This tool addresses common symptoms and symptom complexes. Requests for patients with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or patient’s Primary Care Physician (PCP) may provide additional insight.

**PEDIATRIC SLEEP GUIDELINES**

*Version 1.0; Effective 02-21-2014*

MedSolutions, Inc. Clinical Decision Support Tool for Advanced Diagnostic Imaging

Common symptoms and symptom complexes are addressed by this tool. Imaging requests for patients with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician may provide additional insight.

*This version incorporates MSI accepted revisions prior to 12/31/13*

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Pediatric Sleep Guidelines
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<th>2014 Pediatric Sleep Guidelines</th>
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<td>ABBREVIATIONS</td>
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MedSolutions considers the use home/portable sleep studies for the diagnosis of OSA in children (17 years and younger) investigational at this time. Limited portable studies, or studies in the home, are not sufficient to exclude OSA in a child with suggestive symptoms, nor can they reliably assess the severity of the disorder which is important in planning treatment. Overnight polysomnography remains the diagnostic "gold standard" in children with OSA.

**SLP-1.1 Proper Uses of PSG in Pediatric Patients**

1. Overnight polysomnography (PSG) in a sleep lab setting is appropriate for children (17 years of age and younger) for the diagnosis of *any* of the following conditions:
   - Sleep related breathing disorders, such as obstructive sleep apnea, upper airway resistance syndrome; *or*
   - Narcolepsy or idiopathic hypersomnia (generally would be performed in conjunction with a multiple sleep latency test); *or*
   - Congenital central alveolar hypoventilation syndrome or sleep related hypoventilation due to neuromuscular disorders or chest wall deformities
     - Nocturnal seizure activity
     - REM behavior disorder (rare in childhood)
     - Repeat PSG following adenotonsillectomy if there are residual symptoms of OSA or to assess for residual OSA
     - Polysomnography of primary sleep apnea of infancy. (When other medical disorders have been ruled out)

2. Overnight PSG in a sleep lab is appropriate for children with *any* of the suspected following:
   - Habitual (nightly) snoring associated with *any* of the following:
     - Restless or disturbed sleep; *or*
     - Behavioral disturbance, or learning disorders including deterioration in academic performance, hyperactivity, or attention deficit disorder; *or*
     - Unexplained enuresis; *or*
     - Frequent awakenings; *or*
     - Failure to thrive or growth impairment; *or*
     - Witnessed apnea; *or*
     - Excessive daytime somnolence, or altered mental status
unexplained by other conditions or etiologies; or
- Polycythemia unexplained by other conditions or etiologies; or
- Cor pulmonale unexplained by other conditions or etiologies; or
- 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

3. Polysomnography when there is clinical evidence of a sleep related breathing disorder in infants who have experienced an apparent life-threatening event (ALTE).

4. Repeat overnight polysomnography in a sleep lab setting for children is considered medically necessary in any of the following circumstances:
   - Initial polysomnography is inadequate or non-diagnostic and the accompanying caregiver reports that the child's sleep and breathing patterns during the testing were not representative of the child's sleep at home;
   - For positive airway pressure (PAP) titration in children with obstructive sleep apnea syndrome
   - A child with previously diagnosed and treated obstructive sleep apnea who continues to exhibit persistent snoring or other symptoms of sleep disordered breathing.
   - To periodically re-evaluate the appropriateness of continuous positive airway pressure (CPAP) setting based on the child's growth pattern or the presence of recurrent symptoms while on CPAP
   - If obesity was a major contributing factor and significant weight loss has been achieved, repeat testing may be indicated to determine the need for continued therapy.
SLP-2.1 CPAP in Pediatric Patients

CPAP is indicated when all of the following criteria are met:

- OSA diagnosis has been established by PSG; and
- Adenotonsillectomy has been unsuccessful or is contraindicated, or when definitive surgery is indicated but must await complete dental and facial development.

Although there are no widely accepted, standardized guidelines or diagnostic criteria for classic obstructive sleep apnea in children, diagnosis of OSA can be made when the following are met:

<table>
<thead>
<tr>
<th>Polysomnographic Criteria for OSA in Adults and Children</th>
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<tbody>
<tr>
<td><strong>Criteria</strong></td>
</tr>
<tr>
<td>Apnea-hypopnea index*</td>
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<tr>
<td>Minimum oxygen</td>
</tr>
</tbody>
</table>

*The apnea-hypopnea index is the average number of apneas and hypopneas per hour of sleep.*
SLP-3 Improper Uses of Polysomnography in Pediatric Patients

SLP-3.1 Improper Uses of PSG in Pediatric Patients

The peer-reviewed medical literature does not support the following:

- Repeat polysomnography in the follow-up of patients with obstructive sleep apnea treated with CPAP when symptoms attributable to sleep apnea have resolved; or

- Polysomnography in children for any of the following:
  - Sleep walking or night terrors; or
  - Routine evaluation of adenotonsillar hypertrophy alone without other clinical signs or symptoms suggestive of obstructive sleep disordered breathing; or
  - Routine follow-up for children whose symptoms have resolved post-adenotonsillectomy.
### PSG PROCEDURE CODES

<table>
<thead>
<tr>
<th>Attended Polysomnography and Sleep Studies (PEDIATRIC CODES)</th>
<th>CPT®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysomnography, (younger than 6 years), sleep staging with 4 or more additional parameters of sleep, attended by a technologist.</td>
<td>95782</td>
</tr>
<tr>
<td>Polysomnography, (younger than 6 years), sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by a technologist.</td>
<td>95783</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unattended Sleep Studies</th>
<th>CPT®</th>
</tr>
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<tbody>
<tr>
<td>Sleep study, unattended, measures a minimum of heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time.</td>
<td>95800</td>
</tr>
</tbody>
</table>

- Simultaneous recording; simultaneous recording; heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time. **Requests will be forwarded for Medical Director review.**
- For unattended sleep study that measures a minimum of heart rate, oxygen saturation, and respiratory analysis, report 95801
- Do not report CPT®95800 in conjunction with any of the following CPT® codes: 93041-93227, 93228, 93229, 93268-93272, 95801, 95803, 95806.

| Sleep study, unattended, measures a minimum of heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone) | 95801 |

- Simultaneous recording; minimum of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation **Requests will be forwarded for Medical Director review.**
- For unattended sleep study that measures a minimum of heart rate, oxygen saturation, and sleep time, report 95800
- Do not report CPT®95801 in conjunction with any of the following CPT® codes: 93041-93227, 93228, 93229, 93268-93272, 95800, 95806.

| Sleep study, unattended, simultaneous recording of heart rate, oxygen saturation, respiratory airflow and respiratory effort (e.g. thoracoabdominal movement) | 95806 |

- Simultaneous recording; minimum of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation **Requests will be forwarded for Medical Director review.**
- For unattended sleep study that measures heart rate, oxygen saturation, respiratory analysis, and sleep time, report 0203T
- For unattended sleep study that measures heart rate, oxygen saturation, respiratory analysis, report 0204T.
- Do not report CPT®95806 in conjunction with any of the following CPT® codes: 93012, 93014, 93041-93227, 93228, 93229, 93230-93272, 0203T, 0204T

**PSG Coding Continued Next Page . . .**
**SLP-4 Procedure Coding Continued . . .**

### PSG PROCEDURE CODES

<table>
<thead>
<tr>
<th>Attended Polysomnography and Sleep Studies</th>
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<tbody>
<tr>
<td>Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness</td>
<td>95805</td>
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</table>

✓ One of the more common studies.
✓ Prior to treatment when the requesting physician suspects narcolepsy.
✓ Often requested with a facility sleep study (CPT®95810 or CPT®95811).

Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist | 95807 |

✓ Requests will be forwarded for Medical Director review.

Polysomnography; (any age), sleep staging with 1-3 additional parameters of sleep, attended by a technologist | 95808 |

✓ Requests will be forwarded for Medical Director review.

<table>
<thead>
<tr>
<th>Attended Polysomnography and Sleep Studies</th>
<th>CPT®</th>
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<tbody>
<tr>
<td>Polysomnography; (age 6 years or older), sleep staging with 4 or more additional parameters of sleep, attended by a technologist</td>
<td>95810</td>
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</table>

✓ CPT®95810 is used to report full-night studies.
✓ One of the more common studies.

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 | 95811 |

✓ One of the more common studies.
✓ CPT®95811 is used either as either a split-night study with both the study and the subsequent positive airway pressure or bi-level ventilation are initiated during the same visit, or
  - as PAP titration alone after CPT®95810 or inability to complete split night sequence.
PEDIATRIC SLEEP GUIDELINES

REFERENCES


