This coverage determination does not reflect the sole opinion of the contractor or contractor medical director. Although the final decision rests with the contractor, this determination was developed in consultation with representatives from Advisory Committee members and/or from various state and local provider organizations.

Start Date of Comment Period

10/15/2007

General Information

Documentation Requirements

End Date of Comment Period

11/28/2007

Start Date of Notice Period

02/14/2008

Revision History Number

Cor#1 - Corrected version published 04/01/2008 at conclusion of the Notice Period

Revision History Explanation

Cor#1 (published 04/01/2008 at conclusion of the Notice Period) (effective 04/01/2008): LCD revised to include information that is listed in the Coverage Decision Memorandum for Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA)(CAG-0093R2) which allows payment for unattended sleep studies for OSA. No additional comment or notice periods required and none given.

Reason for Change

Coverage Change (actual change in medical parameters)

Last Reviewed On Date

04/01/2008

Related Documents

Article(s)

A45935 - Polysomnography and Sleep Studies – Supplemental Instructions Article

LCD Attachments

There are no attachments for this LCD.

Other Versions

Updated on 02/18/2008 with effective dates 04/01/2008 - N/A

Updated on 02/09/2008 with effective dates 04/01/2008 - N/A