



Improving Breast milk Use in NICU: Golden Hours



The Problem

Breast milk (BM) as the primary source of nutrition for newborns is an evidence based, well supported practice. Exclusive breastfeeding (BF) has now become part of the Joint Commission's Perinatal Care core measures. There are particular benefits of BM use for preterm and very low birth weight (VLBW, BW<1500 g) infants, including decreased risk of late onset sepsis and necrotizing enterocolitis. Given that NICU infants are unable to BF at the time of birth, in order to establish the maternal supply, it is critical for the mother start milk expression as soon as possible after delivery, and ideally within 6 hours of birth.

The BIDMC NICU currently tracks the following measures related to BM use:

- Outcome measures:
 - % VLBW babies receiving BM as first feedings = 82% (last 12 months)
 - % of BM of feeds in 1st 2 weeks of life in VLBWs: 70% (last 12 months)
 - % VLBW babies receiving any BM at discharge = 62% in 2013
- Process measures (for NICU admissions in the first 4 hours of life, >6 hours stay)
 - % moms with documented BM pumping within 6 hours of birth
 - % mom's pump within 6 hours (of those documented)

IOM Dimensions of Quality of Care: Effectiveness, Patient-Centered Care, Equity

Aim/Goal

By the end of 2014, we aim to increase maternal pumping within 6 hours of life for all infants who require NICU admissions to 60% from 20% baseline in fiscal year 2013. In addition, we aim to improve documentation to 80% from 40%.

The Team

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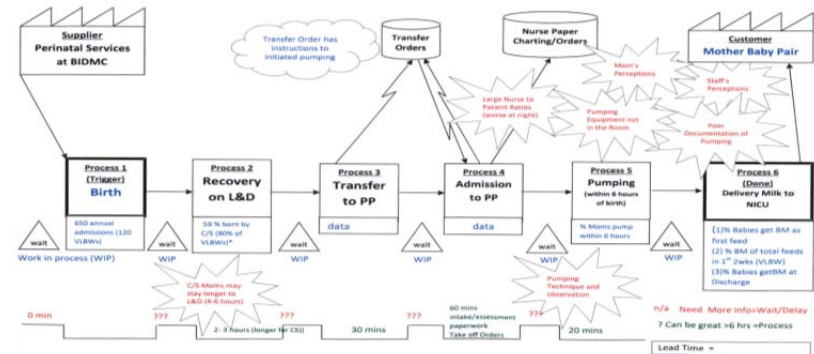
In collaboration with the Exclusive Breastfeeding Taskforce

The Interventions

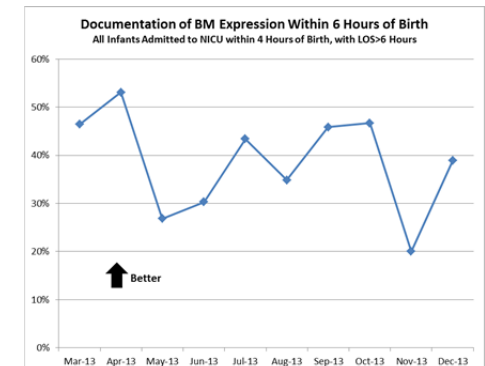
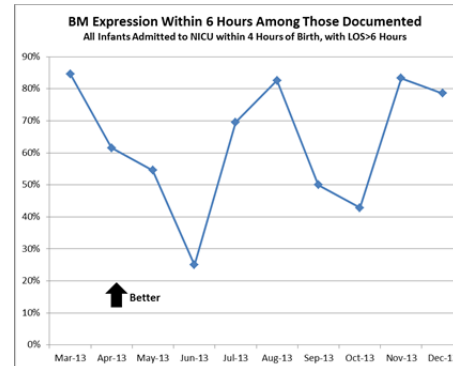
- Understand the process of the mother's journey from delivery of infant to postpartum admission and identify areas to facilitate early milk expression
- Education for families and staff about the importance of early expression
- Facilitate the reminders through provider order entry (POE)
 - Nursing order to initiate pumping (December 16, 2013)
 - Lactation consult can be ordered on the mother (January 2014)

The Results/Progress to Date

Current State Value Stream Map



BM Expression Measures (Population ~ 25 to 65 newborns/month)



Lessons Learned

- Several barriers exist to prevent initiating of pumping within 6 hours of birth (see red stars on Value Stream Map), even if providers are well intended
- Documentation of early expression is consistently under 50%
- No clear pattern is noted for early breast milk expression, but interpretation of data is hampered by low rates of documentation

Next Steps/What Should Happen Next

- Increased focus on facilitating and encouraging documentation of BM expression
- Continue to monitor measures to assess impact of recent interventions, including addition of POE orders
- Include pumping in nursing competencies for L&D and postpartum staff
- Initiate hand-expression of milk in the first hour post birth (in progress)

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