Wake Up: Our Babies Deserve Better! Time for Safe Sleep!!!
Cincinnati Children’s Hospital Medical Center
Nursing Grand Rounds
December 9, 2015

Objectives

Discuss the significance of safe sleep for infants.

Describe the application of effective safe sleep initiatives in daily practice.

Magnet Components

• Exemplary Professional Practice
• Structural Empowerment
Safe Sleep

• Creates a safe environment for infants while sleeping
• Aims to reduce the number of sleep-associated deaths

(Ohio Department of Health, 2015)

Statistics

3,500 infants die suddenly and unexpectedly each year in the U.S.

Most are sleep-related.

(Centers for Disease Control and Prevention, 2015)

Statistics

522 babies died in Hamilton County from 2010 to 2014. This puts our infant mortality rate among the worst 10% in the nation.

Why is this?
• Community Factors
• Behavioral Factors
• Healthcare Factors

(Cradle Cincinnati, 2014)
1969: SIDS (Sudden Infant Death Syndrome) first identified/named.


1988-1992: Research reveals that sleeping on stomach is significantly linked to SIDS.

(U.S. Department of Health and Human Services, 2013)

1992: American Academy of Pediatrics (AAP) recommends babies on back or sides for safe sleep.

1996: AAP recommends infants only be placed on backs sleep

1997: Research shows that co-sleeping increases SIDS risks.
• Tipper Gore partners with Gerber to advertise Back to Sleep Campaign.

(U.S. Department of Health and Human Services, 2013)

1998: AAP issues safety alert reminding parents of the need for firm bedding with no soft blankets or toys.

2000: AAP changes stance on safe sleep to safest ALONE on BACK and in a CRIB

2005: AAP revises policy: back sleeping position, firm sleep surface, no loose bedding/blankets, avoid overheating, adding a pacifier helps to reduce risk

(U.S. Department of Health and Human Services, 2013)
**History**

2006: Continuing Education Program on SIDS Risk Reduction: Curriculum for Nurses released.

2010: Dr. Hannah Kinney discovered that SIDS is linked to low serotonin levels and low serotonin receptor cell in brain stems of babies affected by SIDS.

2012: Back to Sleep changed to "Safe to Sleep" to encompass safe sleep environments with back sleeping.

2013: Safe to Sleep website launched.

(Ohio Department of Health, 2015)

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**Safe Sleep**

**ABC’s of Safe Sleep**

- **ALONE**
- **BACK**
- **CRIB**

(Ohio Department of Health, 2015)

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**Safe Sleep**

**ALONE**

The safest place is in the same room (within arms reach), Not the same bed

(Ohio Department of Health, 2015)
Safe Sleep

**BACK**
- Babies sleep safest on their backs
- Less likely to choke than when on stomach
- Mouth and nose are not blocked
- Able to turn head
- Not rebreathing carbon dioxide

(Ohio Department of Health, 2015)

**CRIB**
- Firm surface with fitted sheet only (No quilts/loose sheets)
- Eliminate bumper pads, positioners, stuffed animals, blankets, pillows

(Ohio Department of Health, 2015)

Sudden Unexpected Infant Death Syndrome (SUIDS)
Any unexpected infant death that is initially unexplained requiring an investigation and autopsy to determine the cause.

**Types of SUIDS**
- SIDS
- Unknown
- Suffocation or Strangulation

(Centers for Disease Control and Prevention, 2015)
Accidental Suffocation/Strangulation

Potential Causes:

- Suffocation related to bumpers or blankets
- Person-rolls over or against baby
- Entrapment/Wedging-mattress and wall, positioners and furniture
- Strangulation-bumper ties, crib railings

(Centers for Disease Control and Prevention, 2015)

Accidental Suffocation/Strangulation

(Sleep-Related Infant Deaths by Location when Found, 2007-2011, Ohio)

(Ohio Department of Health, 2014)

Sudden Infant Death Syndrome (SIDS)

Leading cause of infant mortality in the U.S. from 1 month to 1 year of age

Primarily age 6 months and under (90% cases), however, it can occur up to 1 year of age.

Exact cause is unknown

Evidence suggests infant brain abnormalities increase vulnerability, but it is not lone cause

(Ohio Department of Health, 2015)
**Sudden Infant Death Syndrome**

Not caused by apnea, immunizations, child abuse, or suffocation

Not communicable

Cardiac and respiratory monitoring *does not* prevent SIDS

Not result from actions of parents/caregivers

Unpredictable

(Ohio Department of Health, 2015)

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**Trends**

![Graph showing trends in SIDS and other causes of infant death](image)

(Centers for Disease Control and Prevention, 2015)

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**Demographics**

![Bar chart showing mortality rates by race/ethnicity](image)

(Centers for Disease Control and Prevention, 2015)
# Risk Factors

## Maternal Risks
- Smoking during pregnancy (*triples risk*)
- Smoke exposure
- < 20 years old during first pregnancy
- Short interval between pregnancies
- Late or no prenatal care
- Placental abnormalities
- Low weight gain during pregnancy
- Anemia
- Alcohol and substance abuse
- Hx. of STI’s or UTI’s

*(Ohio Department of Health, 2015)*

## Environmental Risk Factors
- Sleep positions
- Cigarette smoke exposure during pregnancy or infancy
- Soft bedding
- Objects in crib (toys/stuffed animals)
- Co-sleeping
- Sleep surfaces
- Fall and Winter months
- Overheating

*(Ohio Department of Health, 2015)*

## Infant Risk Factors
- Male (almost twice as many in Ohio)
- Low birth weight
- Prematurity
- Multiple births
- African American (2-3x higher)
- Native American (2-3x higher)

*(Ohio Department of Health, 2015)*
Triple Risk Model

Convergence of 3 Conditions Leads to SIDS

1. Vulnerability
2. Critical Development Period
3. Outside Stressors

(Ohio Department of Health, 2014)

Decreasing the Risk

• Eliminate co sleeping
• Use bare cribs
• Avoid sleep positioners/wedges
• Place infants to sleep on back
• Avoid overheating
• Receive vaccinations
• Decrease time spent in car seats, strollers, and swings

(Ohio Department of Health, 2014)

Decreasing the Risk

• Breastfeeding (decreases SIDS risk 60%)
• Avoid smoke exposure
• Tummy time while awake
• Pacifier use (once breastfeeding is established)
• Regular prenatal care
• Avoid alcohol/drug use prenatal and after birth
• Make sure every caregiver understands the ABC’s of safe sleep
• “Room” share

(Ohio Department of Health, 2014)
How to Address Barriers

Address the Barriers when Teaching Caregivers about the A B C’s of Safe Sleep

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Barriers

Will only sleeping on back cause flat spots to back of baby’s head?

- Prolonged time on back
- Goes away on its own
- Tummy time when not sleeping

(U.S. Department of Health and Human Services, 2013)

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Barriers

Other caregivers place baby on stomach for sleep.

- Infants who normally sleep on their back and are placed on their stomach occasionally for naps are at a very high risk for SIDS.

Caregiver Considerations:

- Dads
- Grandparents
- Babysitters
- Daycare providers
- Healthcare providers
- Foster care

(U.S. Department of Health and Human Services, 2013)
Baby rolls over in sleep.

- If baby starts rolling over, ok to leave in that position
- Continue putting babies under 1 year to sleep on back

(U.S. Department of Health and Human Services, 2013)

“Baby sleeps better on stomach”

- Remember…Safety more important than comfort
- Most babies will adjust if repeated
- Stomach sleeping increases the rebreathing of CO2
- Causes upper airway obstruction
- Leads to overheating
- Less reactive to noise
- Experience sudden decreases in blood pressure and heart rate
- Less arousable, sleep deeper, and move less.

(U.S. Department of Health and Human Services, 2013)

“Baby needs warmth and comfort from blankets, pillows, bumper pads”

- Can cause suffocation in a matter of seconds
- Crib safety standards with standard rail width
- Sleep sacks

(U.S. Department of Health and Human Services, 2013)
Barsries

“Fear of choking from spitting up/vomiting in sleep”
• Trachea over esophagus in back sleeping
• Regurgitated fluid must go against gravity to interfere with the airway

(U.S. Department of Health and Human Services, 2013)

Barsries

Reflux
• 70% of infants <12 months have regurgitation
• Less with breastfed infants
• Increased by tobacco smoke exposure
• Elevating HOB does not reduce reflux and is NOT recommended
• Flat, back sleeping is best for airway protection (no side lying), according to AAP

(SIDS and Kids, 2013)

Barsries

Vaccines
Multiple studies have been done proving there is no link between vaccinations and SIDS.
• Institute of Medicine
• Vaccine Adverse Event Reporting System (VAERS)

(Centers for Disease Control and Prevention, 2015)
**Barriers**

Tummy Time Needed:
- While awake and supervised.
- Aids in muscle tone and development.
- Improves motor skills.
- Prevents flat spots from forming on back of baby's head.
- Can be started in newborn stage for short periods of time, lengthen as baby tolerates over time.

(U.S. Department of Health and Human Services, 2013)

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**Resources**

- Ohio Safe Sleep Law
  - May 18, 2015
  - Requires the ODH to provide educational resources for Safe Sleep Practices.
  - Requires facilities and locations that regularly have infants sleeping must have internal safe sleep policy.

Ohio Department of Health
National Center for Education in Maternal and Child Health
Cradle Cincinnati
Ohio Safe Kids Worldwide
First Candle
SAFE KIDS
SIDS
Charlie's Kids
SAFE TO SLEEP
CDC
Centers for Disease Control and Prevention
Cribs for Kids
Helping every baby into bed
Every baby, every bed

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**Ohio Safe Sleep Law**

- Requires the ODH to provide educational resources for Safe Sleep Practices.
- Requires facilities and locations that regularly have infants sleeping must have internal safe sleep policy.
Ohio Safe Sleep Law

Specifies the distribution of safe sleep materials to:

- Childbirth educators
- OB offices
- Pediatric physicians’ offices
- Freestanding birth centers and certain hospitals
- Help Me Grow program
- Child Care facilities in Ohio
- Public children services agency

(Ohio Department of Health, 2015)

Ohio Safe Sleep Law

- Infant safe sleep screening procedure for hospitals with maternity license
- Resources when there is lack of safe sleep environment
- Hospitals are required annually to report data as specified in model screening form

(Ohio Department of Health, 2015)

What is CCHMC doing?

CCHMC Nurse’s Role:

- Nurses behavior serves as a model of how caregivers will care for infants.
- If we practice safe sleep, they will, too!
- Online module education (Mosby)
- Audits (iRounds)
- Sleep sacks (Coming Soon)
- Decrease in the number of infant blankets and quilts on linen carts once sleep sacks available
- Knowing Notes: ABCs of Safe Sleep
Audits (iRounding) at CCHMC

<table>
<thead>
<tr>
<th>Date</th>
<th>Overall Sleep Compliance (%)</th>
<th>Location Compliance (%)</th>
<th>Position Compliance (%)</th>
<th>Items in Crib Compliance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/7/2015</td>
<td>72% (59% in October)</td>
<td>96%</td>
<td>98%</td>
<td>74% (61% in October)</td>
</tr>
</tbody>
</table>

November 2015 Overall Safe Sleep Compliance Report (46 Infants Audited):
- Overall Sleep Compliance: 72% (59% in October)
- Location Compliance: 96% (couch, recliner, swing/bouncy seat, held by parent/caregiver)
- Position Compliance: 98% (stomach)
- Items in Crib Compliance: 74% (61% in October) (loose blankets, diapers/wipes, toys, pillows, cultural/religious items and misc.)

What is CCHMC doing?

**Safe Sleeping Strategy and Bed Placement Policy**
- Infants should sleep alone in appropriate sized bed.
- Infants under one year must be in a crib unless deemed medically necessary by patient’s attending physician or designee.
- Follow AAP recommendations *(ABC’s of Safe Sleep)*

What is CCHMC doing?

- Bed sharing only allowed in circumstances of a dying patient or an inconsolable patient *(who once is consoled, is to sleep alone)*
- No patients allowed to sleep in the parent/caregiver’s bed
Policy: Opt Out

Parental Opt Out:

- Staff should provide safe sleep recommendations (education/Knowing Note, etc.)
- Bed acknowledgement/safe sleeping recommendation signed and placed in chart
- Parents receive a copy
- **Documentation** of ongoing education
- Specific orders by provider for bed arrangement with explanation

Medical Opt Out:

- Must have provider order for any condition **NOT** listed in the policy that excludes safe sleep
- Must **list exact sleeping arrangements** that are not in accordance with safe sleep
Order will look like this for Nursing:

Order specifies what is permitted.

Remember…the Opt-Out Order has 3 Components:

1. Medical or Parental Opt Out
2. Interventions
3. Rationale/Medical Reason
Policy: Opt Out

Safe Sleep exclusions that do not require an order:

- Invasive or noninvasive ventilatory support
- Infant <1500 grams
- Tracheostomy in place
- Post-op need for non-supine positioning
- Infants with gastroesophageal reflux with the risk of death greater than the risk of SIDS, specifically upper airway disorders who have not undergone anti-reflux surgery
- Additional concerns as outlined in ICU safe sleep guidelines/algorithms

Policy: Opt Out

Transition to Safe Sleep

- Transition to safe sleep as medical needs decrease.

Safe Sleep Education

Available Education Resources for Caregivers:

- Get Well Network-ODH Video
- ABC’s of Safe Sleep Knowing Note
Conclusion

Safe Sleep Matters...

We CAN Make a Difference!

Follow/Role Model the ABC’s of Safe Sleep

EDUCATE Caregivers!

Questions??

Every week in Ohio... 3 babies die in unsafe sleep environments.

References