Glyburide Use in Pregnancy and Neonatal Outcomes
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Objective: Over the past decade, the use of glyburide during pregnancy has become a widely accepted practice. Its safety in neonates, however, has not been clearly established. As the prevalence of diabetes and disease states related to glucose intolerance continue to rise, it is vital for clinicians to understand glyburide's immediate and long-term impact on newborn infants. With that in mind, this study aims to evaluate the relationship between neonatal hypoglycemia and the use of glyburide in pregnant women with pre-gestational and gestational diabetes.

Design: We are using a retrospective chart review to evaluate neonatal NICU admissions due to hypoglycemia in relation to maternal glyburide use between 2011-2014.

Setting: A nine-bed level II neonatal intensive care unit (NICU) at a community hospital in Central Texas.

Sample: Medical records of mother-baby dyads where the neonate was admitted to the NICU with a diagnosis of hypoglycemia during the target timeframe were reviewed. Infants born at less than 37 weeks were excluded.

Methods: An experienced neonatal research nurse extracted all data from the electronic medical record (EMR) using a standardized data extraction tool. Maternal data collected included age, glucose-related diagnosis, method of glucose control, demographic information and glucose level at the time of delivery. Neonatal information included delivery method, gestational age, NICU diagnosis, NICU length of admission, and the first two glucose levels after birth. Correlations were used to evaluate the relationship between mother’s DM management and neonate admission to NICU.

Results: Data collection is ongoing. To date we have reviewed medical records for twenty-five mother-infant dyads. Preliminary analysis shows that 60% of the infants requiring NICCU admission related to hypoglycemia were born to mothers prescribed glyburide for blood sugar control.

Conclusion: Preliminary data would suggest that there is a relationship between maternal use of glyburide and neonatal hypoglycemia, however, further data review will determine if this pattern holds. Data collection should be completed by April 2015.