

# **Implant Centre Speech & Language Therapists**



## **Guidelines for Good Practice**

### **Working with Paediatric Clients with Cochlear Implants**

This document incorporates the views of speech and language therapists working in Cochlear Implant Centres and is recommended to practitioners.

**1998, Revised and Updated 2010.**

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# **Implant Centre Speech & Language Therapists** **Guidelines for Good Practice**

## **Working with paediatric clients with cochlear implants**

### **MISSION STATEMENT**

To assess and promote and optimise the listening, speech perception and communication skills of paediatric clients within a multi-disciplinary cochlear implant service.

### **1. INTRODUCTION**

#### **1.1 Purpose of Guidelines**

These guidelines aim to give an overview of a speech and language therapist's work as part of a cochlear implant team. They will be valuable to new speech and language therapy (SLT) colleagues joining a cochlear implant team and to SLT managers. Implant centre speech and language therapists (ICSLTs) from across the British Isles have contributed to these guidelines.

Guidelines for good practice for ICSLTs are particularly important as the field of cochlear implantation is rapidly developing. To ensure effective service provision, national guidelines are necessary. However, it must be stressed that these guidelines relate to *implant centre* speech and language therapists and do not reflect the role and remit of speech and language therapists locally.

#### **1.2 Historical Perspective**

"Cochlear implantation aims to provide useful forms of auditory sensation to people who are profoundly deaf and gain no material benefit from acoustic hearing aids"<sup>1</sup>. The first adult cochlear implant operation in the British Isles was carried out at University College Hospital London in 1981, and the first child was implanted there in 1987. Speech and language therapists were an integral part of the team, which closely monitored changes and provided valuable information for research into the effectiveness of the implant<sup>2</sup>. In 1990, the Department of Health funded a three year study into the effectiveness of cochlear implants and a number of ICSLTs were involved in this work. The MRC-IHR report based on this study<sup>1</sup> provided an excellent overview and indicated future trends and objectives.

Cochlear implantation is now a routine treatment with a strong body of evidence showing

benefit for traditional paediatric candidates. However, candidacy criteria are continuing to evolve and evidence of benefit is also accumulating for other groups such as audiotically borderline clients and those with complex needs.

In January 2009 the National Institute for Clinical Excellence (NICE) recommended simultaneous bilateral implantation for children with a bilateral severe to profound hearing loss. For children who are existing users of a single cochlear implant, a second (sequential) cochlear implant was recommended for children who would benefit. This has had significant implications for the resourcing and operation of paediatric implant programmes.

Some cochlear implant services around the UK are beginning to expand the type of surgical interventions they offer. The main focus of teams remains cochlear implantation but some implant centres are now also considering Electrical Acoustic Stimulation Implants (EAS), Middle Ear Implants and Auditory Brainstem Implants. These guidelines advise on the provision of *cochlear implant* services only.

## **2. BROAD SERVICE ISSUES**

### **2.1 Client Group**

As part of the cochlear implant team, the ICSLT works with people who have bilateral, severe to profound deafness. The selection criteria for a cochlear implant may vary from team to team and will change as research based evidence informs practice. For example, the introduction of Universal Neonatal Hearing Screening (UNHS) in 2006 significantly reduced the average age of children referred for cochlear implant assessment. The client's hearing loss may be congenital or acquired in origin, or of sudden or progressive onset. Paediatric clients may be aged birth to eighteen years and may have additional needs.

### **2.2 Principles of Service Delivery**

All paediatric cochlear implant programmes should include a qualified speech and language therapist. The aim of ICSLT intervention is to maximise the client's listening, speech perception and communication skills with their cochlear implant. The ICSLT assesses, monitors, evaluates and provides advice about the client's listening, speech perception and communication skills both before and after cochlear implantation. The ICSLT also contributes to the decision making process regarding the suitability of cochlear implantation for the child. The ICSLT role requires close liaison with the client's family/carer, local professionals and other members of the cochlear implant team as well as the client.

The ICSLT tailors the service to each client's individual's needs and abilities. This is particularly relevant with clients whose home language is not English or those who have additional needs. The ICSLT also adheres to the service delivery models and protocols used within their team.

### **2.3 Patterns of Service Provision**

Paediatric service delivery is constantly evolving to reflect the changing nature of the caseload, the ethos of the implant team and the distance travelled by patients to the implant centre. Implant centres may offer different service delivery models including:

1. Clinic based monitoring & intervention
2. Outreach monitoring and intervention
3. Outreach consultative

These service delivery models allow the ICSLT to provide assessment, diagnostic therapy and short programmes of specific intervention both on and off site. In consultative models of service delivery the ICSLT works collaboratively with the local speech & language therapist who remains the key treating therapist for the client.

ICSLTs work closely & collaboratively with other members of the interdisciplinary cochlear implant team. Skills and roles within the team will overlap and individual teams should define how professional expertise is used in written protocols & care pathways. The re/habilitative role of the ICSLT is often shared with the implant centre teacher of the deaf (ICTOD).

ICSLTs also work closely & collaboratively with local professionals including speech & language therapists, teachers of the deaf and other educational staff. The ICSLT will have a key role in advising about expected progress post implant and identifying when clients are not making expected progress. Collaborative work will include

- Deciding who will use which formal assessments and at what intervals
- Sharing assessment results
- Sharing outcomes and progress reports either verbally or in written reports
- Jointly planning therapy targets and goals
- Deciding who will be the primary provider of a package of care/specific intervention

ICSLTs should be aware that implanted children, their parents and local professionals will be liaising with others who are involved in the child's care. This should be handled sensitively.

## **2.4 Recommended Hours of ICSLT Service Provision**

Adequate levels of ICSLT involvement are required for clients to maximise their benefit from their cochlear implant. Each implant team will decide how ICSLT time is allocated both pre and post-implant and this will be closely linked to the team's chosen model(s) of service delivery. Ideally ICSLT's will be involved in long term post implant monitoring beyond the initial 3 year re/habilitation phase. Teams will establish their own protocols for long term monitoring.

The minimum hours of ICSLT contact include both direct and indirect work. For outreach consultative models the ratio of direct to indirect contact time will be approximately 50/50 allowing adequate time for the ICSLT to liaise and work collaboratively with local professionals. For services that offer clinic based monitoring and intervention the amount of direct contact may be considerably higher.

Factors that will increase the amount of ICSLT time needed include:

- Complex needs in addition to deafness
- The need to monitor communication skills during a hearing aid trial
- Working with multi-lingual clients and families

### **Pre-Implant Recommended Hours of ICSLT Provision**

The recommended hours ranges from 5 to 12 hours excluding travel.

### **Post-Implant Recommended Hours of ICSLT Provision**

The recommended hours ranges from 30 to 40 hours, within the first three years post-implant, excluding travel time.

## **2.5 Quality Assurance**

At an interdisciplinary level the ICSLT will be asked to contribute to the cochlear implant team's quality assurance standards. ICSLTs will also need to meet regularly to ensure that national quality standards are maintained and updated in response to the rapidly changing field of cochlear implantation.

## **2.6 Clinical Audit & Outcome Measures**

Clinical audit is an integral part of the ICSLT role. It provides an opportunity to evaluate, review and improve ICSLT assessment, intervention and the broader aspects of ICSLT service provision. The ICSLT should routinely collect outcome data relating to the client's listening, speech perception and communication skills. This data will enable the ICSLT to monitor trends in performance and conduct research.

### **3. CLINICAL ISSUES**

#### **3.1 Clinical Skills of the ICSLT**

It is recommended that the ICSLT joins the cochlear implant team with a suitable breadth of experience working with deaf clients and managing a caseload of children with complex needs. Completion of relevant post-qualification deafness courses is desirable. Implant teams may wish to have a development ICSLT post but this must be supported by a highly specialist ICSLT. All newly appointed ICSLTs must have access to an experienced ICSLT and a clearly defined induction and training programme. It is desirable that the ICSLT team as a whole has sufficient experience in the broader field of paediatrics.

The ICSLT must have the requisite clinical skills to offer speech and language therapy assessment and intervention for the paediatric cochlear implant caseload. Skills are needed in the assessment and re/habilitation of:

- ❑ Listening and speech perception skills
- ❑ Understanding and use of language
- ❑ Voice and speech production including phonetic transcription
- ❑ Everyday communication and social skills

The ICSLT must also have:

- ❑ An appropriate knowledge of audiology
- ❑ Insight into the culture and language of the Deaf community
- ❑ Sign language skills
- ❑ Counselling skills
- ❑ An understanding of the impact of deafness on quality of life
- ❑ Experience and skills working with infants and very young children

The ICSLT must be registered with the Health Professions Council in order to practice as a speech & language therapist in the UK. It is recommended that the ICSALT is a registered member of the MRCSLT. This implies an undertaking to adhere to the RCSLT Code of Ethics and Professional Conduct advocated for SLTs in “Communicating Quality”.

#### **3.2 Assessment**

ICSLT assessment is based on a thorough case history and where appropriate, includes information about the impact of the hearing loss on the client’s life. Assessments are administered pre-implant to establish baseline measures and repeated post-implant to monitor progress. The client’s listening, speech perception and communication skills may be assessed using a combination of observation, discussion, and formal and informal

assessment. The exact battery of assessments may vary from team to team. Video recordings may be used.

Assessment results will be shared with the client and their family, the implant team and local professionals. They will be used to discuss the likely outcomes post-implant and to plan therapy goals and future areas of work for the client. Therapy goals may be set collaboratively with local professionals. The expectations of the client and their family regarding the outcome of cochlear implantation should be recorded pre-implant. This may form the basis for pre-implant counselling if client/family expectations are not in line with those of the implant team.

The ICSLT will use assessments to monitor the client's progress post-implant against the expected trajectory of progress. The ICSLT will highlight early indicators of unexpected or poor performance and refer to specialist professionals for further assessment and management as appropriate.

### **3.3 Re/habilitation**

The aim of re/habilitation is to optimise the client's use of their cochlear implant by supporting the development of listening, speech perception and communication skills. Re/habilitation will vary depending on the service delivery model employed by the team.

### **3.4 Report Writing & Record Keeping**

The ICSLT will provide written reports at regular intervals to the client, their family and other professionals. The purpose of these reports is to convey information about the client's progress and to provide recommendations about future management. The frequency and format of reports may vary according to team protocol. The ICSLT may contribute a written submission if requested by a Local Education Authority or equivalent body.

The ICSLT is responsible for the accurate recording of all activities relating to the client, both directly through client contact and indirectly through meetings, discussions and telephone calls. These records must be in line with local standards and those set out in Communicating Quality.

### **3.5 Training Role**

ICSLTs will provide training for a broad range of professionals, including cochlear implant team members, local SLTs, teachers and other medical professionals. The ICSLT may also be required to give presentations at formal courses, academic meetings and

conferences. ICSLTs may provide informal orientation for student SLTs and formal clinical placements at an undergraduate level. More experienced ICSLTs may act as mentors for newly appointed ICSLTs, providing regular contact for discussion and peer support.

## **4. CONTINUING EDUCATION**

### **4.1 Ongoing Education Needs of the ICSLT**

The research and knowledge base in the field of cochlear implantation is expanding rapidly and ICSLTs will need continuing education to stay abreast of this. Access to established post-qualification courses is essential for the ICSLT. Attendance at seminars, conferences, specific interest groups, BCIG meetings and national ICSLT meetings will offer further necessary professional development opportunities. A commitment to maintaining and developing professional expertise has financial and time implications that must be considered when resourcing an ICSLT post.

### **4.2 Research and Development**

The ICSLT has an active role in research and development. Research is used to monitor trends and develop innovative assessment and rehabilitation techniques and procedures. The ICSLT must be given adequate support for research through the allocation of study time and resources.

## **5. SOURCES OF INFORMATION**

### Communicating Quality 3

Refer to the BCIG website ([www.b cig.org.uk](http://www.b cig.org.uk)) to find the contact details for implant centres throughout the UK.

Additional information regarding Cochlear Implants, management and intervention can be found on the following websites:

Advanced Bionics (Cochlear Implant Company)

[www.bionicear.eu](http://www.bionicear.eu)

Cochlear Corporation (Cochlear Implant Company)

[www.cochlear.com](http://www.cochlear.com)

MEDEL (Cochlear Implant Company)

[www.medel.com](http://www.medel.com)

British Cochlear Implant Group (Professional organisation)  
For information on the Cochlear Implant Centres in the British Isles

[www.bciq.org](http://www.bciq.org)

Cochlear Implanted Children's Support Group (CICS)

[www.cicsgroup.org.uk](http://www.cicsgroup.org.uk)

National Cochlear Implant User Association (NCIUA)

[www.nciua.org.uk](http://www.nciua.org.uk)

The Ear Foundation

[www.earfoundation.org.uk](http://www.earfoundation.org.uk)

Alexander Graham Bell Association for the Deaf and Hard of Hearing

[www.agbell.org](http://www.agbell.org)

National Deaf Children's Society

[www.ndcs.org](http://www.ndcs.org)

Auditory Verbal UK

[www.avuk.org](http://www.avuk.org)

This document was prepared in consultation with the Royal College of Speech and Language Therapists Professional Standards Board and the British Cochlear Implant Group. It was compiled by ICSLTs throughout the British Isles between 1995 and 1997 in consultation with colleagues, and was drawn together by Mrs Lesley White, ICSLT Yorkshire Cochlear Implant Programme, Bradford.

It was reviewed and updated in 2001, 2002 and 2010 by the ICSLT Steering Group.

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7. *NDCS Guidelines for Paediatric Cochlear Implantation* (2000). Available from NDCS
8. *BCIG guidelines for Adult Cochlear Implantation* (2000). (Available from The Secretary, BCIG c/o Agnes Allen, Cochlear Implant Programme, Crosshouse Hospital, Kilmarnock, KA2 0BE)
9. Lutman, M (1994) *Advanced Paediatric Workshop Proceedings - Nottingham Paediatric Cochlear Implant Programme*. (Available from Nottingham Paediatric Cochlear Implant Programme, 1<sup>st</sup> Floor, Ropewalk House, 113 The Ropewalk, Nottingham NG1 6HA. Tel: 0115 948 5549, Fax: 0115 948 5560).
10. Hutton J, Polliti C and Seeger T (1995) Cost-effectiveness of Cochlear Implantation of Children - A Preliminary Model for the UK. In Uziel, A.S. & Mondail, M. (Eds.)

