Factors associated with open-set speech perception in children using the Cochlear multiple-channel prosthesis

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Since 1985, nearly 100 children have received the 22-channel cochlear prosthesis from the Melbourne and Sydney cochlear implant clinics. These two clinics account for the bulk of cases in Australia, and have similar management philosophies and selection criteria. The patient population represents a variety of etiologies, and ranges in age from 2 - 18 years of age. Both congenital and postlinguistic hearing losses are included. In order to assess benefit to speech perception in such a diverse group, the children's results have been tabulated according to a six-level hierarchical scale of speech perception achievement. The scale ranges from category 1, detection of sound only, to category 6, which includes significant perception scores for open-set words and sentences. Analysis of the results shows that the majority of the children are achieving open-set speech perception benefits, and that results continue to improve with additional experience with their devices. There are a number of contributing factors to these open-set speech perception results which have impact both on selection issues and on habilitation with different age ranges of patients.
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