Subject: Home apnea monitors, infant  
Applies to: Missouri  
Purpose: DME coverage is provided for infants who require home apnea monitoring due to prematurity, family history, or disease state.

Effective date: February 1, 2012  
Revision(s): April 30, 2014, May 12, 2015, May 31, 2016  
Reviewed without changes:

Policy:

- Statement of coverage decision: Through medical review and the prior authorization process, PCN provides coverage for the rental of an apnea/heart rate monitor (cardiorespiratory monitoring devices) with the capability of recording and storing events, and providing event recording downloads. PCN reviews for equipment use and for ongoing medical necessity after 4 months of use. Contact before 4 months is for information only and to start the authorization process.

- Criteria for coverage: NOTE: all monitors are initially approved for 4 months; medical necessity review begins after 4 months of use. After 4 months, any one of the following must be met for medical necessity:
  - Infant has experienced one or more ALTE (apparent life threatening events) that have required adult intervention (ranging from tactile stimulation to oxygen to CPR) within the last 2 months
  - Symptomatic infant who is under active treatment for apnea of prematurity or chronic lung disease (oxygen, medication)
  - Infant has a sibling who died from SIDS
  - Infant on home oxygen
  - Infant is technology dependant in the home – tracheostomy, non-invasive or invasive ventilatory support,
  - Disease or diagnosis associated with apnea or impaired ventilation or poor respiratory effort, such as hypoventilation syndrome, upper airway abnormalities, metabolic issues, or neuromuscular disorders.
  - Severe GERD with associated apneic episodes that persists despite intervention
  - Clinically significant apnea or bradycardia has occurred within the 2 months prior to the request, whatever the underlying condition. Requires supporting information.

- Authorization period:
  - Initial – Through the first 4 months of life following hospital or NICU discharge, whichever is longer
    - At authorization, confirm the caregivers have been trained in both infant CPR, and are capable and willing to use the monitor.
  - Extended:
    - At the end of 4 months of rental, clinical criteria must be met.
The required supporting information is a download report to demonstrate use, including any event recordings.

- When criteria met, unit will be authorized in two-month blocks of time.
  - Do not extend authorization for the child who is not technology dependent, if the child has not had clinically significant apnea or bradycardia within the preceding 2 months.
  - If indication was sibling with SIDS, then authorize when either:
    - Documented clinically significant apnea/bradycardia has occurred in the preceding 2 months OR
    - Child is less than the age at which the other child died with SIDS
  - Technology dependant child needs to have documentation of continued need and use of the monitor (clinic visits, home health notation, etc).
- Unless the child is on a home ventilator or has a tracheostomy, units will not be rented more than 12 months.
- Monitor settings are designed to avoid false alarms for normal physiologic occurrences yet detect events that may need intervention. How the infant appears when an alarm occurs, and what action needs to be taken (if any) by the caregiver, are key to detecting false alarms. The following are guides:
  - Apnea record at 15 seconds
  - Apnea alarm to begin at 20 seconds
  - Tachycardia limit at 225 bpm
  - Bradycardia settings vary by age:
    - Up to 44 weeks gestation – 80 bpm
    - 44 – 51 weeks gestation – 70 bpm
    - Over 52 weeks gestation – 60 bpm

- Discontinuation of authorization:
  - When the child no longer meets the above requirements.
  - The monitor is not used on a regular basis during sleep hours. This would be at least 50% of the days in the preceding two months.
    - If the child meets clinical criteria for use, but caregiver is non-compliant, initial step is notifying the ordering provider and supplying the information.
    - If provider supports continued use, and will contact caregivers about compliance, authorize one additional month to observe for improvement in compliance.
  - Loss of eligibility.

- Reasons for non-coverage at the end of the initial 4 month period:
  - Seizure disorder that is not associated with apnea or a life threatening event
  - Hydrocephalus
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- Mental retardation
- Child who has a terminal condition receiving comfort care measures
- Congenital heart defects, with or without associated arrhythmias
- History of family member with apnea or SIDS other than a sibling
- History of apnea or apnea monitor use in a sibling when the child in question does not otherwise meet criteria
- Parental anxiety, family request
- Monitor oxygen saturation

- Medical background: Infants born prematurely or who have certain medical or family situations, or older children with a variety of medical conditions can be subject to periods of disrupted breathing or slowed heart rates. Apnea of prematurity is defined as the cessation of breathing for at least 20 seconds, and is usually associated with bradycardia and hypoxia. It typically begins in an infant born before 37 weeks gestation. It typically resolves by the time an infant reaches 43 weeks gestational age. It is increasingly common for neonatologists to stop monitoring by 44 weeks gestational age, if the infant has had no true events recorded and no clinical episodes have been noted. This can be extended for the very premature infant, who may have other underlying respiratory issues.

Use of portable cardiorespiratory monitors can make management at home and in the community safer, when the caregivers are adequately trained in monitor use and infant or pediatric CPR. However, the technology also places a burden on the caregivers, so it is not a universal solution for all children when there is no obvious medical or family history concern. Despite an early theory that sleep apnea played a primary role in SIDS, this hypothesis has not been proven in later studies. Although monitors were widely recommended after the initial apnea theory was published, there has been no proven benefit to use of these monitors in the prevention of SIDS. However, per Missouri and Kansas Medicaid DME guidelines, the sibling of a SIDS victim is considered a candidate for use of a cardiorespiratory monitor, although the requirements differ between the states. CMFHP has based its guidelines on the medical literature as well as a blend of the various state guidelines that could be found on this issue. The above procedure allows for easy access to monitoring in the initial stages of use, and that the application of medical review beginning at the fifth month of use is reasonable and responsible.

References:
- Missouri HealthNet Pre-certification Criteria, Apnea Monitor, with Recording Feature, ages 5 – 12 months, September 11, 2008
- “Apparent life-threatening event in infants,” UpToDate®, accessed May 2016
- “Use of Home Cardiorespiratory Monitors in Infants,” UpToDate®, accessed May 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.