Submission to NICE Health Technology Appraisal

‘Cochlear implants for severe to profound deafness in children and adults’

Current Position

Cochlear Implants (CI’s) provide great benefit to profoundly deaf children and adults. Research has demonstrated that modern CI systems are a safe and reliable choice for children and adults (1, 2, 3), and that cochlear implantation is life transforming for appropriate candidates and advantageous for society. Deafness Research UK welcomes the NICE Health Technology Appraisal of Cochlear Implants and supports the development of updated guidance on their use.

We see beneficial outcomes from cochlear implantation in the following four domains.

Communication

- Cochlear implants can help reduce the barriers to communication that many recipients experience due to hearing impairment (4).
- Cochlear implants can enable adults and children to enjoy a richer social life both within and outside the family (5).

Benefits to society

- Cochlear implants can provide significant economic benefit to recipients and to society:
  - Cochlear implants can enable some recipients to return to work and / or increase their work opportunities (6,7).
  - Cochlear implants can provide society with significant reductions in costs related to welfare and other support payments (8).
  - Cochlear implants dramatically increase the speech and language development of hearing impaired children, making integration into mainstream school easier (9) and significantly reducing the costs of education (10).

Boundaries of candidature

- Cochlear implants are becoming a more effective intervention for adults and children (11) with a severe to profound sensorineural hearing loss with some residual hearing, but who are no longer able to benefit or who have never benefited from acoustic hearing aids.
Cost in relation to benefits

- CI's achieve acceptable value for money for health services (12).

Current and Future Research Directions

For the last 20 years, Deafness Research UK has supported applicable research aimed at demonstrating and enhancing the benefits of cochlear implantation, and will continue to do so. We currently support research projects related to CI's in a number of ways, including:

- Funding investigations of preverbal communication skills in very young children with CI’s, with the aim of optimising the age of implantation;
- Funding research aimed at improving speech understanding and music perception by CI users;
- Funding research measuring abilities in spatial listening by children with bilateral implants;
- Funding research aimed at maximising outcomes for adult CI users by auditory training;
- Providing improved facilities, such as better sound-treated booths, for testing the hearing of CI users in research.

We believe that clinical practice should continue to be led by research, with further relaxations of the boundaries of candidature being based on demonstrations of safety, effectiveness, and cost-effectiveness. Manufacturers of CI’s should be encouraged to sponsor high-quality research in these areas.

References

4. Royal National Institute for Deaf People, Department of Health, British Medical Association, Royal College of Nursing, Royal College of General Practitioners. A Simple Cure. RNID Web site; March 2004
8. Drinkwater T. The Benefits of Cochlear Implantation in Young Children; March 2004; pp 5