



Service Priorities and Programmes Electronic Presentations

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Colostrum Oral Care- An effective intervention to initiate and sustain breast milk feeding for NICU patients:

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Introduction

Colostrum is the early milk produced by mothers of newborns. It is well documented in literature that colostrum contains a high concentration of protective immune factors individualized for each baby. However, clinically unstable newborns admitted to NICU for conditions like asphyxia at birth, prematurity, or surgical problems of the gastro-intestinal tract, are precluded from enteral feeding in the immediate hospitalized period. To facilitate later breastfeeding of those admitted newborns, colostrum oral care (COC) acts as a first step to motivate mothers to initiate breastmilk expression and thus maintaining lactation during their babies' stay in NICU until oral feeding can be started (Edwards & Spatz, 2010). The technique involves swabbing inside of baby's buccal cavity, tongue, and on lips with own mother's colostrum. Colostrum oral care (COC) was first demonstrated safe use in the extremely low birth weight neonates (Rodriguez, 2009, 2011). COC was incorporated into an innovative model of Transition to Breast Pathway by the NICU in the United States (Edwards & Spatz, 2010). In line with the commitment to the Baby-Friendly Hospital Initiative (BFHI), the practice of colostrum oral care has been launched in QEH NICU since Dec2012.

Objectives

1. To establish a breastmilk feeding culture in NICU through implementing COC, an evidence-based practice which requires collaboration with the Department of O&G.
2. To test for effectiveness of the COC intervention on increasing the expressed breastmilk (EBM) feeding rates (Some EBM vs Exclusive EBM)
3. To identify gaps for improvement in sustaining lactation and later breastfeeding for potentially all mothers of NICU patients

Methodology

Monthly statistics, Chi-square test, Relative risk, Logistic regression Cross-sectional data Nursing staff survey and audit Bedside interviews with parents to obtain reflection

Result

Breastfeeding Rates Mean breastmilk feeding rate in NICU (some EBM) was raised from 46.3% (2012 Jan-Dec) to 63.0% (2013 Jan-Dec). During the year 2013, colostrum oral care was performed at an average rate of 33.9% (n=229) over total 676 admissions, including 356 terms and 320 preterms. Mean exclusive breastmilk feeding rate (Jan-Dec) among those who ever had received EBM was 27.0% (n=115). Tests of Association Chi-square test was used to examine the relationship between colostrum oral care (COC) and the main outcome (EBM). The hypothesis that oral care and exclusive EBM are independent was rejected at a p-value 0.00000 (p-value<0.05). For the group without oral care, the probability of baby receiving EBM was 46.5% (197/424=0.4646) (some EBM) and 3.5% (15/424=0.0354) (exclusive EBM). For the group with oral care, the probability of baby receiving EBM was 97.4% (189/194=0.9742) (some EBM) and 46.4% (90/194=0.4639) (exclusive EBM). The relative risk of receiving EBM was 2.1 (0.9742/0.4646) (some EBM) and 13.1 (0.4639/0.0354) (exclusive EBM). There was a 2.1 (some EBM) and 13.1 (exclusive EBM) greater probability of receiving EBM for the group with oral care than for the group without oral care. The effect of demographic characteristics on receiving EBM was shown using logistic regression. The group with oral care was more likely to receive EBM (some EBM and exclusive EBM) than the group without oral care. Also, the prevalence of receiving EBM (exclusive EBM) was statistically significantly higher among those with BW < 2kg. Nurses Response rate of the neonatal nurses' survey conducted in Jan2014 was 100% (n=69). All staff had performed the COC procedure routinely for babies who were NPO or receive gavage feeding. 87% staff involved parents to perform the procedure. 93% staff agreed with the purpose and benefits of COC on preterm babies. 94% staff documented the provided care. 52% of neonatal nurses were audited Apr-Jun 2013. The passing rate was 99%. Parents Bedside interviews with parents all showed positive feedback, including the fathers.