Managing Transient Neonatal Hypoglycemia with Oral Dextrose Gel

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Problem

- Neonates with transient neonatal hypoglycemia (TNH) are often admitted to the Neonatal Intensive Care Unit (NICU) as determined by maternal history of Insulin-Dependent Diabetes (IDD)
- NICU admissions results in maternal-infant separation and added costs
- NICU admissions require formula supplementation and potentially intravenous solutions
- Best practices indicate using 40% oral dextrose gel administered buccally as an initial intervention to manage TNH

Goal

- Implement the use of 40% oral dextrose gel to manage transient neonatal hypoglycemia (TNH) for newborns born in the Family Birth Center (FBC) and NICU patients with IDD maternal diagnosis
- Outcomes include use of the dextrose gel for initial blood glucose stabilization, NICU admission, length of stay, and use of human milk or formula

Intervention Design

- Multidisciplinary meetings convened to review current evidence and discuss protocol parameters
- Comprehensive literature review supported protocol development
- Pharmacy developed order sets for all newborns that are triggered by the RN
- AgileMD pathway developed and triggered with orders
- Pharmacy, nursing leadership, and supply chain developed workflow for oral gel to be available in all stockrooms and scanned in the MAR
- Tableau dashboard created to track outcomes

Results to Date

- Monthly Trend of Babies Born to IDD Moms
- Overall trend is that about half of newborns with TNH require NICU admissions since implementing oral dextrose gel intervention
- First review expanded the population parameters to remove maternal insulin exposure constraints to reduce maternal-infant separation and subsequently NICU admissions
- Since 1/2021, 10 patients have received oral dextrose gel and 50% of those patients remained with parents in FBC

Conclusions

- Trends in reducing maternal-separation for neonates with THN are supported by implementing an oral dextrose gel pathway
- Using established order sets and having oral dextrose gel available in stockrooms supports streamlined processes
- Establishing a data dashboard provides consistent methods to review data, assess current processes, and optimize outcomes
- Next steps: continue to refine pathway and consider expanding use of oral dextrose gel

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