Sleep disorder studies are performed to diagnose certain conditions through the study of sleep. The studies are commonly performed in an outpatient setting such as a physician's clinic, a freestanding facility, an Independent Diagnostic Treatment Facility (IDTF), or through an outpatient hospital department.

The Mississippi Medicaid Program reimburses covered and medically necessary sleep study services performed in a physician's office or in the outpatient department of a hospital. Sleep study services are not reimbursed when performed in an IDTF or freestanding facility.

Providers billing sleep disorder studies must maintain proper certification / accreditation by either the American Academy of Sleep Medicine (AASM) or the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Space, equipment, and staffing must be consistent with the AASM or JCAHO standards.

Criteria for Covered Services in a Sleep Disorder Clinic

Sleep studies and polysomnography are the most frequently provided services by sleep disorder clinics. These tests 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.

Sleep Study

A sleep study does not include sleep staging. A sleep study may involve simultaneous recording of ventilation, respiratory effort, EKG or heart rate, and oxygen saturation.

1) **Multiple Sleep Latency Test (MSLT)**
   MSLT is usually conducted after the patient has already undergone a polysomnogram. The purpose of an MSLT is to determine the average time it takes the patient to fall asleep and to assess if REM stage sleep occurs during these short naps.

   - Measures daytime sleepiness.
   - The instruction is to try to fall asleep.
   - Involves four to five, 20-minute recordings of sleep-wake states spaced at 2-hour intervals throughout the day.

2) **Maintenance of Wakefulness Test (MWT)**
   - Measures daytime sleepiness.
   - Involves multiple trials throughout a day of low-demand activity when the instructions are to resist sleep.

Polysomnography (PSG)

Polysomnography includes sleep staging that is refined to include a 1-4 lead electroencephalogram (EEG), and electro-oculogram (EOG), and a submental electromyogram (EMG). Additional parameters of sleep that must be recorded include:

- electrocardiogram (ECG)
- airflow
- ventilation and respiratory effort
- gas exchange by oximetry, transcutaneous monitoring, or end tidal gas analysis
- extremity muscle activity, motor activity-movement
- extended EEG monitoring
- penile tumescence
- gastroesophageal reflux
- continuous blood pressure monitoring
- snoring
- body positions, etc.

For a study to be reported as a polysomnogram:

- Studies must be performed for 6 hours
- Sleep must be recorded and staged
- An attendant must be present throughout the course of the study.

The diagnostic evaluation of sleep disorders often requires overnight examination of the sleeping patient by means of polysomnography to assess severity, effect on sleep architecture and continuity, and the effects on gas exchange, cardiac function, etc.

Polysomnography is used in conjunction with the patient's history, other laboratory tests and observations, and the physician's knowledge of sleep disorders to reach a diagnosis and to recommend appropriate treatment and follow-up.

A supervised polysomnography or sleep study performed in a facility- based sleep disorder clinic may be covered by the Mississippi Medicaid Program as a medically necessary diagnostic test in patients who present with one of the following conditions:

(a) Narcolepsy

Narcolepsy is a syndrome that is characterized by abnormal sleep tendencies (excessive daytime sleepiness, disturbed nocturnal sleep, inappropriate sleep episodes or attacks). Polysomnography or sleep studies are covered as a diagnostic test for narcolepsy when the condition is severe enough to interfere with the patient's well-being and health. MSLT is useful in helping patients with narcolepsy adjust their medications.

(b) Hypersomnia

Hypersomnia/drowsiness refers to feeling abnormally sleepy during the day; often with a strong tendency to actually fall asleep in inappropriate situations or at inappropriate times. Excessive daytime sleepiness (without a known cause) suggests the presence of a significant sleep disorder and is different from fatigue. MSLT is useful in quantifying the degree of sleepiness in a particular patient.

(c) Sleep Apnea

Sleep apnea is a potentially lethal condition where the patient stops breathing during sleep. The three types are central, obstructive and mixed. PSG is the most common test used to diagnose sleep apnea. MSLT is useful in determining the degree of sleepiness in patients that are currently being treated.

(d) Parasomnia

Parasomnia is a group of conditions that represent undesirable or unpleasant occurrences during sleep. These conditions may include:

- Sleepwalking
- Sleep terrors
- REM sleep behavior disorders.

(Seizure disorders that occur as the result of parasomonia are appropriately evaluated by standard or prolonged sleep EEG studies.) Parasomnias are usually diagnosed by PSG.

(e) Periodic Limb Movement Disorder (PLMD)

PLMD or restless leg syndrome is an involuntary, repetitive movement disorder during sleep, primarily in the legs that may lead to arousals, sleep disruption, and corresponding daytime sleepiness. Periodic Limb Movement Disorder is usually diagnosed by PSG.

(f) Chronic Insomnia

Chronic Insomnia is a covered indication when one of the following conditions is met:

- diagnosis is uncertain,
- sleep related breathing disorder or periodic limb movement disorder are suspected,
- a patient is refractory to treatment,
- violent behaviors are co-morbid,
- circadian dysrhythmias complicate the clinical picture.

PSG is most frequently used to diagnose this condition.

Therapeutic services may be covered by the Mississippi Medicaid Program in a sleep disorder clinic if they are standard and accepted services, are reasonable and necessary for the patient, are performed in a hospital affiliated setting, and are performed under the direct personal supervision of a physician.

The evaluation of a patient's response to therapies such as nasal Continuous Positive Airway Pressure (CPAP) is an example of a covered therapeutic service in a sleep disorder clinic.

Non-Covered Services

Actigraphy

Actigraphy testing consists of a small portable device (actigraph) that senses physical motion and stores the resulting information. Actigraphy testing has been predominantly used in research studies to evaluate rest-activity cycles in patients with sleep disorders, to determine circadian rhythm activity cycles, and to determine the effect of a treatment on sleep. The actigraph is most commonly worn on the wrist, but can also be worn on the ankle or trunk of the body. Actigraphy testing is based on the assumption that movement is reduced during sleep compared with wakefulness and that activity level can be used as a diagnostic indicator for sleep disorders.

Studies have found that actigraphy is less useful for documenting sleep-wake in persons who have long motionless periods of wakefulness (e.g. insomnia patients) or who have disorders that involve altered motility patterns (e.g. sleep apnea). Identified pitfalls of actigraphy testing are:

a) validity has not been established for all scoring algorithms or devices, or for all clinical groups;

b) actigraphy is not sufficient for diagnosis of sleep disorders in individuals with motor disorders or high motility during sleep;

c) the use of computer scoring algorithms without controlling for potential artifacts can lead to inaccurate and misleading results.

The Mississippi Medicaid Program considers actigraphy testing experimental and investigational for the purposes of treating sleep disorders because there is insufficient scientific evidence in the medical literature to support its use in clinical practice.

Sleep studies and polysomnography are not considered medically necessary by the Mississippi Medicaid Program in any setting for the following conditions:

- the service is an unattended home study (usually billed with CPT Code 95806);
- Impotence; (Use CPT Code 54250- Nocturnal penile tumescence and /or rigidity test.)
- to preoperatively evaluate a patient undergoing a 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.);
- 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 the diagnoses, shift-work sleep disorder, delayed sleep phase syndrome, advanced sleep phase syndrome, and non 24-hour sleep wake disorder.
- an overnight stay is considered an integral part of these tests. More than one overnight session may be required to complete the study. However, these multiple sessions are included in the cost of the test and may not be reported separately. Therefore, regardless of how many overnight sessions are required to complete the study, the CPT code for the diagnostic test may only be reported once, with the date that the study began reported as the date of service.
- performance of a sleep study on the same day as an Evaluation and Management (E&M) service unless significant and separately identifiable medical services were rendered and clearly documented in the patient's medical record.

Required Documentation

The billing provider must maintain and provide to the Mississippi Medicaid upon request the following documentation. In addition, providers of interpretations must be capable of demonstrating documented training and experience and maintain documentation for post-payment audit.

- All centers billing sleep studies must maintain proper certification/ accreditation by either the American Academy of Sleep Medicine (AASM) or the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Space, equipment, and staffing must be consistent with the AASM's Standards of Accreditation or accredited through JCAHO.

- Medical records must document the name of the technician who attended the sleep study. Examples of appropriate personnel certification include:

  a) Registered Polysomnography Technologist (RPSGT) credentialed through the Board of Registered Polysomnographic Technologists, and

  b) Somnologist or Diplomat of the ABSM credentialed through the AASM.

- The patient is to be evaluated by a physician prior to ordering of test. When billing for a sleep disorder test, the ordering physician's UPIN must be indicated on the claim form and the order kept on record.

- A complete, legible patient medical record that describes relevant history and physical findings to support the medical necessity of the sleep study must be maintained. Documentation must indicate that the patient's condition is severe enough to interfere with the patient's well being and health.

- When significant and separately identifiable medical services are rendered in addition to the sleep study or polysomnography evidence is required to be clearly documented in the patient's medical record.