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Title of Abstract:

Breastfeeding in the NICU: Does Race Matter?

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Abstract Description:

Background: Breast milk feedings are associated with improved health outcomes in preterm infants. There are reported racial disparities in breast milk feeding rates in full and preterm newborns in the United States, however the causes of this variation are not completely understood.

Objectives: To gain insight into breast milk feeding rates during an infant's neonatal intensive care unit (NICU) hospitalization and at the time of discharge from the NICU at Miller Children's and Women's Hospital Long Beach (MCWHLB). The primary goal is to identify if breastfeeding rates in very low birth weight (VLBW) infants treated and discharged home from 2012 to 2016 is congruent with racial disparities in the breast milk rates reported in literature for term and preterm newborns in the United States.

Methods: A retrospective review of rates of any breast milk feeding at the time of hospital discharge in VLBW infants cared for at MCWHLB NICU from January 2012 – June 2016 was performed. Standard maternal demographics (age, prenatal care, antenatal steroids) and infant

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demographics (mode of delivery, birthweight, gestational age, 5-min APGAR score), in hospital morbidities (early onset sepsis (EOS), late onset sepsis (LOS), necrotizing enterocolitis (NEC), focal intestinal perforations (FIP)), discharge weight, and length of stay by race/ethnicity were also analyzed.

Results: Of the 547 VLBW infants analyzed, African American (AA) infants were provided mother's breast milk at discharge at lower rates than any other race/ethnicity (50% AA, 69% Hispanic, 74% Asian/Pacific Islander (PI), and 76% White) during study period. Compared with breast milk, exclusive formula feeding at discharge was associated with increased risk of LOS (AA breast milk 2% vs formula 16%; White 5% vs 5%; Hispanic 10% vs 16%; Asian/PI 8% vs 24%), NEC (AA breast milk 2% vs formula 5%; White 2% vs 16%; Hispanic 1% vs 7%; Asian/PI 5%, vs 0%), and FIP (AA breast milk 0% vs formula 4%; White 2% vs 5%; Hispanic 0% vs 7%; Asian/PI 0% vs 5%). In addition, lower gestational age and birth weight were associated with exclusive formula feeding at discharge.

Conclusion: African American VLBW infants were feeding breast milk at discharge with markedly lower rates than any other race. Exclusive formula feeding at discharge was associated with an increased risk of in-hospital morbidities of sepsis, necrotizing enterocolitis, and focal intestinal perforations. Based on these results, subsequent investigations were pursued to identify factors leading to the disparity of breast milk feedings in this NICU population.

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