Bright HealthCare™

Medical Policy

Pediatric Sleep Study Testing	
MEDICAL POLICY NUMBER	MED_Clin_Ops_004
ORIGINAL EFFECTIVE DATE	April 18, 2018
CURRENT VERSION EFFECTIVE DATE	April 29, 2022
APPLICABLE PRODUCT AND MARKET	*Individual Family Plan:* All Plans *Small Group*: All Plans *Medicare Advantage:* All Plans

PURPOSE

The purpose of this policy is to establish the clinical review criteria to support the determination of the medical necessity of pediatric sleep study testing.

POLICY

Clinical Review Criteria

I. **Facility nocturnal polysomnography (NPSG) for children and adolescents**

A. Bright Health considers authorization of facility nocturnal polysomnography (NPSG) for children and adolescents younger than 18 years of age for **ANY** of the following purposes or indications:

1. To diagnose obstructive sleep apnea (OSA) and differentiate it from snoring.
2. To evaluate hypersomnia.
3. Down's Syndrome.
4. Suspected narcolepsy (NPSG should be followed with multiple sleep latency

test (MSLT), refer to criteria in the Adult Sleep Study testing).

5. Suspected parasomnia.
6. Suspected restless leg syndrome.
7. Suspected periodic limb movement disorder.
8. Suspected congenital central alveolar hypoventilation syndrome.
9. Suspected sleep-related hypoventilation due to neuromuscular disorders or chestwall deformities.
10. Craniofacial malformation
11. Chiara malformation
12. Achondroplasia
13. Habitual snoring that occurs with any of the following:
    - Restless or disturbed sleep
    - Behavioral disturbance, or learning disorders including deterioration in academic performance, hyperactivity, or attention deficit disorder
    - Unexplained enuresis
    - Frequent awakenings
    - Failure to thrive or growth impairment
    - Witnessed apnea
    - Excessive daytime somnolence, or altered mental status unexplained by other conditions or etiologies
    - Polycythemia unexplained by other conditions or etiologies
    - Cor pulmonale unexplained by other conditions or etiologies
    - Hypertrophy of tonsils and adenoids associated with noisy daytime respirations where surgical removal poses a significant risk and would be avoided in the absence of sleep disordered breathing

B. Bright Health considers authorization of **facility NPSG for children and adolescents** after an adeno-tonsillectomy or other pharyngeal surgery for OSA when **ANY** of the following conditions are met:

1. Age younger than 3 years.
2. Cardiac complications of OSA (e.g., right ventricular hypertrophy).
3. Craniofacial anomalies that obstruct the upper airway.
4. Failure to thrive.
5. Neuromuscular disorders (e.g., Down syndrome, Prader-Willi syndrome and myelomeningocele).

6. Obesity.
7. Prematurity.
8. Recent respiratory infection.
9. Severe OSA was present on pre-operative PSG (a respiratory disturbance index of 19 or greater)**.**
10. Symptoms of OSA persist after treatment.

II. Unauthorized Diagnostic Techniques:

Bright Health considers the following techniques to be investigational and they will not be authorized:

A. Use of abbreviated or screening techniques, such as videotaping, nocturnal pulse oximetry, unattended home PSG, or facility-based, daytime, abbreviated cardiorespiratory sleep studies (daytime nap PSG, Pap Nap testing).

B. Measurements of circulating adropin concentrations, plasma pentraxin- 3 or TREM-1 levels

C. Home sleep studies for obstructive sleep apnea in children.

BACKGROUND

Obstructive sleep apnea syndrome (OSA) is a disorder of breathing in which prolonged partial upper airway obstruction and/or intermittent complete obstruction occurs during sleep, disrupting normal ventilation and normal sleep patterns. The signs and symptoms of OSA in children include habitual snoring (often with intermittent pauses, snorts, or gasps) with labored breathing, observed apneas, restless sleep, and daytime neurobehavioral problems. Nocturnal enuresis, diaphoresis, cyanosis, mouth breathing, nasal obstruction during wakefulness, adenoidal facies, and hyponasal speech may also be present.

Excessive daytime sleepiness is sometimes reported but hyperactivity can frequently occur. Case studies report that OSA in children can lead to behaviors easily mistaken for attention-deficit/hyperactivity disorder as well as behavioral problems and poor learning; however, most case studies have relied on histories obtained from parents of snoring children without objective measurements, control groups, or sleep studies.

Severe complications of untreated OSA in children include systemic hypertension, pulmonary hypertension, failure to thrive, cor pulmonale, and heart failure.

History and physical examination have been shown to be sensitive but not specific for diagnosing OSA in children. Primary snoring is often the presenting symptom reported by parents and should warrant careful screening for OSA. Primary snoring is defined as snoring without obstructive apnea, frequent arousals from sleep or abnormalities in gaseous exchange. It is estimated that 3% to 12% of children are habitual snorers but only 2% will be diagnosed with OSA.

Although surgical treatment for OSA has been shown to improve quality of life, it is not without risks (for example, bleeding, velopharyngeal insufficiency, post-obstructive pulmonary edema). Thus, clinicians must be able to distinguish between primary snoring and OSA.

Nocturnal polysomnography (NPSG) remains the gold standard diagnostic test to differentiate primary snoring from OSA in children. It is the only diagnostic technique that can quantitate the ventilatory and sleep abnormalities associated with sleep-disordered breathing and can be performed in children of any age. NPSG is designed to capture multiple sensory channels including blood pressure, brain waves, breathing patterns and heartbeat as an individual sleeps. It can also record eye and leg movements and muscle tension which can be useful in diagnosing parasomnias. A NPSG performed at a facility will record a minimum of 12 channels which involves at least 22 wire attachments to the individual. Sensors that send electrical signals to a computer are placed on the head, face, chest and legs. This test is attended by a technologist and the results are evaluated by a qualified physician. A NPSG may be performed in conjunction with a positive airway pressure (PAP) machine to determine the titration of oxygen flow.

DEFINITIONS

1. **Authorization:** A decision by Bright Health that a health care service, treatment plan, prescription drug or durable medical equipment is medically necessary or meets other member contract terms. Sometimes called prior authorization, prior approval or precertification. Bright Health requires preauthorization for certain services before a member receives them, except in an emergency. Authorization is not a promise that Bright Health will cover the cost.

2. **Excessive daytime sleepiness (EDS):** Also known as somnolence or hypersomnia: A subjective report of difficulty in maintaining the alert awake state during the day, usually accompanied by easily falling asleep when the person is sedentary. Excessive sleepiness may be due to an excessively deep or prolonged major sleep episode. It can be quantitatively measured by use of subjectively defined rating scales of sleepiness or physiologically measured by electrophysiological tests, such as the multiple sleep latency tests (MSLT). Excessive sleepiness most commonly occurs during the daytime, but it may be present at night in a person, such as a shift worker who has the major sleep episode during the daytime.

3. **Polysomnogram (PSG):** Also known as a “sleep study” is a diagnostic test for obstructive sleep apnea. The patient is connected to a variety of monitoring devices that record at least 4 physiologic variables while sleeping (e.g., heart rate, sleep/wake activity, blood oxygen saturation, respiratory effort monitoring).

4. **Sleep apnea:** A condition where a person’s breathing frequently pauses or stops while sleeping, usually for 10 seconds or more at one time.

5. **Sleep disorder**: Interference in sleep continuity and central nervous system sleep/wake

cycle that may be caused by respiratory and/or non-respiratory conditions.

6. **Titration testing (of a PAP device):** A test done to find the right airflow pressure settings of the equipment to keep the patient's airway open while allowing the patient to sleep. The airflow pressure of the PAP device is "titrated" (increased/decreased) to discover a single fixed pressure that works for the individual. In the home setting a device is used that can perform this titration task automatically.

CODING

Applicable CPT codes:
95808, 95810, 95811, 95782, 95783

EVIDENCE-BASED REFERENCES

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POLICY HISTORY

Original Effective Date	April 18, 2018
Revised Date	December 18, 2018 – noted applies to new 2019 markets April 29, 2019 – Annual review, no changes noted February 1, 2020 – updated to include appropriate 2020 markets December 20, 2020 – Small Group added as applicable product April 15, 2021 – Annual review, template and formatting edits, no changes to criteria April 29, 2022 – Annual review

Approved by the Utilization Management Committee