

Audiology Procedures

| CONTENTS | PAGE |
|--|-------------|
| Identification of Children with Hearing Loss | 2 |
| Services to Determine or Monitor the Range, Nature and Degree of Hearing Ability | 4 |
| Determination of Amplification Needs, Evaluation of Effectiveness and Monitoring | 5 |
| Advocating for Children/Students with Hearing Loss | 5 |
| Audiology Bloodborne Pathogens Statement | 6 |
| AEA -13 EHDI Protocol | 7 |
| S.I.F.T.E.R. Protocol | 8 |
| Students with a permanent hearing loss who are on an IEP | 8 |
| APD (Auditory Processing Disorders) Protocol | 9 |

Identification of Children with Hearing Loss

Newborn Screening

Initial screening is usually done by hospital personnel. Babies needing to be re-screened may be tested by the hospital, private practice audiologist, or AEA audiologist. (See EHDI protocol page 7.)

* Preschool Screening

Hearing screenings for preschoolers will be done at public preschools and Head Start centers. Head Start students will be screened within 45 days of enrollment. (Head Start personnel are responsible for notifying the audiologist when a new student enrolls.) Hearing screenings may also be done at licensed private preschools, child fairs/finds, or on a referral basis. Students are typically tested by the audiologist, but may be tested by the audiometrist.

(* May be adjusted depending on caseload.)

* Grades K-12 (Accredited public and private schools)

All students in grades K-3 will be screened on an annual basis. All students new to the district will also be screened during scheduled testing dates. It will be the school's responsibility to notify the AEA of students new to the district. Students receiving Competent Private Instruction (home-schooled) may receive hearing screenings at their local school during scheduled testing dates. Students may also receive hearing screening as recommended by the building team, teacher, or parent.

(* May be adjusted depending on caseload.)

Notification

It is the responsibility of the school district to publish notification of AEA hearing screenings/evaluations (including notification of students receiving Competent Private Instruction). This may be done through newsletters, student handbook, and/or newspaper. Districts will be reminded annually that this needs to be done and offered sample text to use. It is the school district's responsibility to inform AEA hearing staff if a parent requests that the AEA not provide hearing screening/evaluation services for their child. Private preschools are responsible for notifying parents of hearing screenings/evaluations. Parents may request or refuse to have their child's hearing tested.

Initial Screening

The audiometrist is responsible for scheduling the screening date(s) with the school, arranging for an appropriate room for testing if necessary, and obtaining lists of students to be screened. The audiometrist may be assisted by other audiometrists or the audiologist on the screening day.

Screenings will include pure tone screening (preschool through 12th grade) and tympanometry screening (preschool and kindergarten). Otoacoustic emissions testing (OAE) is used for newborn screening and may be used with other children/students when pure tone screening can not be completed.

Pass/Fail Criteria

For pure tones: Failing to hear one or more of the following in either ear: frequencies of 1000, 2000, and 4000 at 20 dB HL and 6000 Hz at 25 dB will indicate re-screening. (500 Hz may be used depending on room noise.) The rescreening may be done on the same date (by a different tester), or on the next retest date.

For tympanometry: 1) Negative middle ear pressure of -200 mmH2O or greater, or 2) flat tympanogram, or 3) audiologist's discretion will indicate re-screening. This may be done on the same date or on the next retest date.

For OAE: Fail (need for re-screening) will be determined by protocol of automatic test equipment. (See attached AuDX protocol).

Annual evaluations will typically be done at the same time as the hearing screenings. Rescreenings and/or evaluations can be done by the audiologist on the same date. Screening/evaluation rosters (results) will be given to the schools.

All students screened/tested will receive, from AEA 13 Audiology staff, a half-sheet take home paper indicating that their child received a hearing test and:

- if hearing is within normal limits,
- if a medical referral is recommended,
- if they should look for results in the mail within 10 business days,
- if hearing will be rechecked at school,
- and/or contact information for questions.

Services to Determine or Monitor the Range, Nature and Degree of Hearing Ability

Diagnostic Evaluations

Students who fail the hearing screening, have a known hearing loss, or have a known family history of hearing loss will receive a hearing evaluation at least annually. Other students may receive a hearing evaluation on a referral basis.

When possible, hearing evaluations will be done at elementary schools at the time of initial screenings. A second evaluation/recheck date will be scheduled later in the school year.

Qualifying middle and high school students that are at the same location as the elementary school will receive hearing evaluations/screenings at the time of initial screenings. Qualifying middle and high school students at other locations will receive hearing evaluations/screenings on a separate scheduled date. A second evaluation/recheck date may be scheduled at middle schools and high schools as time permits.

Preschool hearing evaluations will be done at the time of the initial hearing screenings. Preschools within elementary school buildings will typically be tested and rechecked at the same time as the elementary school. Hearing evaluations at Head Start Centers will be scheduled during the first 45 days of enrollment. Typically, private preschools will be scheduled after screenings at the public schools are completed. Rechecks are not typically done at private preschools. Parents are encouraged to schedule a recheck appointment at the sound booth if needed.

Hearing evaluations may include frequency specific air and bone conduction thresholds, tympanometry, otoacoustic emissions, speech reception thresholds, and speech recognition testing as determined by the audiologist. The audiometrist may assist the audiologist as needed. Evaluations may be done the same day as the initial screening or on a later date. Students may be retested more often than annually at the audiologist's discretion.

Students may receive a medical referral based on the results of diagnostic testing. Criteria for a medical referral include, but are not limited to:

1. Any obvious signs of outer/middle ear disease or abnormality.
2. Pure tone thresholds greater than or equal to 25 dB HL at more than one frequency in combination with an abnormal tympanogram or air-bone gap.
3. A threshold decrease of 10 dB or more at one or more frequencies for students with previously known hearing loss.
4. Newly identified sensorineural hearing loss.

Students may be released from annual hearing evaluations after 2 consecutive hearing tests within normal limits in separate school years, or after 3rd grade at the audiologist's discretion for students with normal hearing and abnormal tympanograms, excluding tubes and perforations. Being released from annual hearing evaluations, does not remove a student from participating in the general screening program (K-3rd).

Rosters (results) will be given to schools with an individual report to be filed in the student's school file. Parents will be notified of the results by AEA audiology staff within 10 business days of the testing. Reports will be sent to the AEA secretaries for students with known hearing losses who also have an IEP.

Newborns that do not pass OAE re-screening are typically referred to their doctor for medical evaluation and follow-up. Auditory brainstem response audiometry (ABR) is recommended if physician finds no outer/middle ear pathology. (See EHDI protocol page 7.)

Determination of Amplification Needs, Evaluation of Effectiveness and Monitoring

(See S.I.F.T.E.R. protocol page 9.)

The following may be used by the audiologist to help determine a student's amplification needs:

1. hearing evaluations
2. sound field and/or real ear evaluations
3. trial use of amplification
4. referral to outside agency
5. S.I.F.T.E.R. (Screening Instrument for Targeting Educational Risk)*
6. classroom observation*

*the teacher of the deaf and hard of hearing may assist in gathering information

The following may be used by the audiologist to evaluate the effectiveness of amplification:

1. sound field or real ear testing
2. L.I.F.E. (Listening Inventories for Education)*
3. S.I.F.T.E.R. (Screening Instrument for Targeting Educational Risk)*
4. Teacher, student, parent report*
5. classroom observation*

*the teacher of the deaf and hard of hearing may assist in gathering information

The following will be used to monitor students who wear amplification:

1. All students with an IEP who wear amplification must have a monitoring plan documented in or attached to their IEP.
2. Annual sound field or real ear testing*
3. Annual electro-acoustic evaluation of the amplification*
*may be done by AEA or outside provider, but must be documented.
4. Other listening inventories (CHILD, ELF)

Advocating for Children/Students with Hearing Loss

The audiologist will write IEP/IFSP reports for AEA referrals and 3 year re-evaluations, and attend IEP/IFSP meetings when possible for students with hearing concerns.

Reports will be written as necessary for parents, health and medical community, Dept. of Disability Services, Dept. of Human Services, Title XIX, preschool, child care, and others as requested by parent. Release of information permission will be obtained to share information outside of the AEA.

Conferences may be held by the audiologist and/or the teacher of the deaf and hard of hearing with parents and families, health and medical community, teachers, LEA/AEA staff, preschool staff, and child care providers.

In-services may be given by the audiologist and/or the teacher of the deaf and hard of hearing to parents and families, teachers, LEA/AEA staff, preschool staff, child care providers, individual students, and classrooms.

The audiologist may assist parents and school districts in finding funding for amplification needs.

Audiology Bloodborne Pathogens Statement

The following is a policy statement concerning disinfecting procedures for audiological testing done by AEA 13 staff.

Audiological equipment that comes in contact with students will be disinfected with an appropriate solution on a regular schedule that will vary with the equipment and situation. The procedures are in place in order to protect both the student and AEA 13 personnel.

Procedures for testing and disinfecting are as follows:

1. Visual inspection of pinna and external canal for discharge before testing.
2. For ears with observable discharge: Impedance probe tips and otoscope specula will be used only once and disinfected or discarded before reuse. Disinfecting entails using an ultrasonic machine with disinfecting solution (ex. Cavicide™ or Audiologists Choice®). Earphones will be wiped with a disinfecting wipe and allowed to dry prior to reuse.
3. For ears free of observable discharge: Impedance probe tips and otoscope specula are to be changed or discarded between students or wiped with alcohol. All impedance probe tips and otoscope specula need to be disinfected or discarded at the end of the day. Disinfecting entails using an ultrasonic machine with disinfecting solution (ex. Cavicide™ or Audiologists Choice®).
4. If lice or nits are observed the student will be referred to the school nurse or office and tested at a later date when issue is resolved.
5. Any staff with an open cut on the hand needs to glove during testing. Gloves do not need to be changed between students unless contact has been made with discharge from the ear. If the staff member is not gloved, hand washing is required after testing a child with discharge from the ear.
6. Any contact with blood requires the staff member to follow AEA 13 guidelines as stated by the Bloodborne Pathogens Committee.

AEA -13 EHDl Protocol

PASS INITIAL HEARING SCREEN AT HOSPITAL

1. The hospital enters the data into the eSP database within six days.

MISSED OR FAIL INITIAL SCREEN

1. The hospital enters the data into the eSP database within six days.
2. AEA personnel check the database at a minimum of once every two weeks for referrals.
3. Referrals are contacted to schedule a follow-up.
 - Up to two phone contacts are made and one referral letter is sent. A copy of the letter is placed in the baby's file.
4. If family cannot be contacted a case note is entered in the database reporting the attempts that were made.
 - If family has not followed up within two weeks of the letter the EHDl Follow Up Coordinator is contacted by email regarding the attempts that were made and that a case note was added to the baby's eSP file.

PASS RESCREEN AT AEA

1. The audiologist enters the pass information into the eSP database.
2. Upon obtaining signed parent permission, the results are sent to the baby's primary care provider.

NO SHOW FOR RESCREEN AT AEA

1. A case note is entered into the database regarding the infant was a no show.
2. A no show letter is sent to the parent to reschedule follow-up appointment.
3. An email is sent to the EHDl Follow Up Coordinator stating a case note was entered into the baby's eSP file.

SECOND NO SHOW FOR RESCREEN AT AEA

1. Same items 1 and 2 above.
2. A second email is sent to the EHDl Follow Up Coordinator stating the infant was a second no show and attempts to contact the family will no longer be made.

FAIL RESCREEN AT AEA

1. Results are entered in the eSP database.
2. Upon informed clinical opinion a referral to a primary care provider or facility specializing in electrophysiological testing is made.
3. Optional Release of Information form may be signed if follow up facility is known.
4. Results are sent to baby's primary care provider after obtaining signed parent consent.
5. Follow-up hearing test is discussed if needed due to medical referral.

RESIDENT OF ANOTHER AEA (missed or fail initial screen)

1. Follow procedures as above (missed or fail initial screen) Offer rescreen to be done at AEA 13 or their local AEA.
2. If testing is done at AEA 13, send results to local AEA.
3. If baby fails rescreen, follow procedures for referring a failed rescreen (above) and send information to local AEA.

RESIDENT OF ANOTHER STATE (missed or fail initial screen)

1. Follow procedures as above (missed or fail initial screen)
2. Offer rescreening at AEA 13 and follow above procedures for pass/fail results.
 - if rescreening can't be done at AEA 13, provide resource options if known, otherwise refer the parent to their primary care provider for resources.

S.I.F.T.E.R. Protocol

S.I.F.T.E.R. questionnaires will be sent annually to:

- a. Any permanent hearing loss, not on an IEP, preschool through last grade in elementary school for the district
- b. Any conductive hearing loss, still showing hearing loss after the recheck, at the audiologists discretion
- c. Other students with hearing loss at the audiologists discretion

Scoring:

- a. 1-2 marginals: "Pass"
- b. 3 or more marginals: "Marginal"
- c. fail only school behavior and/or academics: "Marginal"
- d. fail attention, communication, and/or class participation: "Fail"

All results will be sent to the AEA building representative and teacher (with a copy of the S.I.F.T.E.R. for the students CUM file.

Students scoring "Marginal": student is at risk, may wish to discuss classroom strategies and possible interventions.

Students scoring "Fail": teacher should bring student to the building problem solving team. The audiologist should be part of the team for this student. The AEA building representative or audiologist can be case manager if a referral questions need to be written. The ITHI can be asked to observe the student in the classroom to provide recommendations to the team.

If a S.I.F.T.E.R. is not returned in 3 months, it will be resent.

Students with a permanent hearing loss who are on an IEP

Preferential seating lists are sent to building principals and AEA building representatives with a note that hearing should be addressed if the student has an IEP.

Copies of hearing evaluations will be given to AEA secretaries for the student's special education file. Reports of hearing tests will be sent to the school for the student's record.

AEA building representatives will receive an in-service regarding the audiology program, how the S.I.F.T.E.R. is used, where to find results of hearing screenings, and addressing hearing on IEPs for those students with hearing loss.

APD (Auditory Processing Disorders) Protocol

APD screening is not available through AEA 13; however an audiologist can be present at the team meeting for the student to provide valuable information regarding compensatory strategies that may be helpful. It should also be recommended the team consider evaluations/screenings in the following areas prior to referring to another agency for APD screening.

Hearing screening
Speech/Language screening
Psycho educational testing
Testing for specific learning disabilities
Classroom observation check list (ex. CHAPS)

Upon completion of the team meeting and the above screenings/evaluations, if the team would like to pursue an APD screening below is a few possible referral sites.

- Children's Hospital, Omaha, Nebraska
- University of South Dakota, Vermillion