



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.