IEHP UM Subcommittee Approved Authorization Guidelines
Sleep Studies Prior to Tonsillectomy

Policy:
Pre-operative polysomnography should be obtained prior to tonsillectomy for children with the following:
- Obesity (>$95^{th}$ percentile for age)$^{1,3}$
- Down Syndrome$^1$
- Craniofacial abnormalities$^{1,3}$
- Neuromuscular disorders$^{1,3}$
- Sickle cell disease$^1$
- Mucopolysaccharidoses$^1$
- Age $<$ 3 years$^2$
- Exam inconsistent with degree of obstruction$^{1,2,3}$

Otherwise healthy children with a history of snoring and adenotonsillar hypertrophy do not require pre-operative polysomnography, as tonsillectomy is generally curative for either obstructive sleep apnea syndrome or upper airway resistance syndrome.$^3$

If alternative studies with low sensitivity (pulse oximetry, nap studies, audio or video taping, etc.) are negative and the diagnosis of sleep disordered breathing remains in doubt, polysomnography can be obtained for confirmation prior to tonsillectomy.$^{4,5}$

CPT Codes Covered:
95807 Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist
95808 Polysomnography; sleep staging with 1-3 additional parameters of sleep, attended by a technologist
95810 Sleep staging with four or more additional parameters of sleep, attended by a technologist
95811 Sleep staging with four or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy of bi-level ventilation, attended by a technologist

CPT Codes Not Covered (Non-Reimbursable Components):
The following codes are not reimbursable when billed with CPT-4 code 94772, 95808, 95811, HCPCS code Z0306 or Z7602 by any provider, for the same recipient and date of service: 82805, 82810, 94760, 94760, 92265, 95860-95872, 92270, 93224-93227, 94010-94620, 95816-95827.

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The following codes are not reimbursable when billed with HCPCS code Z7600 by any provider, for the same recipient and date of service:
82805, 82810, 94760, 93224-93227, 94010-94620, 95816-95827.

**Aetna (2012):**
Aetna states in its “Clinical Policy Bulletin: Obstructive Sleep Apnea in Children” that it considers polysomnography medically necessary to differentiate between primary snoring and obstructive sleep apnea.

**Anthem (2012):**
Anthem considers polysomnography medically necessary when one or more of a specific list of signs and symptoms of sleep disordered breathing are present. It is not considered medically necessary for the routine evaluation of adenotonsillar hypertrophy without concomitant signs or symptoms of sleep disordered breathing.

**Blue Shield of California (2011):**
Blue Shield considers polysomnography medically necessary as a diagnostic study when either the patient has
1. witnessed apnea >10 seconds,
2. cardiovascular disease along with sleep disordered breathing, or
3. a combination of two of the following:
   a. excessive daytime sleepiness,
   b. snoring, gasping, or choking,
   c. unexplained hypertension,
   d. obesity, or
   e. craniofacial or upper airway soft tissue abnormalities.

**CIGNA (2011):**
CIGNA considers polysomnography medically necessary for any child being considered for adenotonsillectomy to treat obstructive sleep apnea.

**Background:**
Obstructive sleep apnea is estimated to affect 1-3% of the pediatric population.\(^1,3\) Signs and symptoms associated with obstructive sleep apnea in children may include adenotonsillar hypertrophy, snoring, daytime drowsiness or hyperactivity, poor school performance, failure to thrive or obesity, enuresis, systemic hypertension, pulmonary hypertension, or right heart failure.\(^3,4\) The majority of patients with obstructive sleep apnea are referred to otolaryngologists for tonsillectomy with or without adenoidectomy, which has been found to be curative in 80-100% of cases.\(^3,4\)

Polysomnography is considered the gold standard for diagnosis of obstructive sleep apnea syndrome and has been suggested by some organizations, notably the American Academy of
Pediatrics and the American Academy of Sleep Medicine, for pre-operative evaluation of patients scheduled for tonsillectomy.\textsuperscript{3,4,11,12} Other organizations, such as the American Academy of Otolaryngology—Head and Neck Surgery have more recently questioned the need for routine polysomnography in every pre-operative patient and have instead recommended polysomnography for those patients with an unclear diagnosis or elevated peri-operative risk factors.\textsuperscript{1,2,3,13} Currently, less than 10\% of pediatric patients scheduled for tonsillectomy undergo a pre-operative polysomnography.\textsuperscript{13}

Some of the advantages of pre-operative polysomnography are:
- Polysomnography has been found to be more sensitive than overnight oximetry, audio or video taping, nap studies, parental questionnaires, and other alternative studies.\textsuperscript{4,11}
- Polysomnography can differentiate between primary snoring and obstructive sleep apnea.\textsuperscript{11}
- Polysomnography is the only diagnostic method that can quantify the degree of sleep disordered breathing.\textsuperscript{4,11}
- Polysomnography allows identification of high-risk peri-operative patients.\textsuperscript{1}

Some of the limitations of pre-operative polysomnography are:
- Adult criteria for scoring are not appropriate for children, whose respiratory rate is higher and for whom shorter apneic episodes are more clinically significant. There are no uniformly accepted, standardized scoring criteria for pediatric polysomnography. Various measures, such as the apnea/hypopnea index (AHI) and the respiratory distress index (RDI) have been used with different cut-off values and consequently different sensitivities and specificities.\textsuperscript{3,4,11,14}
- Polysomnography can fail to diagnose Upper Airway Resistance Syndrome (UARS), which causes a similar clinical condition as obstructive sleep apnea syndrome and is also largely cured by tonsillectomy.\textsuperscript{3}
- Access to a pediatric sleep center is often limited and delays the treatment of obstructive sleep apnea if pre-operative evaluation is routinely required.\textsuperscript{15}

### Effective Date:

April 21, 2005

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### Revised:

August 22, 2012

### Bibliography:

   
   [http://oto.sagepub.com/content/145/1_suppl/S1](http://oto.sagepub.com/content/145/1_suppl/S1)


10. CIGNA. Obstructive Sleep Apnea Diagnosis and Treatment Services. October 15, 2011.


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