# GLOSSARY OF TERMS FOR NEWBORN HEARING SCREENING

| TERM | DEFINITION |
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| **Newborn hearing screening (NBHS)** | Hearing screening performed shortly after birth, typically performed in hospitals prior to discharge involving the use of OAE or AABR. |
| **Otoacoustic Emissions (OAE)** | This test measures a response produced by the cochlea (outer hair cells) when a sound is presented to the ear. To conduct the test, a tiny probe is placed just inside the baby's ear canal and a soft click is presented, a tiny microphone measures the response produced by the baby's ear. The test is quick (about 5 to 10 minutes), painless, and may be done while the baby is sleeping or lying still. Thus, OAEs reflect the status of the peripheral auditory system extending to the cochlear outer hair cells. |
| **Automated Auditory Brainstem Response (AABR)** | This screening test measures how the hearing nerve responds to sound. Clicks are presented to the ear through a probe or soft earphones, and the neural response is measured through three electrodes placed on the baby's head. Automated ABR measurements reflect the status of the peripheral auditory system, the eighth nerve, and the brainstem auditory pathway. |
| **Outpatient rescreening** | An outpatient rescreening can take place at any of the following:<br>1. Hospital: Hospital screening protocols vary, and often include an outpatient screening stage. The specific technology used to conduct the outpatient screening should be based on the knowledge of how the inpatient screening was conducted. For example, when a baby fails an inpatient A-ABR screening, the outpatient screening must be conducted using A-ABR; if OAE is used auditory neuropathy will be missed. Some hospitals will do the rescreen before the baby leaves the hospital.<br>2. Practice/Office: Ideally the initial newborn hearing screening and rescreening (if necessary) will take place at the birthing hospital. However, in some cases once the baby is discharged from the hospital, a clinician may conduct a rescreen in the practice setting as needed.<br>3. Audiologist: Similar to the practice setting, a rescreen may also take place at an audiologist's practice setting. |
| **Lost to follow up** | For an infant who did not pass newborn hearing screening, "lost to follow-up" refers to a failure to receive the next step of treatment, be it rescreen or comprehensive audiological evaluation. |
| **Lost to documentation** | Failure to report the results from hearing screening, rescreening, diagnostic services, and/or treatment services which are needed for comprehensive surveillance and monitoring by EHDI and the medical team. |
| **Lost to treatment** | Failure for a child with an identified hearing loss to receive needed therapeutic services and failure for families to receive needed information to support decisions regarding treatment options. |
| **Medical home** | A model for providing high quality primary care that addresses and integrates health promotion, acute care and chronic condition management in a planned, coordinated, and family-centered manner. |
| **Late onset hearing loss** | A hearing loss that is not present at birth. The newborn hearing screening results would have pass'. |
| **Auditory Neuropathy** | Children with auditory neuropathy have evidence of normal cochlear function, but show impairment in the function of the auditory nerve. Functional hearing can often be quite impaired and diagnosis and treatment can be confusing and complicated. |

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| **Risk factors** | Risk factors are those indicators used for 1) the identification of infants who should receive audiological evaluation but who live in geographic locations (eg, developing nations, remote areas) where universal hearing screening is not yet available; 2) to help identify infants who pass the neonatal screening but are at risk of developing delayed-onset hearing loss and, therefore, should receive ongoing medical, speech and language, and audiological surveillance; and 3) to identify infants who may have passed neonatal screening but have mild forms of permanent hearing loss. |
| **JCIH 11 Risk Indicators** | The Joint Commission on Infant Hearing (JCIH) lists 11 risk indicators associated with permanent congenital, delayed-onset, or progressive hearing loss in childhood (Risk indicators that are marked with a "*" are of greater concern for delayed-onset hearing loss.)<br>1. Caregiver concern* regarding hearing, speech, language, or developmental delay.<br>2. Family history* of permanent childhood hearing loss.<br>3. Neonatal intensive care of more than 5 days or any of the following regardless of length of stay: ECMO*, assisted ventilation, exposure to ototoxic medications (gentimycin and tobramycin) or loop diuretics (furo- semide/Lasix), and hyperbilirubinemia that requires exchange transfusion.<br>4. In utero infections, such as CMV*, herpes, rubella, syphilis, and toxoplasmosis.<br>5. Craniofacial anomalies, including those that involve the pinna, ear canal, ear tags, ear pits, and temporal bone anomalies.<br>6. Physical findings, such as white forelock, that are associated with a syndrome known to include a sensorineural or permanent conductive hearing loss.<br>7. Syndromes associated with hearing loss or progressive or late-onset hearing loss, such as neurofibromatosis, osteopetrosis, and Usher syndrome, other frequently identified syndromes include Waardenburg, Alport, Pendred, and Jervell and Lange- Nielson.<br>8. Neurodegenerative disorders* such as Hunter syndrome, or sensory motor neuropathies, such as Friedreich ataxia and Charcot-Marie-Tooth syndrome.<br>9. Culture-positive postnatal infections associated with sensorineural hearing loss*, including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis.<br>10. Head trauma, especially basal skull/temporal bone fracture§ that requires hospitalization.<br>11. Chemotherapy* |

a program to enhance the health & development of infants & children

**Early Hearing Detection & Intervention Program**

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