

Project title:

Influence of Demographic Variables in Neonatal Intraventricular Hemorrhage: Incidence, Intervention, and Complications

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Research Project Description

Prematurity is the leading etiology for germinal matrix intraventricular hemorrhage (IVH). Although there is research regarding prevention of IVH postnatally, the ideal intervention would be to prevent preterm births. It is well known that the cause of premature birth is multifactorial, however demographics do play a key role including socioeconomic inequalities. It is a multifaceted framework that includes social environment, socioeconomic status (SES), social support and stress, as well as preconceptional health and even epigenetics. This study is not designed to discuss all the potential etiologies for prematurity, rather focus on delineating the socioeconomic disparities with regards to IVH and then offering avenues for potential prenatal intervention. As well, IVH can result in hydrocephalus that requires ventriculoperitoneal shunting (VPS). Cognitive disturbances, cerebral palsy and developmental delay plague IVH survivors, which are worsened the more shunt malfunctions or infections encountered. Therefore, a retrospective chart review of neonates and their biological mother will be performed over the past 8 years. Demographic data, as well as health data will be obtained and analyzed to determine the incidence of IVH, required neurosurgical treatments, and complications. This data will be analyzed for correlations with demographic data, specifically socioeconomic status to determine its significance.