

**Preliminary results of a descriptive audit of the long term developmental outcomes of 30 infants with HIE who received hypothermia at the George Regional Hospital, South Africa**

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**Introduction:** Hypoxic Ischemic Encephalopathy (HIE) refers to a condition subsequent to a lack of oxygen to the newborns' brain. Hypothermia is a neuroprotective strategy and has proven to reduce death and disability in children presenting with HIE.

**Objectives:** The research describes the preliminary longterm developmental outcomes of 30 infants with HIE who received hypothermia at the George Regional Hospital, South Africa. Environmental factors and summary data (variables relating to HIE) are described in relation to developmental outcomes.

**Method:** This quantitative study commenced in 2010 and will continue until 2019, when all participants have reached the age of five years. The Strive Towards Achieving Results Together (START), Early Childhood Development Criteria (ECDC) and the Gross Motor Function Classification System (GMFCS) are used to track development.

**Results:** When measured with the START 20 infants presented with typical development, eight presented with cerebral palsy (CP) and two were lost to follow up. Findings indicate a significant correlation between a severe HIE score and CP. Children were evaluated at 4 years (n=12) and 5 years (n=7) with the ECDC. Results indicate that activities relating to spatial perceptual skills is problematic. When correlating the income of families with results on the ECDC cognitive index the findings corroborates the established relationship between low socio-economic status and poor cognitive development.

**Conclusion:** The study highlights the multi-faceted influences on children's development spanning from birth history to the influence of the environment. The study also comments on the landscape of Early Childhood Development in South Africa.