Wisconsin Perinatal Quality Collaborative (WisPQC)

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Quality Improvement (QI) to Increase Exclusive Breastfeeding Rates in Newborns at Risk for Hypoglycemia

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Introduction: Neonatal hypoglycemia management may disrupt the mother-newborn bonding leading to decreased breastfeeding. We previously decreased the admissions of hypoglycemic infants to our special care nurseries with the use of glucose gel, but not increased their exclusive breastfeeding rates.

Objectives, purpose, goals: To increase to >50% exclusive breastfeeding rates for infants who received glucose gel over a 12-month period by the availability of pasteurized human donor milk (PHDM) and by antenatal breast expression (ABE) at 36 weeks' gestation for low risk women with Diabetes.

Intervention/practice: This QI project was implemented at Froedtert West Bend Hospital nursery, and included all infants at risk for hypoglycemia. Patient charts were reviewed, baseline data was obtained from 1/2018 to 9/2019, and action data was obtained from 9/2019 to 12/2019. The plan-do-study-act (PDSA) cycles started on 4/2019 included education of stakeholders on the advantages of breastfeeding, PHDM and ABE, and the development of protocols and flow charts. Outcome measures included percent of exclusive breastfeeding infants who received glucose gel and percent of exclusive breastfeeding infants whose mothers underwent ABE. Process measures included percent of proper documentation of amount of expressed breastmilk from mothers who underwent ABE. Balancing measures included untoward events (i.e., preterm labor). Statistical process charts were used.

Results: The baseline exclusive breastfeeding rates for infants who got glucose gel for 2018 and 2019 (Jan - Aug) were 38% and 45%, respectively. After starting the QI, the exclusive breastfeeding rates increased to 100%. 33% of those infants got PDHM (N=6). All infants of mothers who underwent ABE (N=11) did not have hypoglycemia and were exclusively breastfed. For process measures, there was 100% documentation of amount of breastmilk from mothers who underwent ABE [median 8ml, range (0-155ml)]. For balancing measures, there were no untoward events.

Conclusions/implications: We showed increased frequency of exclusive breastfeeding rates for infants who got glucose gel by the availability of PDHM. All infants of Diabetic mothers (IDM) who underwent ABE exclusively breastfed. Our next steps include implementation of the availability of PDHM and ABE to the other hospitals of the Froedtert Health system.