

As a neonatologist I am on the front line of taking care of newborns with problems related to complicated pregnancies, deliveries, and prematurity. Due to advances in obstetric care, maternal-fetal medicine, and reproductive endocrinology, an increasing number of infants are born each year to mothers with problems such as preeclampsia, gestational diabetes, obesity, and autoimmune disease. In addition, about 10% of infants born in the U.S. are premature. It is well-known that pregnancy complications, preterm delivery, and maternal-infant separation, as a result of neonatal intensive care unit (NICU) admission, are associated with delayed lactogenesis II (the onset of copious milk volume) and problems with breastfeeding. In the Infant Feeding Practices II study almost 25% of mothers experienced a significant delay in the onset of lactation.

In recent years U.S. hospitals have strived for high exclusive breastfeeding rates at time of discharge and, in an effort to do so, have implemented the Baby Friendly Hospital Initiative (BFHI). During this same time period my neonatal colleagues and I have witnessed a skyrocketing increase in newborns admitted NICUs for complications related to breastfeeding. The most common medical diagnoses related to exclusive breastfeeding include dehydration, excessive weight loss (>7%), hyperbilirubinemia (jaundice), hyponatremia (elevated sodium level) and hypoglycemia (low blood glucose). In addition, our newborn nurseries have had to adopt protocols for managing newborns who are dropped onto the floor by their fatigued nursing mothers, as this has become a relatively common problem. Sudden unexpected postnatal collapse (SUPC) has also been increasing in incidence, and many of these cases occur within the first two hours of life during unsupervised skin-to skin contact to facilitate early breastfeeding. These conditions can have lifelong consequences if there is a delay in diagnosis and treatment, including low IQ and neurodevelopmental impairment. The most severe cases of jaundice, electrolyte abnormalities, falls, and SUPC can lead to death.

Research involving pregnant and nursing mothers needs to focus on the critical safety issues associated with policies that aim for high rates of exclusive breastfeeding. Potential research areas include collecting data about the scope of neonatal morbidities related to insufficient milk intake and identifying pregnancy risk factors that are “red flags” for the development of lactation problems. This information can be used to improve the recognition of maternal-infant dyads that are at risk for lactation failure, decrease NICU admissions for the multiple problems related to exclusive breastfeeding, and, in doing so, prevent newborn morbidity and mortality. It can also be used to improve and update current breastfeeding initiatives that are already in place, such as the BFHI, and create additional resources to better support all mothers during pregnancy, in the hospital after delivery, and for the entire postpartum period.

Jessica Madden, MD

Neonatologist, Rainbow Babies and Children's Hospital, Cleveland, Ohio
Member, American Academy of Pediatrics Section on Neonatal-Perinatal Medicine
Member, Academy of Breastfeeding Medicine

References

Hurst, N. Recognizing and treating delayed or failed lactogenesis II. *J Midwife Womens Health*. 2007; 52: 588-594.

Brownell, E., et al. Delayed onset lactogenesis II predicts the cessation of any or exclusive breastfeeding. *J Pediatr*. 2012; 161: 608-614.

Gomez-Pomar, E., Blubaugh, R. The Baby Friendly Hospital Initiative and the ten steps for successful breastfeeding: a critical review of the literature. *J Perinatol*. Published online Feb 7, 2018.

Bass, et al. Trends in the incidence of sudden unexplained infant death in the newborn: 1995-2014. *J Pediatr*. 2018. Published online Feb 5, 2018.