



Ehdi-Pals Standard of Care

It is important to consider both chronologic and developmental age when selecting the appropriate test battery for pediatric patients. The Ehdi-Pals standard of care takes into consideration key assessment procedures but does not represent the full range of tests that could be conducted based on the needs and developmental skills of the child.

Assessment- birth to 3 months

- Click auditory brainstem response (ABR) test
- Frequency specific (tone burst/pip) ABR
- Bone conduction ABR
- Tympanometry w/high frequency probe tone
- Distortion product or transient evoked otoacoustic emissions (DPOAE or TEOAE)

References-

1. Guidelines for the Audiologic Assessment of Children From Birth to 5 Years of Age (2004)
<http://www.asha.org/policy/GL2004-00002.htm>
2. Audiologic Guidelines for the Assessment of Hearing in Infants and Young Children (2012)
http://www.audiology.org/resources/documentlibrary/Documents/201208_AudGuideAssessHear_youth.pdf
3. Joint Committee on Infants Hearing 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs <http://jcih.org/posstatemts.htm>

Assessment- 6 months to 3 years

- Behavioral audiologic assessment (i.e. visual reinforcement, conditioned play)
 - Ear specific
 - Frequency specific

Note- When behavioral audiometric tests are judged to be unreliable or if auditory brainstem response (ABR) testing has not been performed in the past, ABR testing using monitored sedation should be recommended.

- Tympanometry (a 226 Hz probe tone is appropriate for children six months of age or older or a corrected age of more than 6 months of age for children who are born prematurely.)
- Distortion product or transient evoked otoacoustic emissions (DPOAE or TEOAE)

Additional testing may include but is not limited to-

- Acoustic reflex testing

References-

1. Guidelines for the Audiologic Assessment of Children From Birth to 5 Years of Age (2004) <http://www.asha.org/policy/GL2004-00002.htm>
2. Audiologic Guidelines for the Assessment of Hearing in Infants and Young Children (2012) http://www.audiology.org/resources/documentlibrary/Documents/201208_AudGuideAssessHear_youth.pdf
3. Joint Committee on Infants Hearing 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs <http://jcih.org/posstatemts.htm>

Assessment- 3 years to 5 years

- Behavioral audiologic assessment (i.e. conditioned play)
 - Ear specific
 - Frequency specific
- Tympanometry (A 226 Hz probe tone is appropriate for age six months and older in a typical child or a corrected age of greater than 6 months for children born prematurely) and acoustic reflexes
- Distortion product or transient otoacoustic emissions (DPOAE or TPOAE)

Additional testing based on the needs of the child may include but is not limited to-

- Word recognition testing (quiet and/or noise)
- Sedated ABR if deemed necessary

References-

1. Guidelines for the Audiologic Assessment of Children From Birth to 5 Years of Age (2004) <http://www.asha.org/policy/GL2004-00002.htm>
2. Audiologic Guidelines for the Assessment of Hearing in Infants and Young Children (2012) http://www.audiology.org/resources/documentlibrary/Documents/201208_AudGuideAssessHear_youth.pdf
3. Joint Committee on Infants Hearing 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs <http://jcih.org/posstatemts.htm>

Sedation

- Monitored conscious sedation
- General anesthesia in the operating room or surgical recovery area

Sedation may be recommended for some infants and young children in order to complete physiologic assessments of auditory function. Yet, sedation of pediatric patients has serious associated risks such as hypoventilation, apnea, airway obstruction, and cardiopulmonary impairment. Consequently, sedative medications should only be administered by or in the presence of individuals skilled in airway management and cardiopulmonary resuscitation. Additionally, the oversight by skilled medical personnel and the availability of age- and size-appropriate equipment, medications, and continuous monitoring are essential during testing and rescuing.

References-

1. American Society of Anesthesiologists (2002) Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists: *Anesthesiology*, 96, 1004–1017
2. Joint Commission on Accreditation of Healthcare Organizations (2002) Hospital Accreditation Standards: Accreditation Policies, Standards, Intent Statements (Oakbrook Terrace, IL)
3. Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures: An Update [2006: page(s) 2587-2602]
<http://www.pediatrics.org/cgi/content/full/118/6/2587>

Hearing aid services

- Perform individually measured real ear values whenever possible OR
- Use age-normed average coupler values when necessary
- Complete RECD during or after 1st fit OR at first fit
- Complete RECD preferably with all new earmold fitting or either during subsequent monitoring visits
- Use evidence-based formulae (e.g., DSL, NAL)
- Validation of fitting
 - aided speech perception in sound field or
 - parent questionnaire

References-

1. Pediatric Amplification Protocol (2003)
<http://www.audiology.org/resources/documentlibrary/Documents/pedamp.pdf>
2. Amplification for Infants and Children with Hearing Loss (1994)
<http://aja.asha.org/cgi/reprint/5/1/53?ijkey=sAfYIYdjytk5U7B&keytype=ref>

Cochlear Implant Centers

- CI candidacy evaluation and
- CI surgery and
- CI programming (mapping)

Note: Currently EHDI-PALS only lists CI Centers that provide candidacy evaluation, programming and surgery. The EHDI-PALS team recognizes that many audiology facilities provide support and intervention services for CI patients. Consideration will be made to expand the directory in the future to include such facilities.