Skin-to-skin (STS) holding is an evidence-based intervention that has positive benefits for both infants and parents. When comparing gestational ages in the NICU, patients born between 31-35.6 weeks are often more stable resulting in increased STS opportunities. Despite stability, these populations have higher percentages of never held and longer days to first STS holding when compared to younger gestations. Current unit practice for infant eligibility and nurse consistency is lacking. This results in lack of consistency and awareness for parents on opportunities to hold their infants STS. The purpose of this project is to implement and develop a standardized approach to improve opportunities and consistency of STS holding.

**Background**

In the United States an infant is born prematurely one out of every ten live births or 10% of all births. Premature infants can have many complications. The most predominant complications include difficulty with breathing, difficulty with oral feeding, cerebral palsy, neurodevelopmental delays, and problems with hearing or vision. A goal for preterm infants includes the ability to integrate parents into the care of the infants. An intervention that incorporates this is known as skin-to-skin (STS) holding. Holding an infant skin-to-skin is described as a parent holding their naked infant on their bare chest. The parent is holding the infant chest to chest, skin to skin.

STS holding is associated with:
- Improved infant’s quality of movement,
- Decreased number of days to first STS holding,
- Decreasing infants length of stay,
- Decreasing number of patients never held STS,
- Decreasing number of patients never held in the first 20 days of life.

The 3-C’s of Skin-to-Skin Holding: Communication, Color, Consistency

**Implementation Plan**

**Implementation Strategies**

- Recruited multidisciplinary unit champion
- Provided baseline education to Nursing, Medical, Support Staff
- Baseline data collected
  - Days to first hold
  - Percent of patients never held
  - Percent of discussions at multidisciplinary rounds

**Unit Interventions**

- Standardize parent – infant transfer
- Innovative creation and incorporation of color eligibility guidelines
  - Green: represents patient can be held STS
  - Red: represents STS should be delayed due to patient condition
  - Displayed colored eligibility kangaroos in patient rooms
  - Mentored unit champion and nurse leaders
  - Integrated guidelines into standards of practice
  - Integrated STS holding into daily nursing care
  - Increased parental awareness by displayed colored kangaroos

**Integration & Sustainment**

- Monthly audits on all discharged patient
  - First day to hold
  - Percentage of patients never held
  - Weekly audits on discussions at rounds and displayed kangaroos
  - Audit transparency at monthly staff and divisional meetings
  - New staff education
  - Continued education
  - Post intervention data dissemination
  - Intervention integrated into all gestational ages

**Synthesis of Evidence**

In the United States an infant is born prematurely one out of every ten live births or 10% of all births. Premature infants can have many complications. The most predominant complications include difficulty with breathing, difficulty with oral feeding, cerebral palsy, neurodevelopmental delays, and problems with hearing or vision. A goal for preterm infants includes the ability to integrate parents into the care of the infants. An intervention that incorporates this is known as skin-to-skin (STS) holding. Holding an infant skin-to-skin is described as a parent holding their naked infant on their bare chest. The parent is holding the infant chest to chest, skin to skin.

STS practices are considered a low technical and cost intervention which can improve the quality of care and the infant outcomes. STS holding is a feasible intervention that should be communicated and integrated into NICU practices everywhere.

**Theme and Aims**

We aim to improve the eligibility and consistency of daily skin-to-skin (STS) and improve multidisciplinary conversations of STS for patients born 31-35.6 weeks in the neonatal intensive care unit at the University of Iowa Stead Family Children’s Hospital. The process begins with consistency of infant eligibility. The process ends with the neonate being held STS. By working on the process, we expect to:

1. Decrease the number of days to the first STS hold,
2. Decrease number of patients never held STS,
3. Create appropriate STS eligibility guidelines to promote consistency among bedside nurse,
4. Provide a bedside displayed color eligibility tool for parent awareness,
5. Improve daily multidisciplinary conversation about skin-to-skin holding at bedside rounds

**Evaluation**

**Desired Outcome**

- 10% decrease in number of patient not held in the first 20 days of life
- 10% decrease in average day to first STS holding
- 75% display rate of kangaroo’s at patient bedside
- 75% correct patient eligibility color and as compared to guidelines

**How it will be measured**

- Calculated percent of patients never held STS in the first 20 days of life as compared to pre-data
- Calculated average number of days to first STS holding as compared to pre-date average
- Overall project percentage of displayed kangaroos compared to enrolled patients
- Bedside audits of color displayed at bedside as compared to nurse/auditor discussion

**Means of monitoring**

- First STS holding occurrences documented in EPIC
- First STS holding occurrences documented in EPIC, subtracted from date of birth
- Random Weekly bedside audits

**Perceived Barriers**

- Parental refusal
- LACK OF ENGAGEMENT
  - Nursing workloads
  - Staffing challenges
  - Parental unavailability

**References**

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