Peer Reviewed

Clinical Pearl: The Promotion of Human Milk and Breastfeeding for the Very Low Birthweight Infant in the Neonatal Intensive Care Unit

Saajidha Rijvydeen, DO, Amy Meyer, RN, BSN, CL, Joseph R, Hageman, MD

The American Academy of Pediatrics (AAP) has long endorsed breastfeeding in infants for at least six months and continued breastfeeding with the addition of complementary feeds thereafter for at least a year (1). The use of human milk in preterm infants has been shown to have significant advantages that include lower rates of necrotizing enterocolitis (NEC), late-onset sepsis, chronic lung disease, neurodevelopmental impairment, and retinopathy of prematurity. The awareness of these benefits has led to a slow but steady increase in breastfeeding rates among preterm infants in the last decade.

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Pasteurized donor milk is becoming increasingly routine in its use in preterm infants, most often when there is limited or insufficient maternal milk to support nutritional needs at neonatal ICUs (NICUs) around the country. Advances in optimizing nutrition for very low birth weight (VLBW) infants has also been at the forefront of the field of neonatology, and this has been highlighted with the recent publication of a clinical report by the AAP aimed at promoting human milk and breastfeeding for very low birth weight infants (2).

The report recognizes that though pasteurized donor breast milk, when provided exclusively or supplemented, is protective against NEC, it "does not appear to confer the additional health benefits that have been reported with mother's own milk (MOM) such as reduction in late-onset sepsis or improvements in neurodevelopment" (2). It recommends that "pasteurized donor milk may be considered as a bridge until a full supply of mother's own milk is available" (2).

The report highlights several challenges experienced by mothers of VLBW infants that impede breastfeeding. These include prolonged mother-infant separation, pumping to maintain milk production rather than direct breastfeeding, and caring for other children or family members (2). Engaging in family-centered care models where various members of a multidisciplinary NICU care team are educated on skills that support lactation and breastfeeding is recommended in the report.

Given barriers such as delayed oromotor coordination, prolonged mother-infant separation, and the need for fortification feeds in VLBW infants, breastfeeding is often delayed, and these delays have been associated with a shorter duration of breastfeeding post-discharge (2). The report highlights the importance of assessing infant readiness beginning in weeks 31-33 postmenstrual age and encouraging the opportunity for non-nutritive suckling and breastfeeding when appropriate (2).

Importantly, the report identifies racial disparities with lower rates of human milk use in non-Hispanic Black mothers than non-Hispanic white mothers, as we have experienced in our NICU at the University of Chicago (2,3). It advocates for NICUs to consider approaches such as establishing peer counselor programs and support groups, assisting with acquiring a breast pump, and minimizing transportation barriers that limit mothers' visits to the NICU. Furthermore, it recommends that "technical assistance in early milk expression should be available to mothers within 6 to 8 hours of the birth of any VLBW infant, and mothers should be encouraged to express their milk as often as needed to maintain a milk supply for their infant, ideally every three to four hours" (2).

"When VLBW infants prepare for discharge home, the AAP recommends open conversation with mothers about their breastfeeding goals, challenges that may be experienced, and any needs for fortification (2,3.). Resources in the community and support from outpatient pediatricians may lead to more successful breastfeeding (2,3)."

When VLBW infants prepare for discharge home, the AAP recommends open conversation with mothers about their breastfeeding goals, challenges that may be experienced, and any needs for fortification (2,3.). Resources in the community and support from outpatient pediatricians may lead to more successful breastfeeding (2,3). Despite these initiatives in the NICU prior to discharge,

our discharge rates on maternal human milk still range around 50% (3). One of the biggest challenges has been the Coronavirus-19 pandemic (COVID-19) (3).

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The publication of this AAP clinical report comes shortly after the recent publication of a prospective cohort study that showed that for every 1% increase in MOM fed to preterm infants during the first 14 days of life, there was a sevenfold increase in odds of being discharged home on an exclusive diet of MOM. This finding was more pronounced when there was MOM consumption for the first 28 days of life, which correlated with a 17-fold increase of odds of being discharged on an exclusive MOM diet. These results support the increasing body of knowledge on the crucial need to provide a multidisciplinary approach that helps mothers of VLBW infants successfully establish lactation soon after birth and provide breastmilk (4).

References:

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Corresponding Author

Saajidha Rizvydeen, DO
Neonatal-Perinatal Medicine Fellow (2021 - 2024)
Department of Pediatrics
The University of Chicago
Comer Children's Hospital
5721 S. Maryland Ave.
Chicago, IL 60637
Email: Saajidha.Rizvydeen@uchospitals.edu

Amy Meyer, RN, BSN, CLC
University of Chicago
5841 S. Maryland Ave.
Chicago, IL 60637
Email: Amy.Meyer@uchospitals.edu

Corresponding Author

Joseph R. Hageman, MD
Senior Clinician Educator
Pritzker School of Medicine
University of Chicago
MC6060
5841 S. Maryland Ave.
Chicago, IL 60637
Phone: 773-702-7794
Fax: 773-732-0764
Email: jhageman@peds.bsd.uchicago.edu