



**HEALTHHELP®**

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# CLINICAL GUIDELINES

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Sleep Studies

# Overview Statement

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The purpose of these clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to improve patient outcomes. These clinical guidelines neither preempt the clinical judgment of trained professionals nor advise anyone on how to practice medicine. The healthcare professionals are responsible for all clinical decisions based on their assessment. These clinical guidelines do not provide authorization, certification, explanation of benefits, or guarantee of payment, nor do they substitute for, or constitute, medical advice.

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# Table of Contents

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.....	1
Overview Statement.....	2
Table of Contents .....	3
Risk Criteria .....	4
Sleep Study .....	5

# Risk Criteria

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The evaluation of medical appropriateness for polysomnography (sleep studies) for known or suspected Obstructive Sleep Apnea (OSA) is evaluated, in part, based on the patient's risk of having the condition. The HealthHelp risk panel takes the following indicators into consideration and determines if the member is at high, intermediate or low risk of having OSA.

- Patient Demographics
  - Age
  - Height
  - Weight
  - Neck Circumference
- Patient History
  - History of Hypertension
  - Snoring during sleep
  - Gasping during sleep

# Polysomnography: In-Lab

**Definition:** Polysomnography is utilized to diagnose sleep disorders by recording brain activity, oxygen levels, respirations, leg movement, eye movement and heart rate during the course of a sleep cycle. These studies can be conducted either in a sleep center/hospital setting or at home depending on the patient’s risk of having the condition and other mitigating factors.

*Associated procedure codes managed by HealthHelp:*

Code	Description
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist
95808	Polysomnography; any age, sleep staging with 1-3 additional parameters of sleep, attended by a technologist
95810	Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95811	Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bilevel ventilation, attended by a technologist

The following indications may be appropriate uses to confirm the diagnosis of Obstructive Sleep Apnea (OSA).

- For patients who have unstable congestive heart failure or diastolic dysfunction, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
  - Suspected OSA; and **EITHER** of the following:

- Congestive heart failure (CHF) New York Heart Association (NYHA) class III or IV;
  - Heart failure or cardiomyopathy with left ventricular ejection fraction (LVEF) less than or equal to 45%.
- For patients who have unstable hypertension, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
- Suspected OSA; and **EITHER** of the following:
    - Pulmonary hypertension;
    - Uncontrolled systemic hypertension (greater than or equal to 140/90 mm Hg) despite guideline directed medical therapy utilizing three antihypertensive drug regimens (Combination Angiotensin Receptor Blocker, Calcium Channel Blocker and Diuretic)
- For patients who have unstable hypoventilation, an in-lab sleep study may be reasonable and appropriate when the following criteria and **EITHER** of the following are found or documented:
- Alveolar hypoventilation when awake (PCO<sub>2</sub> is greater than 45 mm Hg); and **EITHER** of the following:
    - Body Mass Index (BMI) is greater than 30 kg/m<sup>2</sup>;
    - Sleep-related hypoventilation or hypoxemia.
  - Patient is currently on supplemental oxygen; and **EITHER** of the following:
    - Body Mass Index (BMI) is greater than 30 kg/m<sup>2</sup>;
    - Sleep-related hypoventilation or hypoxemia.
- For patients who have unstable sleep related movement disorders, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:

- Suspected OSA; and the patient is exhibiting symptoms or clinical features associated with Periodic Limb Movement (PLM).
  
- For patients who have unstable coronary heart disease, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
  - Suspected OSA; and **ANY** of the following:
    - Unstable Angina (STEMI or NSTEMI);
    - Prior Myocardial Infarction (MI);
    - Previous Revascularization (PCI or CABG);
    - Recent LARGE stress-induced perfusion defect, SEVERE stress-induced wall motion abnormality, or transient ischemic dilation demonstrated by previous Echocardiography, single positron emission computerized tomography (SPECT), or cardiac nuclear scan;
    - Known Coronary Artery Disease (CAD) with Obstructive Coronary Stenosis (greater than 50%) demonstrated by recent Computed Coronary Tomography Angiography (CCTA) or invasive catheterization.
  
- For patients who have unstable diabetes mellitus, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
  - Suspected OSA; and **EITHER** of the following:
    - Type I diabetes;
    - Diabetes that is uncontrolled (greater than 7% HbA1C) despite conventional medical management
  
- For patients who have unstable hypoxemia (severe oxygen desaturation), an in-lab sleep study may be reasonable and appropriate when **BOTH** of the following criteria are found or documented:

- Suspected OSA and patient is currently on supplemental oxygen;
  - Suspected or confirmed pulmonary disorder/dysfunction.
- For patients who have unstable cardiac arrhythmia, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
- Suspected OSA; and **ANY** of the following:
    - Patient has an implanted cardiac device;
    - Patient is experiencing syncope, dyspnea, or chest pain with frequent palpitations;
    - Arrhythmia is uncontrolled or poorly controlled with documented abnormality lasting greater than 30 seconds and arrhythmia is of transient or non-reversible cause.
- For patients who have a contraindication to a portable/home sleep test, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
- Suspected OSA; and **ANY** of the following:
    - Physical disability or limitation which prohibits utilization of the portable/home sleep test equipment;
    - Cognitive or mental disability or limitation which prohibits utilization of the portable/home sleep test equipment;
    - Mobility limitation, which prohibits utilization of the portable/home sleep test equipment.
- For patients who are diagnosed with significant morbid obesity, an in-lab sleep study may be reasonable and appropriate when the following criteria are found or documented:
- BMI greater than or equal to 40 kg/m<sup>2</sup>.



- For patients who have KNOWN Obstructive Sleep Apnea, an in-lab sleep study may be reasonable and appropriate when **EITHER** of the following criteria are found or documented:
  - Patient was diagnosed with OSA less than six (6) months ago via portal/home sleep study with an AHI of greater than or equal to thirty (30) events per hour;
  - Patient is Low-risk for OSA
    - Patient was diagnosed with OSA greater than six (6) months ago
  
- For patients who are suspected of having Obstructive Sleep Apnea, an in-lab sleep study may be reasonable and appropriate when the following criteria is found or documented:
  - Patient had prior sleep test performed; and **EITHER** of the following:
    - Previous in-lab polysomnography was incomplete, inconclusive or technically inadequate;
    - Prior portable/home sleep study was negative or inconclusive.
  
- For patients who have known or suspected Non-Obstructive Sleep Apnea, an in-lab sleep study may be reasonable and appropriate when **ANY** of the following criteria are found or documented:
  - Suspected for Non-OSA (no previous diagnosis); and **ANY** of the following:
    - Complex or Central Sleep Apnea (not otherwise specified);
    - Mixed or any other Non-OSA;
    - Central Sleep Apnea, Cheyne-Stokes Breathing Pattern;
    - Central Sleep Apnea, High-Altitude Breathing Pattern
  - Patient has been using long-acting opioid medication for at least two (2) months;
  - Patient has been previously diagnosed with a Non-Obstructive Sleep Apnea.

- If a patient had a previous Thoracic Surgical Procedure, a sleep study may be reasonable and appropriate when **EITHER** of the following criteria are found or documented:
  - History of previous pneumonectomy, lobectomy, segmentectomy, or wedge resection;
  - History of previous lung transplantation
  
- If a patient has Chronic Obstructive Pulmonary Disease (COPD), a sleep study may be reasonable and appropriate when the following criteria are found or documented:
  - Patient is suspected for Obstructive Sleep Apnea and has a history of COPD
  
- If a patient has Hypersomnia, a sleep study may be reasonable and appropriate when the following criteria are found or documented:
  - Patient has Excessive Daytime Sleepiness (EDS) or witnessed disturbed nocturnal sleep; and **EITHER** of the following:
    - Hypersomnia; and **ANY** of the following:
      - Patient has inappropriate sleep episodes or attacks (e.g., while driving, in the middle of a meal, or in the middle of a conversation);
      - Amnesiac episodes;
      - Continuous disabling drowsiness
    - Narcolepsy; and **ANY** of the following:
      - Patient has inappropriate sleep episodes or attacks (e.g., while driving, in the middle of a meal, or in the middle of a conversation);
      - Amnesiac episodes;
      - Continuous disabling drowsiness

- If a patient has Parasomnia, a sleep study may be reasonable and appropriate when **EITHER** of the following criteria are found or documented:
  - Seizure disorder has been ruled out through clinical evaluation and results of standard EEG; and **ANY** of the following:
    - Parasomnia associated with arousal disorders;
    - Parasomnia associated with REM sleep or REM sleep behavior disorder;
    - Parasomnia due to a drug or substance;
    - Parasomnia due to recurrent isolated sleep paralysis;
    - Parasomnia not otherwise specified
  - History of repeated violent, harmful, or injurious episodes during sleep; and **ANY** of the following:
    - Parasomnia associated with arousal disorders;
    - Parasomnia associated with REM sleep or REM sleep behavior disorder;
    - Parasomnia due to a drug or substance;
    - Parasomnia due to recurrent isolated sleep paralysis;
    - Parasomnia not otherwise specified

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