

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

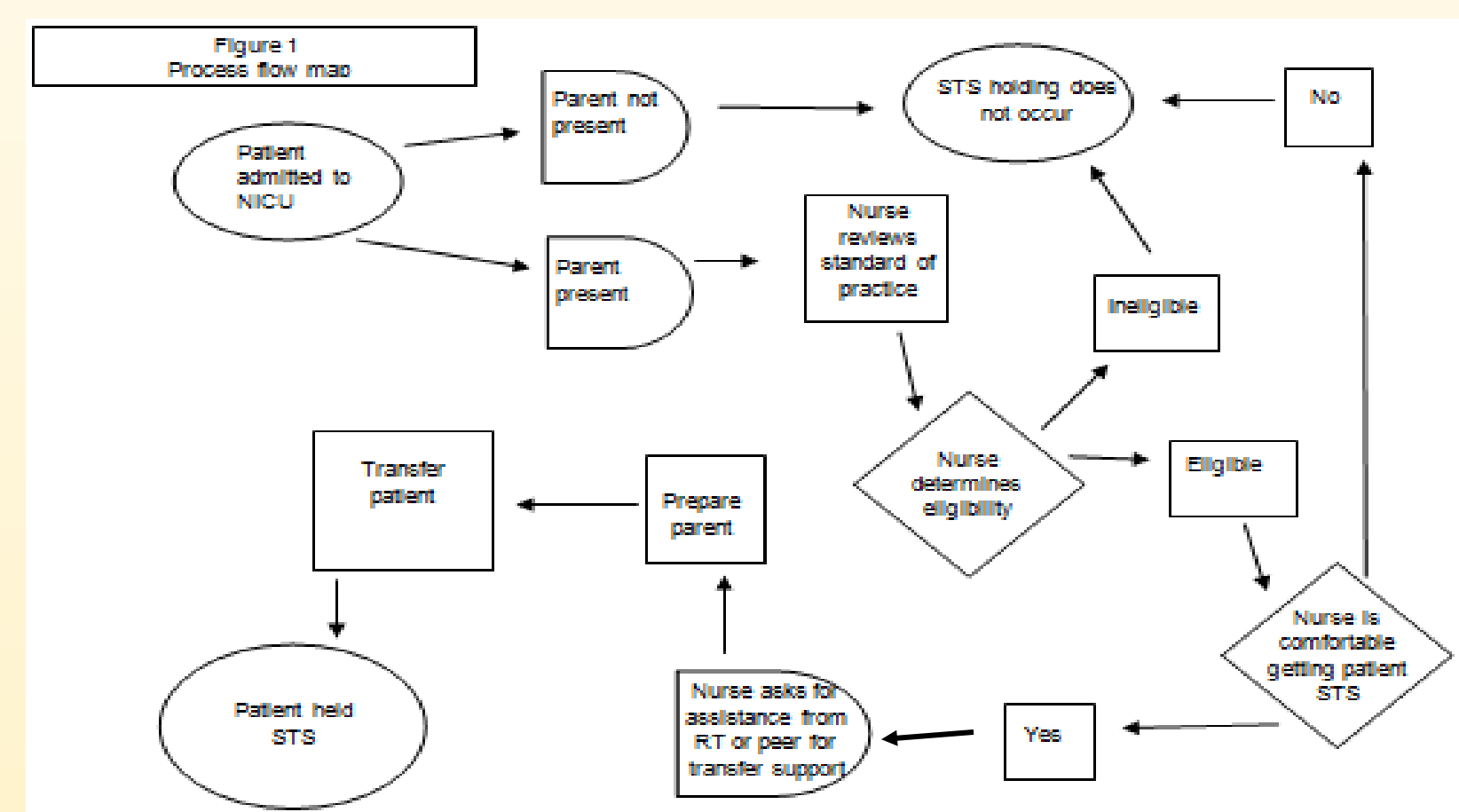
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Background

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 percent's 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.

Process Map

Infant determination of STS Holding



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 vision¹. 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:

- Improving infant's quality of movement²,
- Decreasing infant stress signals²,
- Decreasing infants length of stay²,
- Improving exclusive breastfeeding rates²,
- Controlling infants' pain as a non-pharmacologically intervention by decreasing pain scores, length of infant cry, and improve oxygen saturations³,
- Improving parental impact themes of attachment, bonding, psychological well-being, helpful in proving care, and involved in cares⁴,
- Providing parental activation of oxytocin, decreasing parental anxiety levels, and decreasing infant's cortisol levels⁵

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:

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

Implementation Plan

Implementation Strategies	Unit Interventions
Awareness & Interest	<ul style="list-style-type: none"> Recruited multidisciplinary unit champion Provided baseline education to Nursing, Medical, Support Staff Baseline data collected <ul style="list-style-type: none"> -Days to first hold -Percent of patients never held -Percent of discussions at multidisciplinary rounds
Knowledge & Commitment	<ul style="list-style-type: none"> Staff meeting and annual comp education completed Multidisciplinary meeting updates 1-on-1 or small group education Panapto video education Updated standard of practice Created parent and staff educational material
Action & Adoption	<ul style="list-style-type: none"> Standardize parent – infant transfer Innovative creation and incorporation of color eligibility guidelines <ul style="list-style-type: none"> -Green: represents patient can be held STS -Yellow: represents caution & encourages multidisciplinary discussion -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	<ul style="list-style-type: none"> Monthly audits on all discharged patient <ul style="list-style-type: none"> -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

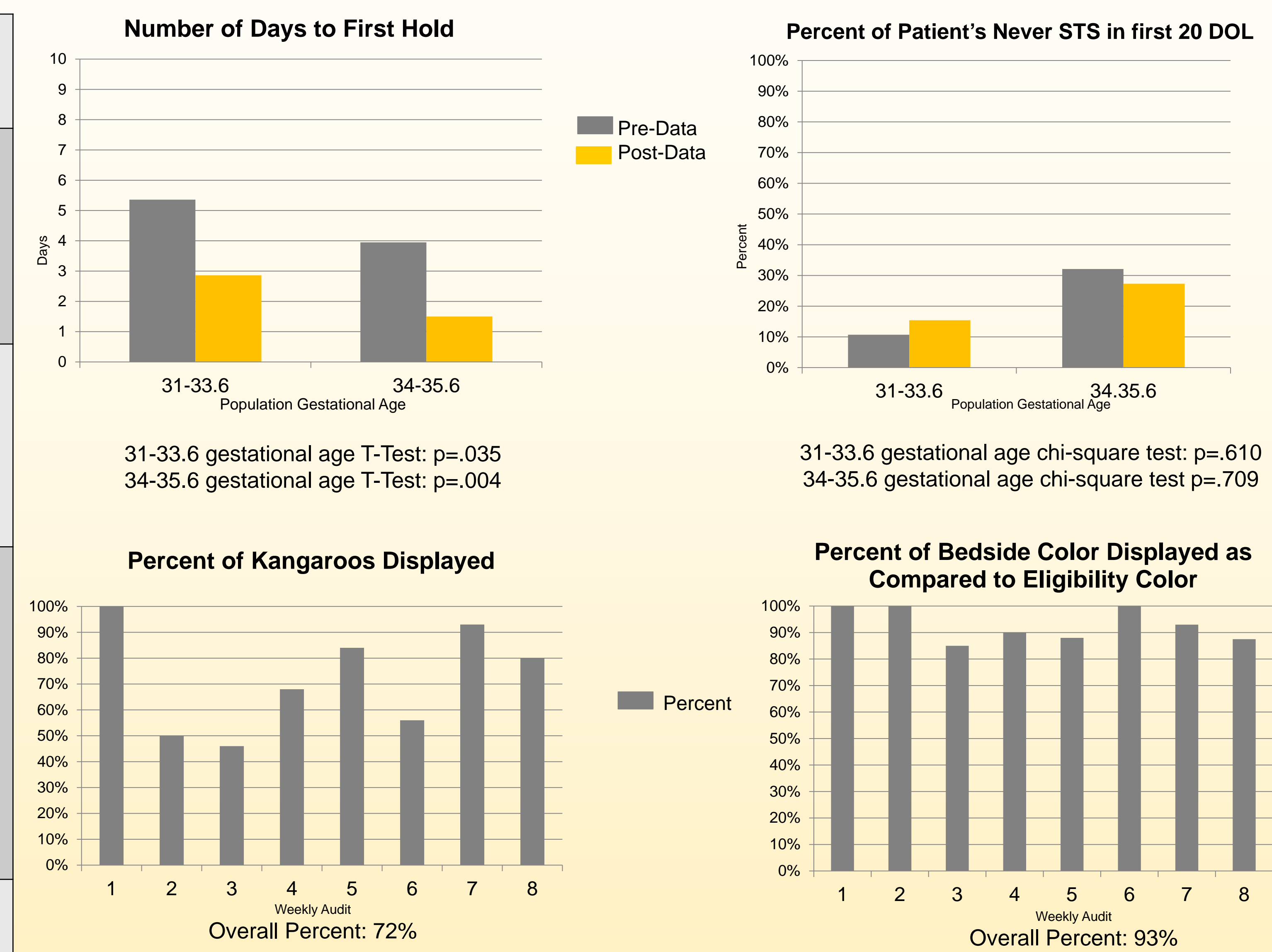
Perceived Barriers



Evaluation

Desired Outcome	How it will be measured	Means of monitoring
• 10% decrease in number of patient not held in the first 20 days of life	<ul style="list-style-type: none"> Calculated percent of patients never held STS in the first 20 days of life as compared to pre-data Chi-Square testing for statistical significance 	<ul style="list-style-type: none"> First STS holding occurrences documented in EPIC
• 10% decrease in average day to first STS holding	<ul style="list-style-type: none"> Calculated average number of days to first STS holding as compared to pre-date average T-Test for statistical significance 	<ul style="list-style-type: none"> First STS holding occurrences documented in EPIC subtracted from date of birth
• 75% display rate of kangaroo's at patient bedside	<ul style="list-style-type: none"> Overall project percentage of displayed kangaroos compared to enrolled patients 	<ul style="list-style-type: none"> Random Weekly bedside audits
• 75% correct patient eligibility color and as compared to guidelines	<ul style="list-style-type: none"> Bedside audits of color displayed at bedside as compared to nurse/auditor discussion 	<ul style="list-style-type: none"> Random Weekly bedside audits

Results



Implications for Practice

Unit practice recommendations include:

- Standardized guidelines to help determine infant's eligibility for STS holding
- Bedside display of colored kangaroos providing infant eligibility awareness for parents
- Multidisciplinary promotion by increasing STS conversation at family centered rounds
- Promotion of nursing advocacy, comfort, and knowledge by educating STS benefits
- Colored kangaroo wheels and parent/staff educational handouts given upon admission
- Outcome metrics obtained and routinely communicated to staff



Eligibility Color Guidelines	Definition
Green	Infant is considered stable and are eligible for skin-to-skin holding
Yellow	Skin-to-skin holding should be considered and should discuss eligibility with providers
Red	Skin-to-Skin should be delayed at this time due to patient condition. Encourage other types of parental-infant bonding

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