Guidelines

Newborn Hearing Screening

Louisiana Birthing Facilities

LOUISIANA EARLY HEARING DETECTION AND INTERVENTION PROGRAM

Louisiana Early Hearing Detection and Intervention Program

Louisiana Department of Health
Office of Public Health
Hearing, Speech and Vision Program

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Introduction

Each year, approximately 12,000 babies are born in the United States with permanent hearing loss. Since one to three newborns out of 1,000 have a hearing loss, it is the most frequently occurring birth defect. Additionally, another two to three children per 1,000 will acquire a hearing loss after birth. This document was designed to assist birthing facilities in developing and implementing quality hearing screening programs that are based upon best practices, Louisiana law, and rules and regulations of the legislation.

A comprehensive EHDI program includes the following components:

- Universal newborn hearing screening
- Follow-up screening for infants who do not pass the inpatient screening
- Diagnosis of hearing loss
- Intervention
- Data management/surveillance

Mission

Early Hearing Detection and Intervention (EHDI) is a national initiative that supports the early identification of infants with hearing loss through screening, audiologic evaluation, medical evaluation, enrollment in early intervention and family to family support services. [1] *If early identification and intervention does not happen, speech and language development, as well as academic achievement and social-emotional development, will be adversely affected.* [2]
For more information go to our website http://ehdi.dhh.la.gov

Legislation and Rules

In 2002, the Louisiana legislation, *Identification of Hearing Impairment in Infants Act,* mandated hearing screening of newborns prior to discharge from birthing facilities and reporting of results to the Office of Public Health. http://dhh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/hearingspeechvision/LA_LAW.pdf
The same legislation also created a fourteen-member Advisory Council to advise and assist the Office of Public Health. The Advisory Council consists of representation from different disciplines of the health and education communities, including an otolaryngologist, neonatologist, pediatrician, hospital administrator, teacher/administrator certified in education of the deaf, audiologist, and speech/language pathologist; a deaf person; two parents of children with hearing loss; and representatives of Louisiana Department of Education, Louisiana Commission for the Deaf, and Louisiana Association of the Deaf.

[1] Early Hearing Detection and Intervention Program Guidance Manual. *CDC*. February 2003.
[2] Early Hearing Detection and Intervention Program Guidance Manual. *CDC*. February 2003.

Screening Supervisor and Personnel

Appropriate training and supervision of all screening personnel is critical to ensure an efficient and accurate screening program**. All training and supervision is the responsibility of the Program Supervisor.**

Hearing Screening Program Supervisor Qualifications

1) Board eligible or board certified physicians with special training in auditory brainstem response testing and/or otoacoustic emissions and in infant hearing testing. Evidence of training must be submitted to the Office of Public Health; or

2) Audiologists licensed by the Louisiana Board of Examiners for Speech Pathology and Audiology with special training in auditory brainstem response testing and/or otoacoustic emissions testing and in infant hearing testing. Evidence of training must be submitted to the Office of Public Health.

The screenings must be performed by either the program supervisor or screeners trained and supervised by the program supervisor

- General supervision requirements of trained screeners include:
  - Supervisor is accessible by telephone while screenings are being performed.
  - Review a percentage of screening documentation and copies of the newborn hearing screening report
  - Perform periodic direct observation of each screener at least once per month as they perform hearing screenings for one year
  - Perform direct observation of each screener every three months after following one year of observation as described above

More information regarding screening personnel and supervision of screening personnel can be found in the Appendix of this document: *Job Description and Performance Standards for Hearing Screening Program Supervisors at Louisiana Birthing Facilities.* http://ldh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/hearingspeechvision/Job%20_Description_summer_2014.pdf

In addition, an interactive web based Newborn Hearing Screening Training Curriculum developed by the National Center for Hearing Assessment and Management (NCHAM) is available at http://infanthearing.org/nhstc/index.html and includes CEUs.

Newborn Hearing Screening Protocols and Procedures

Informed Consent

Most facilities obtain blanket consent for treatment at admission, which includes consent for newborn hearing screening. It is important that parents are given information in advance (e.g., in preadmission packet, at prenatal classes) about the hearing screening process. Brochures in English and Spanish are available at:
http://dhh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/hearingspeechvision/CanYourBabyHearproof.pdf (English)
http://dhh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/hearingspeechvision/CanYourBabyHearSpanish.pdf (Spanish)
Parents have the right to refuse a hearing screening. If a parent declines testing, the birthing facility should document **Reason Not Screened – Parents Declined Testing** on the Newborn Hearing Screening Report (NHSR) form. Parent's signature is required on the NHSR form and a copy should be retained in the infant's medical record.

Screening Age

For efficient screening and accurate results, it is recommended that the initial screening take place **as close to discharge as possible**.

- Waiting until the newborn is at least 24 hours on a vaginal delivery and 48 hours on a C-Section delivery is optimal. This time allows for any birthing debris in the ear canal to dry.
- For premature infants, it is recommended that the infant be screened at 34 weeks gestational age or greater, or upon discharge from the NICU.
- If a newborn is receiving ototoxic medications, the hearing screen should be conducted after the completion of the course of medications.

Facilities should screen all newborns including 1) non-resident births, 2) out of hospital births, and 3) newborns transferred into the facility and being discharged into the care of a parent or guardian.

Inpatient Repeat Screening

If the newborn passes the first hearing screen in both ears, the screening process is complete.

To reduce the refer rate at the time of discharge, babies who refer on the first screen should be screened a second time prior to discharge. While this is a viable means of reducing the false positive rate (referring babies with normal hearing), excessive re-screening is not beneficial.

No more than two good screening sessions should be completed. The screening sessions should be conducted several hours or 1 day apart, rather than back-to-back, and include repeat testing on both ears. A good screening session is one where baby is quiet, room is quiet, and you have acceptable probe/headphone placement.

Pass = Both ears pass during the same screening session

Screening Documentation

When screening is completed, record the results, and document the PCP and risk factors on the Newborn Hearing Screening Report (NHSR) form. If an infant is not screened: **Indicate screening was not completed before discharge, and Reason Not Screened.** The NHSR form is part of each infant's medical record.

- *For infants with physical anomalies, i.e.: microtia, atresia, preventing screening:* **Indicate screening was completed before discharge, and Further Testing Needed for ear(s) unable to be screened**

To ensure that parents are aware of results and understand any follow-up necessary, birthing facilities must: 1) provide a verbal explanation of results, 2) obtain parent's signature on the NHSR form and 3) provide a copy of the NHSR form to the parent.

Birthing facilities must provide the parent and the PCP a copy of the NHSR form

Further Testing Needed

When results indicate further testing needed, an outpatient follow-up hearing testing appointment should be scheduled prior to discharge and documented on the NHSR form.

Infants with Risk Factors

Documentation of risk factors associated with congenital or late-onset hearing loss is required on the NHSR form. Infants who pass the inpatient screening but have a risk factor should have a follow up hearing test by at least 24 months of age. Testing more often is suggested if the infant has a risk factor marked with ** on the NHSR form.

Missed Screenings

If screening is not completed prior to discharge, complete the NHSR form: **Indicate screening was not completed before discharge - Reason Not Screened – Other (Discharged without screen).**

For infants who were not screened due to equipment failure, or who were missed, the birthing facility should:

- Schedule an outpatient appointment prior to discharge for the initial screening and document the appointment on the NHSR form.
- Provide the family's contact information to the outpatient facility.

Readmissions

For readmissions in the first month of life, when there are conditions associated with potential hearing loss (hyperbilirubinemia requiring exchange transfusion or culture-positive sepsis), an additional hearing screening is recommended before discharge. The results should be reported to LA EHDI via a Follow-up Services Report Form.
http://new.dhh.louisiana.gov/index.cfm/page/1432

Screening Technology

Each birthing facility is responsible for selecting and securing appropriate hearing screening equipment per Louisiana Law: **Automated Auditory Brainstem Response (AABR) and Otoacoustic Emissions (OAE).** Both AABR and OAE technologies 1) provide noninvasive screening of physiologic activity underlying normal auditory function, 2) are easily performed on newborns and infants, 3) have been successfully used in universal screening of newborns and 4) do not require interpretation by the screener.

- Well-Baby Nursery: Either OAE, AABR, or a combination of both (2-stage) is acceptable.
- NICU Nursery: **AABR** is the recommended technology for use with infants with a **stay of 5 days or greater in the NICU**. These infants are at greater risk for auditory neuropathy/dyssynchrony which cannot be diagnosed with OAE alone.

Automated ABR – Measurements are obtained from surface electrodes placed on the infant that record neural activity in response to acoustic stimuli delivered via an earpiece.

OAE – Measurements are obtained via a soft click presented through a small probe placed in the infant's ear canal. There are two types of OAE technologies: Transient Evoked Otoacoustic Emissions (TEOAE), and Distortion Product Otoacoustic Emissions (DPOAE).

2-Stage – Screen first with OAE, if the infant fails, re-screen using AABR

Equipment Management and Calibration

Each facility should establish policies and procedures that include the care, use and maintenance of the equipment.

- Hearing screening equipment must be calibrated annually and documentation should be maintained at the site and submitted annually to LA EHDI by fax 504-568-5854, e-mail LAEHDI@la.gov, or mail to LDH/OPH/EHDI * P.O. Box 60630 * New Orleans, LA 70160.
- Maintenance and service records should be documented and maintained as per facility policy**.**
- In the event of equipment malfunction, a back-up plan should be in place.

Suggestions for Lowering Hospital Refer Rates

OAE Technology:

- Massage the ear if you suspect birthing debris in the ear canal. Move your index finger in a circular motion just in front of the ear canal.
- Place the probe tip deeply and firmly into the baby's ear canal. Pull back on the ear with one hand while inserting the probe with the other hand.

AABR Technology:

- Prep the skin adequately, prior to electrode placement.
- Use adequate placement of the coupler.

Testing Environment:

- Screening should be conducted in a quiet environment.
- Dim the lights in the testing area, as florescent lights can often interfere.

State of the Infant:

- Screen while the baby is asleep.
- Swaddle the baby snugly on his/her side.
- Test when the baby is medically stable.
- Use a warm blanket to calm the baby.
- Test when ear canals are dry.

Reporting to LA EHDI through Louisiana Electronic Event Registration System (LEERS)

Out of Hospital Births

- The facility completing the birth certificate in LEERS shall complete the NHSR tab. If the screening facility does not have access to the infant's birth record in LEERS, submit a copy of the NHSR form by fax 504-568-5854, e-mail LAEHDI@la.gov, or mail to LDH/OPH/EHDI * P.O. Box 60630 * New Orleans, LA 70160

Newborns Transferred to Another Facility

If an infant is **transferred out** to another facility, the birthing facility must complete the NHSR tab in LEERS: **Indicate screening was not completed before discharge - Reason Not Screened – Transferred Out to (transfer hospital name).**

- If an infant is **transferred into** a facility, this facility does not have access to the infant's birth record in LEERS. The facility completing the hearing screening should submit a copy of the NHSR form by fax 504-568-5854, e-mail LAEHDI@la.gov, or mail to LDH/OPH/EHDI * P.O. Box 60630 * New Orleans, LA 70160

Expired Infants

For infants who expire prior to the inpatient screening, the birthing facility must complete the NHSR tab in LEERS: **Indicate screening was not completed before discharge - Reason Not Screened – Expired/Deceased.**

The Hearing Tab in LEERS must be completed for every occurrent birth. Louisiana Legislation requires reporting within 14 days of the infant's discharge.

Outpatient Rescreening for Infants Needing Further Testing

The birthing facility is responsible for ensuring that a referral for an outpatient rescreening is made. The appointment should be scheduled prior to discharge, documented on the NHSR form and provided to the parent.

Options for Outpatient Rescreening

- Audiologist providing infant rescreening
- Physician providing infant rescreening
- Birthing facility, when outpatient rescreening available

Procedures for Outpatient Rescreening

1) Test both ears, **even if only 1 ear failed the inpatient screening**
2) Infants failing OAE in the well-baby nursery – rescreen with either OAE or AABR
3) Infants failing AABR in the well-baby nursery - rescreen with AABR
4) Infants failing AABR in the NICU - refer to a pediatric audiologist for comprehensive evaluation due to the high-risk factor of NICU

Report OUTPATIENT rescreening results to LA EHDI on a Follow-up Services Report (FSR)
Do NOT change initial screening results in LEERS.

Ensuring Follow-Up for Infants Needing Further Testing

Facilities should implement the following strategies to help ensure that families are not lost to follow-up when further testing is needed:

- Make follow-up hearing testing appointment at time of discharge and document on the NHSR form.
- Schedule outpatient follow-up testing 2-4 weeks following discharge
- Provide outpatient facility with complete contact information on the infant including at least two contact phone numbers and an alternate contact person
- Coordinate appointments with other well-baby visits when possible
- Provide parents with details of when and where to go for follow-up
- Give parents a contact number should they have further questions
- Document the infant's primary care physician (after discharge) on the NHSR form and provide the PCP with a copy of the NHSR form

Infants Failing the Outpatient Rescreening

For infants who fail the outpatient rescreening (one ear or both ears), an appointment should be scheduled with a pediatric audiologist for **diagnostic** testing as soon as possible.
Do not schedule another rescreen.

Communication with Families

Information at all stages of the LA EHDI process is to be communicated to the parents and/or guardians in written and verbal form in the primary language of the home, as well as be presented in a culturally competent manner.

Families who are informed of the outcomes and recommended steps are less likely to be overly concerned about the screening results and more likely to follow-up after discharge. It is unlikely that the family is knowledgeable about hearing screening procedures or what the test results may mean. There are several opportunities to ensure that the families are informed before, during, and after the screening.

Before the Screening

Education prior to screening may take the form of information distributed in the birthing classes, brochures in the admission packets, or a video on the closed-circuit TV. The LA EHDI Program has brochures available for use in the birthing facilities which are available free of charge. Brochures may be ordered using the order forms available on our website ehdi.dhh.la.gov

During the Screening

During the screening, and immediately after, it is critical that the screeners know exactly what they should and should not say to the family. When reporting further testing needed, parents should be strongly encouraged to attend the follow up appointment.

After the Screening

Give the parent:

- Parent copy of NHSR form, which includes information regarding typical speech and language development
- Verbal results of the screening in the family's native language
- Information regarding the risk factors associated with progressive or late onset hearing loss (if indicated)
- Details of when and where to go for outpatient testing, and a contact number should they have any questions (if further testing is needed)

Quality Assurance/Quality Improvement

Quality assurance refers to the systematic monitoring and evaluation of the various aspects of a service, program, or facility to ensure that high standards of quality are being met. The LA EHDI program and birthing facilities across the state have collaborated to ensure and improve the quality of hearing screening programs, which is the first step in the EHDI process. Because there are many details that compromise a successful newborn hearing screening program, monitoring of specific data elements is essential to ensure appropriate and timely follow up for children who are deaf or hard-of-hearing. Our goal is to assist birthing facilities in achieving optimal screening performance, by following best practice guidelines and complying with Louisiana law R.S. 46:2261-2267 http://dhh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/hearingspeechvision/Chapter_22_Rules_and_Regs.pdf

In collaboration with representatives from national and state agencies, the Centers for Disease Control developed national EHDI program performance measures. The performance indicator for birthing facilities is **at least 98% of infants screened prior to discharge**. This is a minimum requirement for a quality hearing screening program. In addition, the Joint Committee on Infant Hearing 2007 Position Statement recommends a **refer rate of no greater than 4%**.

Role of LA EHDI	Role of a Birthing Facility
• Assist hospitals in evaluation of their performance via LA EHDI Best Practice and Quality Assurance Rating and Hospital Scorecard	• Develop written policies and procedures for hearing screening based on standards of care described by JCIH/CDC/LA EHDI
• Collect, monitor, and verify accuracy of screening data to determine program effectiveness	• Report and monitor all required data to LA EHDI accurately and in a timely manner
• Provide training and technical assistance on LA EHDI Information System (IS)	• Utilize LA EHDI-IS data reports for continuous quality improvement
• Provide NHSR forms and parent information brochures	• Distribute parent information brochures and provide parents a copy of NHSR form
• Post updated guidelines, protocols, and other related information on the website **www.ehdi.dhh.la.gov**	• Keep up-to-date on policy changes, guideline changes, and state protocols
• Develop improvement strategies based on evidence of tests of change	• Review and monitor performance standards
• Utilize the LA EHDI Information System to document all components of the EHDI 1-3-6 process	• Schedule outpatient follow-up appointments prior to hospital discharge for infants who do not pass the newborn hearing screening

Appendix

Job Description and Performance Standards for Hearing Screening Program Supervisors at Louisiana Birthing Facilities

Summer 2014

Hearing Screening Program Supervisor Qualifications:

1) board eligible or board certified physicians with special training in auditory brainstem response testing and/or otoacoustic emissions and in infant hearing testing. Evidence of training must be submitted to the Office of Public Health; or

2) audiologists licensed by the Louisiana Board of Examiners for Speech Pathology and Audiology with special training in auditory brainstem response testing and/or otoacoustic emissions testing and in infant hearing testing. Evidence of training must be submitted to the Office of Public Health.

According to: *Rules and Regulations: Chapter 22.Identification of Hearing Impairment in Infants, Sec. 2201-2213:

Education, Training, and Assessing

a. Education
    i. Educate medical and clinical staff on the benefits of EHDI.
b. Training
    i. Identify the roles, responsibilities, assigned tasks, and scope of practice of the screeners.
    ii. Provide for appropriate training of all screening personnel according to established facility procedures and LA EHDI guidelines. Training should be hands-on and competency based through formal instruction and supervised practice.
    iii. Exceed basic instruction in the operation of the screening equipment and should address all aspects of screening responsibilities; to include:
        1. Basic anatomy and physiology of the ear and nature of responses being measured
        2. Patient and non-patient factors that influence responses
        3. Understanding and completing screening procedures, including documentation of screening
        4. Understanding and use of specific equipment including screening instruments and computers
        5. Verify facility Patient Bill of Rights
        6. Verify facility confidentiality requirements
        7. Verify facility safety and infection control procedures, including universal precautions for blood-borne pathogens and tuberculosis according to guidelines of the Occupations Safety and Health Association (OSHA)
        8. Verify facility and nursery emergency procedures
        9. Verify facility risk management and incident reporting procedures

iv. Educate staff on proper and effective communication skills to provide accurate and appropriate information to parents, to ensure parents receive and understand the hearing screening results, the importance of follow up testing, and the appropriate follow-up and resource information.

c. Assessing

i. Supervision of personnel providing screening, to include: ongoing monitoring of competencies and continuing education activities.

ii. Individual observation/assessment of screening personnel to determine competency is outlined in: ***Rules and Regulations: Chapter 22.Identification of Hearing Impairment in Infants, Sec. 2201-2213 and reads:***

"A board-certified or board-eligible physician or licensed audiologist who is supervising another individual performing hearing screening must at least be accessible by telephone while the screenings are being performed, review a percentage of the screening documentation and copies of the newborn hearing screening report and perform periodic direct observation of each individual at least once per month as they perform hearing screenings. After an individual supervised by an audiologist or physician has performed hearing screening under the above supervision for one year, direct observation every three months is required."

Examples of direct observations that qualify to meeting this requirement: Review of NHSR form, competency training, screening competency checks, nursery staff meetings to discuss screenings and procedures, etc.

iii. Note: To minimize liability it is recommended that the standard for special training be by an accredited medical or educational institution and include sufficient practicum for proficiency. Any deviation from this recommended standard may increase liability.

iv. An annual documentation of competency assessments is required for all newborn hearing screening staff.

Screening Process

1. Be readily accessible to all staff involved with newborn screening.
2. Be available by telephone while screening is taking place.
3. Assure that all infants are screened prior to discharge.
4. Ensure that referral is made for outpatient screening prior to one month of age when infant is discharged prior to screening.
5. Ensure that appropriate testing is being performed in a quiet environment as well as the desired condition or state of the newborn during testing.
6. Ensure that nursery personnel schedule a follow-up appointment date for a re-screening for refer infants or a screening for the infant not screened prior to discharge.
7. Ensure that follow up appointment information is recorded on the Newborn Hearing Screening Report (NHSR) form.

Data Management

1. Work with LA EHDI and facility staff to assure accuracy of records; validate all data and ensure correction of inappropriate or erroneous data.

2. Oversee data management and transfer of data as required; i.e., coordinate data between program supervisor, birth certificate clerk, nursery supervisor, and LA EHDI liaison.
3. Review data to monitor the performance of the screening program including referral rates and competency of screening personnel.
4. Review copies of the NHSR form each month to ensure accuracy of reporting.
5. Perform an infant-by-infant reconciliation every month to assure all nursery admissions are included in the LA EHDI database.
6. Provide for security and privacy of individual patient data.
7. Provide information regarding the Newborn Hearing Screening Program to hospital administration, physicians, parents, etc.

Record Keeping/Documentation

1. Record all infant births, transfers in, transfers out, expires and refers.
2. Capture/record newborn hearing screening and rescreening results from designated equipment
3. Record information on babies not screened and the reason not screened. If reason is from a parent refusal, note under reasons not screened.
4. Ensure that parents sign all NHSR forms documenting their knowledge of results or refusal of hearing screening and ensure parents receive parent copy of NHSR form.
5. Record scheduled appointments for screening or follow-up services on the NHSR form.
6. Document the screening results on the NHSR form and in the infant's medical record, according to facility policy. Documentation should include:
    - Screener's name
    - Screening date(s)
    - Type of equipment used
    - Ear specific results
    - Contact information of the diagnostic audiology facility that the infant was referred to
    - Audiology appointment date/time if known

Reporting

1. Ensure hearing tab in LEERS is completed accurately for all live births.
2. Ensure reporting in LEERS when infant transfers to another facility and document their new location and Not Screened on the NHSR form.
3. Ensure reporting of all expires in LEERS via the Not Screened portion of NHSR.
4. Ensure printed copy of NHSR from is sent to LA EHDI for all infants transferred into your birthing facility. Facilities accepting transfers in do not have access to those birth records via LEERS.
5. Verify all infants failing the initial screen (refers) with LA EHDI Liaison.
6. Notify the child's primary healthcare provider of the hearing screening results (pass, did not pass, refused, or missed), via the PCP copy of the NHSR form.

Testing of Equipment

1. Select and secure appropriate hearing screening equipment based on current equipment availability and performance information.

2. Ensure a proper plan in the event of equipment failure or repair.
3. Budget for necessary equipment and supplies.
4. Manage equipment including determining type of technology and maintenance.
5. Provide for care and accurate operation of equipment, and ordering of appropriate supplies necessary for accurate screening.
6. Identify the name, model or type of hearing screening equipment used by the facility including the manufacturer's name, address and telephone number.
7. Monitor that hearing-screening equipment is calibrated annually according to manufacturer recommendations.
8. Ensure the proper use, care, replacement of parts, maintenance, and routine function checks, trouble-shooting, and servicing of the screening equipment used in performing the assigned tasks.

Communication

1. Communicate newborn hearing screening program goals and accomplishments with facility administration and staff.
2. Communicate with audiologists and PCP to assure appropriate outpatient referrals for re-screening.
3. Ensure communication with families is accurate and written information is at an appropriate reading level.
4. Ensure results are provided to parents in their native language.

Policies and Procedures

1. Write and implement a facility policy for the newborn hearing screening program in consultation with the facility's medical director, consulting audiologist, nursery or NICU Nurse Manager, and others.
2. Provide LA EHDI with an electronic copy of policies and procedures.
3. Ensure that proper procedures and protocols are in place.
4. Include a mechanism to identify the name, city, and telephone number of the newborn's pediatric healthcare care provider who will follow the infant after discharge.
5. Document all job descriptions, qualifications, and roles and responsibilities for each newborn hearing screening position (e.g. audiologist, nurse, patient care assistant, rehabilitation aide, patient care technician, etc.), as well as orientation, minimum length of training, level of supervision and continuing education plans. Specific guidelines for periodic supervised performance appraisals should be included.
6. Identify safety measures and infection control practices.
7. Describe the method used to document and track all births, including the method, date, time and ear specific results of all hearing screens conducted.
8. Describe the method of communication to notify the infant's family and pediatric healthcare provider of all hearing screening results.
9. Describe the screening method. Otoacoustic emissions (OAE) or auditory brainstem response (ABR) are acceptable methods for screening infants who are not at risk.

- As per recommendation by Joint Committee on Infant Hearing (JCIH), **ABR should be the screening method for any infant with a greater than 5 day stay in the NICU so that neural hearing loss will not be missed.**

j. Describe the mechanism to document all infants referred for further re-screening, including the name, address and telephone number of the audiologist to whom the infant was referred.

Additional Responsibilities

a. Assess the performance of the program on a regular basis.
b. Monitor schedules to ensure 365 days of total coverage.
c. Create or gather culturally sensitive educational materials

Quality Assurance and Benchmarks

To ensure a quality program it is also recommended that the Hearing Screening Program Supervisor establish **benchmarks** and **quality indicators** to ensure program efficacy. These should be evaluated frequently and should be consistent with existing data such as those referenced by the current Joint Committee on Infant Hearing Position Statement and/or Centers for Disease Control and Prevention.

1. Percentage of all newborn infants who complete screening by 1 month of age; **Benchmark is more than 98%;** (age correction for pre-term infants is acceptable)

2. Percentage of all newborn infants who do not pass initial screening and fail any subsequent rescreening before comprehensive audiological evaluation; **Benchmark is <4%**

3. Of infants who do not pass the initial screening and any subsequent rescreening, the percentage who complete a comprehensive audiological evaluation by 3 months of age; **Benchmark is 90%**