MEDICAL POLICY STATEMENT

WEST VIRGINIA MARKETPLACE PLANS

Policy Name	Policy Number	Date Effective
Sleep Studies	MM-0936	04/01/2020

Policy Type			
MEDICAL	Administrative	Pharmacy	Reimbursement

Medical Policy Statement prepared by CSMG Co. and its affiliates (including CareSource) are derived from literature based on and supported by clinical guidelines, nationally recognized utilization and technology assessment guidelines, other medical management industry standards, and published MCO clinical policy guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any Evidence of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other policies and procedures.

Medical Policy Statements prepared by CSMG Co. and its affiliates (including CareSource) do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination.

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A. Subject

Sleep Studies

B. Background

Sleep studies and polysomnography (PSG) 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.

C. Definitions

- **Home Sleep Study (HST)** - sleep testing performed using an unattended portable monitor, administered by the patient allowing the patient to spend the night in their own bed, reducing (first night effect).
- **Multiple Sleep Latency Test (MSLT)** - tests for excessive daytime sleepiness by measuring the duration of falling asleep in the daytime environment.
- **Narcolepsy** - syndrome that is characterized by abnormal sleep tendencies.
- **Obstructive Sleep Apnea (OSA)** - the collapse of the oropharyngeal walls and the obstruction of airflow occurring during sleep.
- **Parasomnias** - a group of conditions that may occur during sleep that can often lead to injury to the patient or others and damage to the surroundings. These conditions may include sleepwalking, sleep terrors, and rapid eye movement (REM) sleep behavior disorders.
- **Place of Service** - two–digit code used on health care professional claims to indicate the setting in which service was provided.
- **Polysomnography (PSG)** - the continuous and simultaneous monitoring and recording of physiological parameters of sleep that includes sleep staging, a physician review, interpretation and report.
- **Sleep Apnea** - interruption of airflow for at least 10 seconds.
- **Sleep Study** - continuous and simultaneous monitoring and recording of physiological parameters of sleep that includes, a physician review, interpretation and report.
- **Sleep Staging** - four cycle progression of electrical activity that is recorded by an Electroencephalography (EEG).

D. Policy

I. CareSource requires a prior authorization for all sleep studies.

II. Polysomnography Testing

A. Polysomnography (PSG) is defined to minimally include, but is not limited to **ALL** of the following:

1. A 1-4 lead electroencephalogram (EEG) to measure global neural encephalographic activity using electrodes placed on the scalp. (Required for sleep staging);
2. Electrooculogram (EOG) to measure eye movements using electrodes

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placed near the outer canthus of each eye. (Required for sleep staging);
3. A submental electromyogram (EMG) to measure submental electromyographic activity using electrodes placed over the mentalis, submentalis muscle, and/or masseter regions. (Required for sleep staging);
4. Rhythm electrocardiogram (ECG);
5. Nasal and/or oral airflow via both thermistor and nasal pressure sensor;
6. Respiratory effort by chest-wall and abdominal movement measured using respiratory inductive plethysmography, endoesophageal pressure or by intercostal EMG;
7. Gas exchange (oxygen saturation [SpO2]) by oximetry or transcutaneous monitoring;
8. Bilateral anterior tibialis muscle activity, motor activity-movement using EMG; **AND**
9. Body positions by directly applied sensors or by direct observation.

III. PSG and other sleep test monitoring devices are generally classified based on the number of biologic sensors applied and physiologic parameters recorded.

IV. 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.

A. **Sleep Apnea** - Apnea is defined as a cessation of airflow for at least 10 seconds. Hypopnea is defined as 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. 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.

NOTE: A single polysomnogram and electroencephalogram (EEG) can diagnose sleep apnea. If more than one such testing session is claimed, the carrier will require persuasive medical evidence justifying the medical necessity for the additional test.

1. **Obstructive Sleep Apnea** (OSA) is the collapse of the oropharyngeal walls and the obstruction of airflow occurring during sleep.
   a. **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.
      01. The most comprehensive is designated Type I attended facility based polysomnography (PSG), which is considered the reference standard for diagnosing OSA. Attended facility based polysomnogram is a comprehensive diagnostic sleep test including at least electroencephalography (EEG), electro-oculography (EOG), electromyography (EMG), heart rate or electrocardiography (ECG), airflow, breathing/respiratory effort, and arterial oxygen saturation

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(SaO2) furnished in a sleep laboratory facility in which a technologist supervises the recording during sleep time and has the ability to intervene if needed.

02. Overnight PSG is the conventional diagnostic test for OSA. The American Thoracic Society and the American Academy of Sleep Medicine have recommended supervised PSG in the sleep laboratory over 2 nights for the diagnosis of OSA and the initiation of continuous positive airway pressure (CPAP).

b. **Type II sleep testing devices** are 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.

01. Type II monitors have a minimum of 7 channels (e.g., EEG, EOG, EMG, ECG-heart rate, airflow, breathing/respiratory effort, SaO2)- this type of device monitors sleep staging, so AHI can be calculated).

c. **Type III sleep testing devices** are 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.

01. Type III monitors have a minimum of 4 monitored channels including ventilation or airflow (at least two channels of respiratory movement or respiratory movement and airflow), heart rate or ECG, and oxygen saturation.

d. **Type IV sleep testing devices** measuring three or more channels, one of which is airflow, 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.

01. Type IV devices may measure one, two, three or more parameters but do not meet all the criteria of a higher category device.

02. Sleep testing devices measuring three or more channels that include actigraphy, oximetry, and peripheral arterial tone, 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.

OR

B. **Narcolepsy-** 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*).*

1. The diagnosis of narcolepsy is usually confirmed by an overnight sleep study (polysomnography) followed by a multiple sleep latency test (MSLT). 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.
2. MSLT is the better test for demonstration of sleep-onset REM periods, a

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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.

3. The following measurements are normally required to diagnose narcolepsy:
   a. Polysomnographic assessment of the quality and quantity of nighttime sleep;
   b. Determination of the latency of the first REM episode;
   c. MSLT; **AND**
   d. The presence of REM-sleep episodes.
4. Initial polysomnography and MSLT occasionally fail to identify narcolepsy.
   a. Repeat polysomnography may be indicated.
      01. If the first study is technically inadequate due to equipment failure;
      02. If the subject could not sleep or slept for an insufficient amount of time to allow a clinical diagnosis;
      03. If initiation of therapy or confirmation of the efficacy of prescribed therapy is needed; **OR**
      04. If the results were inconclusive or ambiguous.

OR

C. **Parasomnia** - 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.

V. **Split-Night Studies - For Continuous Positive Airway Pressure (CPAP)** titration, a split-night study (initial diagnostic polysomnogram followed by CPAP titration during polysomnography on the same night) is an alternative to one full night of diagnostic polysomnography, followed by a second night of titration for the treatment of obstructive sleep apnea (OSA) if **ALL** of the following criteria are met.

A. A positive test for OSA is established if **EITHER** of the following criteria using the Apnea-Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI) are met:
   1. AHI or RDI greater than or equal to 15 events per hour with a minimum of 30 events; **OR**
   2. AHI or RDI greater than or equal to 5 and less than or equal to 14 events per hour with a minimum of 10 events and documented symptoms of excessive daytime sleepiness, impaired cognition, mood disorders or insomnia, or documented hypertension, ischemic heart disease, or history of stroke;

B. 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;

C. If the AHI or RDI is calculated based on less than 2 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 2-hour period;

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D. CPAP titration is carried out for more than three hours; **AND**

E. Polysomnography documents that CPAP eliminates, or nearly eliminates, the respiratory events during REM and NREM sleep.

VI. **Follow-up** polysomnography or a cardio-respiratory sleep study is indicated for **ANY** of the following conditions:

A. To evaluate the response to treatment (CPAP, oral appliances or surgical intervention);

B. 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;

C. After substantial weight gain has occurred in patients previously treated with CPAP successfully, who are symptomatic again despite continued use of CPAP, to ascertain whether pressure adjustments are needed; **OR**

D. When clinical response is insufficient or when symptoms return despite a good initial response to treatment with CPAP.

VII. **Home Sleep Testing** - The physician services related to home sleep testing (G0398, G0399 and G0400) are covered for the purpose of testing a patient for the diagnosis of obstructive sleep apnea if the home sleep testing is reasonable and necessary for the diagnosis of the patient's condition, and the physician who performs the service has sufficient training and experience to reliably perform the service.

A. A home sleep test is covered only when it is performed in conjunction with a comprehensive sleep evaluation and in patients with a high pretest probability of moderate to severe obstructive sleep apnea.

B. Home sleep testing is not covered for persons with comorbidities (moderate to severe pulmonary disease, neuromuscular disease or congestive heart failure).

C. Home Sleep studies are only covered for the diagnosis of Obstructive Sleep Apnea. They are not covered for any other sleep disorders (central sleep apnea, periodic limb movement disorder, insomnia, parasomnias, circadian rhythm disorders or narcolepsy) or for screening asymptomatic persons.

VIII. Physician and Technician Requirements for Sleep Studies and Polysomnograph Testing:

A. The physician performing the service must meet **ONE** of the following:

1. Be a diplomat of the American Board of Sleep Medicine (ABSM);
OR
2. Has a Sleep Certification issued by **ONE** of the following Boards:
   a. American Board of Internal Medicine (ABIM);
   b. American Board of Family Medicine (ABFM);
   c. American Board of Pediatrics (ABP);
   d. American Board of Psychiatry and Neurology (ABPN);
   e. American Board of Otolaryngology (ABOto);
   f. American Osteopathic Board of Neurology and Psychiatry (AOBNP);
   g. American Osteopathic Board of Family Medicine, (AOBFP);
   h. American Osteopathic Board of Internal Medicine, (AOBIM); or

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i. American Osteopathic Board of Ophthalmology and Otorhinolaryngology (AOBOO);
OR

3. Be an active physician staff member of a credentialed sleep center or laboratory that have active physician staff members meeting the criteria above in **a.** or **b**.

B. The technician performing the service must meet **ONE** of the following:
1. American Board of Sleep Medicine (ABSM);
2. Registered Sleep Technologist (RST);
3. Board of Registered Polysomnographic Technologists (BRPT);
4. Registered Polysomnographic Technologist (RPSGT);
5. National Board for Respiratory Care (NBRC);
6. Certified Pulmonary Function Technologist (CPFT);
7. Registered Pulmonary Function Technologist (RPFT);
8. Certified Respiratory Therapist (CRT); **OR**
9. Registered Respiratory Therapist (RRT).

IX. Sleep Center or Laboratory Credentials (this is any site or place of service other than patient's home where sleep studies or recordings are performed).

A. The sleep facility credentials must be from the American Academy of Sleep Medicine (AASM), inpatient or outpatient;
OR

B. The Joint Commission (formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) sleep specific credentials for Ambulatory care sleep centers;
OR

C. Accreditation Commission for Health Care (ACHC)
1. All centers billing sleep studies must maintain proper certification documentation as defined above.
2. 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.
3. 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 the pertinent requirements for the particular type of services and are reasonable and necessary for the patient, and are performed under the direct supervision of a physician.

X. Non-Covered Services

A. Polysomnography for Chronic Insomnia.

B. Actigraphy Testing:
1. It can be measured as part of a sleep test but will not be paid for separately.

C. Polysomnography or a MSLT is not covered in **ANY** of the following situations:
1. For the diagnosis of patients with chronic insomnia;

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2. To preoperatively evaluate a patient undergoing a laser assisted uvulopalatopharyngoplasty without clinical evidence that obstructive sleep apnea is suspected;
3. 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 symptoms suggest a diagnosis of obstructive sleep apnea, polysomnography is considered medically necessary);
4. In cases where seizure disorders have not been ruled out;
5. In cases of typical, uncomplicated, and non-injurious parasomnias when the diagnosis is clearly delineated;
6. For patients with epilepsy who have no specific complaints consistent with a sleep disorder;
7. For patients with symptoms suggestive of the periodic limb movement disorder or restless leg syndrome unless symptoms are suspected to be related to a covered indication;
8. For the diagnosis of insomnia related to depression; **OR**
9. 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).

XI. Documentation must show that the polysomnography (95808, 95810 and 95811) was performed in a facility based sleep study laboratory and not in the home or a mobile facility.
   A. The sleep disorder clinic must have on file, in the patient's record, documentation that narcolepsy symptoms are severe enough to interfere with the patient's well-being and health.
   B. 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.
   C. More than two PSG sessions are performed for the diagnosis or adjustment of treatment of sleep, pervasive medical evidence justifying the medical necessity for the additional tests will be required upon request.
   D. The routine use of more than one PSG to titrate CPAP therapy would not be considered reasonable and necessary. If more than one CPAP titration PSG is claimed, persuasive medical evidence justifying the medical necessity for the additional tests may be requested.

XII. Documentation must show that the home sleep test (HST) (G0398, G0399 and G0400) were performed in conjunction with a comprehensive sleep evaluation and in patients with a high pretest probability of moderate to severe obstructive sleep apnea.
   A. The patient who undergoes a HST must receive, prior to the test, adequate instruction on how to properly apply a portable sleep monitoring device. This instruction must be provided by the provider conducting the HST.
   B. Documentation must show that the home sleep test was accomplished with approved device (e.g., description of channels monitored or clear indications of same included in the test report) and was performed by a physician meeting the

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training requirements listed in the "Coverage Indications, Limitations, and/or Medical Necessity Section".

C. Parameters monitored and documented must contain **ALL** of the following:
1. Start time and duration of day/night of study;
2. Total sleep time, sleep efficiency, number/duration of awakenings;
3. For tests involving sleep staging: time and percent time spent in each stage;
4. For tests monitoring sleep latency or maintenance of wakefulness testing: latency to both Non-Rapid Eye Movement (NREM) and Rapid Eye Movement (REM) sleep;
5. Individual sub-test sleep latencies, mean sleep latency and the number of REM occurrences on Multiple Sleep Latency Test (MSLT);
6. Respiratory patterns including type (central/obstructive/periodic), number and duration, effect on oxygenation, sleep stage/body position relationship, and response to any diagnostic and/or therapeutic maneuvers;
7. Cardiac rate/rhythm and any effect of sleep-disordered breathing on EKG;
8. Detailed behavioral observations; **AND**
9. EEG or EMG abnormalities.

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

D. More than one HST per year interval would not be expected. If more than one HST session is performed for suspected OSA, persuasive medical evidence justifying the medical necessity for the additional tests will be required.

XIII. 95805 MSLT- includes all the naps done in a single day. Only one (1) unit of service should be submitted.

E. Conditions of Coverage

HCPCS/CPT
AUTHORIZATION PERIOD

F. Related Polices/Rules

G. Review/Revision History

	DATE	ACTION
Date Issued	01/08/2020	New policy
Date Revised		
Date Effective	04/01/2020	
Date Archived		

H. References

1. AASM Approves Home Sleep Testing to Detect Sleep Apnea. (2019, April 5). Retrieved from https://aasm.org/aasm-approves-home-sleep-testing-to-detect-sleep-apnea/

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2. Local Coverage Determination (LCD): POLYSOMNOGRAPHY and Other Sleep Studies (L36902). (n.d.). Retrieved November 4, 2019, from https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=36902&ver=9&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=Ohio&KeyWord=Polysomnography&KeyWordLookUp=Title&KeyWordSearchType=And&bc=gAAAACAAAAAA&
3. Sleep Study. (2019, April 5). Retrieved from https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/sleep-study

The Medical Policy Statement detailed above has received due consideration as defined in the Medical Policy Statement Policy and is approved.

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