Early Hearing Detection and Intervention (EHDI) Guidelines for Pediatric Medical Home Providers

<table>
<thead>
<tr>
<th>Newborn Screening Birth</th>
<th>Screening Completed Before 1 Month</th>
<th>Diagnostic Evaluation Before 3 Months</th>
<th>Intervention Services Before 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify a Medical Home for every infant</td>
<td>Hospital-based Inpatient Screening OAE/AABR* (only AABR or ABR if NICU* 5+ days) All results sent to Medical Home</td>
<td>Pediatric Audiology Evaluation¹ with Capacity to Perform:</td>
<td>Continued enrollment in IDEA* Part C (transition to Part B at 3 years of age)</td>
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<td></td>
<td>Home Births*</td>
<td></td>
<td>Referrals by Medical Home for specialty evaluations, to determine etiology and identify related conditions:</td>
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<tr>
<td></td>
<td>Outpatient Re-Screening* (OAE/AABR*)</td>
<td></td>
<td>- Otolaryngologist (required)</td>
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<td></td>
<td>Failed Screen, or Missed, or Incomplete²</td>
<td></td>
<td>- Ophthalmologist (recommended)</td>
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<td></td>
<td>Pass</td>
<td></td>
<td>- Geneticist (recommended)</td>
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<td></td>
<td></td>
<td></td>
<td>- Developmental pediatrics, neurology, cardiology, nephrology (as needed)</td>
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<td>Pediatric audiology</td>
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<td></td>
<td></td>
<td></td>
<td>- Behavioral response audiometry</td>
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<td></td>
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<td>- Ongoing monitoring</td>
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</tbody>
</table>

**Ongoing Care of All Infants³⁴, Coordinated by the Medical Home Provider**
- Provide parents with information about hearing, speech, and language milestones
- Identify and aggressively treat middle ear disease
- Provide vision screening (and referral when indicated) as recommended in the AAP “Bright Futures Guidelines, 3rd Ed.”
- Provide ongoing developmental screening (and referral when indicated) per the AAP “Bright Futures Guidelines, 3rd Ed.”
- Refer promptly for audiologic evaluation when there is any parental concern regarding hearing, speech, or language development
- Refer for audiologic evaluation (at least once before age 30 months) infants who have any risk indicators for later-onset hearing loss:
  - Family history of permanent childhood hearing loss
  - Neonatal intensive care unit stay of more than 5 days duration, or any of the following (regardless of length of stay):
    - ECMO, mechanically-assisted ventilation, ototoxic medications or loop diuretics, exchange transfusion for hyperbilirubinemia
    - In utero infections such as cytomegalovirus, herpes, rubella, syphilis, and toxoplasmosis
    - Postnatal infections associated with hearing loss, including bacterial and viral meningitis
    - Craniofacial anomalies, particularly those that involve the pinna, ear canal, ear tags, ear pits, and temporal bone anomalies
    - Findings suggestive of a syndrome associated with hearing loss (Waardenburg, Alport, Jervell and Lange-Nielsen, Pendred)
    - Syndromes associated with progressive or delayed-onset hearing loss (neurofibromatosis, osteopetrosis, Usher Syndrome)
    - Neurodegenerative disorders (such as Hunter Syndrome) or sensory motor neuropathies (such as Friedreich's ataxia and Charcot Marie Tooth disease)
    - Head trauma, especially basal skull/temporal bone fracture that requires hospitalization
    - Chemotherapy

¹Denotes risk indicators of greater concern. Earlier and/or more frequent referral should be considered.


Notes:
(a) In screening programs that do not provide Outpatient Screening, infants will be referred directly from Inpatient Screening to Pediatric Audiologic Evaluation. Likewise, infants at higher risk for hearing loss (or loss to follow-up) also may be referred directly to Pediatric Audiology.
(b) Part C of IDEA* may provide diagnostic audiologic evaluation services as part of Child Find activities.
(c) Even infants who fail screening in only one ear should be referred for further testing of both ears.
(d) Includes infants whose parents refused initial or follow-up hearing screening.

February 2010 - American Academy of Pediatrics Task Force for Improving Newborn Hearing Screening, Diagnosis and Intervention (www.medicalhomeinfo.org)
### Appropriate Referrals

1. **Audiologist knowledgeable in pediatric screening and amplification**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

2. **Otolaryngologist knowledgeable in pediatric hearing loss**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

3. **Local early intervention service coordinator**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

4. **Family support resources, financial resources**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

5. **Speech/language therapist and/or aural rehabilitation therapist knowledgeable in pediatric hearing loss**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

6. **Sign language classes if parents choose manual approach**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

7. **Ophthalmologist knowledgeable in co-morbid conditions in children with hearing loss**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

8. **Clinical geneticist knowledgeable in hearing loss**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

9. **Equipment vendor(s)**
   - Name: 
   - Telephone number: 
   - Fax: 
   - Date of referral: 

10. **State EHDI Coordinator**
    - [http://www.infanthearing.org/status/cnhs.html](http://www.infanthearing.org/status/cnhs.html)

11. **AAP Chapter Champion**
    - [www.medicalhomeinfo.org/screening/hearing.html](http://www.medicalhomeinfo.org/screening/hearing.html)

12. **Family physician(s)**
    - Name: 
    - Telephone number: 
    - Fax: 
    - Date of referral: 

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### National Resources

- **Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell)**
  - 202/337-5220
  - [www.agbell.org](http://www.agbell.org)

- **American Academy of Audiology (AAA)**
  - 800/498-2071
  - [www.asha.org](http://www.asha.org)

- **American Academy of Pediatrics**
  - 847/434-4000
  - [www.aap.org](http://www.aap.org)

- **American Society for Deaf Children**
  - 717/703-0073
  - [www.deafchildren.org](http://www.deafchildren.org)

- **American Speech-Language-Hearing Association (ASHA)**
  - 800/498-2071
  - [www.asha.org](http://www.asha.org)

- **Boys Town Center for Childhood Deafness**
  - [www.babyhearing.org](http://www.babyhearing.org)

- **Centers for Disease Control and Prevention**
  - [www.cdc.gov/ncbddd/ehdi](http://www.cdc.gov/ncbddd/ehdi)

- **Families for Hands and Voices**
  - 217/357-3647
  - [www.handsandvoices.org](http://www.handsandvoices.org)

- **Laurent Clerc National Deaf Education Center and Clearinghouse at Gallaudet University**
  - [clerccenter.gallaudet.edu/infoToGo](http://clerccenter.gallaudet.edu/infoToGo)

- **National Association of the Deaf (NAD)**
  - 301/587-1788
  - [www.nad.org](http://www.nad.org)

- **National Center on Hearing Assessment and Management (NCHAM)**
  - 435/797-3584
  - [www.infanthearing.org](http://www.infanthearing.org)

- **National Institute on Deafness and Other Communication Disorders (NIDCD)**
  - 800/241-1044
  - [www.nidcd.nih.gov](http://www.nidcd.nih.gov)

- **Oberkotter Foundation**
  - [www.oraldeafed.org](http://www.oraldeafed.org)

The recommendations in this document do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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This project is funded by an educational grant from the Maternal and Child Health Bureau, Health Resources and Services Administration, US Department of Health and Human Services.