



Early Hearing Detection and Intervention Program (EHDI)

Newborn Hearing Screening Checklist Troubleshooting High Refer Rates

Please review the checklist below and address each area to see if you identify any factors that may be negatively impacting your refer rate. ***EHDI can assist you with obtaining contact information for manufacturers or finding resources if needed. Please reach out after you have thoroughly evaluated all processes using this document.***

Please note that some of the steps do NOT apply to those using OAE screening equipment – and AABR has been specified on those items.

Equipment:

- ☐ Calibration due date – should not be more than a month past due date
- ☐ Does your facility have a test device from manufacturer to do routine equipment checks? Not Biomed annual checks, but a simple brief check any staff member can do using designated manufacturer test kit.

This will identify problems with sound issues in earphones, AABR sensor cable issues and/or other potential equipment problems that may be impacting the hearing screen accuracy.

We can assist you in obtaining a test kit from manufacturer if needed.

- ☐ If you do have a test device for equipment checks, do all screening staff know how to complete the equipment checks?
- ☐ Does AABR equipment have ability to run reports which detail average screen times, average myogenic noise, and average impedance levels?

Screen times: Total time for screen after test is started until a PASS or REFER result is documented. Most equipment should complete screens in just a few minutes. If screening time is longer, troubleshoot.

Three things that influence length of screen time include:

1. ****Myogenic noise:** Noise generated from electrical activity associated with muscle contractions (i.e. if baby is moving, fussing or not relaxed) or proximity to some electronic devices that can also cause interference (computer monitors, dimmer switches, bili lights, etc)
2. ****Impedance:** How well AABR electrode sensors are connected to baby
3. ****Ambient noise:** Is the test area quiet with extraneous noise controlled to a minimum?

If screening in patient room, which is acceptable and encouraged for family friendly status, do screening staff explain to family the need for quiet environment?

Other things that affect ambient noise:

- a) Baby crying or noisy breathing from infant
- b) If you are seeing the ambient noise reading going up while the baby and environment are quiet, check to assure that the **AABR** ear coupler is sealed tightly around the entire ear. If there is a gap, room noise or conversation is picked up. The ambient noise reading should go down when the ear coupler is tightly sealed again.



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- c) If you are noticing high ambient noise and the room and baby are quiet and you have **AABR** coupler well placed with no gaps, there may be static in earphones. *Do an equipment check to identify if there is static in earphone.*

*****High impedance, high myogenic interference and/or high noise levels increase the screening time and possibly interfere with accuracy of test.***

- ☐ Does screening staff know how to reduce/improve myogenic noise and impedance when doing AABR screen? If not, review screening equipment manual and/or contact manufacturers tech support.

Preparing the infant:

- ☐ Gently massage front of ear for about 15-20 seconds to move ear canal debris. Pull pinna (outer ear) up and out to help open the ear canal before placing probe or earphone.
- ☐ Electrode placement for **AABR** - what is used for cleaning location of electrode placed on infant (baby wash, saline, NuPrep, etc).
 - ☐ Never use alcohol to prep skin
 - ☐ Review manufacturer's manual for electrode placement
- ☐ Screen infant when content/sleeping, well fed, swaddled
- ☐ For **OAE** screens, assure probe fit is adequate. Probe should stay securely in ear canal without holding in place.
- ☐ If NICU infant, screen as close to discharge as possible.
 - a) Screen in open crib
 - b) Wait until infant is off oxygen or NG tube feedings, if possible

Timing of Hearing Screens:

- ☐ How long after birth is first screen typically conducted?
Guidelines suggest 12-18 hours if possible
- ☐ How long do you wait between screens if rescreen needed?
4-6 hour minimum is suggested. Wait as long as possible and as close to discharge as possible.
Wait until the next day if infant is not being discharged.
- ☐ If baby becomes inconsolable, pause test and try to soothe/calm baby. If not successful, end the test and attempt later when baby is quiet, fed, content.

Staff Competencies:

- ☐ Most manufacturers have online training videos. Check your equipment manufacturer for online training links. Contact EHDI for assistance with manufacturer's contact if needed
- ☐ After initial training, are screening skills monitored?
- ☐ Do you review referral rates to see if a specific screener needs more training/guidance?
- ☐ Do you require annual competencies for screeners?
- ☐ Do screeners have easy access to written protocols and/or equipment manuals?
- ☐ Do screeners know where these resources are located (notebook in nursery, online access)?

The EHDI program is available to assist you with training or assistance to improve newborn hearing screening procedures and results. Please email Julia Balbach at jbalbach@health.in.gov or Suzanne Foley at sfoley@health.in.gov. Thank you for all you do to help Indiana babies! www.hearing.in.gov 8/25