CHECKLIST
EARLY CHILDHOOD
Hearing Screening

Surveillance and Periodic Rescreening of Hearing in the Early Childhood Years

Careful surveillance of hearing throughout the early childhood years up until and including kindergarten entry, even in the absence of known risk factors for hearing loss is recommended, since the prevalence may double by school-age. Continued surveillance of language development by the family, caretakers, and the primary care provider, as well as observations of the child's responsiveness to auditory stimuli, is essential for recognition and timely diagnosis of delayed-onset hearing loss during preschool years.

Do NOT screen (refer directly to a pediatric audiologist):

- **Infants with craniofacial abnormalities (microtia, atresia)**
- **A child with known hearing loss**
- **A child with significant language delay**
- **A child with risk factors for late onset or progressive loss (see other side)**

Children who may receive an outpatient hearing screening include:	
	A child who did not receive the newborn hearing screening (was missed or family declined)
	A child periodically screened throughout childhood especially at transition from Part C to Part B Education Services
	A child prior to enrollment in Early Intervention
	A child within 45 days of beginning school (preschool)
Equipment & Tools	
	Appropriate screening equipment for the developmental age of the child - Pure-tone play audiometry for those able to respond reliably (generally 3 years or older) - OAE for those who are developmentally unable to complete play-audiometry - Tympanometry may be used in conjunction to assess middle ear status (not a hearing test)
	Documentation of annual calibration
	Quiet environment to complete the screen
	Developmental checklist for speech and language milestone assessment (checklists are not to be used as a substitute for hearing screening)
	Appropriate toys for play audiometry
Screener Responsibilities	
	Obtain screener training and demonstrate competence
	Provide parent with pediatric audiology appointment, if needed, prior to leaving the rescreening facility
	Provide parent with referral to medical home, if needed
	Report both pass and refer rescreening results to state EHDI program, if required
	Communicate results to the family in a culturally sensitive and understandable manner - use scripts in the family's preferred language - include importance of follow up and clear next steps - offer educational materials to families to provide accurate information at an appropriate reading level, in the families preferred language
	Identify a designated pathway for referral to a pediatric audiologist when concerns regarding hearing and/or speech-language development arise
	Understand the limits of OAE and tympanometry testing

This project was supported by the Illinois EHDI Program

PROMOTING EHDI PRACTICES

Risk Factors for Early Childhood Hearing Loss

The JCIH 2019 position statement includes risk factors that are important to consider for ongoing monitoring of late onset or progressive hearing loss for those that pass the newborn hearing screening. Parents, medical providers and audiologists can benefit from understanding these risk factors as the prevalence of children confirmed as deaf or hard of hearing by school age doubles compared to the neonatal period.

When risk factors are present, comprehensive audiologic evaluation should occur. The schedule for ongoing re-evaluation is based on both the specific risk factors and the observations by the family of their child's auditory and speech/language development.

When a baby is readmitted, within the first month of life, the baby may need to be rescreened. Rescreening hearing should be completed any time there are conditions associated with elevated hearing levels. Automated ABR rescreening should be performed prior to discharge from that readmission even when the baby passed the initial newborn hearing screening. Risk factors are divided into predominantly perinatal and postnatal.

Perinatal

History of family members being deaf or hard of hearing with onset in childhood. Monitoring continues to be based on both the etiology and the level of family concern. Diagnostic evaluation recommended by 9 months of age or earlier if parent or caregiver concern is expressed.

Infants who require care in the NICU or special care nursery for more than five days is used as an indicator of illness severity.

Hyperbilirubinemia, is impacted by factors including illness severity, birth weight, rate of rise of bilirubin, clinical findings, postnatal age of the infant, and gestational age. Close follow up is recommended for those requiring exchange transfusion regardless of length of stay in the NICU.

Aminoglycoside administration of more than five days (or less than five days if toxic blood levels are identified), or if there is a family history of a mitochondrial genetic mutation associated with sensitivity for sensorineural hearing loss.

Perinatal asphyxia, also termed hypoxic ischemic encephalopathy, is noted because of the illness severity and increase in permanently elevated hearing thresholds.

Extracorporeal membrane oxygenation (ECMO) is specifically noted because of the increased risk of delayed-onset hearing loss.

In-utero infections pose a risk and require follow up by 9 months of age. cCMV is a leading cause of congenital infection and a leading cause of non-genetic unilateral or bilateral early, progressive, and delayed onset sensorineural hearing loss. The recommendation for audiologic assessment for infants with cCMV is no later than 3 months of age. Those infants born to mothers with possible Zika virus exposure during pregnancy or with findings consistent with congenital Zika syndrome should receive a standard newborn hearing screen at birth or by one month of age using the automated ABR (not OAE).

All craniofacial conditions and physical conditions associated with hearing loss are included as risk factors.

More than 400 syndromes and genetic disorders associated with atypical hearing thresholds are now included as risk factors.

Perinatal or Postnatal Risk Factors

- Perinatal and postnatal confirmed bacterial and/or viral meningitis or encephalitis.
- Predominantly post-natal events of chemotherapy, significant head trauma and particularly injury to the mastoid.
- Family concern regarding development, hearing, speech, or language should result in immediate referral.

This QR code will take you to the JCIH website

This QR code will take you to the EHDI Pals website

This QR code will take you to AAP EHDI resources.

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