An Infant Safe Sleep Quality Improvement Initiative Toolkit for Hospitals

INSIDE THE TOOLKIT

SafeSleep NORTH CAROLINA
SafeSleepNC.org

UNC SCHOOL OF MEDICINE Pediatrics, Obstetrics and Gynecology
Collaborative for Maternal and Infant Health
MomBaby.org

Disclaimer: This toolkit is intended for general quality improvement and educational use by North Carolina hospitals and health systems. It is not a substitute for clinical judgment, institutional policies, or individualized patient care. Hospitals should adapt and implement materials in accordance with their own internal protocols and legal guidance.

The UNC Collaborative for Maternal and Infant Health and Safe Sleep NC are not liable for outcomes related to implementation or use of the materials included herein.

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The development of this toolkit was led by Maria Rouse, a Master's in Public Health Candidate in Health Behavior at the UNC Gillings School of Global Public Health.

Section 1. Introduction

Purpose:

This toolkit is designed to support NICU, step-down unit, nursery, and other infant care unit administrators, providers, and staff in improving safe sleep practices at their hospital to prevent sleep-related causes of death in infants. In addition to providing the latest evidence-based infant safe sleep recommendations, the aim of this toolkit is to offer guidance on hospital staff and parent/caregiver training, as well as quality improvement support (i.e., developing a task force, identifying program champions, integrating safe sleep QI/implementation into the electronic health record). Readily adaptable materials are included, such as a policy template, safe sleep auditing tools, crib card templates, and a parent education acknowledgement form template.

Key Definitions:

- **Sudden, unexpected infant death (SUID):** the death of an infant younger than 1 year of age that occurs suddenly and unexpectedly. If the death occurs during an unobserved sleep period, it may fall into one of three categories:
  - **Accidental suffocation and strangulation in bed (ASSB):** infant deaths caused by suffocation or asphyxia (blockage of the infant's airway) in a sleeping environment
    - Suffocation with bedding
    - Overlay (bed sharing)
    - Wedging/entrapment
    - Strangulation
  - **Undetermined:** the classification given when it is not certain why the infant died. Other manners or causes of death cannot be ruled out, so definite cause cannot be determined; the most common cause of death designation
  - **Sudden Infant Death Syndrome (SIDS):** the sudden death of an infant younger than 1 year of age that cannot be explained even after a full investigation that includes a complete autopsy, examination of the death scene, and review of the clinical history
- Bed sharing: when an individual shares a sleep surface with an infant. Data from the NC Office of the Chief Medical Examiner uses the term "Co-Sleeping."

Section 2. The Data

This section contains local SUID/SIDS data to help ground the importance of addressing safe sleep across North Carolina.

In 2022 more than 3,700 babies in the U.S., a rate of 100.9 deaths per 100,000 live births, died suddenly and unexpectedly while sleeping.[1] While this is a large improvement from SUID rates in 1990 at 154.58 deaths per 100,000 live births, sleep-related infant deaths remain a pressing public health issue.[2] It should also be noted that there are large racial and ethnic disparities within SUID rates, with Non-Hispanic American Indian or Alaska Native, Non-Hispanic Black, and Non-Hispanic Native Hawaiian or Other Pacific Islander having the highest SUID rates at 229.4, 244.0, and 237.1 deaths per 100,000 live births in 2022, respectively. In contrast, white infants had a SUID rate of 83.2 deaths per 100,000 live births.[3]

As shown in Figure 1 below, North Carolina's SUID rate in 2022 was 121.2 deaths per 100,000 live births, ranking 34th in the nation for sleep-related infant death.[4]

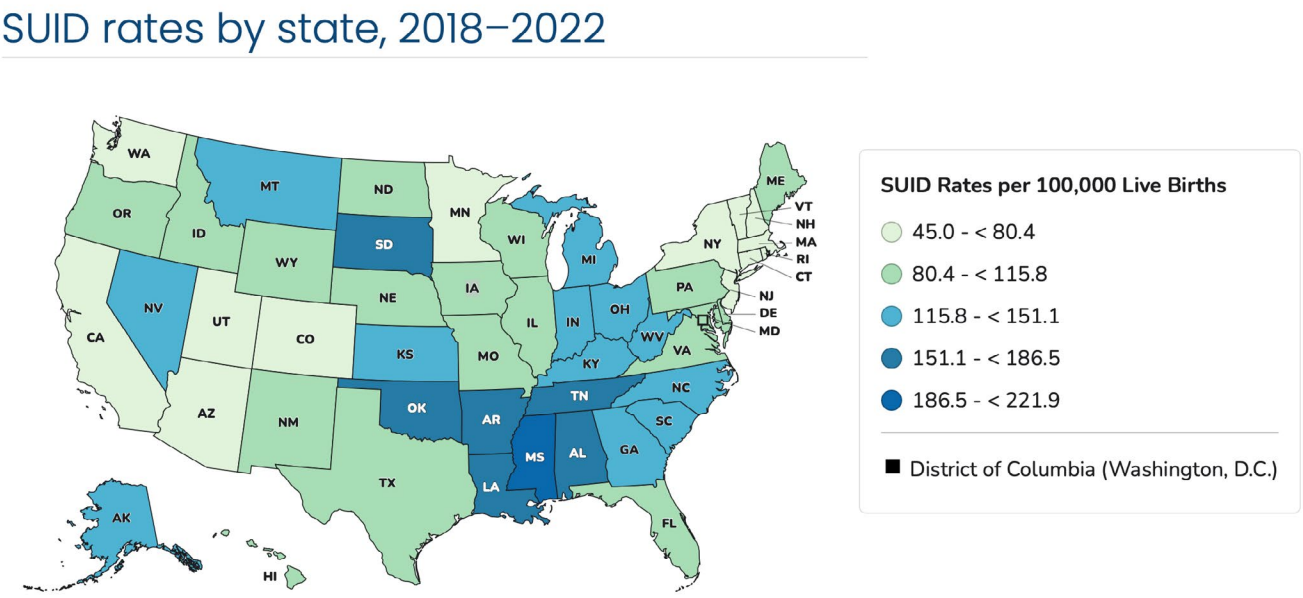


Fig. 1 SUID rates by state 2018-2022, Centers for Disease Control and Prevention[4]

Across North Carolina in 2022, 111 infants died due to confirmed or suspected sleep-related causes, excluding SIDS. The five counties with the highest reported SUID rates include Mecklenburg (n=14); Wake and Cumberland (n=7); Durham (n=6); and Guilford (n=5).[5] The majority of these deaths are associated with unsafe sleep environments (e.g., blankets in a crib, sleeping on an adult bed, or sleeping with another person in a bed or couch, etc.).[5] Figures 2 and 3 below break down infant deaths by reported cause of death (i.e., accident sleep-related vs. undetermined), and by whether the cause of death was attributed to bed sharing, other unsafe sleep-related practices, or SIDS (i.e., deaths unrelated to safe sleep).[5] These data indicate the prevalence of the undetermined designation as a cause of death, and how when an accidental designation can be made, the majority of these deaths can be attributed to bed sharing.

Although the data indicate that progress has been made in reducing infant sleep-related deaths, they also demonstrate an increase in sleep-related death in the last few years after a predominately downward trend.

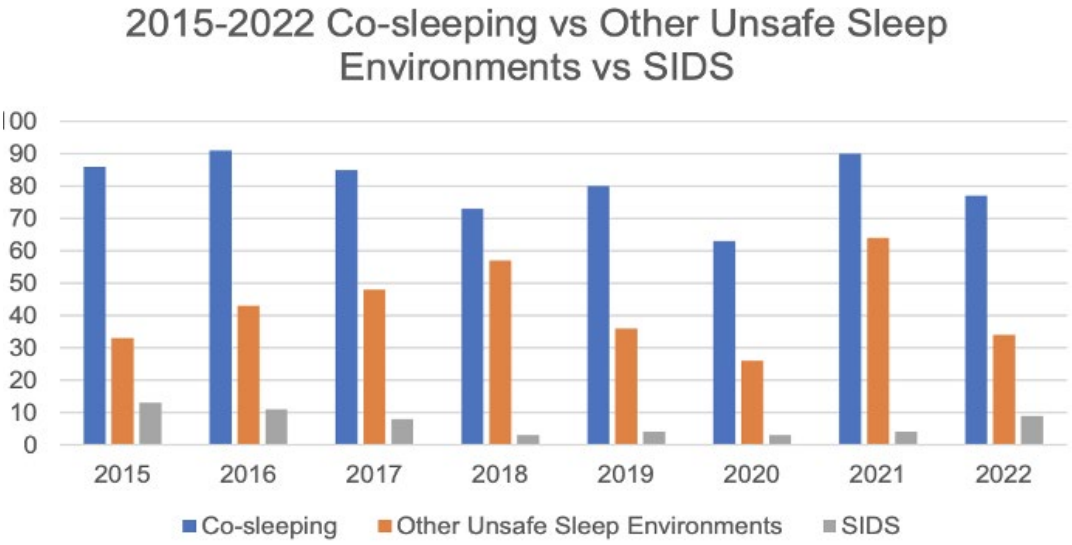


Fig. 2 2015-2022 Co-sleeping vs Other Unsafe Sleep Environments vs SIDS, North Carolina Office of the Chief Medical Examiner[5]

Fig. 3 2012-2022 Sleep-related Infant Fatalities, North Carolina Office of the Chief Medical Examiner[5]

Section 3. Prevention of Infant Death During Sleep

This section serves as a reference for the latest evidence-based safe sleep recommendations for safe sleep for full-term and NICU/medically complex infants.

Current Standard Recommendations for Full-Term Infants:

The American Academy of Pediatrics released updated recommendations in 2022 for the prevention of sleep-related deaths in infants via the following documents:

- Official Policy Statement: Sleep-Related Infant Deaths: Updated 2022 Recommendations for Reducing Infant Deaths in the Sleep Environment - this document summarizes the issue of sleep-related infant death, and the updated recommendations and associated evidence that support them.
- Technical Report: Evidence Base for 2022 Updated Recommendations for a Safe Infant Sleeping Environment to Reduce the Risk of Sleep-Related Infant Deaths - this document further expounds upon the rationale behind the evidence that supports these recommendations for those who have additional interest in more deeply understanding the efficacy and physiology behind them.

Encourage room sharing, not bed sharing

- Infants who share a sleeping space with parents, siblings, or caretakers have been found to be 2.5 times as likely to die from sleep-related suffocation and unexplained infant death as infants who do not share a sleeping space.[6]
- In a recent analysis of nearly 8,000 infants who died from SUID from 2011 to 2020, nearly 60% of deaths could be attributed to sharing a sleep space.[6]
- In North Carolina in 2022 alone, bed sharing was cited as the cause of death for nearly 70% of infant sleep-related deaths.[5]

Babies should be placed on their back for every sleep

- Babies placed prone (i.e., on their stomach) are more likely to breathe in their recently exhaled air which increases their carbon-dioxide levels while minimizing their oxygen levels. They are also more likely to overheat, and have negative impacts to their cardiovascular system, which can cause further deoxygenation.[7]
- A U.S. study found that infants placed prone or on their side were 2.6 and 2.0 times as likely to die from SIDS than those placed on their back (supine).[8]

- Placing babies on their backs to sleep has not been shown to increase the risk of choking; in fact, it prevents choking. As seen in the illustration below, the esophagus (where food travels) is underneath the trachea. When a baby is placed on its back, it is less likely that food will move up against gravity into the trachea where a baby can choke, as opposed to when the baby is on its stomach (see Figure 4 below).[9]

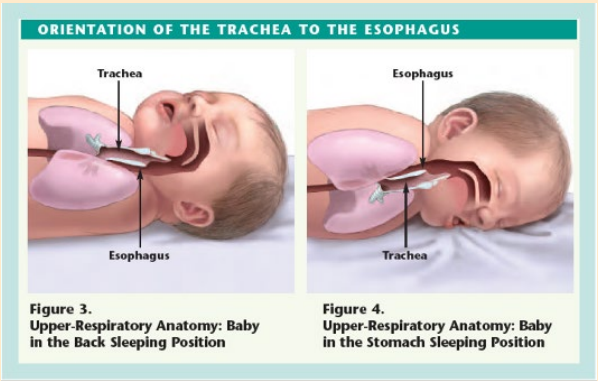


Fig. 4 Orientation of the Trachea to the Esophagus in A Sleeping Infant[9]

- Click here for suggested responses to common parent/caregiver questions and concerns about placing a baby on its back to sleep.

Babies should sleep on firm and flat surfaces

- Multiple research studies and reports have found that inclined and or soft surfaces require more muscle dexterity from infants than they generally have to avoid potentially rolling onto their stomach, in which case they are more likely to have their head and neck trapped and ultimately suffocate.[10,11]
- It has been found that sleep surfaces that have an incline greater than 10 degrees are not safe for infant sleep, as they increase the risk of wedging, entrapment, and suffocation.[11]
- Additionally, soft bedding was found to limit the dispersal of carbon dioxide (CO2) from the infant's breath, which is critical to ensuring they do not repeatedly breath in expired CO2 instead of oxygen.[12]

Babies should have an empty sleep space free of bedding and toys

- It is currently estimated that more than 40% of infants have bedding, blankets, or pillows in their cribs that are not safe for sleep.[13, 14]
- These loose items have been found to increase the risk of SIDS five times over, regardless of the infant's sleep position.[15, 16]
- They also greatly increase the risk of suffocation or strangulation during an infant's sleep.[7]

Additional factors outside of the sleep environment that can help to lower the risk of SUID and/or SIDS in infants include:

- Feeding the infant breast milk
- Avoiding smoking and vaping throughout and after pregnancy
- Giving the infant a pacifier when they go to sleep
- Getting regular prenatal care and avoid substance use during pregnancy
- Making sure the infant has supervised tummy time while awake every day
- Scheduling and attending all well-child care visits

Breastfeeding and the appropriate practice of skin-to-skin contact are critical for the promotion of parents/caregivers and infants' health, and go hand in hand with practicing safe sleep. You can find more information from the AAP about recommendations for ensuring that breastfeeding and skin-to-skin contact follow safe sleep guidelines here.[17]

NICU/Medically Complex Infant Safe Sleep Recommendations:

While the recommendations for infant sleep positioning apply to most infants, they may not be advised for preterm and otherwise medically complex infants until they are clinically stable. This is particularly true if the infant has specific medical conditions (e.g., airway abnormalities, neonatal opioid withdrawal syndrome, positional or deformational plagiocephaly, respiratory distress, and/or life-threatening gastroesophageal reflux disease), which may require prone positioning or supportive positioning devices.[18-20]

Although there are somewhat limited recommendations on when to transition NICU infants from alternative positioning practices to the neonatal standard, the AAP and health systems/hospitals have released some helpful guidance for NICU providers, staff, parents, and caregivers. These resources include:

- Transition to a Safe Home Sleep Environment for the NICU Patient (AAP)
- CHOC Children's Hospital Best Evidence and Recommendations: Alternative Safe Sleep Positioning in the NICU
- Brigham and Women's Hospital Pediatric Newborn Medicine Clinical Practice Guidelines: Infant Sleep and Therapeutic Positioning
- University of Notre Dame: NICU Recommended Standards for Positioning and Touch

Highlighted Recommendations:

- Typically by the gestational age of 32 weeks or at a weight greater than or equal to 1500 grams, preterm infants should begin to transition to safe sleep practices unless medically contraindicated.[18-20]
- NICUs should establish formal policies and select clinical algorithms to ensure standardized decision-making for NICU infant sleep positioning. This can be adjusted for individual needs as necessary.[18-20]
- An infant's personalized sleep plan should be included in their electronic medical chart if possible and shared with parents, caregivers, and any other relevant providers.[18,19]
- At the beginning of the infant's stay in the NICU, provider advice regarding positioning should be followed. It should be emphasized to parents and caregivers, however, that the ultimate goal should be to transition to safe sleep practices when the infant is ready.[18-20]
- Transitioning to safe sleep practices can also be challenging in terms of thermoregulation. While premature infants may have difficulty staying warm, once they are ready for safe sleep, care should be taken to ensure the infant is not over-swaddled or overheated.[18,20]

Section 4. Staff & Parent Training Resources & Materials

This section contains the following readily accessible resources to train providers/staff and parents/caregivers on safe sleep practices:

- *Links to virtual provider/staff training*
- *Clinical algorithms for NICU infant safe sleep readiness*
- *Tools for identifying at-risk infants*
- *Safe sleep educational materials for parents and caregivers (e.g., booklets, videos, special guidance for NICU families).*

Hospitals can select the training resources that best fit their staff structure and workflows. We recommend starting with the Safe Sleep NC training and supplementing as needed with the additional materials below.

Training can be offered to all hospital providers and staff (e.g., nurses, physical therapists, social workers, physicians, operations staff).

Hospital Staff/Provider Training Quick Start Options:

Options from this table can be mixed and matched to tailor to your hospital's provider and staff needs.

Option	Description	Recommended for	Components
Core Training Only	Safe Sleep NC 45-minute Infant Safe Sleep and Family Engagement Training	All hospital staff	Safe Sleep NC Training
Targeted Staff Training (e.g., NICU Staff)	Safe Sleep NC training + role-specific NICU content	Hospital providers/ staff who work with NICU or medically complex infants	• Safe Sleep NC training • NICU sleep positioning algorithm(s) & recommendations • Infant Safe Sleep Risk Factors Assessment Tool and Conversation Guide for Parents/Caregivers • Supplement external training resources in row below as needed
Comprehensive Approach	All available training and parent education materials	Hospitals launching a full safe sleep quality improvement initiative	• Safe Sleep NC training • NICU sleep positioning algorithm(s) & recommendations • NICU Safe Sleep parent/caregiver videos • Safe Sleep NC parent handouts/ booklets, posters, and/or videos • Supplement external training resources in row below as needed
External Expert Resources	Trainings from national organizations	Staff seeking supplemental or advanced content	• Building on Campaigns with Conversations (National Center for Education in Maternal and Infant Health) • Provider and Patient Conversations for Safe Sleep (American Academy of Pediatrics) • Cribs for Kids Hospital-Wide Infant Safe Sleep Training • Cribs for Kids Safe Sleep Ambassador Training • Cribs for Kids Safe Sleep Academy materials

Hospital Provider/Staff Training Resources:

Recommended Starting Point:

Safe Sleep NC's Infant Safe Sleep and Family Engagement Training offers the latest evidence-based recommendations to prevent infant deaths and ways to sensitively discuss safe sleep practices with parents/caregivers. The free 45-minute training offers nursing contact hours, and is designed for health care and public health professionals. Click on the link above to learn more. Please note this training is not precisely aligned with Cribs for Kids requirements.

Click here for an additional educational resource from Safe Sleep NC on how to conduct productive conversations with families who may have questions and concerns about implementing safe sleep practices at home with their baby.

List of Additional External Training Resources:

- Building on Campaigns with Conversations; An Individualized Approach to Helping Families Embrace Safe Sleep & Breastfeeding (National Center for Education in Maternal and Infant Health)
  - Intended Audience: Health care and public health professionals
- Provider and Patient Conversations for Safe Sleep (American Academy of Pediatrics)
  - Intended Audience: Providers, specifically pediatricians

For NICUs and At-Risk Infants:

Provider Tools for Determining Sleep Positioning for NICU/Medically Complex Infants

- While there is currently no standardized algorithm for clinicians to identify if a NICU/medically complex infant is ready for safe sleep practices, several algorithms exist that can be used to help guide decision-making. Two studies that utilized algorithms both found that the algorithms contributed to over 50% improvement in parental adherence to safe sleep practices at home.[21,22]

See Appendix A, Figures A-D[22-25] below for the clinical algorithms.

Tools for Identifying Infants at Greater Risk of Unsafe Sleep-Related Deaths

- Development and validation of the Safe Sleep Calculator to assess risk of sudden unexpected death in infancy
- Infant Safe Sleep Risk Factors Assessment Tool and Conversation Guide for Parents/Caregivers

Spotlighting Cribs for Kids Educational Resources for Staff & Parents/Caregivers:

Cribs for Kids, a national organization dedicated to providing education, resources, and advocacy to ensure every infant sleeps safely, offers a hospital certification program dedicated to supporting institutions in promoting safe sleep practices. The National Safe Sleep Hospital Certification program, after a rigorous review process, recognizes hospitals and health systems for adhering to the American Academy of Pediatrics's evidence-based recommendations to prevent infant death related to unsafe sleep practices. Hospitals can earn bronze, silver, or gold designations based on the comprehensiveness of their initiatives.

- In addition to this hospital certification program, Cribs for Kids offers additional training resources available to providers and parents/caregivers:
  - Cribs for Kids Hospital-Wide Infant Safe Sleep Training
  - Cribs for Kids Safe Sleep Ambassador Training
  - Cribs for Kids Safe Sleep Academy

Parent/Caregiver Safe Sleep Educational Resources and Materials:

Safe Sleep NC's website features varied educational resources for parents interested in learning more about the issue of infant safe sleep and recommended practices for a safe sleep environment.

Most of Safe Sleep NC's materials linked below can be printed for free here.

If you would like to tailor the print materials for your hospital (e.g., add your logo), please contact Megan Canady at mjcanady@email.unc.edu. Hospitals have permission to modify the materials for digital education purposes.

Parent/Caregiver Education Quick Start Options:

Options from this table can be mixed and matched to tailor to your hospital's patient population.

Option	Description	Recommended for	Intended Audience	Components	Distribution Method	Customizable?
Core Parent Education	Essential printed or digital handouts for all parents/ caregivers	All hospitals	All parents / caregivers	• Parent/Caregiver Safe Sleep NC Handout (English/ Spanish) • Safe Sleep NC Booklets (English/ Spanish) printable or QR code versions	Print, email, QR code	Yes (logo)
Multimedia Parent Education	Digital and video-based education to complement printed materials	All hospitals	All parents / caregivers, general public	• Safe Sleep NC educational videos (under 35 seconds): – What is Safe Sleep? – New Baby: Room share, don't bed share – How to Support a New Parent – New Data: Why Safe Sleep • Social media toolkit/reels (English/Spanish) • QR code flyers for video access	QR code, tablets, hospital screens, social media	Videos: No Toolkit/Reels: Yes (branding options)
Visual Reminders	Posters and signage to reinforce safe sleep practices	Hospitals with high patient turnover or short stay units	All parents / caregivers	• Safe Sleep NC Posters (English/ Spanish) • Laminated crib cards • Room signage with QR codes	Print, display in rooms / hallways	Yes (logo)
Specialized NICU/ Medically Complex Infant Education	Tailored guidance for NICU families transitioning to home safe sleep	Hospitals with NICU or medically complex infant discharges	NICU / medically complex infant families	• NICU Safe Sleep videos (under 2 minutes): • NICU Safe Sleep • NICU Safe Sleep: Getting Ready for Discharge • NICU Safe Sleep: Safe Sleep at Home • Printed NICU-specific safe sleep guidance	QR code, tablets, hospital screens, print	Yes (logo on print materials)

Safe Sleep NC Physical Materials (each image is linked):

Parent/Caregiver Safe Sleep Handout:
Addressing Safe Sleep Challenges
(See Appendix B for more handouts.)

Safe Sleep NC Posters

These materials are available to order free copies in English and Spanish to NC based organizations through NCDPH https://www.surveymonkey.com/r/WHBPublicationsOrderForm

Flip Book:
A patient education visual teaching aid with illustrations and talking points for the health care provider working with families. Email mjcanady@email.unc.edu for more information

Safe Sleep NC Booklets:
20-page booklets contain accessible information on safe sleep practices, helpful visuals, and opportunities for parents to consider how best to implement the practices in their home via reflection prompts.

Bereavement Handout: This two-sided handout is for families who have recently experienced the sudden and unexpected loss of an infant. The handout provides families with information about grief resources and guidance on next steps.


The Sudden Loss of Your Baby: A Support Resource

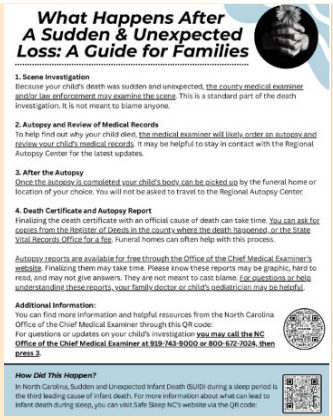
We are so sorry for your tremendous loss. This handout is designed to help connect you to grief support resources, provide some key information about what happens next, and give information about why an infant may die suddenly and unexpectedly in their sleep.

What is Grief?

Grief is how our minds and bodies respond after losing someone we love. The grief of losing a child suddenly and unexpectedly can be intense. You may struggle to understand how this happened, and how to cope with these feelings. Your anger, sadness, confusion, hurt, guilt, and/or numbness are all valid and important to process in your own time. There is no right or wrong way to grieve, and no timeline. It is important to be kind to and patient with yourself and to lean on others for support and help.

Grief Support Resources

Your family and friends will likely each experience grief in their own way. Something that can help with processing grief is seeking support from others who have experienced the loss of a child, a faith leader, or a licensed mental health support professional. Please scan the QR code for some resources that may be helpful to you on your journey.


What Happens After A Sudden & Unexpected Loss: A Guide for Families

1. Scene Investigation
Because your child's death was sudden and unexpected, the county medical examiner and/or law enforcement may examine the scene. This is a standard part of the death investigation. It is not meant to blame anyone.

2. Autopsy and Review of Medical Records
To help find out why your child died, the medical examiner will likely order an autopsy and review your child's medical records. It may be helpful to stay in contact with the Regional Autopsy Center for the latest updates.

3. After the Autopsy
Once the autopsy is completed your child's body can be picked up by the funeral home or location of your choice. You will not be asked to travel to the Regional Autopsy Center.

4. Death Certificate and Autopsy Report
Finalizing the death certificate with an official cause of death can take time. You can ask for copies from the Register of Deeds in the county where the death happened, or the State Vital Records Office for a fee. Funeral homes can often help with this process.

Autopsy reports are available for free through the Office of the Chief Medical Examiner's website. Finalizing them may take time. Please know these reports may be graphic, hard to read, and may not give answers. They are not meant to cast blame. For questions or help understanding these reports, your family doctor or child's pediatrician may be helpful.

Additional Information:
You can find more information and helpful resources from the North Carolina Office of the Chief Medical Examiner through this QR code:
For questions or updates on your child's investigation you may call the NC Office of the Chief Medical Examiner at 919-743-9000 or 800-672-7024, then press 3.

How Did This Happen?
In North Carolina, Sudden and Unexpected Infant Death (SUID) during a sleep period is the third leading cause of infant death. For more information about what can lead to infant death during sleep, you can visit Safe Sleep NC's website via the QR code:

Safe Sleep NC Digital Materials & QR Codes:

Safe Sleep NC Educational Videos

- What is Safe Sleep? (31 seconds)
- New Baby: Room share, don't bed share (17 seconds)
- How to Support A New Parent (31 seconds)
- New Data: Why Safe Sleep - The importance of keeping your baby safe while sleeping (31 seconds)

Safe Sleep NC Social Media Toolkit (English & Spanish)

Please be sure to use SafeSleepNC.org and #SafeSleepNC on all posts using this content!

For self-designed educational materials, the following resources include high-quality, safe sleep-compliant images that can be used:

- Safe Sleep NC Images
- NICHD Safe Sleep Environment Images
- NICH Safe to Sleep Images

NICU/Medically Complex Infants: Educational Resources for Parents

These videos from Children's Hospital Colorado offer specialized guidance for parents/caregivers of NICU or medically complex infants for transitioning to safe sleep practices once cleared by the infant's medical team. They highlight important information for parents/caregivers along each step of the hospital discharge/transition home process.

- NICU Safe Sleep video (1:46 min)
- NICU Safe Sleep: Getting Ready for Discharge video (1:21 min)
- NICU Safe Sleep: Safe Sleep at Home video (1:41 min) [26]

Section 5. Implementation of Safe Sleep Quality Improvement (QI) Initiatives in Hospitals

This section contains information and resources for the key phases of a safe sleep quality improvement initiative:

- Planning (i.e., developing a task force, utilizing QI planning tools, drafting a safe sleep policy)
- Implementation (i.e., identifying program champions, lessons learned from other NC institutions, materials such as crib cards)
- Evaluation (i.e., monthly initiative measures, PDSA cycle templates, crib audit forms).

All of these tools are optional for use in your QI initiative, and can be mixed and matched based on your team's experience, capacity, and needs.

Safe Sleep QI Implementation Quick Start Options:

This table includes a variety of starter options for safe sleep QI initiative implementation based on your hospital's capacity and needs.

Option	Description	Recommended for	Components
Basic Implementation	Foundational safe sleep initiative for hospitals starting from scratch	Small or rural hospitals; new to structured QI work	Planning: • QI Driver diagram (see Appendix C, Fig. A) • Adopt hospital Safe • Sleep Policy Template (Cribs for Kids) (see Section 5 planning guidance below) Implementation: • All-staff Safe Sleep NC training (see Section 4) • Safe Sleep NC posters and booklets for patient rooms (see Section 4) • Integrate Safe Sleep EHR order sets (see Appendix D, Figs. A & B) Evaluation: • Quarterly crib audits (see Appendix E, Fig. F – General Audit Form) • Parent Safe Sleep Education Acknowledgement & Non-Compliance Forms (see Appendix E, Figs. D & E)

Option	Description	Recommended for	Components
Targeted Implementation	Focused improvements for key units and populations	Hospitals with NICU or specific high-risk infant populations	Planning: • Create Safe Sleep Task Force (see Section 5 planning guidance below) • QI Driver diagram (see Appendix C, Fig. A) • Adopt hospital Safe Sleep Policy Template (Cribs for Kids) (see Section 5 planning guidance below) Implementation: • Identify program champions in NICU and newborn units (see Section 5 implementation guidance below) • NICU sleep positioning algorithm(s) & recommendations (see Section 3, 4, and Appendix A, Figs. A-C) • NICU Safe Sleep videos for parents/caregivers (see Section 4) • Infant Safe Sleep Risk Factors Assessment Tool and Conversation Guide for Parents/Caregivers (see Section 4) • Integrate Safe Sleep EHR order sets (see Appendix D, Figs. A & B) Evaluation: • NICU crib audit tool (see Appendix E, Fig. G)

Option	Description	Recommended for	Components
Comprehensive Implementation	Hospital-wide QI approach with ongoing monitoring and adaptation	Hospitals seeking system-level change and national certification	Planning: • Create Safe Sleep Task Force (see Section 5 planning guidance) with program champions • QI driver diagram and project plan/logic model (Appendix C, Figs. A-C) • Adopt hospital Safe Sleep Policy Template (Cribs for Kids) • Consider culturally responsive care options (see Planning section) • Consider participation in Cribs for Kids National Hospital Certification Program Implementation: • Integration of Safe Sleep into onboarding & annual training (ideally simulation-based training) • NICU recommendations and parent/caregiver materials in row B above (see Section 3, 4, and Appendix A, Figs. A-C) • Utilize Safe Sleep NC parent / caregiver materials (see Section 4) • Community Safe Sleep Month outreach using Safe Sleep NC social media toolkit (see Section 4) • Safe Sleep NC crib card templates in patient rooms (see Section 5 implementation guidance below) Evaluation: • ILPQC ESSI Monthly Hospital Measures Data Collection Form and/or IHI QI Plan-Do-Study-Act (PDSA) Cycle Worksheet (see Appendix E Figs. A & B) • Parent Acknowledgement & Non-Compliance Forms (Appendix E, Figs. D & E) – consider Safe Sleep Education Assessment Tool (see Appendix E Fig. C) • Monthly → quarterly newborn unit & NICU audits (see Appendix E, Figs. F & G)

Planning: Developing a Quality Improvement Infrastructure for Safe Sleep Initiative:

Creating a Safe Sleep Task Force or Workgroup

- Formally invite diverse, interdisciplinary staff across the hospital who have a vested interest in a safe sleep initiative[27]
- Collaboratively identify the scope of the problem, potentially through hospital data and tools like key driver diagrams[28]
- Create a charter that includes processes and protocols for the group to adhere to as appropriate
  - Co-create group structure by establishing:
    - Group leadership
    - Decision-making processes
    - Protocols for communication
    - Strategies for conflict management/transformation
    - Group meetings
      - Structure of meetings
      - Agenda setting and transparency of meeting materials and discussions (e.g., distributing meeting notes)
        - See sample meeting agenda template[29]
      - Planning for clear delegation of responsibility/accountability for activities[27,28]

Optional: Ideas for Creating a Quality Improvement Initiative Plan

- Using any available hospital data on safe sleep adherence for infants, identify where the hospital currently stands with modeling and teaching safe sleep practices to parents/caregivers;
- Consider consulting the literature for evidence-based approaches to safe sleep quality improvement in a hospital setting;
- To visualize your hospital's specific barriers to full infant safe sleep compliance, factors influencing these barriers, and potential approaches to addressing them, try utilizing tools such as a driver diagram (see example in Appendix C Figure A)[30];
- Using the key driver diagram as a guide, consider developing a project plan or a logic model (see examples in Appendix C Figures B and C respectively)[31,32] with clear SMART goals, resources needed, planned activities, and identified metrics of success to guide your quality improvement initiative
  - Example of a SMART goal:
    - Ensure full compliance with all AAP-recommended safe sleep practices in at least 80% of newborn infants across the hospital's NICU and nursery units by the end of Q2 of the QI initiative (include specific date).
- Begin planning for evaluation efforts, including data collection, Plan-Do-Study-Act (PDSA) cycles, and the identification of specific metrics and outcomes as progress indicators (see more information in the Evaluation section below)[33]
- Note: For additional QI resources find the Institute for Healthcare Improvement (IHI) Quality Improvement toolkit here.[34]

Drafting a Safe Sleep Policy

Cribs for Kids has created a fairly comprehensive hospital infant safe sleep policy template updated with the latest AAP recommendations for hospital administrators, providers, and staff interested in implementing a safe sleep initiative at their institution.35 This policy template offers an excellent example of protocols that hospitals can put in place to prevent SUID and SIDS among infants.

Your hospital may choose to utilize this policy template or design your own safe sleep policy document. If you choose to create your own document, including the following key components can be a good place to start:

- Key term definitions related to SIDS and SUID
- Protocols for implementing safe sleep practices in the hospital along with supporting evidence/clinical guidelines
  - Inclusion vs. exclusion criteria for infants to engage in safe sleep (e.g., NICU or otherwise medically complex infants)
- Reference to the equipment or materials needed to implement these protocols
  - EHR documentation of safe sleep practices, if applicable
- Policies related to parent/caregiver education on safe sleep practices and contingencies for non-compliance
- Accountability for implementation of safe sleep initiative
  - Evaluation materials such as unit safe sleep audits

Considering Culturally Responsive Care for Your Initiative

If your hospital is considering how to provide culturally responsive education and care related to infant safe sleep practices, click here for a toolkit and webinars from the Illinois Perinatal Quality Collaborative (ILPQC) with more information.[36]

Implementation: Putting into Place a Safe Sleep Quality Improvement Initiative:

Identifying Program Champions for Your Safe Sleep Initiative

Purpose: Team champions are essential in providing direction and feedback when a change in process is going to happen. Champions assist with encouraging collaboration from all involved in the process, providing support and encouragement to staff implementing a change, and ensuring on-going organizational commitment to continuing a change.

Who?

Provider Champions
(Neonatologists; OB GYNs; Pediatric Hospitalists (e.g., ER/PICU); Physician Assistants; Nurse Practitioners Respiratory/Physical Therapists)

Nurse Champions
(NICU; Nursery; L&D; ER; PICU; various specialty nurses)

Leadership Champions
(Hospital Administration; Attendings/Division Chiefs; Charge Nurses)

Community Champions
(Parent/Family Advisors; Pediatricians in the community; Emergency services who may respond to calls about unresponsive infants)

Other Champions
(Child care specialists; Child Life specialists; Social Workers)

How?

- Picking several individuals from each category who represent diversity in terms of professional experience and personal background
  - Assessing level of passion and personal vested interest in the initiative
- Identifying who has both some degree of capacity and authority over important implementation leverage points in implementing a safe sleep initiative, as well as potentially some content/lived expertise on infant safe sleep
  - This could include:
    - » Providers/staff with direct interface with parents/caregivers (e.g., nurses, patient care technicians)
    - » NICU providers who help develop NICU infants' safe sleep transition plans
    - » Providers/staff in charge of monitoring implementation data (e.g., quality improvement staff)
    - » Providers/staff who have accountability for care quality metrics (e.g., division chiefs, charge nurses)
    - » Individuals with lived or content expertise in safe sleep (i.e., patient/family advisors, hospital providers, pediatricians, child care specialists)
- Encouraging collaboration on implementation strategies through regular, but flexible strategy and check-in meetings (see Safe Sleep Task Force)
  - These meetings will include reviewing implementation data collected through audit tools and EHR integration.
- Providing these champions with tools and support to help implement the initiative so they do not feel alone when encountering difficulties

Lessons Learned & Successes from Other NC Hospitals

This section compiles key lessons and successful strategies shared by NC hospitals of varying sizes, from large academic centers to smaller rural hospitals. Each offers practical approaches to overcoming common barriers.

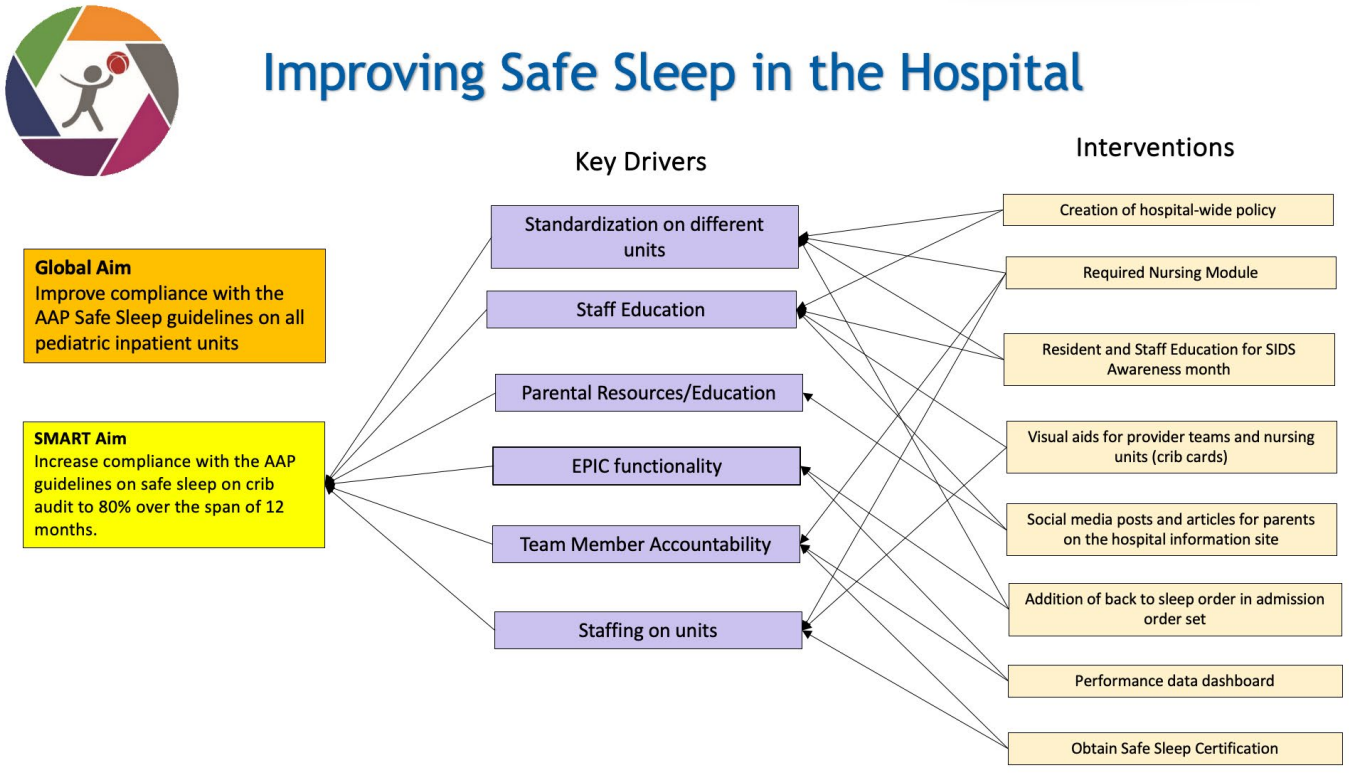
If you are interested in...

Developing a Safe Sleep Hospital Task Force
(Duke University Hospital Safe Sleep Task Force)

- Partner with providers and staff across units who will bring varied perspectives
- Identify those who are highly invested in safe sleep and who can have a large impact (i.e., nurses, physical therapists, child life specialists), including those who may need a QI project for promotion
- Develop a key driver diagram to better understand the scope of the problem of unsafe sleep as well as key intervention points

What has been really helpful to keeping people engaged in the task force has been grounding the work in real data from different units and making it relevant to people engaged in direct care with infants and their families, such as nurses.

Dr. Sophie Shaikh



- Do not spend too much time formalizing the development of the task force, ground the work in real data across units
- Encourage task force providers and staff to share this data with other providers and staff
- Prioritize recognition of different providers and staff for their investment and exceptional efforts

Creating Staff/Provider Buy-In for Initiative Implementation
(Duke University Hospital Safe Sleep Task Force)

It was getting to be a big drain on our staff to do monthly crib audits, so as soon as we were able to, we moved from monthly audits to once every three months. This was much more manageable for staff and providers.

Dr. Kristina Nazareth-Pidgeon

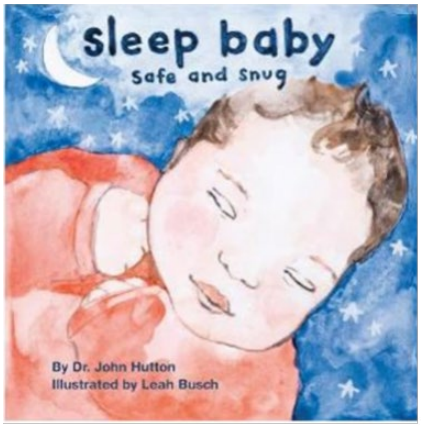
- **Identify ways to ingrain safe sleep practices and awareness for providers in training**, such as interns
- **Utilize key leverage points such as hospital policies** that may promote the involvement of staff and providers in projects/QI outside of their everyday work to gain buy-in from diverse folks across disciplines
- **Where possible, lessen implementation burden on hospital providers and staff** by, for example, by reducing the quantity of implementation activities as goals are met
- **Continue to build awareness of the safe sleep initiative through creative ideas** such as hosting small events or developing simulation activities for hospital staff and providers for safe sleep month
- **Since October is Safe Sleep Month, Duke added a Halloween twist to this activity to identify unsafe sleep practices**
  - This can include hosting community events that help ground the work further by expanding access to safe sleep education and resources, and making connections with community organizations committed to promoting safe sleep practices

Barriers and Facilitators for Parent/Caregiver Safe Sleep Education
(Atrium Health Wake Forest Brenner Children's Hospital's NICU)

Cultural or prior experience is deeply ingrained in families—we often hear: 'all my babies slept on their bellies and they were fine.

Dr. Jennifer Check

- It is important that hospital providers and staff across disciplines (e.g., doctors, physical therapists, occupational therapists, nurses, follow up clinic staff) **consistently emphasize the importance of safe sleep practices when interacting with families**
- **Begin having providers and staff offer safe sleep education to NICU families earlier in their stay** so they are prepared for safe sleep when the infant is ready in both in-patient settings and at home
  - There can be a lot to balance with the infant's needs and medical education to parents/caregivers, but it is helpful to offer safe sleep education earlier rather than later when possible
- **Consider providing NICU families materials such as a safe sleep book at discharge or at a follow-up** visit to take home to serve as a reminder for practicing safe sleep
- For NICU infants that receive follow up care through your hospital and health system, **continue checking in on how safe sleep is going at home**

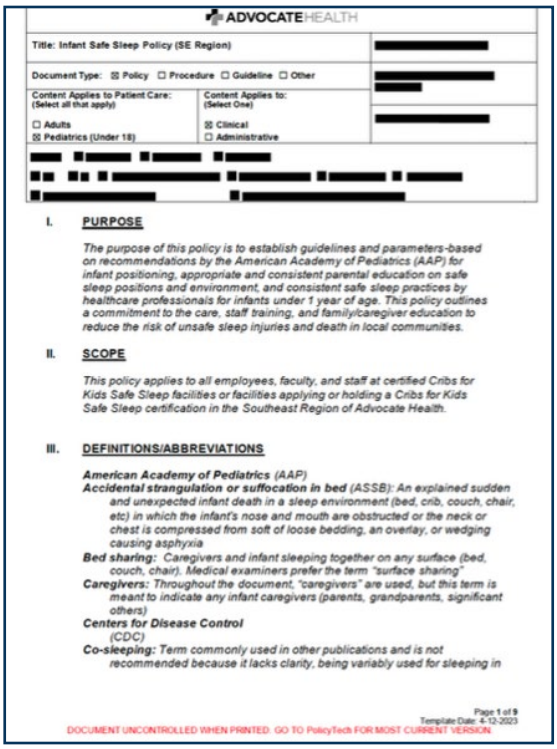


Facilitating Safe Sleep QI in Providers and Staff's Clinical Workflows
(Atrium Health Wake Forest Brenner Children's Hospital's NICU)

- **Keep decision-making processes for implementing safe sleep with babies evidence-based but simple in hospital policy** - Brenner Children's marker for when a NICU infant is ready for safe sleep is when they are out of isolettes and in their cribs. This clear delineation has made it easier for providers and staff to know when a baby should be following general safe sleep recommendations
  - Other important markers they have identified include being off of a ventilator, and at least 33 or 34 weeks gestationally

One approach that worked for us to remind providers to discuss safe sleep readiness and education when rounding was to create "badge buddies". These small cards that stick on the back of providers' badges serve as reminders during their patient rounds, to discuss certain things including safe sleep. When there is so much for providers to think about, it can be a helpful tool to prioritize safe sleep.'

Dr. Jennifer Check



ADVOCATEHEALTH

Title: Infant Safe Sleep Policy (SE Region) [redacted]

Document Type: ☒ Policy ☐ Procedure ☐ Guideline ☐ Other

Content Applies to Patient Care: (Select all that apply)
☐ Adults
☒ Pediatrics (Under 18)

Content Applies to: (Select One)
☒ Clinical
☐ Administrative

[redacted]

I. PURPOSE

The purpose of this policy is to establish guidelines and parameters-based on recommendations by the American Academy of Pediatrics (AAP) for infant positioning, appropriate and consistent parental education on safe sleep positions and environment, and consistent safe sleep practices by healthcare professionals for infants under 1 year of age. This policy outlines a commitment to the care, staff training, and family/caregiver education to reduce the risk of unsafe sleep injuries and death in local communities.

II. SCOPE

This policy applies to all employees, faculty, and staff at certified Cribs for Kids Safe Sleep facilities or facilities applying or holding a Cribs for Kids Safe Sleep certification in the Southeast Region of Advocate Health.

III. DEFINITIONS/ABBREVIATIONS

***American Academy of Pediatrics** (AAP)*
***Accidental strangulation or suffocation in bed** (ASSB): An explained sudden and 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 soft of loose bedding, an overlay, or wedging causing asphyxia*
***Bed sharing:** Caregivers and infant sleeping together on any surface (bed, couch, chair). Medical examiners prefer the term "surface sharing"*
***Caregivers:** Throughout the document, "caregivers" are used, but this term is meant to indicate any infant caregivers (parents, grandparents, significant others)*
***Centers for Disease Control** (CDC)*
***Co-sleeping:** Term commonly used in other publications and is not recommended because it lacks clarity, being variably used for sleeping in*

Page 1 of 9
Template Date: 4-12-2023
DOCUMENT UNCONTROLLED WHEN PRINTED. GO TO PolicyTech FOR MOST CURRENT VERSION

- **Find a way to integrate a safe sleep order set into the hospital's EHR.** This can serve as a critical reminder for staff and providers to offer safe sleep education to each parent, and to check on safe sleep compliance once the infant is cleared for it
- **Help ensure that safe sleep modeling is second nature for providers and staff** and consider offering hands-on safe sleep simulations and training for new nurses and other employees

Addressing Key Challenges in Rural Settings
(Sampson Regional Medical Center)

We conduct safe sleep training for all hospital providers and staff, including operations staff. By empowering all our staff to say something if they see an unsafe sleep situation, more unsafe sleep situations can be prevented.

Shannon Capps

- If providers and parents/caregivers are not aware of infant deaths in the community, they may not think it is an issue
  - **Showing community-specific data and having connections to real stories in the community are very helpful** to increasing awareness of safe sleep practices
- Because staff/providers and resources can be limited, it can be helpful to train all hospital staff on safe sleep so that everyone can feel empowered to address an unsafe situation
- **Free educational flyers and resources that are readily available from Safe Sleep NC, Cribs for Kids, and the Safe to Sleep campaign are critical**
- Utilize templates of materials that are readily adaptable to reduce burden on already overburdened staff
- **Build connections with community groups to share resources and provide holistic support to families** who may be struggling with safe sleep due to poor outcomes related to social determinants of health

Standardizing Safe Sleep Across all Pediatric Units
(Sampson Regional Medical Center)

- It can be easy to implement safe sleep practices on the mother–baby or NICU unit, but coordination with **the emergency department and pediatrics units** proved much harder. Staff in ED may be unaware of safe sleep discharge requirements or how to integrate education into high-acuity workflows
- Adding **safe sleep questions to ED and peds triage/admission workflows** (e.g., "Do you have a safe sleep space for baby?") can help to catch non-compliant cases early and provide appropriate support
- **Consider recruiting safe sleep champions from various units through promotion/quality improvement project programs.** They can help to lead crib audits and serve as implementation leads within each unit, including ED, NICU, and pediatrics

A major challenge was to standardize safe sleep education with families across all units of the hospital, including the ED. It was helpful to develop standard processes such as automated safe sleep discussions in the EHR across all units for infants under one year of age.

Shannon Capps

- **Where capacity allows, report EHR and crib audit data to report to hospital wide quality improvement units/committees** to create buy-in across units

Specific Materials and Supplies

The following include template materials to support your hospital in successful implementation of your safe sleep policy in clinical practice. These materials include:

- Sample safe sleep crib cards for all infants; and
- Models for integrating safe sleep practices into an electronic health record for standardization.

Crib Cards for Safe Sleep

Version 1: Safe Sleep Ready

Version 2: Safe Sleep Ready

Version 1: Not Yet Safe Sleep Ready

Version 2: Not Yet Safe Sleep Ready

Sleep Sacks & Books

Providing families with the safe sleep children's board book Sleep Baby Safe and Snug upon discharge is one way to offer a tangible reminder for safe sleep at home.

Additionally, several QI initiatives have seen improvements in providing infants with wearable sleep sacks to prevent loose bedding or blankets from being placed in cribs.[37,38]

Modification of Electronic Health Record for Safe Sleep Education

The following are templates of detailed infant safe sleep guidelines that can be included in the hospital's infant admission order set. Embedding these guidelines in the hospital's EHR for each infant is one important way to support appropriate clinical decision-making regarding safe sleep practices for each infant.

See Appendix D Figures A and B for the examples.[39,40]

Evaluation of Safe Sleep Quality Improvement (QI) Initiatives in Hospitals:

Quality Improvement Initiative Evaluation Planning and Monitoring

ILPQC ESSI Monthly Hospital Measures Data Collection Form

While this tool is designed more so for the specific aims of the ILPQC ESSI initiative, it offers an example of a resource for outlining the initiative's target measures and outcomes, and tracking progress towards those goals.

See Appendix E Figure A for the form.[41]

IHI QI Plan-Do-Study-Act (PDSA) Cycle Worksheet

Using Plan-Do-Study-Act (PDSA) cycles provides the opportunity for a systematic evaluation of the impact of changes implemented in an initiative, as well as subsequent iteration of the changes to improve their efficacy, as needed.

See Appendix E Figure B for the form.[42]

Parent Safe Sleep Training Evaluation/Data Collection Tools

Safe Sleep Education Assessment Tool

While this tool is designed for provider/clinician assessment of safe sleep in the home, it serves as a modifiable template for evaluation of parent/caregiver understanding and application of safe sleep training.

See Appendix E Figure C for the form.[43]

Parent Safe Sleep Education Acknowledgement Form

This readily adaptable form allows for documentation of parents/caregivers' receipt of safe sleep education for the infant from hospital providers and staff prior to the transition home.

See Appendix E Figure D for the form.[44]

Parent Safe Sleep Non-Compliance Form (English/Spanish)

This release form can serve as a template for official documentation of safe sleep education for parents/caregivers who indicate that they are unwilling to follow safe sleep practices with their infant at home to sign.

See Appendix E Figure E for the form.[45]

Staff Safe Sleep Training Evaluation Forms

Pre/Post-Training Provider Safe Sleep Knowledge Assessment Survey

This survey is designed to assess providers' knowledge of safe sleep practices and their clinical observations of infant safe sleep; the tool can be used before and/or after safe sleep training to assess knowledge. The survey was originally designed for nurses, but can be modified for other providers.[46]

Safe Sleep Audit Tools

According to Michigan's Department of Health and Human Services' Infant Safe Sleep program, audits are recommended monthly until target compliance is reached for at least 6 months, and from then after quarterly.

Optional Sample Size Calculators for Determining the Number of Infants to Include in Safe Sleep Audits

- Qualtrics Sample Size Calculator
- Survey Monkey Sample Size Calculator
- Calculator.Net Sample Size Calculator

See Appendix E Figure F for an example of a general safe sleep audit form from Michigan's Department of Health and Human Services' Infant Safe Sleep program, and Figure G for an example of a NICU-specific safe sleep audit form from the Perinatal Neonatal Quality Improvement Network in Massachusetts.[47,48]

Additionally, your hospital may choose to conduct medical record audits to ensure safe sleep education is being properly documented for each infant.

See Appendix E Figure H for an example of a medical record audit form from PA Safe Sleep.[49]

Hospital Infant Safe Sleep QI Initiatives Evidence Base: Selected Literature for Further Reference:

General Safe Sleep Literature

- Practicing What We Preach: An Effort to Improve Safe Sleep of Hospitalized Infants
- NICHQ Implementation Findings in Hospitals
- A Hospital-Based Initiative for Infant Safe Sleep Practice
- Improving Hospital Infant Safe Sleep Compliance by Using Safety Prevention Bundle Methodology
- Improving Adherence to Safe Sleep Guidelines for Hospitalized Infants at a Children's Hospital
- Quality improvement initiative to improve infant safe sleep practices in the newborn nursery
- Hospital-based inpatient quality improvement initiatives on safe infant sleep: Systematic review and narrative synthesis
- Sleeping Safe and Sound: A Multidisciplinary Hospital-wide Infant Safe Sleep Quality Improvement Initiative
- Coming Together to Save Babies: Our Institution's Quality Improvement Collaborative to Improve Infant Safe Sleep Practices
- An Evidence-Based Safe Sleep Program Is Associated With Less Infant Sleep-Related Deaths

Quality Improvement Initiative Evaluation Planning and Monitoring

- Implementation of safe sleep practices in Massachusetts NICUs: a state-wide QI collaborative
- Implementation of safe sleep practices in the neonatal intensive care unit
- Transition to a Safe Home Sleep Environment for the NICU Patient
- Improving Safe Infant Sleep Compliance Through Implementation of a Safe Sleep Bundle
- Early and consistent safe sleep practices in the neonatal intensive care unit: a sustained regional quality improvement initiative
- Increasing Safe Sleep Practices in the Neonatal Intensive Care Unit

Appendices*

TABLE OF CONTENTS

Appendix A. Clinical Algorithms for Provider/Staff Decision-Making on NICU and Full-Term Infants' Sleep Positioning

Fig. 2 Eligibility criteria for safe sleep practices (adapted from Gelfer et al. "Integrating Back-to-Sleep Recommendations into Neonatal ICU Practice". Pediatrics, 2013)

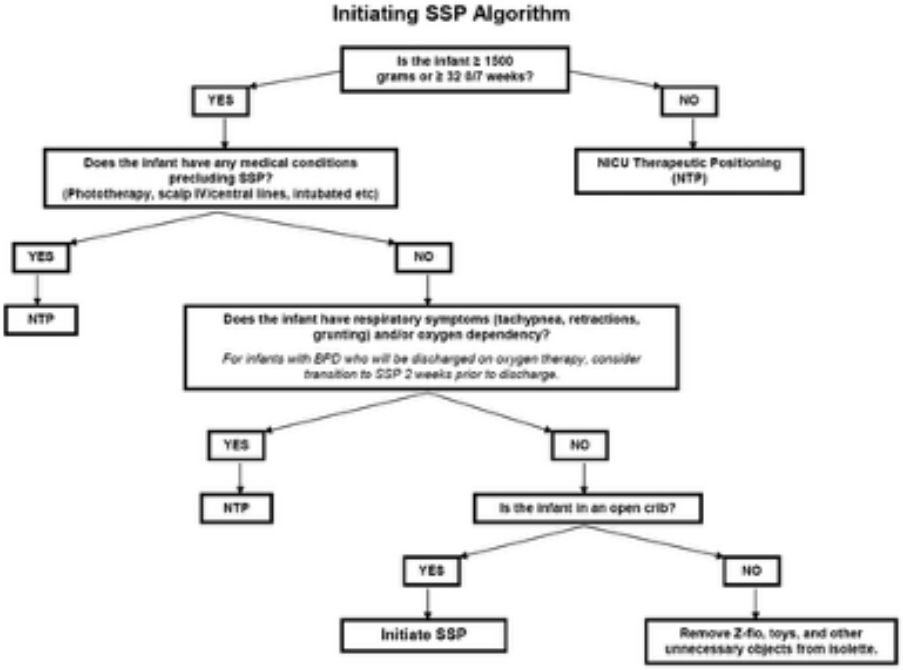


Figure A. Hwang et al., 2018 Initiating Safe Sleep Practices (SSP) Algorithm[22]

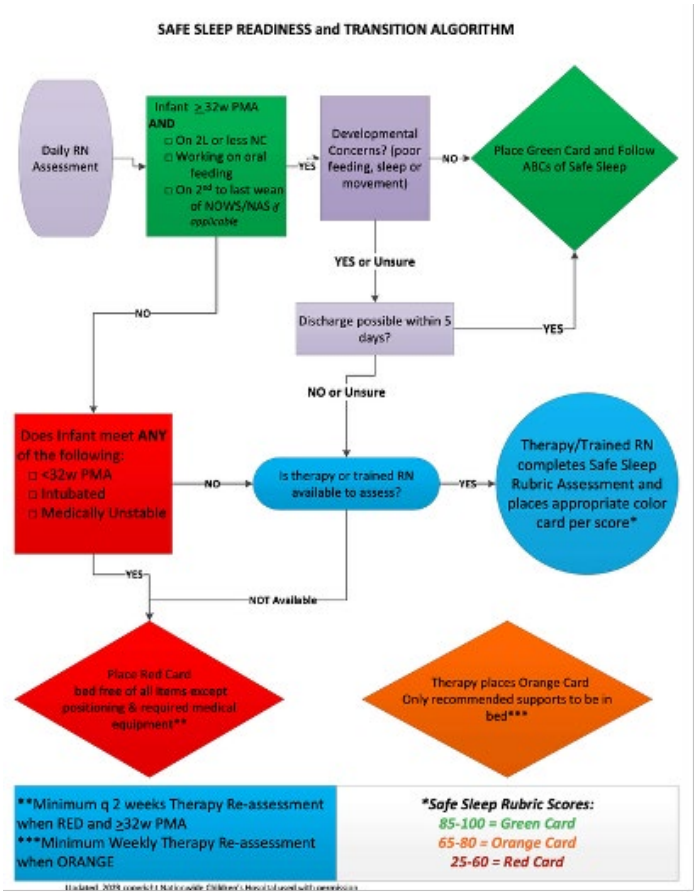


Figure B. Nationwide Children's Hospital 2023 Safe Sleep Readiness and Transition Algorithm[23]

	5	10	15	20	Score
State: Stability of state	Rapid and frequent state changes or infant is shut down or unconsolable	Any diffuse/disorganized state. Poorly defined sleep or aroused states	Maintains a robust/secure state for a brief period	State is robust and clearly defined	
Motor: Posture/tone stability	Low tone/limp **at any time**	Extends limbs, frantic and/or tense, tends to get "stuck" into extension, extension bias noted	Holds tucked posture briefly on own or maintains with light containment	Keeps/returns to tucked posture on own	
Autonomic: Hi/low HR/RR/Sats during care, visceral and color responses	Significant color Δ,twitches, emesis and/or vitals Δ +/->30 beats from baseline, servo temp control	Moderate color Δ , visceral upset and/or vitals Δ+/- 20-30 beats from baseline, in incubator	Mild to mod color Δ, visceral upset, &/or vitals Δ +/- 10-20 beats from baseline, open crib or incubator	Stable color/no visceral upset and/or vitals Δ+/- <10 beats from baseline, open crib	
Regulation: Response to support	Self-regulatory strategies may be absent, difficult to co-regulate	With caregiver support, shows some regulatory strategies (suck, grasp, tuck)	Has brief success on own using self-regulatory strategies or sustains with light/intermittent support	Uses own self-regulatory strategies successfully, minimum to no support necessary	
Respiratory support	Oscillator/Vent	CPAP/HFNC	NC ≥1L	NC/room air	
				Total	

Scoring Guide:

85 - 100	Full SSP in place (supine only, no positioning devices - swaddling okay)
65 - 80	Supine or sidelying only and positioning aids PRN for sleep
25 - 60	Developmental positioning required

References:

Als, H. (1982) Toward a syncactive theory of development: promise for the assessment and support of infant individuality. *Infant Mental Health Journal vol 3* (4), p. 229-243.

Als, H., Lawhon, g. (2007) Newborn individualized developmental care and assessment program (NIDCAP) Training guide. Boston: Children's Hospital.

Vandenber, K. (2007) State systems development in high-risk newborns in the neonatal intensive care unit: identification and management of sleep, alertness, and crying. *J Perinatal Neonatal Nursing, April - June; 21* (2) p. 130-139.

Figure C. Hofherr Safe Sleep Readiness Rubric Assessment[24]

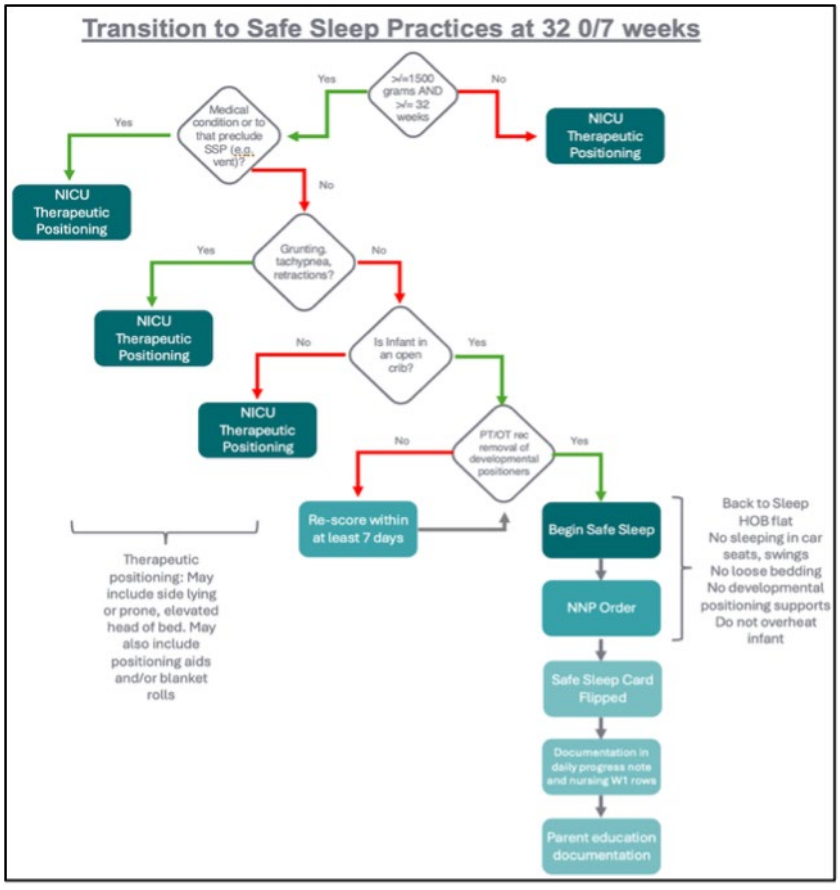
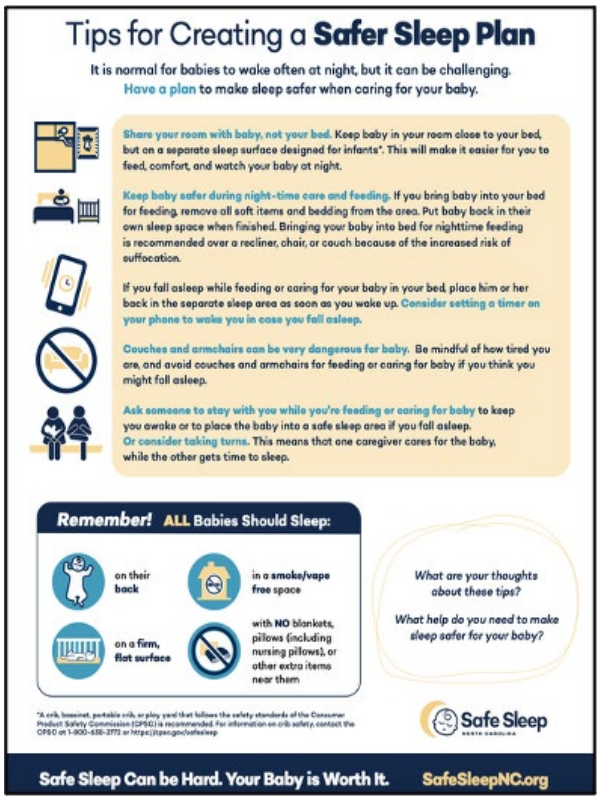


Figure D. Brenner Children's Hospital (Advocate Health) NICU Sleep Transition Algorithm[25]

Appendix B. Safe Sleep NC Sleeping with Your Baby: Understanding the Risks Handout



Appendix C. Safe Sleep Quality Improvement Initiative Planning Resources

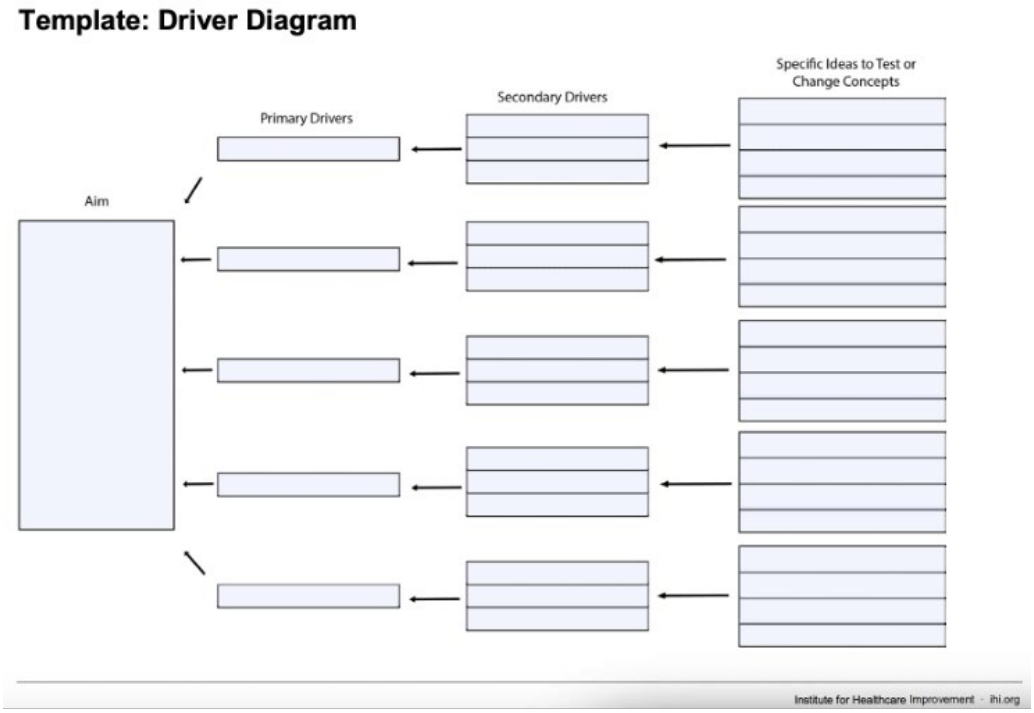


***Figure A. Institute for Healthcare Improvement Drivers Diagram Template**[30]*

Template: Project Planning Form

Team:	Project:

Driver – list the drivers you'll be working on	Process Measure	Goal
1.		
2.		
3.		
4.		
5.		
6.		

Driver Number (from above)	Change Idea	Tasks to Prepare for Tests	PDSA	Person Responsible	Timeline (T = Test; I = Implement; S = Spread) Week												
					1	2	3	4	5	6	7	8	9	10	11	12	13	14

Institute for Healthcare Improvement · ihi.org

***Figure B. Institute for Healthcare Improvement Project Planning Form Template**[31]*

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

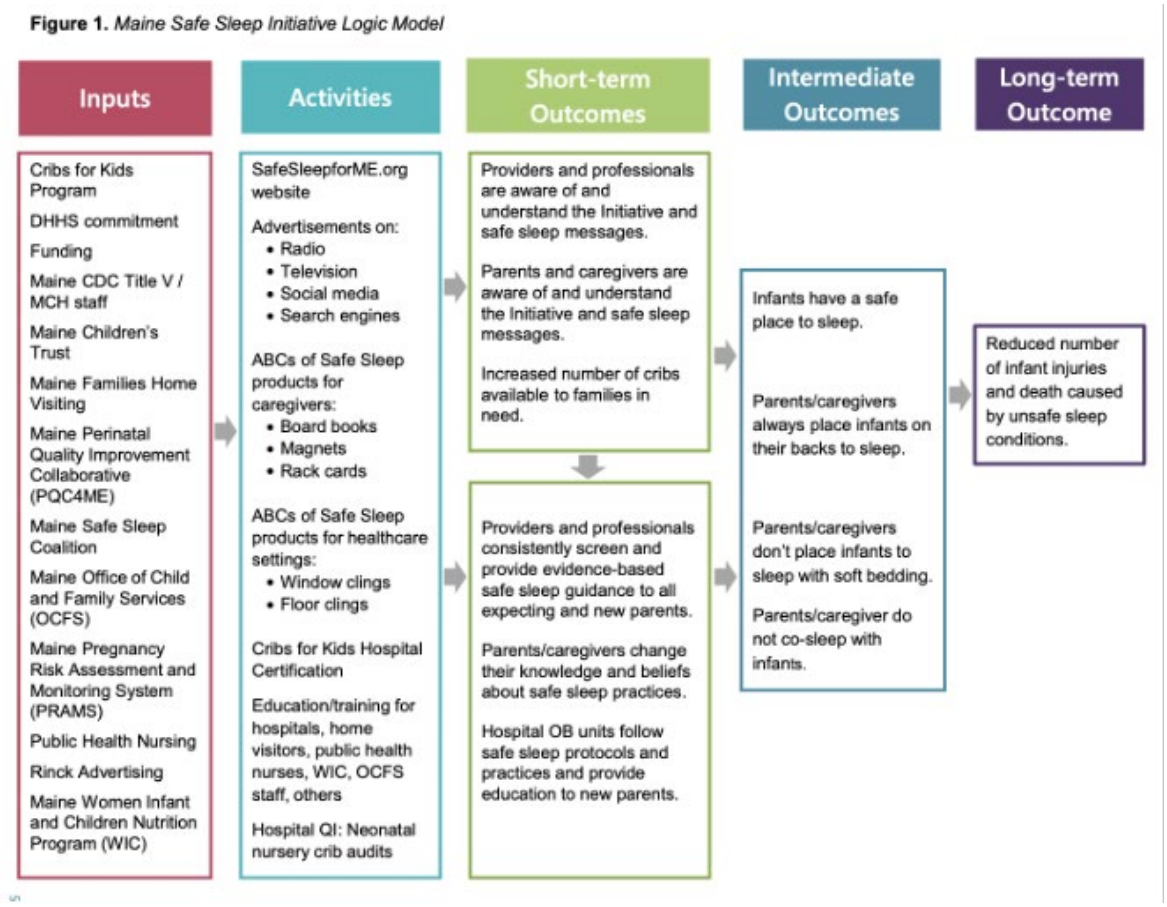


Figure C. Example Safe Sleep Logic Mode from Maine Safe Sleep Initiative**[31]

Additional Resources:

- Creating a Safe Sleep Task Force or Workgroup
  - Index of Community Engagement Techniques (Tamarack Institute)
  - Principles for Addressing Workplace Conflict (University of Texas)
- Drafting a Safe Sleep Policy
  - Cribs for Kids Flagler Hospital Sample Policy

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

Appendix D. Safe Sleep Quality Improvement Initiative Planning Resources

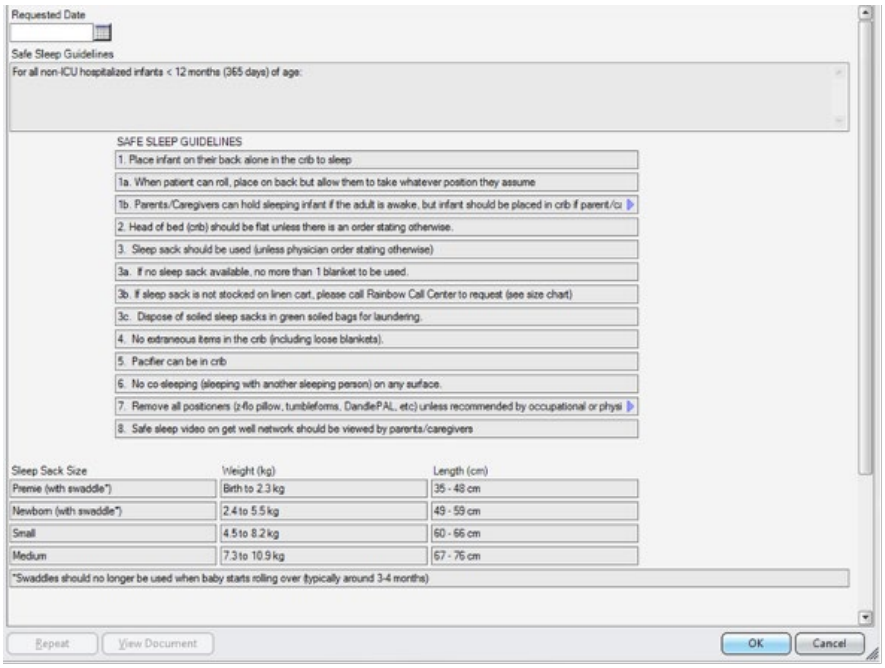
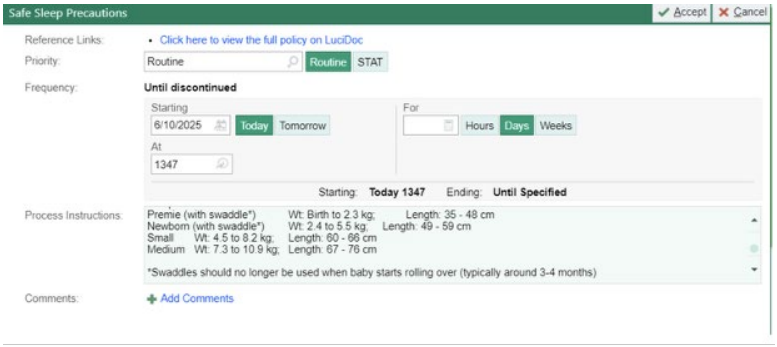


Figure A. Infant Safe Sleep Order Template in AllScripts's iConnect[39]



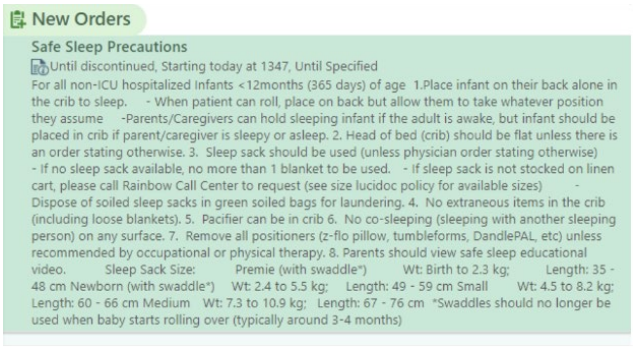


Figure B. Infant Safe Sleep Order Template in EPIC[40]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

Additional Resources:

- Alternative Crib Card and Door Hanger Samples
  - Illinois Perinatal Quality Collaborative Crib Card Samples
  - Illinois Perinatal Quality Collaborative Door Hanger Sample
  - Pennsylvania Safe Sleep Crib Card Samples
  - Perinatal Neonatal Quality Improvement Network in Massachusetts Crib Card Samples

Appendix E. Safe Sleep Quality Improvement Initiative Evaluation Resources

ILPQC ESSI Monthly Data Collection Form Hospital Measures		
REDCAP Study Identifiers		
Hospital ID Number	Hospital ID Number: _____	
Please select the month for this submission:	☐ Baseline (Oct - Dec 2023) ☐ January 2024 ☐ February 2024 ☐ March 2024 ☐ April 2024 ☐ May 2024 ☐ June 2024 ☐ July 2024 ☐ August 2024 ☐ September 2024 ☐ October 2024 ☐ November 2024 ☐ December 2024	☐ January 2025 ☐ February 2025 ☐ March 2025 ☐ April 2025 ☐ May 2025 ☐ June 2025 ☐ July 2025 ☐ August 2025 ☐ September 2025 ☐ October 2025 ☐ November 2025 ☐ December 2025
Structure Measures		
1. Hospital has standardized provider and hospital staff education about listening to parents and caregivers, providing respectful care and building trust, addressing implicit bias and engaging in anti-racism.	☐ Haven't started ☐ Working on it ☐ In place	
2. Hospital has standardized provider and hospital staff education about the importance of a safe sleep environment and engaging in meaningful, culturally appropriate, respectful, nonjudgmental conversations with parents or caregivers about safe sleep.	☐ Haven't started ☐ Working on it ☐ In place	
3. Hospital has a standardized practice of promoting a safe sleep environment in the hospital setting in accordance with the 2022 AAP Recommendations.	☐ Haven't started ☐ Working on it ☐ In place	

Figure A: Example Safe Sleep Quality Improvement Initiative Monthly Data Collection Form: Hospital Measures*[41]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

Template: PDSA Worksheet

Objective:

1. Plan: Plan the test, including a plan for collecting data.

Questions and predictions:

-
-

Who, what, where, when:

Plan for collecting data:

2. Do: Run the test on a small scale.

Describe what happened. What data did you collect? What observations did you make?

3. Study: Analyze the results and compare them to your predictions.

Summarize and reflect on what you learned:

4. Act: Based on what you learned from the test, make a plan for your next step.

Determine what modifications you should make — adapt, adopt, or abandon:

Figure B: IHI QI Plan-Do-Study-Act Cycle Worksheet**[33]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

Safe Sleep Education Assessment Tool

Client Name: _____ Client I.D. #_____

1. What safe sleep options are in the home?	☐Crib ☐Bassinet ☐Pack n Play	☐None	☐Observed ☐Parent reported	☐Education provided ☐Referral made
2. Where will the baby sleep?	For Naps: ☐Crib ☐Bassinet ☐Pack n Play ☐Couch ☐Recliner ☐Swing ☐Car seat ☐Bouncy seat ☐Floor ☐With an adult, child or pet ☐Other_____	At Night: ☐Crib ☐Bassinet ☐Pack n Play ☐Couch ☐Recliner ☐Swing ☐Car seat ☐Bouncy seat ☐Floor ☐With an adult, child or pet ☐Other_____	☐Observed ☐Parent reported	☐Education provided
3. Will stuffed animals, toys, pillows, quilts, blankets, wedges, positioners, other loose bedding or bumpers be in the infant's sleep environment?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
4. Will the baby ever share a sleep surface with a sibling, adult or pet?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
5. Does your baby ever share a sleep surface in a bed, couch, recliner or other?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
6. When baby sleeps he/she is placed on:	For Naps: ☐Back ☐Side ☐Stomach	At Night: ☐Back ☐Side ☐Stomach	☐Observed ☐Parent reported	☐Education provided
7. Do you and/or other caregivers smoke?	☐Yes: ☐Inside ☐Outside ☐No smoking (skip to #9)		☐Observed ☐Parent reported	☐Education provided
8. If you smoke outside, do you change your clothes before holding your baby?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
9. Will the infant dressed for the temperature of the home?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
10. Is the infant breastfeeding?	☐Yes ☐Breastfeeding only ☐Formula and breast milk ☐No		☐Observed ☐Parent reported	☐Education provided
11. Will you use a clean dry pacifier that is not attached to a string or stuffed animal?	☐Yes ☐n/a ☐No		☐Observed ☐Parent reported	☐Education provided
12. Will you provide supervised tummy time while the baby is awake?	☐Yes ☐No		☐Observed ☐Parent reported	☐Education provided
13. Staff presented and reviewed NIH Safe Sleep materials. "What does a safe sleep environment look like?" Handout.	☐Yes ☐No ☐Parent declined ☐Safe sleep referral made		Others educated: ☐Father of baby ☐Grandparent ☐Other_____	

Staff signature: _____ Date: _____

Print name_____

Figure C: Safe Sleep Education Assessment Tool for Parents Template*[43]

Safe Sleep

Parent Acknowledgement Form

I was given important information about how to keep my baby safe while he or she sleeps.

I was told that my baby is safest sleeping alone, on his or her back, in a crib, bassinet or Pack 'N Play with a firm mattress and fitted sheet. There should not be any loose blankets, pillows, bumper pads, wedges or soft toys in my baby's sleep space. I was told that my baby should never sleep on a chair, sofa or adult bed, either alone or with anyone else. And no one should smoke around my baby.

I was able to ask questions about safe sleep and all of my questions were answered.

I understand the information about safe sleep and how important it is for my baby's safety.

_____

Signature Date

_____

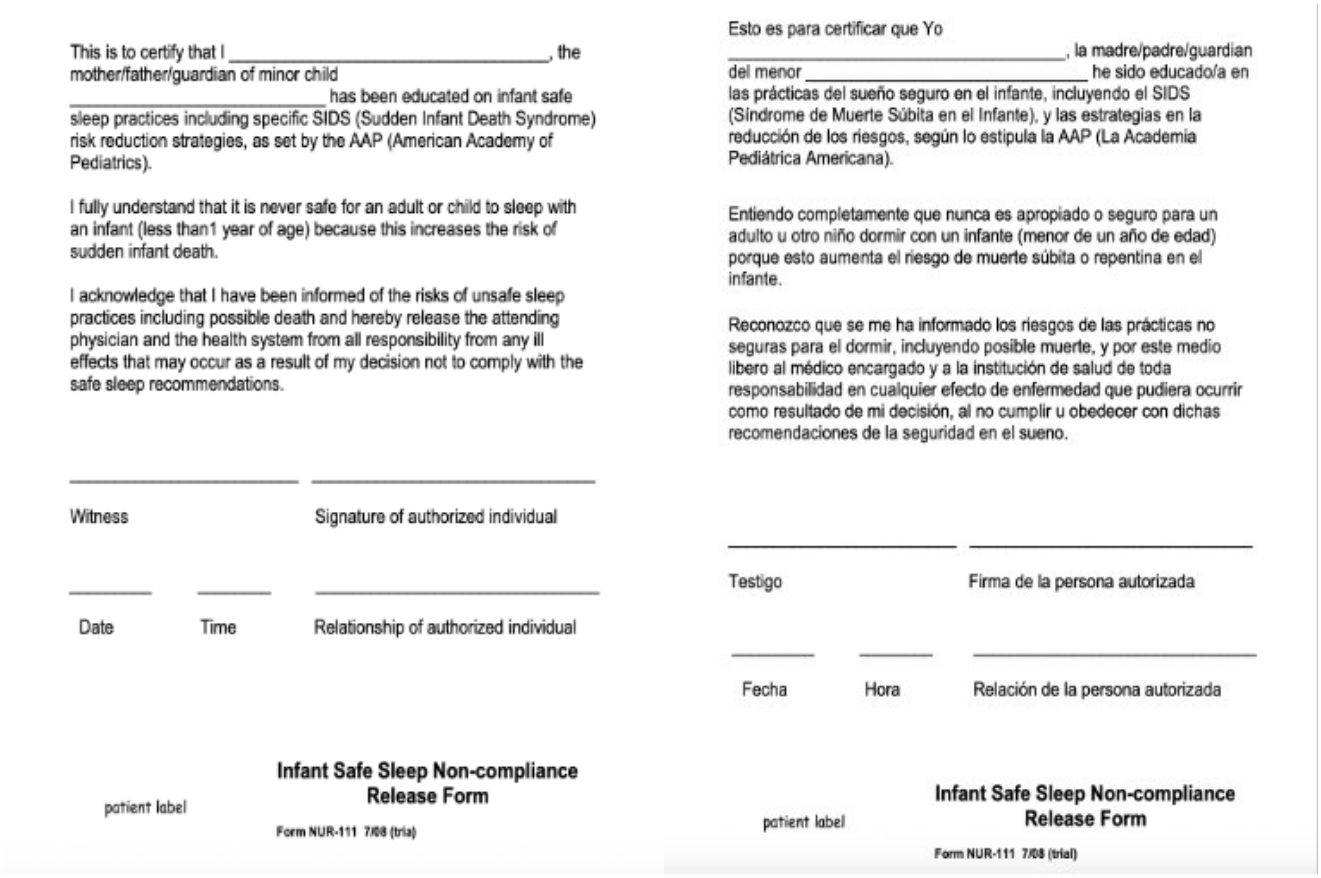
Signature Date

_____

My baby's name and date of birth

Figure D. Maryland Department of Health Maternal and Child Health Bureau Safe Sleep Parent Acknowledgement Form (English)*[44]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives



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 fully understand that it is never safe for an adult or child to sleep with an infant (less than1 year of age) because this increases the risk of sudden infant death.

I acknowledge that I have been informed of 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.

Witness | Signature of authorized individual

Date | Time | Relationship of authorized individual

patient label

Infant Safe Sleep Non-compliance Release Form

Form NUR-111 7/08 (tria)

Esto es para certificar que Yo _____, la madre/padre/guardian del menor _____ he sido educado/a en las prácticas del sueño seguro en el infante, incluyendo el SIDS (Síndrome de Muerte Súbita en el Infante), y las estrategias en la reducción de los riesgos, según lo estipula la AAP (La Academia Pediátrica Americana).

Entiendo completamente que nunca es apropiado o seguro para un adulto u otro niño dormir con un infante (menor de un año de edad) porque esto aumenta el riesgo de muerte súbita o repentina en el infante.

Reconozco que se me ha informado los riesgos de las prácticas no seguras para el dormir, incluyendo posible muerte, y por este medio libero al médico encargado y a la institución de salud de toda responsabilidad en cualquier efecto de enfermedad que pudiera ocurrir como resultado de mi decisión, al no cumplir u obedecer con dichas recomendaciones de la seguridad en el sueno.

Testigo | Firma de la persona autorizada

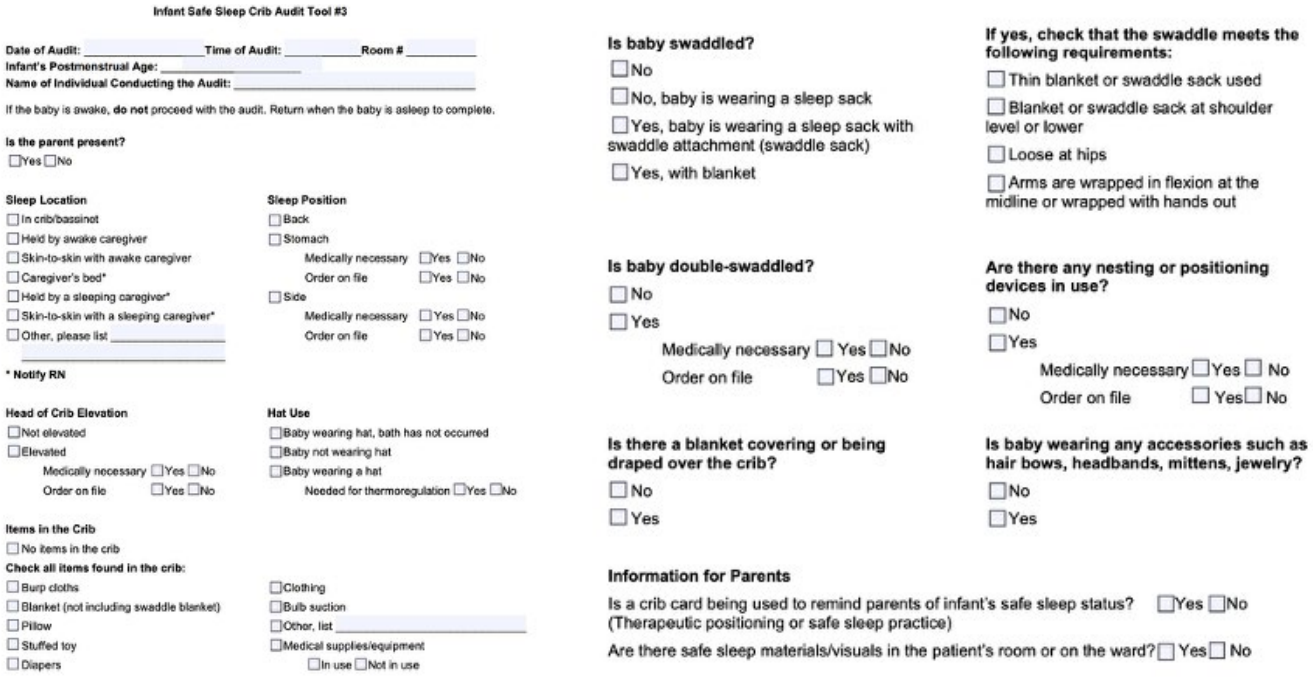
Fecha | Hora | Relación de la persona autorizada

patient label

Infant Safe Sleep Non-compliance Release Form

Form NUR-111 7/08 (trial)

Figure E. Cribs for Kids Parent/Caregiver Infant Safe Sleep Non-Compliance Release Form (English/Spanish)*[45]



Infant Safe Sleep Crib Audit Tool #3

Date of Audit: _____ Time of Audit: _____ Room # _____
Infant's Postmenstrual Age: _____
Name of Individual Conducting the Audit: _____

If the baby is awake, **do not** proceed with the audit. Return when the baby is asleep to complete.

Is the parent present?
☐Yes ☐No

Sleep Location
☐In crib/bassinet
☐Held by awake caregiver
☐Skin-to-skin with awake caregiver
☐Caregiver's bed*
☐Held by a sleeping caregiver*
☐Skin-to-skin with a sleeping caregiver*
☐Other, please list _____

Sleep Position
☐Back
☐Stomach
Medically necessary ☐Yes ☐No
Order on file ☐Yes ☐No
☐Side
Medically necessary ☐Yes ☐No
Order on file ☐Yes ☐No

* **Notify RN**

Head of Crib Elevation
☐Not elevated
☐Elevated
Medically necessary ☐Yes ☐No
Order on file ☐Yes ☐No

Hat Use
☐Baby wearing hat, bath has not occurred
☐Baby not wearing hat
☐Baby wearing a hat
Needed for thermoregulation ☐Yes ☐No

Items in the Crib
☐No items in the crib
Check all items found in the crib:
☐Burp cloths
☐Blanket (not including swaddle blanket)
☐Pillow
☐Stuffed toy
☐Diapers
☐Clothing
☐Bulb suction
☐Other, list _____
☐Medical supplies/equipment
☐In use ☐Not in use

Is baby swaddled?
☐No
☐No, baby is wearing a sleep sack
☐Yes, baby is wearing a sleep sack with swaddle attachment (swaddle sack)
☐Yes, with blanket

If yes, check that the swaddle meets the following requirements:
☐Thin blanket or swaddle sack used
☐Blanket or swaddle sack at shoulder level or lower
☐Loose at hips
☐Arms are wrapped in flexion at the midline or wrapped with hands out

Is baby double-swaddled?
☐No
☐Yes
Medically necessary ☐Yes ☐No
Order on file ☐Yes ☐No

Are there any nesting or positioning devices in use?
☐No
☐Yes
Medically necessary ☐Yes ☐No
Order on file ☐Yes ☐No

Is there a blanket covering or being draped over the crib?
☐No
☐Yes

Is baby wearing any accessories such as hair bows, headbands, mittens, jewelry?
☐No
☐Yes

Information for Parents
Is a crib card being used to remind parents of infant's safe sleep status? ☐Yes ☐No (Therapeutic positioning or safe sleep practice)
Are there safe sleep materials/visuals in the patient's room or on the ward? ☐Yes ☐No

Figure F. Michigan Department of Health and Human Services Infant Safe Sleep Audit Form Template*[47]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

NICU Safe Sleep Practice (SSP) Bedside Audit

Date: _____

Circle one: Day Shift Night Shift

Does this infant meet eligibility for safe sleep positioning? Yes No

If **NO**, reason for ineligibility, circle 1 or more : <1500 gms/<32 wks Not in crib Illness

If infant is **eligible** for SSP, circle one of the following:

Positioned supine (on back): Yes No
Flat position (head of bed not inclined up): Yes No
Crib is empty of positioning devices: Yes No
Crib is empty of soft objects such as dolls, fluffy blankets: Yes No

Is the infant compliant with SSP (answered "yes" to all of the above)? Yes No

For units interested in collecting specific process measures, examples include:
Is there a crib card taped to the crib/isolette/warmer? Yes No
Has sleep designation of infant been documented by RN? Yes No
Has sleep designation of infant been documented by MD? Yes No
Has education of the family about SSP been documented? Yes No

Figure G. Perinatal Neonatal Quality Improvement Network of Massachusetts NICU Safe Sleep Practice (SSP) Beside Audit Template*[48]

PASafeSleep

Penn Medicine

Philadelphia Safe Sleep Awareness For Every Well Newborn (S.A.F.E.) Program

Medial Record Chart Audit

Audit #_____

Date _____

Medical Record Chart number #_____

Please select your findings.

1. Were Safe Sleep Practices documented in Newborn Safety Rounds on each shift?
   ◯ Yes ◯ No
2. If unsafe sleep environment noted, was intervention documented?
   ◯ Yes ◯ No

Figure H. PA Safe Sleep Medical Record Audit Form Template*[49]

*Note that these materials are templates and may be modified by hospitals for the purposes of safe sleep quality improvement initiatives

Additional Resources:

- Acknowledgement Forms
  - Pennsylvania Sudden Infant Death Syndrome Education and Prevention Program Parent/Caregiver Voluntary Acknowledgement Form (English/Spanish)
  - Cribs for Kids Parent/Caregiver Acknowledgement Form (English/Spanish)

- Alternative Infant Safe Sleep Audit Tools
  - Improving Adherence to Safe Sleep Guidelines for Hospitalized Infants at a Children's Hospital (Supplemental Content)
  - Cribs for Kids Audit Form

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Safe Sleep NORTH CAROLINA

SafeSleepNC.org

Safe Sleep NC is a program of the UNC Collbarative for Maternal and Infant Health. Erin McClain, MA, MPH and Megan Canady, MSW, MSPH coordinate the program. The goal of Safe Sleep NC is to strengthen the adoption of infant safe sleep practices that reduce the risk of Sudden Infant Death Syndrome (SIDS) and that prevent infant sleep-related deaths, such as accidental infant asphyxiation and suffocation, across the state. Visit SafeSleepNC.org more information and materials.