RECOMMENDED GUIDELINES OR PEDIATRIC AMPLIFICATION

The New Mexico Early Hearing Detection and Intervention (EHDI) Audiology Committee has adopted guidelines from the American Academy of Audiology Amplification Guidelines (2013), Joint Committee on Infant Hearing (JCIH) (2019) as well as information from the EHDI website. The Audiology Committee has established a protocol which should be used to facilitate the fitting of amplification before 6 months of age. The Audiology Committee follows the 1-3-6 guidelines established by the Joint Committee on Infant Hearing (JCIH). Infants should receive a hearing screening by one month of age, a diagnostic evaluation by 3 months of age and be fitted with amplification and start early intervention by 6 months of age.

1. Professional Requirements

   A. An audiologist must complete the diagnostic audiologic assessment recommended in the Audiologic Diagnostic Assessment Guidelines section of this document.

   B. A licensed audiologist with experience in working with the pediatric population is the professional qualified to select and fit all forms of amplification for children including personal hearing aids, bone conduction or Osseo integrated devices, cochlear implants, remote microphone systems, and other assistive devices.

   C. Medical Clearance should be obtained from an ENT (MD/PA/NP) that has physically examined the child

   D. Equipment

      a. Facilities must have equipment for real-ear measurements and related hearing aid verification and validation procedures in order to optimize audibility with the child's amplification. Equipment must be calibrated to current ANSI standards annually.

2. Candidacy for Amplification

A. Consider amplification for any type or degree of HL that could possibly interfere with normal developmental processes.

B. If the child has a bilateral hearing loss with thresholds of 20 dBHL or greater in any frequency considered critical for speech understanding, amplification should be considered and not be delayed for concurrent medical and/or developmental conditions.

C. For children with unilateral hearing loss, amplification in the affected ear can be beneficial if there's measurable hearing in that ear. If additional testing indicates that the ear with the loss is unaidable, alternative amplification strategies and hearing assistance technologies such as DM systems should be considered.

D. Hearing aids should not be delayed for financial reasons. Loaner hearing aids should be considered until funding becomes available

E. Unilateral hearing loss at a severe to profound degree should be considered for a BAHD or other implantable devices.

F. For Children with Auditory Neuropathy Spectrum Disorder (ANSD), it's crucial to conduct a trial with amplification as soon as it is determined that their hearing sensitivity is poor enough that speech at conversational levels will not be easily accessible. It is important to closely monitor the child's response to amplification and adjust the intervention as needed.

G. For children with bilateral microtia/atresia it is recommended to fit with bilateral BAHD on a soft band.

H. The audiologist should respect individual family choices and provide unbiased information regarding communication options

3. Device Selection

A. The BTE style hearing aid is the preferred choice for infants and young children. Rapid growth and changes in ear size allows the audiologist to replace only the relatively inexpensive ear mold as the child grows.

B. Earmolds should be made with soft materials.

C. The hearing aid should contain tamper proof battery doors and tamper proof ear hooks.

D. Volume control should be disabled.

E. Directional microphones should be disabled for infants and very young children. Full time use of directional processing is not recommended for infants or children because for some listening situations directional processing would be undesirable (AAA, 2013)

F. Hearing aids should be selected from a pediatric friendly manufacturer to ensure that the device is compatible with DM/RM technology for the educational setting.

G. Verification and Validation

a. Simulated real-ear verification should be used when working with infants and small children. This is essential for ensuring that hearing aids provide appropriate amplification. Simulated Real-ear is performed by measuring the real-ear-to-coupler difference (RECD) and applying it to hearing thresholds and 2cc coupler measurements of hearing aid output to simulate the sound pressure level (SPL) in the ear canal.

b. If current measured RECD's cannot be obtained, published age-norms for average RECD can be used

c. It is recommended that children under 1 year old receive verification every 3 months and children aged 1-3 years should be seen every 6 months or more frequently if there are risk factors for progressive HL.

d. The Speech Intelligibility Index (SII) may be useful in measuring aided audibility. If SII values are below the normative range for a child's hearing loss, the clinician should make further attempts to adjust amplification.

e. Verification should be performed when new earmolds are fitted.

4. Resources

A. American Academy of Audiology Clinical Practice Guidelines Pediatric Amplification. June 2013 https://audiology-web.s3.amazonaws.com/migrated/PediatricAmplificationGuidelines.pdf_539975b3e7e9f1.74471798.pdf

B. Illinois Amplification Guidelines https://www.infanthearing.org/stateguidelines/Illinois/Amplification%20Guidelines.pdf

C. Joint Committee on Infant Hearing Principles and Guidelines 2019: https://mk0audiologyotvgk5ps.kinstacdn.com/wp-content/uploads/legacy/publications/resources/2019_JointCommiteeInfantHearing_Principles_Guidelines4EarlyHearingDetectionInterventionProgrs.pdf

D. Oklahoma State Department of Health. Oklahoma Protocol for Pediatric Amplification Revised: September 2010.. https://oklahoma.gov/content/dam/ok/en/health/health2/documents/oklahoma-protocol-for-pediatric-amplification.pdf

E. Tennessee Amplification Guidelines https://www.infanthearing.org/stateguidelines/Tennessee/Amplification%20Guidelines.pdf

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