Long-term Developmental and Educational Outcomes of Deaf and Hard of Hearing Children with Cochlear Implants: Considering the Evidence

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Recent developments in a number of related fields have contributed to vastly improved outcomes for deaf and hard of hearing children. Most notable among these developments have been the advent of Universal Newborn Hearing Screening (UNHS) and the increasing accessibility of cochlear implantation at very early ages. This lecture will consider the current evidence for the benefits of both interventions in regard to developmental and educational outcomes for deaf and hard of hearing children. The Australian experience provides an interesting case in point with greater than 95% of all children born in Australia completing a screen for hearing by 3 months of age and the increasing availability of evidence of outcomes for children who have received cochlear implants early in their first year of life.

An expanding evidence base suggests that, in particular, there are considerably enhanced prospects for developmental outcomes associated with early cochlear implantation. This lecture will consider the evidence for earlier implantation being associated with improved long-term outcomes in the domains of speech, language, psycho-social adjustment, and literacy. In addition to considering the international literature, evidence reviewed will include data from the Longitudinal Outcomes of Children with Hearing Impairment (LOCHI) study. The LOCHI study includes more than 450 deaf and hard of hearing Australian children whose hearing losses were identified through either UNHS or more traditional later methods. The study provides data for both children with hearing aids and those who have received cochlear implants with outcomes being assessed at multiple intervals from 6 months to 5 years of age (and ultimately beyond).

Information from across studies will be reviewed and synthesised to draw conclusions about the benefits of early versus later identification and cochlear implantation in regard to development across domains.