

UPMC Health Plan POLICY AND PROCEDURE MANUAL

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SUBJECT: Home Sleep Study
INDEX TITLE: Medical Management
ORIGINAL DATE: September 2008

This policy applies to the following lines of business: (Check those that apply.)

Commercial:					
HMO ()	POS ()	PPO ()	OOA/DOC ()		
Fully Insured ()	Self-funded/ASO ()	HSA ()	All (X)		
Medicare Select ()	Medicare Supplement ()				
DPW-MA:					
Health Choices ()	Voluntary ()		All (X)		
CMS-MA:					
HMO (X)	PPO (X)	Specialty Needs Plan (X)	Part D ()	PFFS (X)	All ()
PID-CHIP:					
Free ()	Sub ()		All (X)		

I. POLICY

It is the policy of UPMC Health Plan to provide payment for Home Sleep Study when it is medically necessary and covered by the member's benefit plan.

II. DEFINITIONS

Apnea is defined as the cessation of airflow for at least 10 seconds.

Home Sleep Study Test (HST) is a polysomnography performed unattended in the member's home using a portable monitoring device.

Hypopnea is 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.

Obstructive Sleep Apnea (OSA) is a disorder of sleep apnea in which complete or partial obstruction of the airway during sleep causes loud snoring, reduction in oxygen content of the blood, and frequent arousals.

Polysomnography (PSG) (facility based or home) is 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. Less than 6 hours of recording may be utilized if a definitive diagnosis can be made prior to that time.

The studies are performed to diagnose sleep disorders and/or evaluate a patient's response to therapies such as nasal continuous positive airway pressure (CPAP).

Polysomnography includes at least the following:

- 1-4 lead electroencephalogram (EEG) to measure global neural encephalographic activity
- Electrooculogram (EOG) to measure eye movements
- A submental electromyogram
- Rhythm electrocardiogram (ECG) with 2 or 3 chest leads
- Nasal and/or oral airflow
- Ventilation and respiratory effort by chest-wall and abdominal movement
- Gas exchange (oxygen saturation (SP0²) by oximetry, transcutaneous monitoring, or end-tidal gas analysis)
- Extremity muscle activity, motor activity/movement using EMG
- Body positions

Sleep apnea is a respiratory dysfunction resulting in cessation or near cessation of respiration for a minimum of 10 seconds. These cessations of breathing may be due to either an occlusion of the airway (obstructive sleep apnea- OSA), absence of respiratory effort (central sleep apnea), or a combination of these factors (mixed sleep apnea).

Sleep Study/Test (Refer to Polysomnography).

III. PURPOSE

The purpose of this policy is to describe coverage for Home Sleep Study Tests.

IV. SCOPE

This policy applies to various UPMC Health Plan departments as indicated by the Benefit and Reimbursement Committee. These include but are not limited to Medical Management, Benefit Configuration and Claims departments.

V. PROCEDURE

A. Medical Description / Background

Obstructive sleep apnea (OSA) is a disorder in which complete or partial obstruction of the airway during sleep causes loud snoring, reduction in oxygen content of the blood, and frequent arousals. OSA is caused by repetitive upper airway obstruction during sleep as a result of narrowing of the respiratory passages and in some cases due to a receding jaw that result in insufficient room for the tongue. These anatomic abnormalities decrease the cross-sectional area of the upper airway. Decreased airway muscle tone during sleep and the pull of gravity while sleeping on the back, further decrease airway size, thereby impeding air flow during respiration.

Until recently, diagnosing OSA required an overnight stay in a specialized sleep laboratory or clinic. Testing included standard laboratory polysomnography (LPSG),

which is the accepted test for the diagnosis of OSA. However, the demand for testing in the laboratory setting has exceeded the capacity of these clinics. A number of smaller, portable systems that can be used at home have been developed in an effort to make testing more convenient and cost-effective.

B. Indications

The following home sleep study testing (HST) is covered for the purpose of diagnosing obstructive sleep apnea (OSA):

- Unattended HST with a Type II home sleep monitoring device, OR
- Unattended HST with a Type III home sleep monitoring device, OR
- Unattended HST with a Type IV home sleep monitoring device that measures at least 3 channels.

C. Limitations

1. The sleep test should be ordered by the member's treating physician and the study furnished under appropriate physician supervision.
2. Performance of home sleep testing is limited to FDA approved devices furnished with adequate patient instruction and support to assure successful completion and reliable results.

D. Variations

N/A

E. References

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3. ECRI Custom Hotline Response, Ambulatory/Portable Sleep Apnea Monitors for Diagnosis of Obstructive Sleep Apnea. Archived 2-20-07. http://www.ta.ecri.org/Hotline/Prod/summary/archive.aspx?doc_id=7573
4. CMS NCD #240.4 Continuous Positive airway pressure (CPAP) Device, effective 3/13/08, implementation date 8/4/08
http://www.cms.hhs.gov/mcd/viewncd.asp?ncd_id=240.4&ncd_version=3&basket=ncd%3A240%2E4%3A3%3AContinuous+Positive+Airway+Pressure+%28CPAP%29+Therapy+For+Obstructive+Sleep+Apnea+%28OSA%29
5. CMS, Technology Assessments for Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA) (CAG-00093R).
<http://www.cms.hhs.gov/mcd/viewtechassess.asp?id=110>

6. CMS Technology Assessment. Effectiveness of portable monitoring devices for diagnosing obstructive sleep apnea: update of a systematic review, 9-1-04
7. Highmark Medicare Services, Sleep Disorders Testing, LCD # L27530, effective 8-1-08. <http://www.highmarkmedicare.com/policy/mac-ab/127530.html>
8. National Guideline Clearinghouse, Chesson AL Jr, Berry RB, Pack A. Practice parameters for the use of portable monitoring devices in the investigation of suspected obstructive sleep apnea in adults. Sleep 2003 Nov 1; 26(7):907-13. http://www.guideline.gov/summary/summary.aspx?ss=15&doc_id=4369
9. 10. ECRI Custom Hotline Response, SNAP Testing (Unattended Polysomnography) to Evaluate Obstructive Sleep Apnea (OSA), archived 11-30-04.

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