

## Direct breast-feeding in the neonatal intensive care unit: is it important?

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### Abstract

**Objective:** Rates of breast milk feeding at hospital discharge are low in premature infants due to the many associated challenges. Although there are many benefits associated with breast milk, the effects of direct breast-feeding in the neonatal intensive care unit (NICU) have not been identified. The purpose of this study was to investigate the relationship between direct breast-feeding (infant sucking directly from the breast) and duration and success with breast milk feedings until discharge in premature infants. **Study Design:** This retrospective cohort was conducted on 66 very-low birth weight infants whose mothers initiated breast milk feedings in the NICU. Chart review revealed documented type (breast milk with or without fortifiers or type of infant formula), volume and mode (nasogastric tube, breast or bottle) of all gastric feeds for each day of NICU hospitalization. From this documentation, whether the mother initiated breast milk feedings, the number of times the mother put the infant to breast, the gestational age of the first direct breast-feeding, whether the first oral feeding was at the breast, the duration of breast milk feedings and whether breast milk feedings continued until NICU discharge were determined. Associations between breast-feeding participatory factors and breast milk feeding outcomes were investigated using linear and logistic regression. **Result:** Positive associations were found between breast milk feedings at discharge and mothers putting their infants directly to breast in the NICU ( $P=0.0005$ ). The duration of breast milk feedings was associated with: mothers putting their infants directly to breast ( $P=0.0110$ ), whether the first oral sucking feeding was at the breast ( $P=0.0108$ ) and the gestational age of the first breast-feeding attempt ( $P<0.0001$ ). **Conclusion:** Breast milk feedings are encouraged in most NICU's, but direct breast-feeding is often overlooked as an important area of research in the tightly controlled environment of the NICU. This study demonstrates a link between direct breast-feeding behaviors in the NICU and success with provision of milk at discharge, as well as how early participation can be an important factor in the breast-feeding process for mothers of NICU infants. More research on the effects of direct breast-feeding is warranted. *Journal of Perinatology* advance online publication, 27 January 2011; doi:10.1038/jp.2010.205.