

PAEDIATRIC NURSING PRACTICE MANUAL  
SECTION 3

GENERAL CARE OF THE SICK CHILD

3.1 MONITORING VITAL SIGNS

3.1.4 INFANT APNOEA MONITORS

**Aims**

1. To monitor heart rate and respirations.
2. To detect episodes of apnoea in infants.

**Background Information**

Apnoea is defined as cessation of breathing for at least 20 seconds OR for less than 20 seconds when associated with bradycardia, cyanosis, pallor and/or hypotonia.<sup>1,2</sup>

**Indications for monitoring**

Consider apnoea monitoring ( $\pm$  pulse oximetry) for those infants at risk of apnoea and/or bradycardia, and those with, or a history of:

- apnoea or recent past history of apnoea/bradycardia.<sup>2</sup>
- Apparent Life Threatening Event ([ALTE](#)).<sup>2</sup>
- moderate/severe respiratory distress (esp. those with a history of prematurity, congenital heart disease, chronic lung disease).<sup>3</sup>
- full term infants <1 month and pre-term (<37weeks) up to 48 weeks post-conceptual age with symptoms of [bronchiolitis](#).<sup>4</sup>
- pertussis
- significant cardiac abnormalities
- a risk for bradycardia or apnoea post-operatively. Refer to [PNPM 8.2.1](#) Special Considerations for Infants Post Anaesthetic
- metabolic or neurological disorders that affect respiratory control<sup>6</sup>
- home monitoring

**Key points**

1. The nurse allocated to the infant will review the need for monitoring and/or the continuation of use on a shift by shift basis in conjunction with the Shift Coordinator and Medical Team.
2. Unless home monitoring is required, discontinue monitoring when no longer indicated (12 hours post last apnoeic episode).<sup>5</sup>
3. In the short term, ventilation can be improved for some infants experiencing respiratory distress if nursed in the prone position.<sup>7</sup> The rationale for this should be documented in the patient's notes.  
**All infants nursed prone must be monitored.**
4. Prior to discharge, consider the need to teach basic life support measures to carers. This is mandatory if home monitoring is indicated



## Alarm limits

Apnoea All ages = 20

Bradycardia Under 4 months of age = 80 Over 4 months of age = 60

## References:

1. BlueCross BlueShield of North Carolina. Evidence based guideline - apnea monitor for use in the home. [Expert opinion]. 2003. Available from: [http://www.bcbsnc.com/services/medical-policy/pdf/apnea\\_monitor\\_for\\_use\\_in\\_the\\_home.pdf](http://www.bcbsnc.com/services/medical-policy/pdf/apnea_monitor_for_use_in_the_home.pdf). Accessed: 22 October 2009.
2. American Academy of Pediatrics Committee on Fetus & Newborn. Policy statement - Apnea, sudden infant death and home monitoring. [Literature Review & Expert Opinion]. Pediatrics.111(4):914-917; 2003.
3. Scottish Intercollegiate Guidelines Network [SIGN]. Bronchiolitis in Children [Level I]. National Clinical Guidelines 2006. Available from: [http://www.sign.ac.uk/pdf/sign91.pdf?bcsi\\_scan\\_276FAA45874D151E=0&bcsi\\_scan\\_filename=sign91.pdf](http://www.sign.ac.uk/pdf/sign91.pdf?bcsi_scan_276FAA45874D151E=0&bcsi_scan_filename=sign91.pdf). Accessed: 4 January 2009.
4. Willwerth B, Harper M & Greenes D. Identifying hospitalized infants who have bronchiolitis and are at high risk for apnea [Level III-3]. Annals of Emergency Medicine.48(4):441-447; 2006.
5. Walther-Larsen S & Rasmussen L. The former preterm infant and risk of post-operative apnoea: Recommendations for management [Literature Review]. Acta Anaesthesiologica Scandinavica.50(7):888-893; 2006.