POPINVITED: ID# 101174

Title:

Timing of Newborn First Bath to Improve Outcomes and Reduce Preventable Transfers to the NICU

Raquel Armstrong
University of Texas Health Science Center in Houston -- Cizik School of Nursing, Fort Worth, TX, USA

ACCEPTED

Session Title:

Rising Stars of Research and Scholarship Invited Student Posters

Slot:

RS PST1: Sunday, 17 November 2019: 11:45 AM-12:15 PM

Applicable Category:

Clinical

Keywords:

Hypoglycemia, Initial Bath and Newborn

References:

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Abstract Summary:

An evidence-based quality improvement project resulted in statistically significant decreases in hypoglycemia, hypothermia, and tachypnea secondary to delaying an infant's first bath by at least 12 hours. In addition, there was a clinically significant increase in the breastfeeding rate.

Content Outline:

I. Introduction and Background

- A. Pathophysiology
- B. Potential Negative Sequela
- C. Local Problem

II. Methods and Implementation Plan

- A. Methods
  - 1. Chart Reviews
- B. Interventions
  - 1. Education
  - 2. Task Force Creation
  - 3. PDSA's

4. Sample Size

5. Exclusion criteria

III. Aim statement/Intended Outcomes

A. Aim Statement

B. Bath Time Frame

IV. Results

V. Conclusions

VI. Recommendations for DNP Practice

Topic Selection:

Rising Stars of Research and Scholarship Invited Student Posters (25201)

Abstract Text:

Purpose: An evidence-based quality improvement project was implemented with the intention of decreasing transfers into the Neonatal Intensive Care Unit, by delaying the first bath for at least 12 hours, in order to reduce the incidences of hypothermia, hypoglycemia, and tachypnea.

Setting: The project was conducted at a 572-bed county teaching hospital whose Labor & Delivery Department delivered 4,312 newborns in fiscal year 2018. There were a total of 2680 infants included in this project, of which 1132 infants were in the pre-implementation review group and 1548 in the post-implementation group. Excluded infants in the pre-implementation group were those whose bath documentation was missing. Post-implementation exclusions included those who required an early bath due to medical conditions, parental request, or parental refusal for a bath.

Methods: Retrospective chart reviews were completed on all well born infants from January 1st through May 8th of 2018. Frontline nursing champions developed the workflow process, along with the parent education, staff education, and communication tools. Multiple forums were scheduled, which afforded all staff of the Women's Division the opportunity to learn of the new process. This also provided a venue for them to share feedback and suggestions. Based on forum feedback, mandatory education from the nursing champions was then presented at a pre-scheduled biannual educational event. Electronic medical record (EMR) reports supplied the comparative patient data from May 9th when the change was implemented, through September of 2018.

Results: Ninety percent of first baths were given after the first 12 hours of life. Overall, there was a decrease in hypothermia by 6.4% ($p = 0.000$), a decrease in hypoglycemia by 12.4% ($p = 0.000$), and a decrease in tachypnea by 4.2% ($p = 0.000$). These outcomes were observed during the four-hour time period prior to the first bath and four hours afterwards. All three categories demonstrated a statistically significant improvement during the four hours prior to the bath. Hypoglycemia was the only indicator to exhibit a statistically significant improvement during the four hours after the first bath. Hypothermia actually decreased by 1.1% ($p = 0.287$), while tachypnea slightly decreased by 0.9% ($p = 0.005$). Exclusive breastfeeding rates increased by 5.6% ($p = 0.391$). Despite the positive outcomes, there was a 1.6% increase in transfers from Post-Partum to the Neonatal ICU.

Conclusions: Delay of the first bath provides a supportive, nurturing environment during the transition process, which in turn results in a reduction of negative sequela, as seen by a decrease in rates of hypothermia, hypoglycemia, and tachypnea, with a resultant increase in exclusive breastfeeding rates.

Recommendations: Newborn first baths should be performed after 12 hours of life. Whenever the bath is given, caregivers should encourage and support skin to skin for warmth, comfort, and recovery.