Subject: Continuous Positive Airway Pressure (CPAP) and Bilevel Positive Airway Pressure (BiPAP) guidelines
Applies to: Missouri members
Purpose: To clarify internal criteria for the approval of CPAP or BiPAP DME devices.

User should reference Milliman Ambulatory Care Guideline (ACG) A-0431 Noninvasive Positive Pressure Ventilation (CPAP, BiPAP) for additional information, definitions, further description of procedure, and bibliography.

Effective date: February 1, 2012 Revision(s): March 31, 2014, March 18, 2015, May 31, 2016

### Policy:

- Statement of coverage decision: CPAP or BiPAP is covered when medically necessary for adult and pediatric patients who have Obstructive Sleep Apnea (OSA) or other conditions that create hypoventilation and/or nocturnal hypoxia.
- NOTE: the primary treatment of children with OSA is an adenotonsillectomy. Because surgery is curative in 70% or more of children, CPAP is indicated as a bridge to surgery, or when surgery is unsuccessful in relieving symptoms and a polysomnogram done 6 or more weeks after surgery continues to show sleep disordered breathing.
- Criteria for coverage: Diagnosis of OSA or hypoventilation is based on a sleep facility polysomnogram (PSG). Titration of the CPAP/BiPAP device must be performed at a sleep center that is equipped and staffed for full or split night sleep studies. Home titration devices are in general not appropriate to determine pressure settings in children and infants.
  - o For adult patients, See Milliman ACG A-0431
  - For pediatric patients (< 18 years old) with OSA ALL:
    - AHI or RDI of one or more events per hour
      - If surgery has been done, results should be from a >/= 6 weeks post adenotonsillectomy polysomnogram
    - Lack of tonsillar or adenoidal hypertrophy (either on exam or surgically absent).
    - Symptoms compatible with OSA, presence of at least one:
      - Nocturnal symptoms
        - Pauses or gasps in breathing
        - Noted increased respiratory effort while asleep
        - o Enuresis
        - o Sweating
        - o Snoring
      - Daytime symptoms
        - Behavioral changes such as shyness, hyperactivity, aggression
        - Non-specific behavioral issues, such as developmental delay or hyperactivity
        - Impaired cognitive functioning, such as poor school performance, forgetfulness
        - o Daytime sleepiness
        - Mouth breathing
        - o Hyponasal speech

- Failure to thrive (other causes have been eliminated)
- Pulmonary hypertension (may also see the term cor pulmonale or right sided heart failure)
- Pediatric member with respiratory insufficiency see Milliman ACG-0431 as the terms and guidelines are reasonable for the pediatric population.
- Authorization period:
  - Initial: 3 months rental
    - Includes mask or nasal pillars, tubing. Purchase of heated humidifier, if requested, is approved on a separate authorization.
    - For BiPAP requests, certify there is a mask leak with CPAP, or inspiratory pressure above 14, or member with OSA and hypoventilation.
  - Extended: rent-to-purchase when:
    - Compliance has been verified by review of CPAP/BiPAP download and both of the following are met:
      - Percent of nights used: >70% of nights
      - Average nightly usage: >/= 4 hours per night. If trend is increasing, but not at parameters, refer to Medical Director.
    - Member should have symptomatic improvement
    - If member requests replacement due to malfunctioning equipment, replace when
      - Repairs are more than 50% of the cost of a replacement
      - Member has been compliant at least 70% of the time
      - If the member has recurrent symptoms, and has not had a polysomnogram in the prior 12 months, request repeat sleep study before authorizing replacement, as member may need adjustment in settings.
- Supplies, repairs and maintenance are included in the initial 3 month rental period and the subsequent 9 month rent-to-purchase period, and should not be authorized separately.
- Discontinuation of authorization: member is not using the equipment regularly
- Reasons for non-coverage:
  - Home or mobile unit studies
  - o Does not meet Milliman or above criteria
  - Diagnosis of primary snoring
  - Diagnosis of central sleep apnea
- Medical background: The impact of untreated OSA can be profound. The daytime fatigue can be associated with motor vehicle accidents, and the medical effects of severe OSA can be stressful to the circulatory as well as the respiratory system. The impact of treatment of mild to moderate OSA is unclear, and various guidelines exist. Most conclude that milder forms require either significant underlying disease or the presence of symptoms. The effect of treating people with asymptomatic moderate OSA is less clear, but the recommendation follows the Centers for Medicare and Medicaid Services national guideline.

In pediatric patients, AHI events should not occur during sleep, so the presence of a small number of events is significant. The time of paused breathing to be considered apnea is also shorter, due to the more rapid decline in oxygenation that occurs with decreased respirations. Any pediatric sleep study should therefore be performed and interpreted by a sleep center that has knowledge and experience with the pediatric population and its variation from adult results. Use of home pulse oximetry or video tapes is not a substitute for assessing the severity of OSA; false negatives occur with these studies.

Of the two major positive airway pressure modalities used to treat patients with OSA: continuous positive airway pressure (CPAP) and bi-level positive airway pressure (BPAP), CPAP is generally preferred for most patients because it has been well studied, is simpler to use, and is less costly. Oxygen therapy alone is not an appropriate treatment for OSA, as it does not address sleep fragmentation and may make the hypoventilation worse.

### **References:**

Section on Pediatric Pulmonology, "Clinical Practice Guideline: Diagnosis and Management of Childhood Obstructive Sleep Apnea Syndrome," 2002, American Academy of Pediatrics (also includes the Technical Report Summary by Michael Schechter, MD, MPH, et al).

Milliman® ACG 18th Edition, 2014

Milliman® ACG 20<sup>th</sup> Edition, 2016

MO Healthnet Durable Medical Equipment Manual. (2016). *Respiratory Assist Devices* (*RAD*) & *Continuous Positive Airway Pressure (CPAP) Devices*. Retrieved from <a href="http://manuals.momed.com/collections/collection\_dme/print.pdf">http://manuals.momed.com/collections/collection\_dme/print.pdf</a>.

UpToDate® May 2016, multiple articles on OSA and CPAP in adults and children.

CMS Medicare Learning Network release, "Continuous Positive Airway Pressure (CPAP) Therapy for Obstructive Sleep Apnea (OSA)," National Guideline Policy, June 2005.

Policy drafted by: PCN Medical Management Committee

Policy approved by: Doug Blowey, MD, PCN Medical Director

### Update approved by:

Clinical and Quality Management Committee – March 23, 2012; May 27, 2014; May 29, 2015

Medical Management Committee – April 21, 2014; March 30, 2015, June 20, 2016

**Disclaimer:** Any coverage determination requires medical necessity, coverage by the member's benefit plan, and eligibility. The sole purpose of this document is to address medical necessity.