Dear Medical Provider:

Subject: Newborn Hearing Screening Recommendations and Guidelines

The Alabama Department of Public Health complies with the Joint Committee on Infant Hearing (JCIH) 2007 Position Statement for national standards and guidelines related to universal newborn hearing screening and follow-up. The following is a summary of national recommendations for newborn hearing screening:

- JCIH and the Alabama Early Hearing Detection and Intervention (EHDI) Program endorses early hearing detection and intervention to maximize linguistic competence and literacy development for children who may be deaf or hard of hearing.
- NICU infants admitted for more than five days are required to have auditory brainstem response (ABR) included as part of their screening so that neural hearing loss will not be missed. Most birthing hospitals in Alabama use ABR for all infants regardless of NICU admission.
- Referral should be made directly to an audiologist for rescreening on infants who do not pass automated ABR testing in the NICU.
- Infants who pass the initial hearing screening but have a risk factor (NICU admission greater than 5 days) should have at least one diagnostic audiology assessment by 24 to 30 months of age, or at any time if there are developmental milestone concerns.
- For rescreening, a complete screening on both ears is recommended, even if only one ear did not pass the initial hearing screening.
- JCIH recommends newborn hearing screening before one month of age (to include rescreening if an infant did not pass the initial hearing screening at birth), diagnostic hearing evaluation before three months of age (for infants who do not pass the rescreen), and referral to early intervention services before six months of age if identified with hearing loss.
- For infants with confirmed hearing loss, a genetics consultation should be offered to their families, and the infant should be evaluated by an otolaryngologist who has knowledge of pediatric hearing loss.
- All families of infants with any degree of bilateral or unilateral permanent hearing loss should be considered eligible for early intervention services.

A directory of outpatient pediatric hearing screening providers called Early Hearing Detection & Intervention Pediatric Audiology Links to Services (EHDI-PALS), may be found on the Alabama Newborn Screening website at [http://www.alabamapublichealth.gov/newbornscreening/newborn-hearing-screening.html](http://www.alabamapublichealth.gov/newbornscreening/newborn-hearing-screening.html). If you have any additional questions or concerns regarding universal newborn hearing screening, please contact the Alabama EHDI Coordinator at (334) 206-2944.

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Alabama EHDI Coordinator
**EARLY HEARING DETECTION AND INTERVENTION (EHDI) GUIDELINES FOR PEDIATRIC MEDICAL HOME PROVIDERS**

### Newborn Screening Birth
- **Identify a Medical Home for every infant**
- **Hospital-based Inpatient Screening OAE/AABR** (only AABR or ABR if NICU 5+ days) All results sent to Medical Home

### Screening Completed Before 1 Month
- **Home Births**
- **Outpatient Re-Screening OAE/AABR** All results sent to Medical Home and State EHDI Program

### Diagnostic Evaluation Before 3 Months
- **Pediatric Audiologic Evaluation** with Capacity to Perform:
  - OAE
  - ABR
  - Frequency-specific tone and voice
  - Air & bone conduction
  - Sedation capability (only needed for some infants)

### Intervention Services Before 6 Months
- **Audiologist Reports to State EHDI Program**
- **Every child** with a permanent hearing loss, as well as all normal follow-up results
- **Refer to IDEA** Part C
  - Coordinating agency for early intervention

### Team Advises Family About:
- Communication options, vision, and otolaryngology (if necessary)
- Assistive devices (hearing aids, cochlear implants, etc.)
- Parent support programs

### Medical & Otologic Evaluations
- To recommend treatment and provide clearance for hearing aid fitting

### Pediatric Audiology
- Hearing aid fitting and monitoring

### Ongoing Care of All Infants
- Coordinated by the Medical Home Provider
  - Provide 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 audiology evaluation when there is any parental concern regarding hearing, speech, or language development
  - For auditology 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):
      - ERM, mechanically-assisted ventilation, ototoxic medications or loop diuretics, exchange transfusion for hyperbilirubinemia
      - In utero infections such as cytomegalovirus, herpes, rubella, syphilis, and toxoplasmosis
      - Neonatal 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 (Weber Syndrome, Arteriovenous malformation, Biot Syndrome)
      - Syndromes associated with progressive or delayed-onset hearing loss (neurofibromatosis, osteogenesis imperfecta, 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

*OAE = Otoacoustic Emissions, AABR = Automated Auditory Brainstem Response, ABR = Auditory Brainstem Response, EHDI = Early Hearing Detection and Intervention, IDEA = Individuals with Disabilities Education Act, NICU = Newborn Intensive Care Unit, AAP = American Academy of Pediatrics*

**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 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.

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**NEWBORN SCREENING REFERENCE MANUAL FOR PROVIDERS**

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