

Disclosure

• Presenters have no relevant commercial of financial relationships to disclose



St Joseph's Hospital Health Center Syracuse, N.Y.

Presentation Objectives

- Identify two characteristics of a High-Reliability Perinatal Organization
- Identify three maternal risk factors from the literature placing the infant at risk for harm
- Discuss two interventions that are included in the Infant Safety Bundle at St. Joseph's Hospital



Alignment with Magnet®

- Nurses are involved in a system-wide approach focused on proactive risk assessment and error management
- Nurturing innovation in patient care, nursing, and the practice environment to produce better quality and safety for infants and their family
- Incorporating best practice to achieve positive patient outcomes by integrating science-based research
- Knowledge gained through research is disseminated to the community of professional caregivers



St. Joseph's Hospital is a Perinatal High-Reliability Organization

- Safety is the attribute of our organizational culture
- Responsibility and duty of every team member is to speak up if the question of safety arises
- Our team approach is collegial rather than hierarchic
- Respectful communication is highly valued and rewarded
- Routine debriefing is practiced for unexpected events
- Emergencies are rehearsed in drills and unexpected events are anticipated
- All of our processes and procedures are standardized and evidence-based

(Knox & Simpson, 20

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Journey Toward Perinatal Safety

- 2004: First hospital in USA to complete MOREOb©
- 2008: First hospital in USA to complete Advancing with MORE
- **2010**: Received the Patient Safety Award from *MOREOb©*
- **2010**: Joined the NYS Partnership for Patients
- **2013**: Joined the Safe Motherhood Initiative





How the Story of Back to Sleep Began at St. Joseph's Hospital...

1992:

- Mother-Baby Unit placed infants on their back to sleep
- Nurses role modeled the safe sleep position by placing the infant to sleep on their back in a barren crib
- Parents received SIDS education including safe sleep positioning



The Story Continues in the Neonatal Intensive Care Unit

- One of the Neonatal Nurse Practitioners (NNP) who was a member of the American Association of SIDS Prevention Physicians (AASPP) since 2002, was asked to present a nursing topic at their next national conference in 2003
- In 2003, the NNP presented data from a simple, 10-question survey on hospital practices vs home directives
- In 2004, two other NNPs, a Neonatologist and a pediatric CNS collaborated with the NNP and began a quantitative analysis of the survey data



Published Survey Results in Advances in Neonatal Care 2006

Results of Original Research

- Nearly 95% of respondents identified a non-supine sleep position as optimal for hospitalized preterm infants
- Further, only 52% of neonatal nurses routinely provided discharge instructions that promoted supine sleep positions at home
- Nursing knowledge and practice was inconsistent with the current recommendations for supine sleep as the safest position for healthy term and premature infants
- The example set by health care providers was one of the most significant influences on parent practice

Aris, C., Stevens, T. P., LeMura, C., Lipke, B., McMullen, S., Cote-Arsenault, D., Consenstein, L. (2006). NICU nurses' knowledge and discharge teaching related to infant sleep position and risk of SIDS. Advances in Neonatal Care, 6, 281–294.



What Was the Next Step for the Nurses?

- Developed the SIDS Teaching Tool
- An educational program @ St. Joseph's began which included:
 - ✓ Use of the on-line SIDS teaching tool
 - ✓ Steps-to-Home crib card
 - √ No co-sleeping multiples policy
 - ✓ Use of sleep sacks on the unit
 - ✓ Education for parents
 - ✓ Discharge instructions
 - ✓ Parents receive sleep sacks to take home



Step 1: Haby is placed on back to sleep when in open erth ar one week prior to going home. Do not put loose hedding, homeyer push or stuffed toys in the erth when home.	Stop 2: Do not bundle baby white askep or keep the room too warm The best temperature is 65-71 degrees. Do not cover head. Never bed share with baby. Room sharing is safer.	Step 3: Baby can be on tumary for playtins white above being watched.	Step 4: Parents need to tell all caregivers that baby sleeps on hark only.	Step 5: Home should be smoke first.
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Expanding Practice into all Maternal-Child Units

In 2006, we no longer allowed:

- ✓ Co-sleeping multiples
- ✓ Bed-sharing
- ✓ Side-sleeping

In 2007, we implemented:

- ✓ Sleep sacks in open cribs
- ✓ Expanded education for parents
- ✓ Discharge instructions that included safe sleep
- ✓ Each family receiving a sleep sack at discharge



Discharge Instructions

- Sleep position
- Tummy time
- Sleep sacks





Model Program Published in Neonatal Network 2009

Findings:

- Healthcare providers' opinions can influence how parents place their infant to sleep
- Program evaluation showed that 98% of infants slept supine and 93% slept in sleep sacks in open cribs

McMullen, S., Lipke, B., & LeMura, C. (2009). Sudden infant death syndrome prevention: A model program for neonatal intensive care units. *Neonatal Network*, 28, 7-12.



We Wanted to Continue Our Research in Safe Sleep

In 2009 Onondaga County had a increase in infant deaths; many of which were rollovers.

We decided to do a randomized, prospective pilot study in 2012 involving video intervention:

✓ By completing a Safe Infant Sleep Pilot Study we hoped to obtain evidence regarding whether a video intervention would enhance learning and improve infant sleep practices

Results: Not statistically significant

Outcome: We did not publish the data, but in 2014: New York State released a mandatory safe sleep video for parents to watch prior to discharge

McMullen, S., Lipke, B., Dann, D., & Weeks, C. (2012). Safe infant sleep practice: A pilot study (Unpublished).



The Journey Continued





Infant Falls

APRIL 2014	MAY 2014
Mother fell asleep and baby rolled onto floor	Mother fell asleep and baby rolled onto floor
Nurse checked on mother and baby was in crib just a few minutes prior to the mother screaming and calling for help	Mother called nurse
Baby had negative MRI	No tests ordered
No evidence of injury	No evidence of injury



Infant Falls Taskfo

A group of staff nurses, advanced practice nurses, and physicians from the Women's and Children's service line collaborated with the clinical nurse specialist who coordinates adult falls-prevention initiatives to establish an infant falls bundle.



Taskforce Plan

- Review of the literature on infant falls
- Collect baseline data
- Develop a St. Joseph's Infant Safety Bundle for all in-patient maternal-child units
- Educate staff about the new bundle
- Repeat collection of the data 3 months after the start of bundle



Literature Review



Definition of an Infant Fall: National Database of Nursing Quality Indicators (NDNQI)

"A fall in which a newborn, infant or child being held or carried by a healthcare professional, parent, family member or visitor falls or slips from that person's hands, arms, lap etc. This can occur when a child is being transferred from one person to another. The fall is counted regardless of the surface on which the child lands. e.g. (bed chair or floor) and regardless of the whether or not the fall results in a an injury."

(American Nurses Association NDNQI, 2013)



The American Academy of Pediatrics Recommendations for Safe Sleep

- Supine sleep position
- Firm sleep surface
- Room-sharing without bed-sharing
- Avoiding alcohol and illicit drug use prenatally and postpartum
- Using SUIDS risk-reduction recommendations by all

(American Academy of Pediatrics, 2011a)



Maternal Risk Factors				
Breastfeeding or combination of bottle and breast	Night-time hours			
Delivered by C-section	High level of fatigue			
Opioid pain relief in the last 2-4 hours	Women > 2 days post partum			
2 nd or 3 rd postoperative night	Recent pain medication			
Age-18-28	Prior near miss (nurses found mother either falling asleep or asleep while holding infant)			
Diverse cultural backgrounds	History of substance abuse or methadone treatment program			
(Galuska, 2011)	(Slogar, et al., 2013)			



Infant Falls

- Under-reported
- 600-1,600 infant falls per year in the United States
 - ✓ Over 50% of events occur when a mother or family member falls asleep in bed or in a chair
 - ✓ Most falls occur between midnight and 9 am
 - ✓ Balancing skin to skin and infant feeding with infant safety
 - ✓ Challenges of rooming-in for mother and infant

(Helsley, 2010)



Infant Injury

- 9.4% reported serious harm to an infant
 - ✓ Depressed skull facture
 - ✓ Bruising
 - ✓ Swelling
 - ✓ Traumatic encephalopathy
 - ✓ Death
- Legal and increased cost issues for hospital
- Severe emotional distress for parents and caregivers

(Wallace, 2014)



Data Collection



Gathering Baseline Data

Month of March 2015:

Infant at-risk to fall form:

- ✓ 14% (n=23) of the infants out of 166 deliveries were found to be at risk to fall
- ✓ Over half of the 14% were mothers who were found asleep holding the baby
- ✓ The rest of the reports were unsafe sleep conditions for the infant (on bed or couch alone) or the mother's bed was unlocked in a high position



Our Safety Bundle



What Did We "Bundle"?

- Maternal risk factors
- Parent safety agreements
- Safety interventions for parents and visitors
- Reporting and debriefing system for infant falls

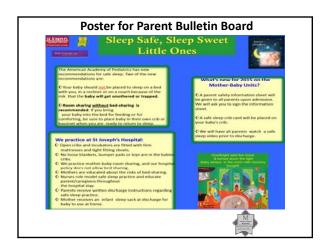


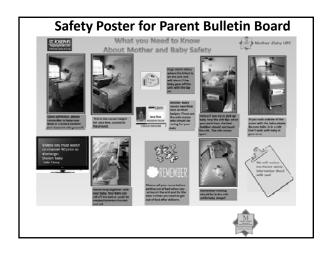
Maternal Risk Criteria

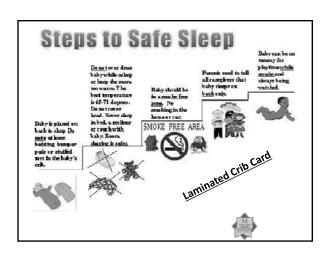
- Epidural or C-section
- High level of fatigue
- 2nd or 3rd postpartum night
- Recent opioid or sedative use

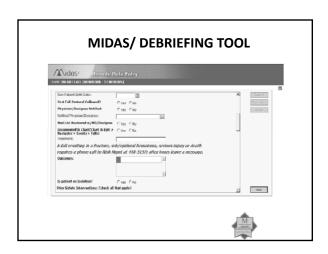


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MIDAS/ DEBRIEFING TOOL cont.. | Continued | Continued



RCA of an Infant Fall June 2015

- Mother asleep and newborn fell out of her arms, over the bedrail onto the floor
- · No apparent harm to the newborn
- · Follow up Head CT-negative
- · Admitted to NICU for observation
- Parental stress: Mother-Baby separation
- Formula feeding 2nd or 3rd postpartum night



Changes in the Bundle

- Increased frequency of nursing rounds
- Mothers are educated to contact us when feeding
- Door to patient's room is not closed completely



Ongoing Evaluation of the Bundle

- Infant falls and near misses are reviewed monthly in our safety committee
- Safety competency for nurses
- Repeat data collection of infant at risk to fall



Program Evaluation Data

Month of July 2015

Infant at Risk to Fall Form:

- √ 5% (n=9) of the infants out of 180 deliveries were found to be at risk to fall
- ✓ Almost ½ were found in bed asleep in mother's arms
- ✓ The rest of the reports were unsafe sleep conditions for the infant (asleep in bed or a pillow, in crib on side with blanket over them)



Summary

- St. Joseph's Hospital is a Perinatal High-Reliability Organization with

 - Evidence-based safety interventions for mother and baby
 Standardized, evidence-based policy and process and communicated to staff
- Risk factors that place the infant at risk to fall
 Delivered by C-section
 Opioid pain relief in the last 2-4 hours
 2 "dvo 3" postpartum night
 High level of fatigue

- Safety Bundle
 Maternal risk factors are used to identify mothers whose infants are a at high risk to fall
 Parent safety agreements are reviewed and used to educate parents upon admission
 Interventions for mother and infant are standardized and evidence-based
 Crib cards, Parent education bulletin boards
 More frequent nursing rounds, leave room door open (especially through the night)
 Education about safe sleep practices
 Role-model safe sleep position
 Debriefing system after an infant fall



It Takes a "Bundle" of Interventions to Create a Safe Environment for the **Infant and Family**





Contact information:

Gael Gilbert, MBA, MPH, BSN, RN **Director for Maternal -Child Services** gael.gilbert@sjhsyr.org Phone number- 1 (315) 448-6280



References

American Nurses Association's National Database of Nursing Quality Indicators. (2013). Infant fall (Definition). Nursing Quality News, 14(1).

American Academy of Pediatrics. (2011a). Policy statement-SIDS and other sleep-related infant deaths: Expansion of recommendations for a safe infant sleeping environment. Pediatrics, 128(5), 1030-1039.

Aris, C., Stewns, T. P., LeMurn, C., Lipple, B., McMuller, S., Cote-Arsensuih, D., et al. (2006). NCC unsers of the Control o



