**Appendix G:**

**Pre- and Post-operative Assessment of Communication Skills of the Child with the Primary Carer(s)**

Pre- and post-operative assessment is provided to evaluate a child's communication functioning with their primary carer. This assessment is carried out by a qualified Speech and Language Therapist, with experience in the field of children with hearing loss, Certified Auditory Verbal Practitioner, or a qualified practitioner with a specialist training in LSLS AVT. This assessment forms part of a collaborative team evaluation which will include input from the audiologist, medical personnel, family/caregivers, and other relevant professionals.

Assessment protocol dictates that each child receives a baseline pre-operative assessment to establish a baseline level of communicative function prior to implantation. A progress report (formal assessment including receptive and expressive language age) is submitted to the Cochlear Implant Team for as long as the child is in a therapy programme. Post-operative assessments should be repeated at 6 monthly intervals for the first 2 years post-implant to monitor progress (or more frequently should the SLT feel it is necessary). Thereafter the child receives an annual assessment.

All data gathered is referenced against typical child development.

It is advised that Speech and Language Therapists within Cochlear Units record the expectations of the family regarding the outcome of cochlear implantation, pre-implant as part of the base-line data. This may form the basis of pre-implant counselling if family expectations are not in-line with those of the implant team.

The child's listening, speech, language, pragmatics, and communication skills are assessed using a combination of observation, discussion, developmental checklists as well as formal and informal assessment measures. The exact battery of assessments is unique to each child and may vary from team to team.

At a minimum the assessment should include:

1. FLI-P( Functional Listening Index - Paediatric)
2. The Cochlear Integrated Scales of Development
3. PLS 5-UK (Preschool Language Scale 5) or a CELF (Clinical Evaluation of Language Fundamentals) where possible.

The Practitioner should be careful to consider the implications of using formal tests that are not in the child's language and, in this event, results should be used cautiously and qualitatively, with emphasis on the criterion-referenced tests listed above.

Video recordings may be used.

Each assessment should include the following information:

**A: Background information**

This will include identifying information as well as information pertaining to their degree and type of hearing loss, age of identification, type of hearing tests, if they had newborn hearing screening, aetiology as well as type of amplification and hearing age, information about schooling if appropriate, home language and cultural information, information about the impact of the hearing loss on the family and the level of support which they are currently receiving from relevant professionals. Case history should also explore the child's strengths and abilities as well as the family's resources in an objective way to ensure a strengths-based assessment.

**B: Assessment findings and progress**

All areas are assessed in relation to developmental norms. Assessment results from formal or criterion-referenced tests should be included.

**1. Audition**

This will reflect the child's current auditory skills and include functional listening checks, performance in noise and distance. Fine discrimination and any examples of perceptual errors should be included.

**2. Auditory attention**

This will reflect the child's current auditory alertness, auditory attention, responses to environmental noises, responses to speech without visual cues and if joint attention can be maintained through listening alone.

**3. Language**

3.1 Receptive language

This will reflect the child's current level of understanding through listening alone. How many verbal repetitions a child requires before understanding, vocabulary level, following instructions, understanding grammatical constructs, hypothetical understanding, answering questions. If the child is not acquiring receptive language through listening, this should be noted. If a child is communicating primarily through South African Sign Language (SASL), the Practitioner should endeavour to obtain an assessment of the child's level of functioning in SASL as well.

3.2 Expressive language

This will reflect the child's current use of verbal expression, length of spontaneous utterances, number of keywords, grammatical constructions, expression through other means such as gestures, signs etc.

**4. Speech**

This will reflect the child's current segmental and suprasegmental aspects of speech, intelligibility as well as voice quality. It should be made clear if there are speech perception errors and how much the speech clarity is affected by the audition.

**5. Pragmatics**

This will reflect the functional use of the child's communication, the appropriateness of their conversational turn-taking, how they organise their own message and use their language according to Halliday's 7 pragmatic functions.

**6. Cognition for language**

This will reflect the child's problem-solving skills, current play level, verbal planning, spontaneous thinking, executive functioning, and Theory of Mind.

**7. Other**

This will reflect any other observations – including gross motor skills, fine motor skills and any sensory observations. This should include any known diagnosis of additional challenges, or other forms of intervention that the child receives e.g., Occupational Therapy

**C. Conclusion and recommendations**

This should include a summary of the findings with reference to the pattern of overall progress as well as any further recommendations necessary for management. Assessment results should in the first instance be shared with the family and with the Cochlear Implant Team, Audiologist, and other relevant professionals. Permission should be obtained from the parents for sharing of reports. The results obtained will be used to establish patterns of progress, to plan therapy goals and predict any additional challenges the child may present with. These assessment results also serve as early indicators of unexpected or poor performance so that appropriate referral(s) to relevant specialist professionals can be made timeously (see Appendix L – Red Flags).

**D: Long-term therapy goals for the next 6 months**

In the case where the family is living far from an Implant Centre and is seeing a local Speech and Language Therapist, the Unit therapist may act purely as a consultant and therapy goals should ideally be set collaboratively with the local professional and the family.

**E: Recording outcomes on the National Database**

Rehabilitation/habilitation outcomes will be recorded in a national outcome database by completing a form asking for specific information including demographic information, Functional Listening Index - Paediatric, and child specific formal and informal assessments

REFERENCE:

Halliday, M. (1975) Learning How to Mean.

Authors: Louise Ashton, Barbara Kellett, Jenni Bester, Dani Schlesinger, Ilouise le Roux, Almeri Scott