



Audiological Care of Hearing Impaired Children

This document outlines the audiological management of children with a diagnosis of hearing loss and includes recommendations for services for children fitted with hearing instruments such as hearing aids and FM systems. Those children who are being provided with cochlear implants and bone implanted devices as a habilitation option will be covered under a separate standard yet to be developed.

Children who are deaf or hearing impaired, and their families/caregivers, constitute a unique group whose needs differ substantially from those of adults. Their care requires a specialised approach and special facilities.

Expected Outcomes

1. Paediatric diagnostic audiological assessment will achieve the following outcomes:
 - Estimation of hearing sensitivity and age appropriate speech perception abilities.
 - Assessment of the integrity of the peripheral and/or central auditory nervous system.
 - Identification of options for appropriate intervention/habilitation.
2. All children identified with hearing loss should have their hearing loss confirmed and receive habilitation and early intervention at an appropriate age. In cases of peripheral dysfunction, this should occur as early as possible. Infants who are referred from newborn hearing screening will have completed their audiological diagnostic assessment by three months of age, and receive habilitative audiological intervention by 6 months of age. Children with central dysfunction may not be identified and reliably assessed until they are older than 5 years; appropriate management should be initiated as soon as possible following identification.
3. Children with permanent hearing loss should be fitted with appropriate, safe and beneficial hearing instruments if this is the habilitation option chosen by the parents/caregivers. This must be done with the informed consent of their families and of the children themselves when appropriate.
4. Parents and families will be encouraged to have a positive attitude towards their child's hearing abilities and will have their views respected, receiving levels of care, support and information that will enable them to understand all aspects of their child's hearing needs in order to make informed decisions.
5. School leavers and tertiary students will have sufficient knowledge of their hearing impairment and of services and funding available to them to make informed and independent decisions about their own hearing health care.



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Clinical Indications

1. Children who receive habilitative audiological care will have confirmed permanent peripheral hearing loss (conductive and/or sensorineural), auditory neuropathy/dyssynchrony, or a central auditory processing disorder.
2. The complete and accurate assessment of hearing in infants, young pre-school children, developmentally delayed children and children with multiple handicaps can be a lengthy process. The process may take multiple sessions for a clear diagnostic picture to emerge. It may include observations by families, caregivers and associated professionals of a child's developing listening skills and communicative behaviours.

Clinical Process

General requirements for clinics providing audiological services for children

1. Protocols and standards will be in place in clinics to identify approaches to the different audiological management needs of children with the full range of hearing disorders. (See other NZAS Standards and Protocols).
2. If a clinic is not able to provide the most appropriate care for a child they should be referred without delay to another service that can provide that care. An example would be a child who requires a cochlear implant.
3. Families/caregivers will be included in an active, collaborative role with audiologists, Advisers on Deaf Children (AODC) and associated professionals in the planning and provision of early intervention services.
4. Appointments will be planned so that adequate time is allowed to complete the tasks that are required for each child being seen.
5. Audiological team members with less than 3 years paediatric audiological experience will work with the supervision of a more experienced audiologist.

Hearing instrument selection

1. Following initial diagnosis, and discussion of the child's likely hearing abilities with the parents, a referral will be made to an AODC to enable the family to understand the implications of the hearing impairment and their options for early intervention and the continuing support of their child. The AODC may be present at the time a diagnosis is confirmed.
2. Once the family has given their consent to proceed, appropriate amplification and assistive devices will be selected, fitted and evaluated in accordance with the



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appropriate protocol. Particular regard will be held for the special needs of hearing impaired children of all ages and separate protocols will be developed for the range of devices such as bone implanted aids, cochlear implants and FM systems.

Hearing instrument fitting

1. Hearing instrument fitting will be conducted with family/caregivers and, whenever possible, with an AODC in attendance. The fitting process should include recognised prescription, fitting and verification procedures designed for children, such as those associated with the DSL or NAL approaches (see references).
2. Following fitting, the audiologist will provide informational guidance to the family/caregivers and the child on aspects of hearing instrument use and care.
3. The audiologist will arrange for a trial period during which the AODC will monitor acceptance and use of the hearing instrument(s) by the child and the family/caregivers.

Long Term Monitoring of Progress

1. Audiologists will establish a regular and appropriate follow up programme for all children on their caseload with permanent hearing loss who require ongoing care. The follow-up programme will include monitoring hearing levels, middle ear function, analysis of hearing instrument and ear mould function and condition, hearing instrument benefit, the child's communicative development and listening ability (including speech perception), and the child's psycho-social and educational development. Details of care will be provided in the protocols associated with this standard that are under development.
2. The recommended follow-up intervals will be planned according to the age of the child and the need to adjust hearing instruments and replace earmoulds due to growth. (See Hearing Aid Replacement and Renewal Standard).
3. Lost or damaged hearing instruments should be replaced immediately once loss or damage has been confirmed.
4. Children will be seen immediately for replacement ear impressions and these will be dispatched promptly from clinics.
5. Audiologists will keep family/care givers and associated professionals up to date with audiological information and progress; be alert for changes in hearing levels and ear health which warrant prompt referral to associated professionals or revision of the hearing instrument fitting; and continue to facilitate understanding by parents/caregivers of their child's hearing abilities.



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Clinical Equipment and Calibration

1. See NZAS Standards for Standard Audiological Assessment, Calibration, Infection Control, Central Auditory Processing and Auditory Evoked Potentials.
2. Paediatric audiology clinics require facilities and equipment to conduct the tests and procedures necessary for complete diagnosis of the nature of the hearing disorder, as well as for the correct fitting, verification and evaluation of hearing instruments, using both objective and behavioural procedures.
3. Paediatric audiology clinics require facilities that are conducive to the friendly and enthusiastic participation of children and to the relaxation of their parents, families and caregivers.

Documentation

1. Each clinic will have documented protocols and procedures in place which specify the nature of services which will be provided and which adhere to the national standards of both NZAS and the Ministry of Health regarding health and safety, infection control, staff conduct, confidentiality, and the delivery of comprehensive and appropriate paediatric audiological services.
2. Audiologists will ensure that accurate records will be kept of model numbers, serial numbers, hearing instrument settings, real ear measures and any accessories supplied to children. This information shall be distributed to relevant professionals such as AODCs, teachers of the deaf and to family/caregivers at the time of issue of hearing instruments.
3. Audiologists will ensure that records are kept of all clinical activity for each child, including test results, comments by children and their parents/families/caregivers/associated professionals, incoming and outgoing correspondence, reports and recommendations for future support and follow-up.

References

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