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## Infant Safe Sleep

### PURPOSE

- A. Establish guidelines and parameters for infant positioning in accordance with current AAP recommendations.
- B. Establish consistent safe sleep practices by healthcare professionals for infants prior to discharge.
- C. Establish appropriate and consistent parent/caregiver education on sudden infant death syndrome, sudden unexpected death of infants, safe sleep positions and environment.

### SUPPORTIVE INFORMATION

- A. Sudden Unexpected Infant Death (SUID): The death of an infant younger than one year of age that occurs suddenly and unexpectedly, and whose cause of death is not immediately obvious before the investigation. Most SUIDs are reported as one of three types:
  - 1. **Sudden Infant Death Syndrome (SIDS):** The death of an infant younger than one year of age that remains unexplained after a complete investigation.
  - 2. Accidental suffocation or strangulation in bed.
  - 3. Unknown cause.
- B. Sudden Infant Death Syndrome (SIDS) is the leading cause of death in infants from one month to one year of age (post-natal infant mortality). SIDS is a diagnosis of exclusion, when all other causes have been ruled out.
- C. Peak occurrence for SIDS is between 1 – 4 months of age, with a higher incidence in males, preterm and low-birth weight infants.
- D. SIDS is NOT:
  - 1. Completely preventable, but the risk for SIDS can be reduced by modifying environmental factors.
  - 2. Caused by vomiting and/or choking.
  - 3. Contagious or caused by immunizations.

4. The result of child abuse or neglect or the cause of every unexplained infant death.
- E. The American Academy of Pediatrics (AAP) and the National Institute of Child Health and Human Development (NICHD) have established recommendations for providing a sleep environment that decreases the risk for SIDS. The AAP recommends "Health care professionals, staff in newborn nurseries/MBU and NICUs, and child care providers should endorse and model the SIDS risk reduction recommendations from birth." (AAP Task Force on Sudden Infant Death Syndrome, 2016, p. 7)

## Policy

### SLEEP ENVIRONMENT

**Home Sleep Environment (HSE):** The use of all elements of the safe sleep recommendations, including but not limited to:

- A. Exclusively supine positioning.
- B. Firm flat mattress covered with single thin sheet.
- C. No additional linens or objects within the bassinet or Pediatric crib.
- D. Clothing and/or wearable blanket (sleep sack) for thermal support. Swaddling for thermal support or as an intervention for comfort.
- E. Pacifiers may be offered as a strategy to reduce SIDS risk, unless there is a specific request by mother/caregiver.

### Infant Therapeutic Positioning (ITP):

- A. Preterm infants and infants who are ill may benefit developmentally and physiologically from ITP.
- B. ITP includes the use of an alternative sleep surface, such as pressure relieving mattresses or devices, use of positioning supports such as boundaries or positioning aids, and use of other medical devices as indicated.
- C. ITP also includes the use of alternative positioning, such as prone or side-lying positioning, or elevating the head of bed.

### Crib Cards:

Crib Cards are posted at every infant's bedside once they are in a bassinet or Pediatric crib.

### Sleep Environments:

- A. In the **normal newborn nursery** and in the **Pediatric unit**, the HSE is the standard of care, with ITP utilized if ordered by the physician/NP/PA or recommended by PT/OT.
- B. In the **PICU**, ITP is the standard of care and utilized as appropriate to the infant's condition, unless the HSE is ordered by the physician/NP/PA or recommended by PT/OT.
- C. In the **NICU**, the physician/NP/PA orders, and/or PT/OT recommends, either the HSE or ITP as appropriate to the infant's condition.

### SUPINE POSITIONING

All infants up to one year of age should be placed exclusively on their backs to sleep (supine) and with the head of the bed flat, unless ITP is indicated.

- A. Medical conditions that are a contraindication to supine sleep position which may benefit from ITP, may include, but are not limited to:
1. Respiratory distress as evidenced by increased work of breathing or tachypnea, respiratory support including mechanical ventilation, CPAP, and high flow nasal cannula at > 2 lpm. *Note: conventional nasal cannula and high flow nasal cannula at 2 lpm or lower are NOT contraindications.*
  2. Congenital anomalies for which supine positioning might be contraindicated include but are not limited to infants with upper airway anomalies, myelomeningocele, laryngeal cleft, T-E fistula, hydrocephalus with VP shunt.
  3. Phototherapy that requires alternative positioning to facilitate skin exposure.
  4. External thermal support such as isolette or radiant warmer required for temperature stability.
  5. Developmental or physical vulnerabilities, such as preterm infants and those with NAS.

**B. Gastroesophageal Reflux:**

1. The American Academy of Pediatrics concurs with the North American Society for Pediatric Gastroenterology and Nutrition that the risk of SIDS outweighs the benefit of prone or lateral sleep position on gastroesophageal reflux, and that prone positioning during sleep can only be considered in infants with certain airway disorders where the risk of death outweighs the risk of SIDS (AAP Task Force on Sudden Infant Death Syndrome, 2016; Vandenplas et al., 2009).
2. "There is no evidence to suggest that infants receiving nasogastric or orogastric feeds are at an increased risk of aspiration if placed in the supine position. Elevating the head of the infant's crib is ineffective in reducing gastroesophageal reflux and is not recommended" (AAP Task Force on Sudden Infant Death Syndrome, p. 3).
3. **Positioning aids**, including but not limited to boundaries or shoulder rolls, may be utilized when clinically indicated and upon recommendation of the physician/NP/PA or PT/OT (as indicated under ITP).

**SLEEP SURFACE**

- A. When the infant is in a Pediatric crib or bassinet, a firm flat mattress, covered by a single sheet, is utilized.
- B. Soft materials or objects, even if covered by a sheet, should not be placed under the sleeping infant.
- C. No positioning supports, or other devices should be within the bassinet or crib.
- D. No soft bedding such as pillows, quilts, blanket rolls, or stuffed animals should be within the bassinet or crib.
- E. Alternative sleep surfaces, such as fluidized positioners (full body and head) may be utilized based on unit policy when clinically indicated as described under ITP, for those infants at high risk for interruption in skin integrity and/or to prevent plagiocephaly.
- F. **If an infant is found in bed with a sleeping mother/parent**, the infant should be placed in their bassinet or crib. The mother/parent should then be re- educated on safe sleep practices as soon as practical.

**THERMAL SUPPORT (when an external heat source is no longer necessary)**

- A. Environmental temperature should be appropriate to avoid overheating. According to the AAP there is insufficient information to recommend a specific temperature range in relation to SIDS risk reduction.

- B. The AAP policy states: "In general, infants should be dressed appropriately for the environment, with no greater than 1 layer more than an adult would wear to be comfortable in that environment." (AAP Task Force on Sudden Infant Death Syndrome, 2016, p. 6)
- C. Thermal support may be provided using a wearable blanket (sleep sack) and/or swaddling.
  - 1. Infant sleep clothing, such as a wearable blanket, is preferable to blankets and other coverings to keep the infant warm while reducing the chance of head covering or entrapment that can result from blanket use.
  - 2. If needed, an additional layer of clothing may be added under the sleep sack.
- D. Over-bundling and covering of the face and head should be avoided.
  - 1. Hats are discouraged, unless needed temporarily to maintain temperature.
  - 2. If used for preterm infants, ensure that the hat fits snugly, won't cover the face or become dislodged in the bed.

### **SWADDLING**

- A. There is no evidence to recommend swaddling as a strategy to reduce the risk of SIDS.
  - 1. Swaddling may be used for thermal support, as well as a strategy to calm fussy infants.
  - 2. Once the infant exhibits signs of attempting to roll, **swaddling is discontinued**. There is a marked increased risk of SIDS for swaddled infants who are in the prone position.
- B. The AAP reports that there is no evidence with regard to SIDS risk related to the arms swaddled in or out.
  - 1. The decision to swaddle with the arms in or out is made on an individual basis, depending on the physiologic needs of the infant.
  - 2. Swaddling the infant with the arms flexed and to mid-line supports neuro development and allows for the infant to demonstrate appropriate feeding readiness cues.
- C. A single thin blanket, such as a receiving blanket, is used for swaddling. Thick blankets such as quilts or fleece are not appropriate for swaddling.
- D. To swaddle correctly:
  - 1. The head and neck should remain above the top fold of the swaddling blanket. The infant's nose and mouth are clear from obstruction or covering by the blanket.
  - 2. The upper body should be firmly supported while the hips and legs are more loosely wrapped to prevent issues with hip dysplasia.
  - 3. One side of the blanket is wrapped across the body to the opposite side and tucked securely under the infant.
  - 4. The bottom of the blanket is folded upwards to mid-chest level.
  - 5. The second side of the blanket is then wrapped across the body to the opposite side and tucked securely under the infant.
  - 6. Commercially made swaddle blankets with Velcro are acceptable as long as the nose and mouth cannot be obstructed.

## SWINGS AND SEATS

- A. Swings, car seats and sitting devices are not recommended for routine sleep. Once asleep, the infant should be moved to an appropriate sleep environment as soon as clinically appropriate.
- B. Sitting devices can potentiate gastroesophageal reflux, and positional plagiocephaly.

## TUMMY TIME

The AAP recommends supervised, awake tummy time to facilitate development and to minimize the development of positional plagiocephaly.

## PRETERM INFANTS

- A. Preterm infants less than 33 weeks corrected gestational age and less than 1500 grams are typically not ready for the HSE.
  - 1. These infants are typically managed in an isolette or on a radiant warmer.
  - 2. These infants are considered developmentally vulnerable and would be excluded from the HSE.
- B. At **33 weeks** and greater corrected gestational age and greater than **1500 grams**, without any other contraindication:
  - 1. The infant should be kept predominantly in the supine position.
  - 2. Neuromuscular status and developmental needs are considered when implementing other elements of the HSE.
  - 3. In general, the transition to the HSE will be planned by the health care team, including physician/NP/PA, nursing, physical and/or occupational therapy.
- C. Transitioning to the HSE:
  - 1. Readiness for HSE should be discussed among the health care team and in multidisciplinary rounds as appropriate. Initiating or transitioning to HSE should be done well before discharge, to model safe sleep practices to their mother/caregivers.
  - 2. Re-assessment of sleep environment by the health care team is made as soon as appropriate.
- D. Thermoregulation:
  - 1. Preterm infants are weaned from the radiant warmer or isolette/incubator per hospital/unit thermoregulation policies.
  - 2. Infants who have issues with maintaining their temperature in a bassinet or Peds crib are addressed on an individual basis.

## NEONATAL ABSTINENCE SYNDROME (NAS)

- A. **Neonatal Abstinence Syndrome (NAS):** A constellation of symptoms that occur in a newborn who has been exposed to addictive opiate drugs.
  - 1. This is most commonly due to prenatal or maternal use of substances that result in withdrawal symptoms in the newborn.
  - 2. It may also be due to discontinuation of medications such as fentanyl or morphine used for pain therapy in the newborn (postnatal NAS).

- B. Infants with NAS may require specific strategies for comfort during hospitalization.
- C. Comfort measures for an irritable infant include:
  - 1. Rocking or use of swings/Mamaroo.
  - 2. Holding.
  - 3. Swaddling.
  - 4. White noise.
  - 5. Appropriate skin-to-skin care.
  - 6. Infant massage.
- D. Infants with NAS whose irritability continues >12 hrs may necessitate prone positioning.
  - 1. Use of prone positioning requires a consult with the physician/NP/PA reviewing withdrawal scores and medications.
  - 2. The need for prone positioning is re-evaluated with each withdrawal score. Comfort measures are initiated or maintained BEFORE the infant is placed prone.
  - 3. Use careful verbiage when explaining need for prone positioning to mother/caregivers.
    - a. Provide explanation that prone positioning may be an intervention during withdrawal period with monitoring while hospitalized.
    - b. Educate mother/caregiver that prone positioning for sleep is not appropriate for home.
    - c. Provide consistent message.
  - 4. Discontinue prone positioning, at least 1 week prior to discharge if not sooner.
- E. The healthcare team, including physician/NNP/PA, nursing, occupational and physical therapy will discuss transitioning to HSE prior to discharge when the following criteria are met (if not sooner):
  - 1. Methadone dose 0.05 mg/kg/dose BID
  - 2. Average FNAST scores less than or equal to 6 for 24 hrs.
  - 3. No FNAST score of greater than 10 within last 24 hrs.
  - 4. No prn doses needed in the last 24 hrs.

**PEDIATRIC UNIT (Infants less than 1 year of age)**

- A. Follow the Home Sleep Environment guidelines.
- B. Common medical diagnoses that generally do not require alterations from the safe sleep environment: GERD, bronchiolitis.
- C. Medical indications for exceptions to the safe sleep environment may include, but are not limited to:
  - 1. GERD with associated apneic events,
  - 2. Pre or post-operative orthopedic procedure such as splinted fracture that prohibits use of sleep sack.
- D. Infant swings may be used to treat the following clinical conditions:

1. Narcotic/benzodiazepine withdrawal/wean.
2. Neuro-irritability (for example meningitis, encephalitis).
3. Re-assessment within medical team and change to a home safe sleep environment is made as soon as appropriate.

#### **PEDIATRIC INTENSIVE CARE UNIT (Infants less than 1 year of age)**

- A. Utilize Infant Therapeutic Positioning as appropriate.
- B. Common medical diagnoses that generally do not require alterations from the safe sleep environment: GERD, bronchiolitis
- C. Medical indications for exceptions to the safe sleep environment may include, but are not limited to:
  1. Ventilated patients.
  2. Patients in a radiant warmer.
  3. Post-operative neurosurgical patients.
  4. GERD with associated apneic events.
  5. Pre or post-operative orthopedic procedure such as splinted fracture that prohibits use of sleep sack.
- D. Infant swings may be used to treat the following clinical conditions:
  1. Narcotic/benzodiazepine withdrawal/wean.
  2. Neuro-irritability (for example meningitis, encephalitis).
  3. Re-assessment within medical team and change to a home safe sleep environment is made as soon as appropriate.

#### **PARENT EDUCATION**

All mothers/caregivers are educated on SIDS, safe sleep environments and positioning when the HSE is initiated. Grandparents and other support people who will be caring for the infant are encouraged to participate in education.

- A. All healthy infants should be placed on their backs to sleep.
- B. All infants should be placed in a separate but proximate sleeping environment such as a safety-approved crib, bassinet, play yard, etc.
- C. All sleep environments should have a firm mattress or sleep surface.
  1. Do not place a sleeping infant on couch, sofa, recliner, cushioned chair, waterbed, beanbag, soft mattress, air mattress, pillow, synthetic or natural animal skin, or memory foam mattress.
  2. Do not bed-share with an infant. Adult beds do not meet federal safety standards for infants. Infants have suffocated by becoming trapped or wedged between the bed and the wall or bed frame, injured by rolling off the bed, and suffocated in bedding. Infants have suffocated from adults rolling over on them. Sleeping with the infant when fatigued, obese, a smoker, or when impaired by alcohol or medications is extremely dangerous and may lead to death of the infant.
- D. No soft or loose bedding, quilts, comforters, bumper pads, pillows, stuffed animals and soft toys should be

present in the sleep environment.

- E. A blanket may be used to swaddle the infant but should be positioned no higher than the axillary area or shoulders. Swaddling should be discontinued when the infant shows signs of rolling over.
- F. A wearable blanket or sleep sack may be used in place of a blanket.
- G. Avoid commercial devices marketed to reduce the risk of SIDS. Home monitors are not a strategy to reduce the risk of SIDS, including medical grade or direct to consumer devices/monitors.
- H. Consider use of a pacifier (after breast feeding has been established) at sleep times during the first year of life. Do not force the infant to take the pacifier or reinsert it if it comes out during sleep.
- I. Avoid overheating. Do not overdress or over-swaddle the infant, and do not overheat the sleeping environment.
- J. Avoid maternal/caregiver and environmental smoking, use of alcohol or drugs.
- K. Breast feeding is beneficial for infants.
- L. Encourage tummy time when the infant is awake and supervised to decrease positional plagiocephaly.
- M. Upright positioning (in bouncy seat, swing, breast feeding support pillow, etc.) and use of soft toys (such as grasping toys like rattles, textured cloths, knitted/crocheted objects, etc) are used only when supervised.

#### **DOCUMENTATION**

- A. Document the Safe Sleep Environment (HSE or ITP) once per shift, and more often as indicated.
- B. Document the infant sleeping position with each assessment, or as appropriate per unit standards.
- C. Document initiation of the Home Sleep Environment, as appropriate.
- D. Document all mother/caregiver education provided.

## **References**

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## Attachments:

### Approval Signatures

Step Description	Approver	Date
	_____	MM/YYYY
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### Applicability

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