



Cerebral Palsy Prevention and Cure Summit Report: Neonatal

Encephalopathy and Hypoxic Ischemic Encephalopathy: Advancing the Science and Improving Outcomes

National Institute of Child Health and Human Development May 8-9, 2013

Recent research shows strong evidence that cooling term-born infants with encephalopathy (sick at birth with problems breathing, remaining conscious, seizures and altered tone) reduces mortality and cerebral palsy. Cooling is a landmark discovery, however, only prevents cerebral palsy in only one in six infants treated. What can be done for those that don't respond to cooling?

SUMMIT PURPOSE:

- **1.** To identify gaps in knowledge by reviewing basic, translational and clinical evidence for neonatal encephalopathy, hypoxic ischemic encephalopathy, and cerebral palsy
- **2.** To bring 40 internationally renowned experts together to develop a research agenda for the prevention and treatment of encephalopathy and cerebral palsy.

OUTCOMES:

- **1.** Researchers presented on six new cooling "plus" possibilities. All agreed to collect uniform data to aggregate data and find outcomes as quickly as possible.
- **2.** Researchers agreed that to identify which babies respond best to which intervention collaborations need, under the banner of IMPACT for CP.
- **3.** Agreement to collect additional data such as placental pathology, blood spots and DNA in the trials that have already commenced
- **4.** Existing resources/data sets/repositories will be assembled into one place (IMPACT for CP website).
- 5. Data will be pooled from existing cooling studies that have already been completed to investigate whether some of the research questions that are of high priority can be answered quickly.
- 6. Working groups will be formed from the main research priorities to forge new projects such as a major new aetiological study of encephalopathy.
- **7.** The logistics of a trial for infants now excluded from cooling trials (but at high risk of having CP) because of fetal growth restriction or birth defects will be investigated.
- **8.** A gap identified was to look at systematic early diagnosis of CP and early intervention following discharge from a neonatal intensive care unit.
- **9.** A uniform approach to neuro-imaging will be recommended.
- **10.** Recommendations for making the most difference in the developing world for these infants will be further discussed.