Universal Newborn Hearing Screening, Diagnosis, and Intervention
Guidelines for Pediatric Medical Home Providers

**Birth**
Identify a Medical Home for every infant

- **Hospital-based Inpatient Screening (OAE/AABR)**
  Results sent to Medical Home

  - At least 2 screening attempts recommended prior to discharge

  - **Home Births**

    - Missed Incomplete Refer

    - **Outpatient Screening** (OAE/AABR)
      Results sent to Medical Home

      - **Pediatric Audiologic Evaluation**
        - Otoscopic inspection
        - Child & family history
        - Middle ear function
        - OAE
        - ABR
        - Frequency-specific tone bursts
        - Air & bone conduction
        - Sedation capability
          (only needed for some infants)

    - Hearing Loss
      - Normal Hearing

      - **Pediatric Audiologic Evaluation**
        - Hearing aid fitting and monitoring

        - Advise family
          About assistive listening devices (hearing aids, cochlear implants, etc) and communication options

    - Continued enrollment in IDEA* Part C
      (transition to Part B at 3 years of age)

      - **Medical Evaluations**
        To determine etiology and identify related conditions
        - Ophthalmologic annually
        - Genetic
        - Developmental pediatrics, neurology, cardiology, and nephrology (as needed)

      - **Pediatric Audiologic Services**
      - Behavioral response audiometry
      - Ongoing monitoring

**Before 1 Month**
Before 3 Months
Before 6 Months

- **Report to State**
  - EHDI Program
    Every child with a permanent hearing loss
  - Refer to IDEA* Part C
    Coordinating agency for early intervention

- **Medical & Otolologic Evaluations**
  To recommend treatment and provide clearance for hearing aid fitting

- **Pediatric Audiologic Services**
  - Ongoing monitoring

**Ongoing Care of All Infants**
From 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 as needed

- Provide ongoing developmental surveillance and referral to appropriate resources

- Identify and refer for audiologic monitoring infants who have the following risk indicators for late-onset hearing loss:
  - Parental or caregiver concern regarding hearing, speech, language, and/or developmental delay
  - Family history of permanent childhood hearing loss
  - Stigmata or other findings associated with a syndrome known to include a sensorineural or conductive hearing loss or eustachian tube dysfunction
  - Postnatal infections associated with sensorineural hearing loss including bacterial meningitis
  - In utero infections such as cytomegalovirus, herpes, rubella, syphilis, and toxoplasmosis
  - Neonatal indicators—specifically hyperbilirubinemia at a serum level requiring exchange transfusion, persistent pulmonary hypertension of the newborn associated with mechanical ventilation, and conditions requiring the use of extracorporeal membrane oxygenation
  - Syndromes associated with progressive hearing loss such as neurofibromatosis, osteopetrosis, and Usher syndrome
  - Neurodegenerative disorders, such as Hunter syndrome, or sensory motor neuropathies, such as Friedreich ataxia and Charcot-Marie-Tooth disease
  - Head trauma
  - Recurrent or persistent otitis media with effusion for at least 3 months

**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 Audiologic Evaluation.

(b) Part C of IDEA* may provide diagnostic audiologic evaluation services as part of Child Find activities.

(c) Infants who fail the screening in one or both ears should be referred for further screening or Pediatric Audiologic Evaluation.

(d) Includes infants whose parents refused initial or follow-up hearing screening.

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