Understanding the Impact of Sleep Related Deaths on Infant Mortality in WV

AAP Recommendations for Reducing Sleep Related Infant Deaths

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- SIDS-Cause assigned to infant deaths that cannot be explained after a thorough case investigation, including death scene investigation, autopsy, and review of the clinical history
- SUID-A sudden and unexpected death, whether explained or unexplained(including SIDS), occurring during infancy



- Sleep-related infant infant death- A sudden unexpected infant death that occurs during an observed or unobserved sleep period, or in a sleep environment.
- Accidental strangulation or suffocation in bed-An explained sudden or unexpected infant death in a sleep environment(bed, crib, couch, chair, etc.) in which the infant's nose and mouth are obstructed, or the neck or chest is compressed from a soft or loose bedding, an overlay or wedge causing asphyxia.





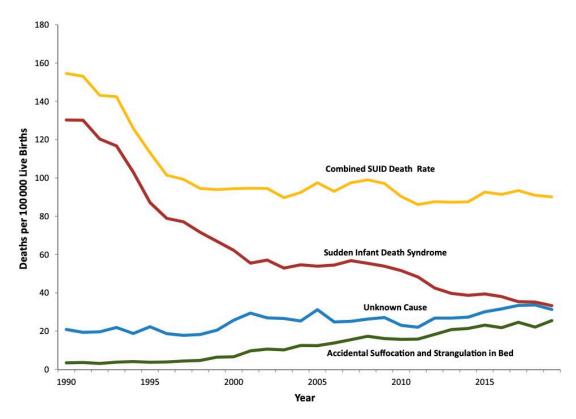
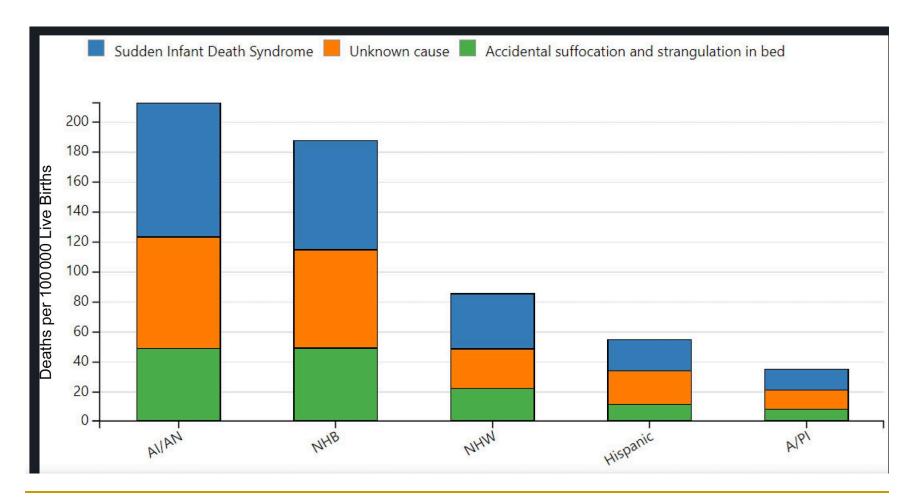


FIGURE 1
Trends in sleep-related infant deaths by cause from 1990 to 2019 from the Centers for Disease Control and Prevention and National Center for Health Statistics, National Vital Statistics System, Compressed Mortality File. Figure duplicated from http://www.cdc.gov/sids/data.htm.











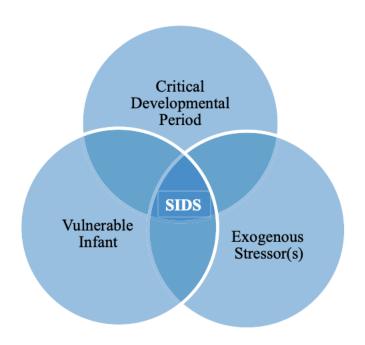


FIGURE 3

The Triple Risk Model proposes that SIDS occurs when an infant with intrinsic vulnerability (often manifested by impaired arousal, cardiorespiratory, and/or autonomic responses) undergoes an exogenous trigger event (eg, exposure to an unsafe sleeping environment) during a critical developmental period.⁴⁰



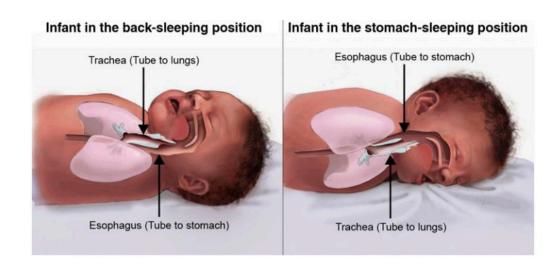


Back to sleep for every sleep until 1yo.

Prone postion puts infants at risk for SIDS (OR 2.3-13.1)

Side sleeping is not safe.

Supine sleep position on a flat, noninclined surface does not increase risk of choking and aspiration even in infants with GER.







- Use a firm, flat noninclined sleep surface to reduce the risk of suffocation or wedging/entrapment.
- Use a fitted sheet with no other bedding or soft objects.
- Sleep products for infants 5 months of age and younger must meet existing federal safety standards for cribs, bassinets, play yards and bedside sleepers.









- Feeding of human milk is associated with a reduced risk of SIDS (OR 0.64).
- The risk reducing role of human milk is enhanced when it is exclusive.
- Particularly important to emphasize the benefits of human milk in preterm infants





- Sleep in parents' room, close to the parents' bed but on a separate surface designed for infants for at least 6 months.
- Decreases the risk of SIDS by 50%.
- Helps prevent suffocation, strangulation, and entrapment







- Keep soft objects away from the infant's sleep area
 - No pillows, pillow-like toys, quilts, comforters, fur-like materials and loose bedding
 - Airway obstruction from soft objects or loose bedding is the most common mechanism for accidental suffocation





- Offer a pacifier at nap time and bedtime reduces the risk of SIDS
- If breastfeeding, delay pacifier introduction until breast feeding is established
- Mechanism of protection is unclear
- Protection from SIDS observed even if the pacifier falls out of the infant's mouth





- Avoid smoke and nicotine exposure during pregnancy and after birth.
- Risk of SIDS is particularly high when the infant bed shares with an adult smoker.



- Avoid alcohol, marijuana, opioids and illegal drug use during pregnancy and after birth
- Use of these substances in combination with bed sharing places the infant at particularly high risk



- Avoid overheating and head covering in infants.
- There is an increased risk of SIDS with overheating.
- Dress in no greater 1 layer more than an adult would wear to be comfortable.
- Don't place hats on infants when indoors.





- Obtain regular prenatal care.
- Has been shown to decrease the risk of SIDS.
- Limited prenatal care often results from social determinates of health that are also associated with increased risk of SIDS.



- Immunize.
- Avoid the use of devices that are inconsistent with safe sleep recommendations.
- Do not use home cardiorespiratory as a strategy to reduce the risk of SIDS.
- Supervised, awake tummy is recommended beginning soon after hospital discharge.





- No evidence to recommend swaddling as a strategy to reduce the risk of SIDS.
- High risk of death if swaddled infant is placed in or rolls to the prone position.
- If infants are swaddled, always place them on their back.
- Swaddling should be snug around the chest but allow ample room at the hips and knees to avoid exacerbation of hip dysplasia
- When an infant exhibits signs of attempting to roll swaddling is no longer appropriate





- Physicians, clinicians, hospital staff, and child care providers must endorse and model safe sleep infant guidelines from the beginning of pregnancy.
- Staff in Level 1 newborn units, mother-baby units and pediatric inpatient units should model and implement these recommendations beginning at birth and extending to 1 year of age
- Child care providers should be required to receive education on safe sleep recommendations and implement safe sleep practices.





- Media and manufacturers should follow safe sleep guidelines in their messaging, advertising, production and sales to promote safe sleep practices as the social norm.
- Continue the Eunice Kennedy Shriver National Institute of Health and Human Development "safe to Sleep" campaign.
- Continue research and surveillance on the risk factors, causes and pathophysiological mechanisms of sleeprelated deaths, with the ultimate goal of eliminating these deaths altogether.



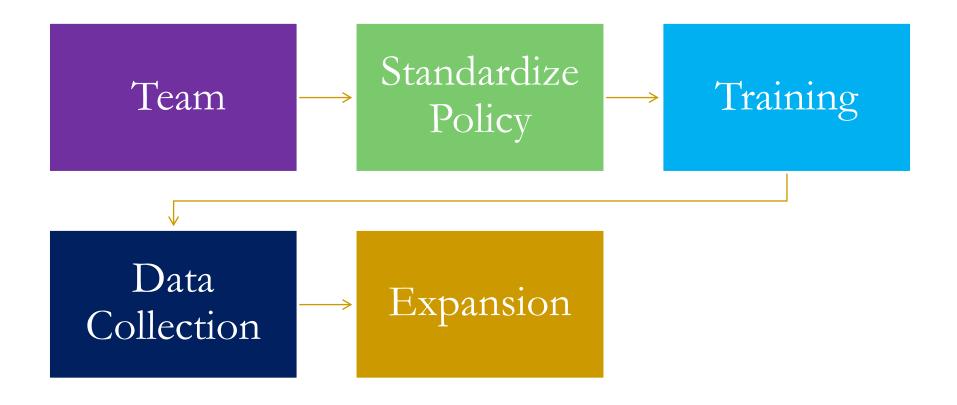








Action







Policy

- Standardization of Safe Sleep Policy
- Combining all units into one hospital wide policy
- Copy of Mountain Health Network (Cabell Huntington & Hoops Family Children's) in your folder



Training

- Additional departmental training adding PICU, NICU
- Including all positions that could come in contact with a patient < 12 months of age. 1.e Housekeeping, dietary, radiology, Lab
- Mandatory via hospital educational platform (Healthstream)



Quick View

The following 8 slides are from "Facility Wide Safe Sleep Awareness Education"





The A, B, C to Safe Sleep

• A= Alone in the Crib

- NOT with the pets
- Not with other kids
- Not with parents
- Not with toys
- ALONE in the crib



B is for **Back**

• Place infant on back in a crib every single time for sleeping.





C= Crib

- C=Crib= Sleep in a crib or in a bassinet
- DO NOT Sleep:
- car seat
- Rock n play
- Swing
- Adult Bed
- Parent Chest
- COUCH



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Dangers- Chest Sleeping

- Falling Asleep with Infant on Chest
- Why? Position- Infants can suffocate
- Infant can overheat
- Position of the infant head



Dangers- Couch Sleeping with Infant

Dangerous because:

- Infant position will often be under the adult
- On the side of the adult
- Or in between the couch cushions
- Infant will suffocate due to position





Dangers- Bed Sleeping (CO Bedding)

 Overlapping- "Rolling over" on infant is the most common cause of infant death in co-bedding due to unsafe sleep conditions







Dangers- Pillows

- Infant should sleep on a flat firm surface.
- Pillows will cause infant "floppy" airways to become positional and increase risk for suffocation





Dangers= Swings, Car Seats





Safe Sleep Crib Cards



Safe Sleep Practice for Infants To Reduce Risk of SIDS

- Always place infant on back to sleep (NEVER on belly)
- · Use firm sleep surface with no other soft objects
- Do not sleep with infant in chair on couch or on your chest
- No pillows, blankets, quilts, or pillow-like toys (NO Pillows)
- Infants can sleep in parents room on separate surface designed for infants (never in parent's bed)
- Use wearable blanket, such as swaddleMe wrap sack or sleepsack
- Avoid overheating
- · Avoid tobacco smoke exposure
- · Keep up-to-date on immunizations
- · Consider offering pacifier at sleep times
- Supervise awake tummy time for muscle development

Recommendations by: American Academy of Pediatrics





Posters at bedside

Baby in the back sleeping position Trachea (Tube to lungs) Esophagus (Tube to stomach)





Unit level Education Brochures

- Unit education
- Safe Sleep Educational Handouts
 - Unit Welcome Package (Birth Package)
 - Parent Brochure
 - Grandparent Brochure
 - Rx Pads



Handouts- Birth Packet (admission to NICU, NTU, and NBN)

















Handouts (Peds, PICU)

















Standardized Safe Sleep Education at Discharge





Data

Audits

- Unit Specific
 - Compliance with discharge education (documented)
 - Need for standardized documentation in the EMR
 - Need for updated standardized discharge education for ALL infants < 12 months of age



2021 Data- Audits (N=121) patient observations x 3 months

Average Los=10 days; Average GA- 39 weeks corrected

Safe Sleep Practices	Yes	No	Not completed
Head of the Bed Flat	42	51	28
Crib Card at Bedside describing Safe Sleep Practices	60	39	22
Position- Supine	59	11	51
Extra's (No extra blankets, pillows, stuffed animals)	9	77	35





Data

Smart Aim- Achieve a 40% compliance increase for safe sleep guidelines in the inpatient setting with an overall goal of 95% within 3 months by December 2021.



Data

- Compliance on 121 inpatient observations 3 months after re-education:
- 95%- Head of bed-flat
- 100%-Crib Card Placement
- 90%-Extras- blankets were found in the larger beds in the PICU and pediatric floor
- 95%-Supine



Facility SUIDS

- As part of our creation of our Perinatal Neonatal and Pediatric Palliative Care Team (IMPACT) reviewed our pediatric deaths 2014-2021.
- Results indicated that for infants < 12 months of age with listed as SIDS/SUIDS that 70% of those deaths were related to unsafe sleep conditions.
- >50% were intrauterine exposed to illegal substances in utero



Parental Non Compliance







Step 1- First signed copy of education provided and packet given to parent/caregiver

Step 2- Parent is found to be non compliant with safe sleep practices

Re-education is provided on the spot in real time.

Documented in the electronic health record (EHR) by
the nurse who performed re-education. Hourly rounds
for ALL rooming in mothers. Educational video watched
on safe sleep.



Step 3- Education provided at length discussion (more detailed)

Nurse manager notified of ongoing non compliance. Inform next step is Non compliance paper with CPS notification and limited nightly visitation



Step 4-Non Compliance Form

This is to certify that I	, the mother/father/guardian of minor child
	has been educated on infant safe sleep practices including specific SIDS (Sudden Infant Death
Syndrome) risk reduction :	strategies, as set by the AAP (American Academy of Pediatrics). I have been provided with the "Say Yes to
Safe Sleep Packet on Adn	nission to the following units within Cabell Huntington Hospital, Hoops Family Children's Hospital: Neonatal
Intensive Care Unit (NICU), Neonatal Therapeutic Unit (NTU) and Mother Baby Unit (MBU)". I also acknowledge that I have been
provided with the same ed	ucation on admission to the Pediatric Unit (PEDS) and the Pediatric Intensive Care Unit (PICU) regarding
the hospital safe sleep pol	icy and the "Say Yes to Safe Sleep" brochures. I have been educated by the nursing staff on Safe sleep
practices and reviewed the	crib card hanging in/near my habe's crib

I fully understand that I have been educated on the following recommendations:

- · Always place infant on his/her/they on their back to sleep (BACK IS BEST)
- · Never place infant on his/her/ they stomach to sleep (NEVER PRONE)
- · Never place infant on a pillow to sleep (Boppy pillows included)
- · Never co-sleep in the same bed with the infant
- · Never smoke/ vape around the infant
- · Do not overheat the infant, place infant in a swaddle sak or a infant sleep sak
- · Do not place extra toys, blankets, pillows, comforters, or boppy pillow in the crib.
- · Have a hard firm flat surface with a tight fitting sheet- DO NOT allow infant to sleep in car seat, rocker, or swing
- · Never place on chest to sleep
- · Never place infant on couch to sleep
- · Follow up with doctor appointments
- · Take infant if sick to doctor I acknowledge that I have been informed on admission and educated (via brochures, verbal bedside real time education from nursing staff and physicians, video(s), and print outs of external links to websites on proper safe sleep practices. I have also been re-educated on safe sleep practices and have still been found to be non-compliant with the recommendations of the AAP and the Hospital Safe Sleep Policy. I acknowledge the risks of unsafe sleep practices including possible death
- and hereby release the attending physician and the health system from all responsibility from any ill effects that may occur as a result of my decision not to comply with the safe sleep recommendations. I also understand and acknowledge that a report to Child Protective Services will be sent notifying them of the incidence of non-compliance with the hospital safe sleep policy along with proof of education on proper safe sleep practices and this form.

Signature of authorized individual





Standardized Discharge Education

Say YES to Safe Sleep

Baby Products Safety Checklist

Has the product been recalled?

Has it been tested to meet mandatory safety standards?

For answers to these questions and up-to-date information about baby product safety, visit these sites:

www.kidsindanger.org/product-hazards/recalls www.saferproducts.gov

SafeSoundBabies.com







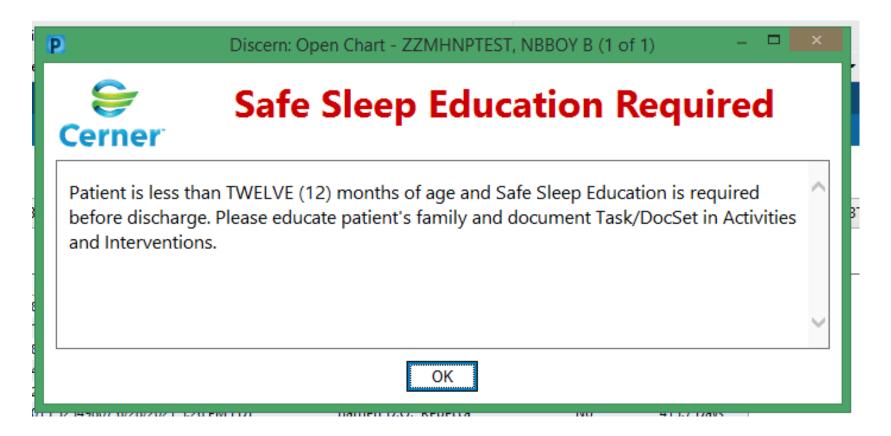
Order for Discharge Home < 12 months of age







Creating an Alert





Task List

Pending

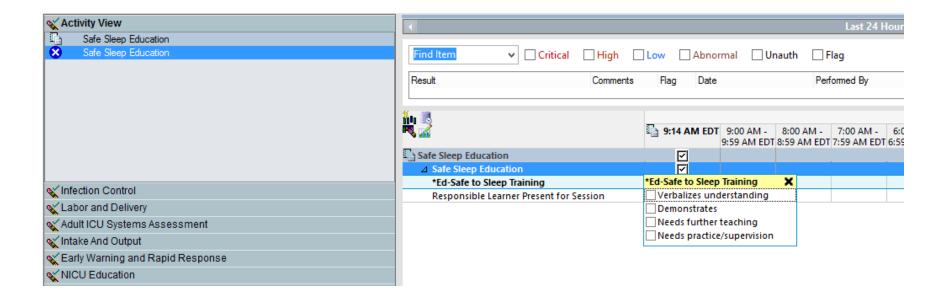
Safe Sleep Education

08/18/22 9:13:28 EDT

Ordered secondary to patient being discharged and no documeted Safe S...

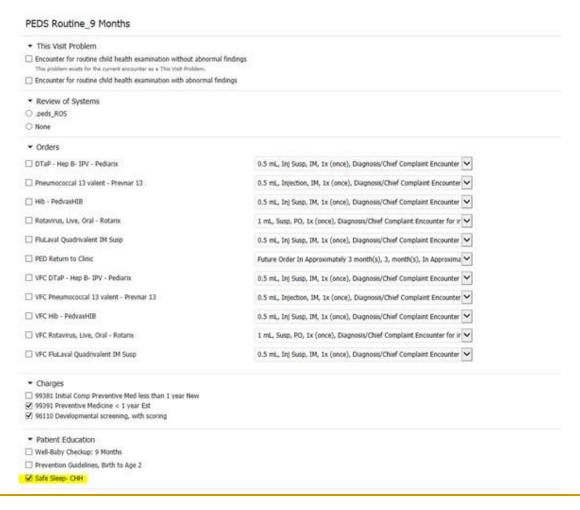


Standardized documentation for the Safe Sleep Education- Hospital Wide





Ambulatory Setting- Pediatric Office and Pediatric Urgent Care/Urgent Care







AAP Safe Sleep Campaign





Data

- Data collection
 - Opportunities for education
 - Compliance on documentation of safe sleep education at discharge



Results

- The first full week
- 1735 encounters with infants < 12 months of age facility wide. Peds, PICU, NICU, NBN, NTU, ER, Same day surgery, Lab, Radiology, Surgery, Urgent care, and ambulatory pediatric departments



How did we do? Compliance as of Post Alert Implementation Week 1

- 100% documentation of discharge safe sleep education by medical providers within the NAS specialized unit
- 89% documentation of safe sleep education by medical providers within the NBN
- 95% documentation of safe sleep education by medical providers within NICU
- Unable to document education provided
 - Peds
 - PICU
 - ER
 - Same day surgery





Additional Resources

- Poster
- Packet of "How to begin a facility wide safe sleep project"



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Questions



