

Protocol for Newborn Hearing Screening

It is recommended that all infants be screened for hearing loss prior to 1 month of age according to the following protocol. This protocol was developed by a workgroup comprised of audiologists practicing in Washington and nursing staff from hospitals across Washington. This protocol also includes guidance set forth by the Joint Committee on Infant Hearing (JCIH).

The purpose of a screening test is to identify those infants at risk for hearing loss who need further testing. A screening test is not a diagnosis.

1. Initial Hearing Screening

- The initial screening should be performed using Evoked Otoacoustic Emissions (EOAE, OAE, TEOAE, DPOAE), Auditory Brainstem Response (ABR, AABR, BAER, ABAER), or a combination of both.
- The initial screening should be performed as close to discharge as possible, preferably 12 hours or more after birth. The screening may be performed sooner if needed; however a higher referral rate may occur due to residual birthing debris in the ear canal.
- Both ears should be screened individually.
- The initial screening should consist of **2 attempts maximum** on each ear.
- It is recommended but not required that an infant be referred for a re-screening (step 2) if s/he does not pass the initial screening or results cannot be obtained in one or both ears. (If a second screening is not utilized, then a referral to diagnostic evaluation is appropriate. Skip to step 3.)

2. Re-screening

- The re-screening should be performed using Evoked Otoacoustic Emissions (EOAE, OAE, TEOAE, DPOAE), Auditory Brainstem Response (ABR, AABR, BAER, ABAER) or a combination of both measures.
- It is recommended that the re-screening be performed after discharge. The re-screening should occur **prior to 1 month of age**.
- Both ears should be screened individually.
- The re-screening should consist of **2 attempts maximum** on each ear at the time of screening.
- If an infant does not pass the re-screening or if results cannot be obtained in one or both ears, s/he shall be referred for diagnostic audiological evaluation.

3. Referrals for Diagnostic Audiological Evaluation

- An infant should be referred for a diagnostic audiological evaluation after failure to pass a maximum of 2 hearing screenings.
- The diagnostic evaluations should be performed by an audiologist trained in infant diagnostic audiological evaluation as stipulated by the Washington State Department of Health Diagnostic Audiology Best Practice Guidelines.¹

A maximum of 2 screening tests, each consisting of a maximum of 2 attempts, should be performed.

The hearing screening should be performed using Evoked Otoacoustic Emissions (EOAE, OAE, TEOAE, DPOAE), Auditory Brainstem Response (ABR, AABR, BAER, ABAER), or a combination of both measures.

- **The initial hearing screening** is the first hearing screening performed on an infant after birth. It should consist of no more than 2 attempts using the same screening technique on each ear.
- **The re-screening** is a second hearing screening that can be performed if an infant does not pass the initial hearing screening in one or both ears. It should consist of no more than 2 attempts on each ear, and can be performed prior to or after discharge. It is ideal to perform the re-screening after discharge to allow sufficient time for the infant's ears to clear of residual birthing debris. The re-screening should be performed prior to 1 month of age.

- The referral for diagnostic evaluation should be coordinated by the infant's primary care physician.
- The diagnostic evaluation should occur prior to 3 months of age.

4. Documentation and Communication of Screening Results

- Screening results should be recorded in the infant's medical record.
- Screening results should be communicated to the parents of the infant verbally and in writing.
- Screening results should be communicated to the infant's primary care physician in writing.
- Screening results should be reported to the Department of health per stated protocol.
- Families should be provided with information about the hearing screening, risk factors for hearing loss, normal language development and resources for more information.
- Families of infants who refer on the hearing screening will be provided with information about why their baby may not have passed the hearing screening, the importance of follow-up, and how to schedule a diagnostic audiology appointment.
- Parents will be provided with information in their native language or preferred communication mode.

5. Quality Assurance

- A referral rate no higher than 8% for the initial screening should be maintained within 3 months of program initiation.
- If a re-screening prior to discharge is utilized, a referral rate no higher than 4% should be maintained within 3 months of program initiation.
- Within 6 months of program initiation a minimum of 95% of infants should be screened prior to discharge or before 1 month of age.
- A tracking system should be in place to monitor referral rates and follow-up on those infants referred for a re-screening or diagnostic evaluation.
- Free technical assistance in newborn hearing screening program planning and development can be obtained from Children's Hospital & Regional Medical Center Newborn Hearing Screening Project Team.²

6. Screener Requirements

- Screeners should have adequate skills in soothing and calming newborns.
- Screeners should be trained by an audiologist or by a similarly trained individual in screening techniques.
- Screeners should be trained in sensitive communication of screening results. It is recommended to laminate examples of proper terminology and language and keep with screening equipment for screeners to reference.
- Screeners should be equipped to handle parent questions and know where to refer if unable to answer questions.

¹ To obtain a copy of the Diagnostic Audiology Best Practice Guidelines and/or the Pediatric Audiology Services Guide contact.

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