

First Drops, First Hope: A Quality Improvement Project to Improve Early Breast Feeding in Preterm Infants

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Introduction - Early breast feeding (BF) is crucial for preterm infants, offering protection against infections, necrotizing enterocolitis (NEC), supporting optimal neurodevelopment and significantly reducing mortality and morbidity. This Quality Improvement (QI) Project was designed to improve the early initiation of BF (within 6 hours) at Teaching Hospital (TH) Badulla.

Objectives - To increase the proportion of neonates born at <34 weeks gestation who receive BF within 6 hours (ideally) or within 24 hours of birth, from 6% (within 6 hours) and 42% (within 24 hours) in early 2023 to ≥85% by the end of 2024. This aligns with the Perinatal Excellence to Reduce Injury in Premature Birth (PERIPrem) and The United Nations Children’s Fund (UNICEF) Baby Friendly Initiative standards.

Methods - A prospective QI project using Plan–Do–Study–Act (PDSA) cycles were conducted from 1st September 2023 to 31st December 2024. All inborn neonates <34 weeks (W) were included, excluding those with congenital anomalies or contraindications to enteral feeding (Intestinal obstruction, NEC and diaphragmatic hernia). The initial four months focused on baseline data collection and designing and implementing PDSA cycles.

Key interventions included - Formation of a multidisciplinary QI team, conducting staff awareness and training programs, distributing and displaying PERIPrem breast milk leaflets, initiating maternal milk expression within 1 hour of delivery, administering breast milk for oral care as soon as available, providing antenatal counselling and bedside lactation guidance to mothers.

Results - Of 284 eligible infants, 250 were included after exclusions. Data were analysed monthly basis. The median gestational age was 30 weeks (lowest:24W) and median birth weight was 1240g (range 480g – 1750g). Following the interventions: BF within 6 hours improved to 95% and within 24 hours increased to 96.16% in 2024 and reached 100% during the final 4 months.

Discussion - This multidisciplinary, low-cost QI initiative significantly improved early BF initiation in preterm infants.

Keywords - Preterm Infants, Early Breastfeeding, PERIPrem, UNICEF Baby Friendly Initiative, QI Project