Michigan Early Hearing Detection and Intervention (EHDI) Program
michigan.gov/EHDI

Best Practice Guideline for Assessment of Infants (Birth – 6 months)

Background:
Michigan has made significant strides in newborn hearing screening. Despite this progress, there's still work to be done to meet the "1-3-6" goals set by the Joint Committee on Infant Hearing (JCIH), which recommends that infants receive a complete diagnostic evaluation by three months of age. Unfortunately, only a minority of infants born in Michigan meet this benchmark. To address this gap and improve early identification of hearing loss, a "Best Practice Guideline" was created. This guideline aims to provide clear direction from the point of referral for hearing screening to the confirmation of a hearing loss diagnosis, ensuring consistent and high-quality care statewide. JCIH states that jurisdictions meeting the 1-3-6 benchmark should strive to meet a 1-2-3-month timeline.

Infant Re-screen Facility

If an infant refers on a newborn hearing screen (in either one or two ears), it is recommended that follow-up testing be done as soon as possible or no later than one month of age to meet the National EHDI goals. The next step in testing might be done as either an outpatient rescreen or as a comprehensive assessment through a designated pediatric diagnostic center [i]. Similarly, a child who does not receive a newborn hearing screening should follow the same procedures.

For purposes of this document, an **EHDI Rescreen Facility** is defined as one which offers a hearing screen following a nonpass (refer/missed) result at a birth hospital. A rescreen facility may or may not offer diagnostic evaluations and/or be staffed by an audiologist. A rescreen facility plays a specific role within the EHDI process by offering timely screening within a reasonable distance to families. As such, the minimal equipment requirements and level of professional staff training are expected to be different from that of a diagnostic facility. The role of a rescreen facility is identical to the EHDI screen – to determine if full diagnostic evaluation is warranted.

Auditory Brainstem Response (ABR) is the preferred method for screening whenever feasible. A disorder such as Auditory Neuropathy Spectrum Disorder (ANSD) is a type of hearing loss in which the auditory pathway is impaired, but Otoacoutic emission (OAE) may be present. Infants with a Neonatal Intensive Care Unit (NICU) stay are at greater risk for ANSD. Therefore, all NICU graduates should have hearing screened using ABR. Depending upon the expertise of the person completing a rescreen, the screen may be done using an automated ABR (A-ABR) or through standard (non-automated) testing.

Facilities meeting the criteria below would be eligible for inclusion on the Michigan EHDI re-screen center list.

Minimal Facility Requirements:

- Objective hearing screening equipment, i.e., Otoacoustic emission (OAE), Auditory Brainstem Response (ABR) or Automated ABR (A-ABR).
- Routine calibration of hearing screening equipment per manufacturer's recommendations.

Minimal Staff Requirements:

- Professional staff with experience using equipment. An appropriate level of experience includes knowledge of appropriate test set up, ability to verify equipment is functioning and basic troubleshooting. As part of training, hands-on supervised screening of at least 5 infants is recommended.
- Well-versed in counseling families regarding results, whether pass or refer, and the importance for further evaluation.
- If using diagnostic ABR equipment for screening, this should be completed by a licensed audiologist. EHDI recommends collaboration with an EHDI diagnostic center for interpretation of screening results as needed. This is especially important for clinics with only a single audiologist.

Suggested Rescreen Procedure:

If an outpatient rescreen is completed, the following is considered best practice:

- Rescreen may use OAE, ABR (automated or standard) or combination of both, although ABR technology is preferred. ABR must be completed in the following situations:
    - When the initial hearing screen is completed with ABR (automated or standard).
    - Infant with a NICU stay greater than 5 days.
- If an outpatient rescreen is completed using diagnostic ABR equipment, the following is considered best practice:

    1) Complete air conduction click/chirp ABR at 60 dB nHL to ensure all waveform components (I, III, V) are present. AC click at 60 dB should be presented using either an alternating polarity with split bins, or, both condensation and rarefaction runs (at least one run each).

    2) Complete air conduction click/chirp ABR at 25 dB or better using the clinician's preferred stimulus polarity. Waveform should be present in two separate runs to ensure repeatability.

    3) Interpretation
- Pass/Refer criteria
    - Repeatable wave V at 25 dB nHL or better through air conduction only.
    - Presence of all major waveform components at 60 dB (I,III,V).
        - Considered a REFER if either of the above PASS conditions is not met and refer for diagnostic ABR or proceed with diagnostic protocol.
- **Multiple screens/rescreens are inappropriate** and can delay diagnosis and access to early intervention services. In some cases, middle ear effusion may prevent an infant with normal hearing from passing a hearing screen. Diagnostic

evaluation should not be delayed in these cases. Diagnostic evaluation including bone conduction ABR testing can provide further information regarding the degree and nature of hearing loss.

- Regardless of initial screening results, both ears must be rescreened.
- If the baby passes the rescreen in both ears, determine if the infant is at risk for late onset hearing loss (Appendix A) and recommend monitoring audiograms as appropriate. If no risk factors are identified, infant can be released.
- Immediate referral for a diagnostic audiologic evaluation is warranted for any of the following outcomes:
    - Rescreen result is a "refer" in one or both ears.
    - Unilateral referral in which the ear that refers changes from the first to the second rescreen (i.e., initially refer right/pass left, followed by a pass right/refer left).
    - Upon completion of an OAE and ABR and the infant "refers" on ABR (referral should be made regardless of OAE result).

Diagnostic audiologic evaluation should be scheduled as soon as possible and no later than 3 months of age[ii]. There is a short window in which natural sleep diagnostic evaluations can be easily accomplished, **continual** rescreens delay diagnosis and may necessitate sedation which could be avoided. Facilities are required to assist in arranging an appointment at an EHDI pediatric diagnostic center.

Parents of infants referred for outpatient hearing tests should receive counseling about congenital CMV and appropriate follow-up care. For further resources, please visit https://www.nationalcmv.org.

EHDI Reporting:
As mandated by law (https://www.michigan.gov/-/media/Project/Websites/mdhhs/Adult-and-Childrens-Services/Children-and-Families/EHDI/2006-PA-0031.pdf?rev=de15e29e7f9b46d6b62702e15ed33a9b), rescreen results must be reported to the Michigan EHDI Program by faxing to 517-763-0183. If completing ABR screening, it is recommended to include waveforms with testing parameters (e.g., residual noise, statistical start/end, Wave V latencies, interference measurements, etc.) in records sent to pediatrician and caregiver(s) [iii]. Raw ABR data (waveforms and/or ASSR data, e.g. response criterion, response amplitude) should be included along with narrative report.

Facility Status Review Process:
Inclusion on this list depends on your compliance with the best practice guidelines. EHDI will inform you via email and may also schedule a site visit to address any concerns. EHDI reserves the right to remove facilities as deemed necessary. Renewal applications every three years will ensure continued adherence to guidelines.

Infant Diagnostic Facility

As stated by the Joint Committee on Infant Hearing (JCIH), comprehensive audiological evaluation of infants who fail newborn hearing screen should be performed by audiologists experienced in pediatric hearing assessment who utilize an evidence-based diagnostic protocol. Audiologists working with pediatric populations should be skilled at communicating with families and have thorough knowledge of support systems available for families of children with hearing loss. In addition to the requirements listed below, the following factors are also noted to be of importance:

- Desire to work with infants and their families.
- Staff trained in counseling families.
- Familiarity with state resources (i.e. Children's Special Health Care Services (CSHCS), Michigan Hands & Voices, including Guide By Your Side, and Early On).

Facilities meeting these criteria would be eligible for inclusion on the Michigan EHDI Infant Diagnostic Center List.

1. Equipment Requirements:

To complete a comprehensive diagnostic evaluation on an infant less than six months of age, the following equipment is recommended:

- Diagnostic Auditory Brainstem Response (ABR) equipment capable of click, tone burst and bone conduction testing.
- Diagnostic Otoacoustic Emission (OAE) (Distortion Product or Transient Evoked OAE).
- High frequency tympanometry and acoustic reflexes.
- Process to obtain ABR with sedation if needed. If facility cannot provide testing with sedation, documentation of appropriate referral source is needed to ensure this service is provided in a timely fashion.

2. Recommended Diagnostic Evaluation Battery:

The importance of using a battery of tests to assess an infant's hearing status is widely recognized. The following are minimal components of an infant diagnostic evaluation whenever hearing loss is suspected. As appropriate, the following elements should be obtained for each ear whenever possible. It is recognized that in some instances, this testing may not be able to be completed (i.e., air conduction thresholds on atretic ear). These elements were selected as each is needed to appropriately fit an infant with hearing aids.

- Case History to include family and medical history.
- Otoscopy.
- Diagnostic OAE.
- High frequency tympanometry to assess middle ear function.
- ABR Thresholds
- Broadband and frequency-specific stimuli which represent at least one low frequency and one high frequency.
- Additional tone burst thresholds and /or Auditory Steady-State Response (ASSR) information as time allows.

- Bone Conduction thresholds by ABR to rule out conductive and mixed hearing loss.
- In addition to finding threshold, a suprathreshold run is obtained via click/chirp stimuli, until waves I, III, and V are identified to rule out neural hearing loss (i.e. auditory neuropathy spectrum disorder, VIIIth nerve abnormalities). If alternating polarity is used, both rarefaction and condensation waves should be displayed and analyzed. In circumstances where this is not possible, acoustic reflexes must be completed. If ANSD is suspected and/or identified, an ANSD protocol should be deployed that includes click/chirp presentation at 90 dB in both rarefaction and condensation conditions. If an alternating polarity is used, each bin should be separated to show the cochlear microphonic reversal. Additionally, a 90 dB clamp tube run should be performed to rule out stimulus artifact. If ANSD is identified it is not recommended to proceed with tone burst or ASSR, as these are not predictors of behavioral thresholds.[iv]
- Acoustic reflexes if indicated for clinical correlation.[v]

With regards to ABR testing, it is essential for each clinic to establish their own normative data. In addition, appropriate correction factors should be applied to frequency-specific responses. As a guide, the EHDI advisory committee recommends that ABR thresholds greater than 25 dBnHL be considered outside the normal range of hearing.

Audiologists should collaborate with colleagues to verify ABR results by reviewing waveforms.

3. Minimal Staff Requirements:

Specialized skills and experience are important to accurate diagnosis of infants with hearing loss. The following criteria have been established to quantify the level of experience and skills needed to provide expert and timely diagnosis of hearing loss in infants.

Facilities meeting these criteria would be included on the Michigan EHDI diagnostic center list.

- Michigan audiology licensure.
- At least one staff member has two years of experience working with children. Mentorship of staff members with less experience is encouraged.
- Experience and expertise in assessment of hearing in infants, defined as and must meet at least 3 criteria:
    - > 20% of client population is younger than 24 months.
    - On average each week, > 3 patients under the age of 24 months.
    - Complete at least two preferably infants' (aged birth-6 months) diagnostic threshold ABRs assessments monthly.
    - Identification of hearing loss in children less than 12 months of age should be commensurate with area birth rates (i.e., not less than 1-3 babies with hearing loss per 1,000 births) **Refer to Appendix B for further information.*

Further recommendations:

- Recommend that 30% of continuing education hours are pediatric focused.

4. Recommended Procedures Following Diagnosis of Hearing Loss:

Once hearing loss has been confirmed, the role of the audiologists does not end. To reach the final goal of the EHDI program (intervention no later than 6 months), the following is recommended:

- Parents receive unbiased comprehensive resources on hearing loss in both written and electronic formats that represent all communication modes. Additionally, they are provided with guidance on next steps for their family's journey.
- Parents should receive documentation detailing the degree and nature of their child's hearing loss on the same day as the assessment. Alternatively, they should have access through their medical records or a patient portal.
- Notify Pediatrician/Primary Care Physician of results.
- Refer to Otolaryngologist with pediatric experience.
- Schedule monitoring appointments to rule out progressive hearing loss (minimally every six months). Hearing loss for known etiologies may need more frequent monitoring.
- As mandated by Michigan law, audiometric results are required to be reported to Michigan EHDI at 517-763-0183. Report form found at: http://www.michigan.gov/documents/FORMAUDMED_53429_7.pdf.
- Referral for early intervention services (Early On/Special Education, add website).
- A referral to Parent-to-Parent support organizations such as Michigan Hands & Voices Guide By Your Side Program (https://www.mihandsandvoices.org/gbys).
- When the educational audiologist is known, a referral to them is recommended.

As needed:

- CSHCS application: Families are provided information on CSHCS and clinics to help parents navigate the process. The diagnostic facility should be familiar with CSHCS and the benefits of this service and how to assist the family in enrollment of the program.
- Hearing aid or cochlear implant evaluation with audiologist experienced in infants. The facility should familiarize themselves with the current FDA cochlear implant criteria to refer appropriately.
- Parents should receive counseling regarding congenital CMV and appropriate follow-up care. For further resources, please visit https://www.nationalcmv.org/.

5. Required Protocols/Tracking:

Each facility should have a written best practice protocol. The purpose of the protocol is to ensure evidence-based practice that is consistent across clinicians within a single practice. The exercise of completing a protocol provides an opportunity to discuss possible scenarios to improve clinical decision making. As with any protocol, situations will arise in which deviations from the standard protocol are required.

Michigan EHDI recognizes the unique challenges involved in the diagnostic evaluation of infants and views a written protocol as a necessary component of a quality diagnostic facility. For a facility to be included on the Infant Diagnostic Center List, a copy of the protocol must be provided to Michigan EHDI. The protocol should include the following:

- Outline of steps from time of referral on EHDI screen to final diagnosis with time frame consistent with National EHDI goals.
- Collection parameters for diagnostic ABR.
- Pass/refer criteria for OAE measurements.
- Established routine for reporting to Michigan EHDI.
- Established routine for making referrals as listed in #4.
- List of risk indicators for delayed onset hearing loss and monitoring schedule.
- Routine monitoring and tracking of infants seen in facility to ensure timelines set forth in protocol are consistently being met.
- Schedule for equipment calibration used for diagnostic evaluations.

EHDI Reporting and Follow-Up:
Legislation requires reporting of results to the EHDI program (https://www.michigan.gov/-/media/Project/Websites/mdhhs/Adult-and-Childrens-Services/Children-and-Families/EHDI/2006-PA-0031.pdf?rev=de15e29e7f9b46d6b62702e15ed33a9b). This includes all hearing tests and screens conducted on infants who are less than 12 months and diagnosed hearing loss for children ages 13 months-3 years. Results can be faxed to the Michigan EHDI Program at 517-763-0183.

It is recommended to include waveforms with testing parameters (e.g., residual noise, statistical start/end, Wave V latencies, interference measurements, etc.) in records sent to pediatrician, EHDI, and caregiver(s).[vi]

The diagnostic facility must have a designated employee who completes EHDI follow-up letters. This includes contacting families to schedule follow-up appointments, indicating appointments scheduled/no show dates/attempted contact to families. All EHDI follow-up letters should be returned to EHDI in a timely manner (within 1 week).

Facility Status Review Process:
Inclusion on this list depends on your compliance with the best practice guidelines. EHDI will inform you via email and may also schedule a site visit to address any concerns. EHDI reserves the right to remove facilities as deemed necessary. Renewal applications every three years will ensure continued adherence to guidelines.

Appendix A

Centers are encouraged to use a defined set of risk indicators to identify those infants at risk for delayed onset or progressive hearing loss. Risk indicators may be based upon evidence-based practice or published recommendations such as those listed below.

Risk Indicators Associated with Permanent Congenital, Delayed-Onset, or Progressive Hearing Loss in Childhood:

Excerpt from: Joint Committee on Infant Hearing Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs.

Joint Committee on Infant Hearing: 2019 Position Statement (jcih.org)
Table 1. Risk Factors for Early Childhood Hearing Loss: Guidelines for Infants who Pass the Newborn Hearing Screen

	Risk Factor Classification	Recommended Diagnostic Follow-Up	Monitoring Frequency
Perinatal			
1	Family history* of early, progressive, or delayed onset permanent childhood hearing loss	By 9 months	Based on etiology of family hearing loss and caregiver concern
2	Neonatal intensive care of more than 5 days	By 9 months	As per concerns of on-going surveillance of hearing skills and speech milestones
3	Hyperbilirubinemia with exchange transfusion regardless of length of stay	By 9 months	
4	Aminoglycoside administration for more than 5 days**	By 9 months	
5	Asphyxia or Hypoxic Ischemic Encephalopathy	By 9 months	
6	Extracorporeal membrane oxygenation (ECMO)*	No later than 3 months after occurrence	Every 12 months to school age or at shorter intervals based on concerns of parent or provider
7	In utero infections, such as herpes, rubella, syphilis, and toxoplasmosis	By 9 months	As per concerns of on-going surveillance
	In utero infection with cytomegalovirus (CMV)*	No later than 3 months after occurrence	Every 12 months to age 3 or at shorter intervals based on parent/provider concerns
	Mother + Zika and infant with no laboratory evidence & no clinical findings	Standard	As per AAP (2017) Periodicity schedule
	Mother + Zika and infant with laboratory evidence of Zika + clinical findings Mother + Zika and infant with laboratory evidence of Zika - clinical findings	AABR by 1 month AABR by 1 month	ABR by 4-6 months or VRA by 9 months ABR by 4-6 months

			Monitor as per AAP (2017) Periodicity schedule (Adebanjo et al., 2017)
8	Certain birth conditions or findings: • Craniofacial malformations including microtia/atresia, ear dysplasia, oral facial clefting, white forelock, and microphthalmia • Congenital microcephaly, congenital or acquired hydrocephalus • Temporal bone abnormalities	By 9 months	As per concerns of on-going surveillance of hearing skills and speech milestones
9	Over 400 syndromes have been identified with atypical hearing thresholds***. For more information, visit the Hereditary Hearing Loss website (Van Camp & Smith, 2016)	By 9 months	According to natural history of syndrome or concerns
Perinatal or Postnatal			
10	Culture-positive infections associated with sensorineural hearing loss***, including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis or encephalitis	No later than 3 months after occurrence	Every 12 months to age 3 or at shorter intervals based on parent/provider concerns
11	Events associated with hearing loss: • Significant head trauma especially basal skull/temporal bone fractures • Chemotherapy	No later than 3 months after occurrence	According to findings and/or continued concerns
12	Caregiver concern**** regarding hearing, speech, language, developmental delay and/or developmental regression	Immediate referral	According to findings and/or continued concerns

Note: AAP = American Academy of Pediatrics; ABR = auditory brainstem response; AABR = automated auditory brainstem response.

* Infants at increased risk of delayed onset or progressive hearing loss

** Infants with toxic levels or with a known genetic susceptibility remain at risk

*** Syndromes (Van Camp & Smith, 2016)

**** Parental/caregiver concern should always prompt further evaluation.

Appendix B

Calculation of expected number of hearing loss cases in your specific area (per live birth rate).

Rationale:
The incidence of permanent hearing loss is 1-3 infants per 1,000 live births. For this reason, the actual **number** of infants diagnosed with hearing loss will vary across facilities based upon the number of live births in an area. To determine if the number of infants diagnosed with hearing loss at your facility reflects prevalence of hearing loss in Michigan, the following steps are recommended:

1. Determine the number of births in your area by referring to the "Vital Statistics" website located at: https://vitalstats.michigan.gov/osr/chi/profiles/frame.html. Depending upon the location of your facility, select the county/counties served by your facility. If appropriate, add the births across counties.

   Example:
   Ingham County 2022 live births= 2,698

2. Complete the following calculations:
   Multiply:
   (Total Births) x .001 = A *Example: 2,698 x .001 = 2.7 infants*
   (Total Births) x .003 = B *Example: 2,698 x .003 = 8.1 infants*

3. The expected number of infants with hearing loss for your area, in the specified time period (i.e. 2022) will be a range from A to B.

   Example:
   The expected number of infants with hearing loss for Ingham County in 2022 is 2-8 infants.

Early Hearing Detection and Intervention (EHDI) Program
Infant Diagnostic Facility
Application

Date	
Person Completing	
Email	
Facility Name	
Facility Address	
Facility EHDI Coordinator	
Email	
Telephone	
Fax	

To be included on the *EHDI Infant Diagnostic Facility* List, please complete this application. Applications and supporting documents can be submitted to Michelle Garcia's attention by email or fax. EHDI will contact you with questions or approval within 2 weeks upon receipt of application.

If approved as an Infant Diagnostic Center, your facility will also be included on the *EHDI Rescreen Facility* listing.

Please refer to the *EHDI Infant Diagnostic Facility Best Practice Guidelines* for additional information. Inclusion on the list is voluntary.

The EHDI staff is available to make a site visit to facilities requesting assistance in developing protocols and applying for inclusion in the State of Michigan's Infant Diagnostic Facility listing. If you would be interested in assistance, please contact:

Michelle Garcia, Au.D., CCC-A
EHDI Follow-Up Consultant
garciam@michigan.gov
Ph: 517-335-8878
Fax: 517-763-0183

EHDI Infant Diagnostic Facility
Application

Equipment: Please indicate whether the following equipment is available at your facility.

Yes	No	
		Diagnostic Auditory Brainstem Response (ABR) with Click Stimuli.
		Diagnostic ABR with Tone Burst Stimuli.
		Diagnostic ABR with Bone Conduction Stimuli.
		Diagnostic Otoacoustic Emission (OAE) (Distortion Product or Transient Evoked OAE).
		High Frequency Tympanometry
		Acoustic Reflexes.

Sedation:

Yes	No	
		Is sedation available if needed to complete ABR testing at your facility?
		If sedation is not available, is there a facility to which you refer for sedation? *Please indicate facility:* _____.

Staff Requirements: Please indicate whether the following statements accurately describe the staff at your facility.

Yes	No	
		Valid Michigan Audiology Licensure.
		One staff member with at least two years of experience working with children.

Client Population: Please indicate whether the following statements accurately describe the client population at your facility.

Yes	No	
		> 20% of client population is younger than 24 months.
		On average each week, > 3 patients under the age of 24 months.
		At least two diagnostic threshold ABRs completed each month.
		Identification of hearing loss in children less than 12 months of age is commensurate with area birth rates.[vii]

Please include a copy of your facility's written best practice protocol clinic protocol related to the diagnostic evaluation of infants.

Early Hearing Detection and Intervention (EHDI) Program
EHDI Rescreen Facility
Application

Date	
Person Completing	
Email	
Facility Name	
Facility Address	
Facility Rescreen Coordinator	
Email	
Telephone	
Fax	

To be included on the *EHDI Rescreen Facility List*, please complete this application. Applications and supporting documents can be submitted to Michelle Garcia's attention by email or fax. EHDI will contact you with questions or approval within 2 weeks upon receipt of application.

Facilities which have completed an application as an Infant Diagnostic Center will automatically be included on the rescreen center listing. It is not necessary to complete this application if your facility has already completed an Infant Diagnostic Center application.

Please refer to the EHDI Rescreen Facility Best Practice Guidelines for additional information. Inclusion on the list is voluntary.

The EHDI staff is available to make a site visit to facilities requesting assistance in developing protocols and applying for inclusion in the State of Michigan's EHDI Rescreen Facility listing. If you would be interested in assistance, please contact:

Michelle Garcia, Au.D., CCC-A
EHDI Follow-Up Consultant
garciam@michigan.gov
Ph: 517-335-8878
Fax: 517-763-0183

EHDI Rescreen Facility Application

Equipment: Please indicate whether the following equipment is available at your facility.

Yes	No	
		Automated Auditory Brainstem Response (A-ABR).
		Auditory Brainstem Response (ABR). *
		Otoacoustic Emission (OAE).
		Calibration schedule for above equipment.

*If completing ABR screen, please submit the screening protocol to EHDI.

Staff Requirements: Please indicate whether the following statements accurately describe the staff at your facility.

Yes	No	
		Professional staff with experience using equipment. An appropriate level of experience includes knowledge of appropriate test set up, ability to verify equipment is functioning and basic troubleshooting. As part of training, hands-on supervised screening of at least 5 infants is recommended.
		Well-versed in counseling families regarding results, whether pass or refer, and the importance for further evaluation.
		If using diagnostic ABR equipment for screening, this should be completed by a licensed audiologist. EHDI recommends collaboration with an EHDI diagnostic center for interpretation of screening results as needed. This is especially important for clinics with only a single audiologist.

Please indicate if the following are included in your facility's rescreen procedures:

Yes	No	
		Regardless of initial screening results, both ears are rescreened.
		A-ABR or ABR is used for rescreen whenever possible and always used if initial screening was completed using ABR.
		Re-screen will be completed one time before referral for diagnostic evaluation.
		In the case of a "pass" rescreen, risk factors for late onset hearing loss are reviewed.
		Rescreen results are reported to Michigan EHDI.

Please indicate which of the following warrant referral for full diagnostic evaluation:

Yes	No	
		Rescreen result is "refer" in one or both ears.
		Unilateral referral in which the ear that refers changes from the first to the second rescreen (i.e., initially refer right/pass left, followed by pass right/refer left).
		Upon completion of an OAE and ABR and the infant "refers" on ABR.

Referral Facilities:

If an infant is at risk for late onset hearing loss, please indicate referral facility:

If diagnostic evaluation is warranted, please indicate referral facility:

REFERENCES

[i] This list is available at www.michigan.gov/documents/mdch/PedAudFeb2008_223684_7.pdf.

[ii] In the case of premature birth (infants born at less than 36 weeks gestational age), corrected chronological age should be used.

[iii] AAA Diagnostic pediatric audiology 2020.

[iv] Rouillon I, Parodi M, Denoyelle F, Loundon N. How to perform ABR in young children. Eur Ann Otorhinolaryngol Head Neck Dis. 2016 Dec;133(6):431-435. doi: 10.1016/j.anorl.2016.05.004. Epub 2016 Jul 21. PMID: 27453092.)

[v] JCIH 2019 Position Statement.

[vi] AAA Diagnostic pediatric audiology 2020.

[vii] Rate of identification should not be less than 1-3 babies with hearing loss per 1,000 births. Refer to EHDI Infant Diagnostic Facility Best Practice Guidelines, Appendix B for further information.