

Assessing spoken language processing in babies at 12 months after cochlear implantation: Is a single assessment procedure enough?

Inge Kaltenbrunn, Royal Institute for Deaf and Blind Children (RIDBC),
inge.kaltenbrunn@ridbc.org.au

Robyn Cantle Moore, RIDBC Renwick Centre/Macquarie University

International best practice guidelines recommend use of both criterion-referenced and norm-referenced assessment procedures when assessing the language and communication skills of infants and young children with hearing loss (Pizzo & Chilvers, 2016; Yoshinaga-Itano, 2013). A representative sample of 6 children who received cochlear implants under 10 months of age in 2017-2018 were examined for evidence of their transition to age appropriate spoken language post 12 months of cochlear implantation. The manner in which criterion-referenced and norm-referenced assessment procedures (Royal Institute for Deaf and Blind Children/Sydney Cochlear Implant Program Spoken Language Assessment Protocol) capture this information was examined. The babies included in the investigation were implanted at an average age of 8 months (age range 6-9 months) with an average age following 1 year of cochlear implantation of 20 months (age range 18-21 months). Results obtained on The Rossetti Infant-Toddler Language Scale (Rossetti, 2005) and Preschool Language Scales-Fifth Edition (Zimmerman, Steiner, Pond, 2012) were examined at two assessment intervals (baseline before cochlear implantation and 1 year post-cochlear implantation). Results indicated that both pre-and post cochlear implant receptive and expressive language levels varied considerably. Significant discrepancy between results achieved on The Rossetti Infant-Toddler Language Scale and Preschool Language Scales-Fifth Edition flagged the possibility that auditory skills had not developed to a level that enabled age appropriate language processing 1 year after cochlear implantation. Recommendations are offered for an expanded battery of assessments to evaluate infants' spoken language processing in the first year post cochlear implantation for clinical and research purposes.

References

Pizzo, L., & Chilvers, A. (2016). Assessment and d/Deaf and hard of hearing multilingual learners: considerations and promising practices. *American Annals of the Deaf*, 161(1), p.56-66.

Rossetti, L. (2005). *The Rossetti Infant-Toddler Language Scale-A measure of communication and interaction*. Pro-ed Australia.

Yoshinaga-Itano, C. (2013). Principles and guidelines for early intervention after confirmation that a child is deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education*, 19(2), p. 143-175.

Zimmerman, I.L., Steiner, V.G., & Pond, R.E. (2012). *Preschool Language Scales Fifth Edition (PLS-5)*. Pearson Clinical.