Collaborating to Prevent Infant Sleep Related Deaths
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TIPQC

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Disclosures

I have no financial disclosures...

I have not published safe sleep research
I am cardiologist...Safe sleep chose me

Today’s Objectives

• To review the updated 2016 AAP Safe Sleep recommendations and discuss common myths and controversies
• To discuss challenges with and solutions to safe sleep advocacy
• To introduce you to Charlie and Charlie’s Kids
SUID- Sudden Unexpected Infant Death (SUID):

• Death in an infant that occurs suddenly and unexpectedly, and whose cause of death is not immediately obvious prior to investigation

Every 2 hours

SUID: Sudden Unexpected Infant Death

- SIDS
- ASSB
- Unknown
SIDS - Sudden Infant Death Syndrome
• Unexpected death of an infant under 1 year of age
• No cause of death determined after thorough investigation
  — Death Scene investigation
  — Autopsy
  — Review of Baby's medical history

ASSB - Accidental Suffocation and Strangulation in Bed
• Suffocation by soft bedding
  — i.e. When a pillow or waterbed mattress covers an infant's nose and mouth.
• Overlay
  — i.e. When another person rolls on top of or against the infant while sleeping.
• Wedging or entrapment
  — i.e. When an infant is wedged between two objects such as a mattress and wall, bed frame, or furniture.
• Strangulation
  — i.e. When an infant’s head and neck become caught between crib railings.

Unknown Cause
• Death that cannot be explained because a thorough investigation was not conducted, and cause of death could not be determined
In Tennessee...
Every Three Days
One Baby
One Family

These Deaths CAN be Prevented
Safe Sleep Recommendations and Myths
• 63 new high-quality studies
• Solicited an independent statistician to evaluate bed sharing data
• Added breastfeeding expert to taskforce
Back to Sleep for Every Sleep

- Prone sleeping (OR: 2.3-13.1)
- Side sleep (OR: 2.0) → OR 8.7 when found on stomach

SUID Death Rate Relative to Sleep Position, 1992-2010

FIGURE: Trends in prevalence of prone (or side or stomach) sleep positioning of infants, by mother’s race/ethnicity — 10 states.

Factors Associated With Choice of Infant Sleep Position

- Surveyed 3297 mothers
- 77% reported usually placing infant supine
- Only 44% reported they both intended to and then ACTUALLY placed infant exclusively supine
- Why not? Concerns
  - Infant comfort, general safety, choking, lack of knowledge

Parent Myth 1: My baby will choke on her back.

- No increased risk of choking or aspiration
  - Protective Mechanism
  - Rare exceptions - infants for whom the risk of death from complications of GE reflux is greater than the risk of SIDS

Provider Myth 1: But our babies have NG/OG tubes and they all need HOB elevation

- “There is no evidence to suggest that infants receiving NG or OG feeds are at an increased risk of aspiration if placed in the supine position.”
- Elevating HOB is ineffective in reducing GER
  - Sliding infant positioners, z-flo etc
Evidence-Based Treatment of Gastroesophageal Reflux in Neonates

- Cochrane review in 2009
- 5 separate studies
- None found decrease in GER symptoms for infants with HOB elevation
- Prone and left lateral positioning was superior

<table>
<thead>
<tr>
<th>Infant Position</th>
<th>Reflux Index*</th>
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<tbody>
<tr>
<td>Prone</td>
<td>79.1</td>
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<tr>
<td>Right lateral</td>
<td>89.1</td>
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<tr>
<td>Left lateral</td>
<td>97.1</td>
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<tr>
<td>None</td>
<td>4.7</td>
</tr>
<tr>
<td>Horizontal</td>
<td>41.0</td>
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<tr>
<td>Elevated head of bed</td>
<td>61.1</td>
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*Normal average index is 10 for infants ≤3 months of age

Parent Myth #2 - There are safe ways to bedshare

- No studies have shown co-sleeping is protective against SIDS or suffocation
- No way to control many risks associated with bed sharing
- Risk is increased when:
  - Infant < 4 months
  - Tobacco other substances that impair alertness or arousal
  - Bedsharer is not parent (children/pets)
  - Soft bedding (pillows, quilts, comforter)
  - Soft surface (couch, armchair)
Bedsharing

- “However, the AAP acknowledges that parents frequently fall asleep while feeding the infant. Evidence suggests that it is less hazardous to fall asleep with the infant in the adult bed than on a sofa or armchair, should the parent fall asleep.”

2016 Bedsharing Update
Solutions to not bedsharing

• Ask your partner for help!
• Read a book
• Text your mom friends that are awake too
• Play a game
• Edit your pictures
• Binge Watch TV
• Eat a snack
• Walk the hall
• Remember Charlie and the 3000 other babies that die each year

Breastfeeding

• ~50% reduction in risk for a baby with any breastfeeding history
• Increased risk reduction with exclusivity
• Proposed Mechanisms:
  – Easier to arouse compared to formula
  – Decreased infectious diseases

Step #9: Give no pacifiers or artificial nipples to breastfeeding infants.
Breastfeeding  DO's and DON'Ts

DO:

- Make sure your baby is positioned correctly, on the mother's chest, and not by the pillows.
- Place your baby on his or her back, not on his or her stomach.
- When breastfeeding in bed, make sure the baby returns to this position at the end of each feed.
- Don't use thick bedding, and head or face of the baby. Sheets should be firm, and blankets should be porous.
- Baby sleeping there, and is confident that he or she feels confident that they are willing to share their bed with the baby.

DON'T:

- Do not breastsleep if a parent has consumed sedatives, or if they are willing to share their bed with the baby.
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Examples-Unsafe Sleep Deaths

• 7-month-old sleeping between parents in an adult bed: baby crawled and moved around so that his feet were near mom's pillow, there was a 2-inch piece of foam on the mattress. They were all covered by an 11 lb weighted blanket. The baby's face was in the foam and the weighted blanket forced his head down.
• Mom breastfeeding 10-week-old and fell asleep in adult bed with mom.
• Co-sleeping with parents, mom woke up on top of baby, squeezed between both parents.
• Co-sleeping and pulled comforter over baby during sleep.
• Bed against wall and baby found between bed and wall.
• On adult bed, found between wall and bed (put against wall so wouldn't fall off bed).
• Parent woke up on top of baby in adult bed.
• Co-sleeping in adult bed on top of a Boppy pillow between parents, mom rolled over onto baby.
• Infant co-sleeping with sibling in an adult bed, found face down between mattress and wall with suitcase on top of baby (sibling put suitcase over baby to hide baby).

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Provider Myth - Our babies are monitored. So we don’t need to follow safe sleep

• “I wanted to reach out to you about an issue that came up this weekend. Our friends just had a baby. The baby had a few issues that had him in the NICU for two weeks... their point was that while at the hospital the nurses had blankets, animals, and stuff all around him the whole time. They felt that if at the hospital he could have loose blankets, animals, and lay in different positions, why can’t they? It made me think – how many more parents go home with this impression?”

Parents pay attention to us

Parent Myth - Our babies are monitored. So we don’t need to follow safe sleep

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Parents pay attention to us
What you can do!

- Furthermore, the task force believes that neonatologists, neonatal nurses, and other health care providers responsible for organizing the hospital discharge of infants from NICUs should be vigilant about endorsing the SIDS risk-reduction recommendations from birth.
- They should model the recommendations as soon as the infant is medically stable and significantly before the infant’s anticipated discharge from the hospital.
- In addition, NICUs are encouraged to develop and implement policies to ensure that supine sleeping and other safe sleep practices are modeled for parents before discharge from the hospital.
What you can do in your hospital

- Set expectations
  - Find a clinical champion both physician and nursing
  - Establish a clear safe sleep policy
  - Talk to families early about these expectations.
- Implement effective interventions
  - Safe Sleep Start Algorithms
  - Staff education
  - Crib Card
  - Patient educational materials (Sleep Baby, Videos)

What you can do in your hospital

- Focus on sustaining gains
  - Use your data for feedback to your team
  - Celebrate successes, share the real stories of babies that died
  - Find engaged family members in your hospital and community.
  - Share their story!!!
Charlie’s Kids Foundation

• Founded in 2011
• 501(c)3 Organization
• All volunteer
• Our mission is to distribute information about SIDS and safe sleep practices to families

Sleep Baby Safe and Snug

• Provides timely and repetitive safe sleep messaging in approachable, easy to read book
• Targets all levels of education, language and literacy abilities
• Promotes parent/child bonding, early literacy
• Distributed in bulk through hospitals, health departments, non-profits

Randomized Trial of a Children’s Book Versus Brochures for Safe Sleep Knowledge and Adherence in a High-Risk Population

John S. Kutten, MD; Reem Gupta, MS, MA; Rachel Graber, MS; Jennifer Berndson, LSW; Thomas O’Hare, MD; Nicholas J. Ostellone, PhD; Judith B. Van Ginkel, PhD; Robert T. Ammerman, PhD

Academic Pediatrics 2017

Adherence ~2x greater for Sleep Baby Safe and Snug
Tennessee Safe Sleep Hospital Project
Launched Jan 2014

- Free “Sleep Baby, Safe and Snug” board book for each birth in your facility
- Free TDH “ABC’s of Safe Sleep” materials
- Free Recognition on TDH website (http://safesleep.tn.gov)
- Signed certificate from TDH Commissioner
- Press release template

Tennessee Safe Sleep Hospital Project Results

- Increased safe sleep compliance (hospital crib audit)
  - 46% Decrease in infants found with any unsafe sleep risk factors (p <=0.001)

Maternal and Child Health Journal
R. Heitmann 2017
Ohio

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<th>Case</th>
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<td>Bath/Objects</td>
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*Sleep-Related Sudden Unexpected Infant Death, Ohio 2011-2014, CDC's WONDER database

We Can’t Stop

- Every parent thinks that his/her baby is the exception to the rule...
  - Don’t give them a reason to be an exception
- Start a non-judgmental dialogue!
  - Ask them if they have a crib
  - Ask parents how they plan to put their babies to sleep
- Empathize with their challenges
- Provide solutions but don’t compromise
  - Reinforce the Do’s and Don’ts

Show Them What Safe Sleep Looks Like
Thank you Tennessee

Keep up the good work!