

Media release

Oticon Foundation in New Zealand, Wednesday 26 November 2014

Early detection and intervention of hearing impairment is key to a baby's language and social development

A longitudinal research study has provided world-first evidence for the benefits of early hearing-aid fitting or cochlear implantation for babies with hearing impairment.

The Longitudinal Outcomes of Children with Hearing Impairment (LOCHI) study, a joint project of Australia's National Acoustic Laboratories (NAL) and HEARING Cooperative Research Centre, is following nearly 450 hearing impaired children in Australia from birth, to examine and compare, dependent on the age of intervention, their long-term speech, language, psycho-social and educational outcomes. The study, which will follow the children through school and beyond, is now reporting on its five-year milestone.

Lead researcher Dr Teresa Ching is in Auckland on Friday 28 November to speak at the Oticon paediatric audiology seminar. She says there is clear evidence that fitting a hearing aid by 6 months, or cochlear implant by 12 months, is beneficial for a child's development.

'There are one or two babies per thousand born with a hearing impairment. This has major implications for the child and society if this impairment is not detected and treated. Our assessment of the children at 5 years clearly shows that the earlier the intervention the better the outcome for the child's development. Early detection, through national neonatal hearing screening programmes, and early treatment is vital before developmental delays set in,' Teresa says.

Teresa says this is not the total picture, though. The study also reveals specific deficits in pre-reading skills and suggests that targeted intervention to develop these skills is necessary for children to obtain the full benefit of early intervention.

To maximise the outcomes for children, Teresa says national agencies should:

- Streamline services to ensure early infant fitting and implantation.
- Monitor early outcomes to identify children who may be "at- risk" of language impairment, and
- Devise evidence-based strategies for intervention.

'Long-term follow up of the children could confirm the benefits to society of effective neonatal hearing screening and robust intervention programmes to help hearing impaired babies achieve their potential.

'We are well on our way to completing the 9-year-old assessments. As children start school, many factors affect their development and educational attainment and we are continuing to assess speech, language and functional skills,' Teresa says.

The study is also investigating the effectiveness of device intervention for improving outcomes of children with unilateral hearing loss.

'There is a belief that fitting a hearing aid or a cochlear implant is an effective therapy for unilateral hearing loss, but there is yet no evidence to support this, we will be looking to provide an answer,' Teresa says.

The study is supported by a control study of children with normal hearing to compare their performance to that of the children with hearing loss.

These studies are financially supported by the Australian Commonwealth Department of Health and AusIndustry (CRC Program) as well as by the USA National Institutes of Health.

Teresa's attendance at the seminar is supported by the Oticon Foundation in New Zealand. Karen Pullar, secretary to the Foundation, says the seminar is an educational opportunity for hearing care professionals to hear Teresa speak about the research and the importance of an effective new-born hearing screening programme and good paediatric audiological diagnosis and management.

Ends

For more information about the LOCHI study contact Teresa Ching, Teresa.Ching@nal.gov.au, Phone +61 (0) 419 387 924 or visit <http://outcomes.nal.gov.au/>
<http://www.hearingcrc.org/research/projects/r462>

For more information about the Oticon Foundation and the Oticon paediatric seminar contact Karen Pullar, kp@oticon.co.nz, 0800 684 266, mobile 021 647 330, www.oticon.org.nz.