Pediatric Audiology Best Practices, EHDI Compliance Monitoring and Partnership

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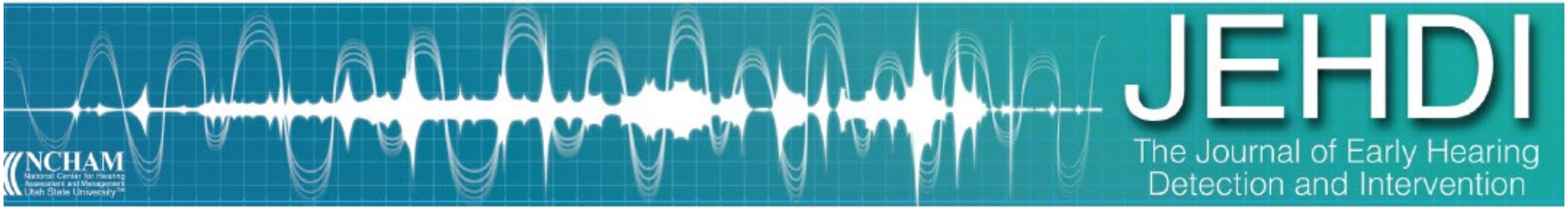
Utah Department of Health & Human Services

Learning Objectives

- Describe one state's pediatric audiology best practices
- Identify ways to ameliorate compliance issues
- Discover ways to develop partnerships with pediatric audiologists



2019; 4(2): 1–44

Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs

The Joint Committee on Infant Hearing

The JCIH 2019 Position Statement states, “Audiologic diagnosis of the infant is the sole purview of the audiologist with specific skills, knowledge, and access to all necessary equipment for infant and early childhood audiology diagnostic evaluations.”

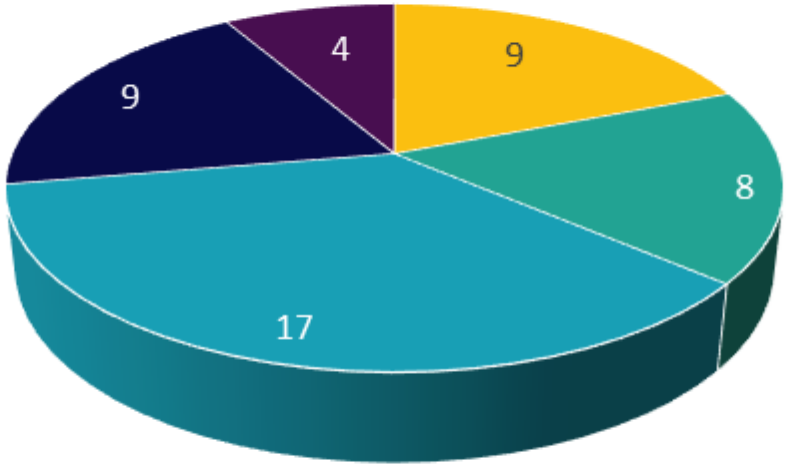
- Are best practices being followed?
- What are you going to do if they aren’t?

Review of EHDI Chats survey, n=19

How do you know if the diagnosing audiologist has the "Skills, knowledge, and access to all necessary equipment for infant and early childhood audiology diagnostic evaluations"? *(choose all that apply)*

- Site visits (21%)
- Word of Mouth / Community Feedback (26%)
- EHDI certification required (21%)
- Reading their reports (47%)
- We don't know (42%)

What Pediatric Audiology best practices does your state/territory use? *(choose all that apply)*



- AAA (47%)
- ASHA (42%)
- JCIH (89%)
- Our own State EHDI written best practices (47%)
- We don't publish or distribute any (21%)

Utah EHDI has always had a protocol for NBHS and diagnostic testing.

- **Records reviews and data analysis** have revealed (and still do) the need for ongoing updates and education.

- How do we make **ongoing improvements and obtain buy-in** from stakeholders?

QUICK Overview of our best practice protocols

1. **Clinical History:** NBHS, *CMV testing*, medical / NICU history, family history

2. **Testing:**
    a. Frequency-specific ABR, suprathreshold click
        i. Bone-conduction, if elevated hearing levels found
    b. 1000 Hz tympanometry
    c. Otoacoustic emissions
    d. Ipsi acoustic reflexes, especially for ANSD rule-out

Overview of our best practice protocols

3. **Recommendations / Referrals:**

    a. If **typical hearing + risk factors**, follow-up at 9 months (every 3 months for CMV+) for behavioral testing, monitor speech and hearing development

    b. If **elevated hearing levels**:
        i. Early Intervention/PIP - *specific instructions on how to make referral*
        ii. ENT (Hearing Assessment Clinic)
            1. Genetics
            2. Ophthalmology
        iii. Family Support
        iv. Repeat ABR scheduled

How do you get audiologists onboard who are from different hospitals and clinics, and therefore varying protocols and processes??

cha
come up that need further clarification in protocols

An example: Due to staffing
CU
to
/30
technology), regardless of risk factors. NICU patients were to be brought back (outpatient) for diagnostic audiology if failed screening.

PAWG
(Pediatric Audiology Working Group)

Meet quarterly, after NBHSAC

Open to any interested pediatric audiologist

- Diagnosing audiologists from Level III and IV NICUs
- Parent Infant Program Director (Early Intervention)
- EHDI Team

Later added 3 additional pediatric audiologists who frequently see families at the outpatient setting for confirmation ABRs, amplification, etc

Utah EHDI NICU and High-Risk Infant Screening, Diagnostic & Follow-Up Recommended Protocol

While Utah EHDI acknowledges the barriers to meeting the 1½ -3-6 milestones, **every effort should be made to meet these milestones when it is medically appropriate and complete a baseline comprehensive diagnostic hearing evaluation**, ideally before discharge, after a failed NBHS with any of the risk factors listed in the protocol below and/or Appendix 1. The Joint Committee on Infant Hearing (JCIH) Risk Indicators are listed in Appendix 2.

For infants in the NICU, the screening and/or diagnostic protocols will vary based on the child's risk factor(s). The audiologist should use an individualized approach in determining each stage of the EHDI process. Some infants may only need a screening with follow-up "as concerns arise", while others may require an inpatient diagnostic evaluation with more frequent follow-up. The following table provides a recommended protocol:

A comprehensive diagnostic hearing evaluation should include:

1. Auditory Brainstem Response
    a. Suprathreshold click
    b. Frequency-specific (500, 1k, 2k, 4k) - complete as much as possible
    c. Bone-conduction, as indicated
2. DPOAEs and/or TEOAEs (to assess outer hair cell function)
3. Tympanometry (to determine middle ear function), as indicated
    a. 1000 Hz (< 9 months adjusted age; 2019 JCIH Position Statement)
    b. 226 Hz (> 9 months adjusted age)
4. Acoustic reflexes (helpful when ANSD is suspected, as they are expected to be absent [2019 JCIH)), as indicated
    a. 1000 Hz (< 9 months adjusted age)
    b. 226 Hz (> 9 months adjusted age)

NOTE: Utah Administrative Code (UAC 26-10-6; Rule 398-2) requires all diagnostic reports to be sent to Utah EHDI within 7 days of the completed evaluation.

- Started with PAWG audiologists
    - Reviewed by additional NICU audiologists from Utah
    - Reviewed by 2 audiologists from different Children's Hospitals outside of Utah
    - Two pediatric ENTs
    - Pediatrician
    - Neonatologist
- Shared with audiology listserv (100+)

PAWG started in order to develop NICU protocol

Families can often receive conflicting information about what they should be doing for follow-up, management, etc. PAWG wanted to minimize this as much as possible.

Increase communication and collaboration amongst EHDI providers in order to improve services for Utah's children who are deaf or hard of hearing and their families by providing guidelines, resources and resolution of State challenges.

PAWG: Mission Statement

Best practice standards provide the framework of how to improve outcomes; however, from research to application, the course of action may be implemented differently amongst providers. This can cause frustration and confusion for families. The PAWG group is dedicated to reducing system challenges by leveraging the expertise of State EHDI, Pediatric Audiologists, and the Parent Infant Program.

PAWG: The WHY

Risk Factor	Screening Procedure	Hearing Evaluation	Follow-Up Recommendations
Congenital Cytomegalovirus	None / complete diagnostic at IP	IP Diagnostic Eval	If Normal, F/U every 3 months until age 3; every 6 months until age 6; annually thereafter, sooner if concerns.

Risk Factors

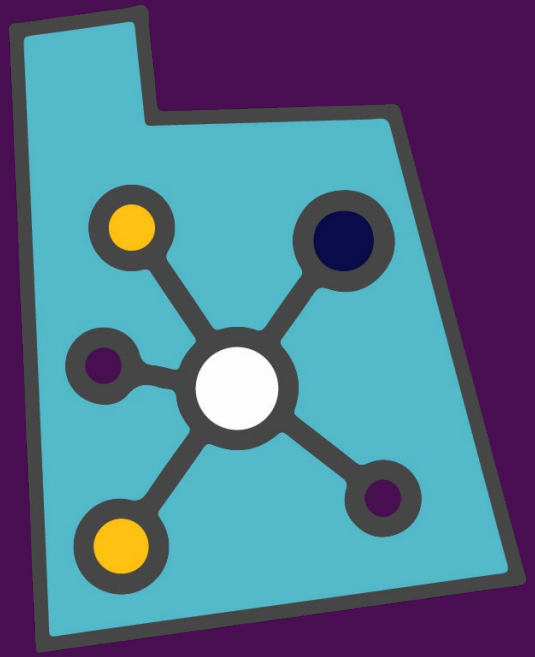
Craniofacial anomalies:			
Microtia / Cleft palate	AABR + OAE		If NS, F/U at 9 months for behavioral testing
Ear tags, pits	AABR or OAE		If NS, F/U as concerns arise - medical home monitoring
Atresia well-baby	None - Schedule OP diagnostic	Dx AC test for non-affected ear and BC for atretic ear	Make "Confirmed Hearing Loss" referrals If no medical or amplification management recommended, follow-up with behavioral testing at 9 months
Atresia NICU	None - Complete IP diagnostic		
Ototoxicity:			
Aminoglycosides >5 days	AABR + OAE		If NS, F/U at 9 months for behavioral testing (OAEs at a minimum)

Through data analysis and provider expertise, a challenge will be reviewed and through team consensus, guidelines and/or resources will be created and then disseminated to all Utah EHDI stakeholders. Providing a unified and better understood EHDI process for stakeholders will ultimately reduce confusion and barriers in a diverse system of hearing healthcare and interventions.

PAWG: The HOW

- A safe place to discuss **issues that are specific to our state**
- We can **brainstorm solutions** for issues that a particular program may be seeing
- **Network.** We refer to a lot of other audiologists and it a great place to get to know them, discuss how referrals will take place, etc.
- **Another place to be educated.** We have other professionals besides audiologists come and discuss issues or present on topics relevant to our needs (i.e. PIP, ENTs, etc).

Why do you think PAWG is helpful?



Why you need a robust infant diagnostic protocol for your State

It takes ~17 years for research to be incorporated into routine clinical practice

New research is being published all the time, making it difficult for providers to stay up to date.

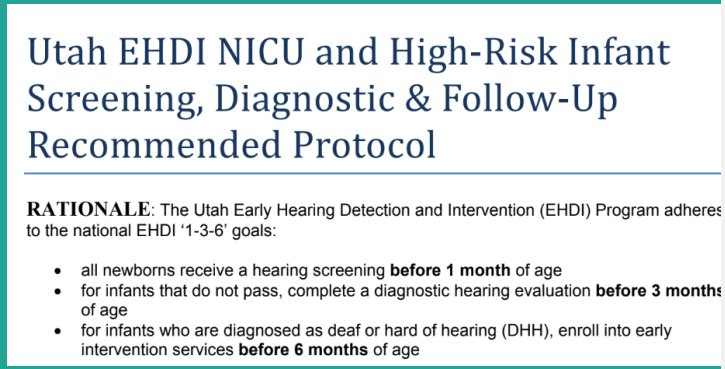
Westfall JM, Mold J, Fagnan L. Practice-Based Research—"Blue Highways" on the NIH Roadmap. *JAMA.* 2007;297(4):403–406. doi:10.1001/jama.297.4.403

Sometimes even CPGs have too much or not enough information. So what else can we do to support community stakeholders?

Clinical Practice Guidelines (CPGs) synthesize research into current recommendations that should be incorporated into routine patient care

2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs (jcih.org)

Clinical Guidance Document: Assessment of Hearing in Infants and Young Children (AAA, 2020)

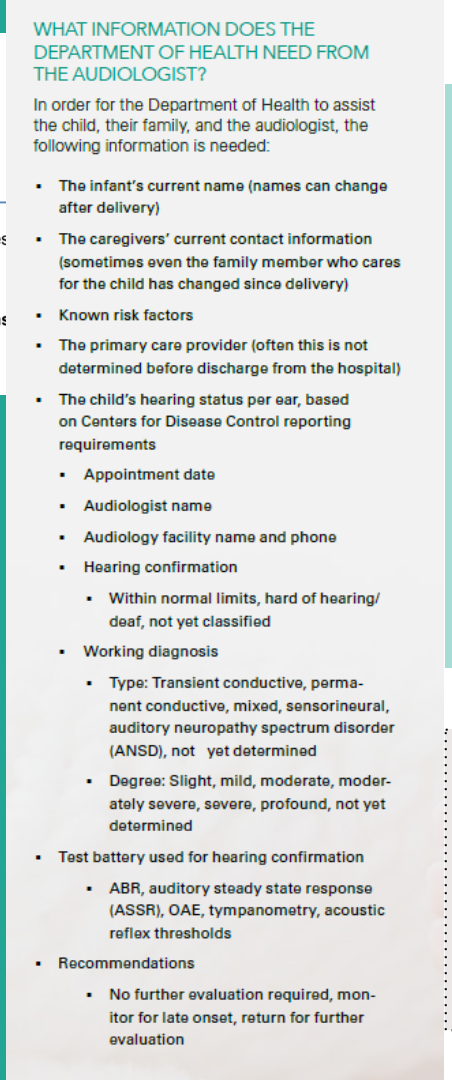


Utah EHDI NICU and High-Risk Infant Screening, Diagnostic & Follow-Up Recommended Protocol

RATIONALE: The Utah Early Hearing Detection and Intervention (EHDI) Program adheres to the national EHDI '1-3-6' goals:

- all newborns receive a hearing screening **before 1 month** of age
- for infants that do not pass, complete a diagnostic hearing evaluation **before 3 months** of age
- for infants who are diagnosed as deaf or hard of hearing (DHH), enroll into early intervention services **before 6 months** of age

State EHDI protocols can further synthesize and supplement CPGs



WHAT INFORMATION DOES THE DEPARTMENT OF HEALTH NEED FROM THE AUDIOLOGIST?

In order for the Department of Health to assist the child, their family, and the audiologist, the following information is needed:

- The infant's current name (names can change after delivery)
- The caregivers' current contact information (sometimes even the family member who cares for the child has changed since delivery)
- Known risk factors
- The primary care provider (often this is not determined before discharge from the hospital)
- The child's hearing status per ear, based on Centers for Disease Control reporting requirements
  - Appointment date
  - Audiologist name
  - Audiology facility name and phone
  - Hearing confirmation
    - Within normal limits, hard of hearing/ deaf, not yet classified
  - Working diagnosis
    - Type: Transient conductive, permanent conductive, mixed, sensorineural, auditory neuropathy spectrum disorder (ANSD), not yet determined
    - Degree: Slight, mild, moderate, moderately severe, severe, profound, not yet determined
- Test battery used for hearing confirmation
  - ABR, auditory steady state response (ASSR), OAE, tympanometry, acoustic reflex thresholds
- Recommendations
  - No further evaluation required, monitor for late onset, return for further evaluation

Guideline to reference state-specific needs (e.g., CMV testing and follow-up)

Supporting document for diagnosing audiologists when they're updating internal protocols ("This is what the state is requiring")

Helps with EHDI compliance - Reference state mandate(s) for hearing care within the protocol. ("It's not only best practice, but the law".)

Article highlights all information that should be reported to EHDI programs and why it's important.

(Sapp and Welsh; Audiology Today, Sep/Oct 2019)

Guidelines, handouts, resources

- Screening
  - Hospital and OOHB screening protocols
  - Updated results forms
  - Risk factor ‘crib cards’ to provide to families if they’ve passed the screening – when and where to get follow-up
- Diagnostic Assessment
  - Well-baby protocol
  - NICU and High-Risk protocol
  - **Fluctuating Conductive guidelines**
  - Tele-ABR services for families without insurance, in rural / frontier communities
- Early Intervention Referral process
  - **Venn diagram** of intersecting state agencies that serve infants and young children who are deaf or hard of hearing
  - **Talking Points for Audiologists**
  - **Letter to PCP** about importance of encouraging families to enroll in EI
- Mental Health resources for families

Utah Department of Health & Human Services

Important Steps for Your Baby's Hearing Health

Language development starts at birth.

The sooner the better. Meeting these timelines are important steps you can take for your baby.

1/3rd

Hearing Screening before 10 days of age

A failed hearing screening does not mean your baby has hearing loss, but further testing is needed.

CMV testing before 21 days of age

If your baby failed their hearing screening(s), they need testing for congenital cytomegalovirus (CMV). This testing is **time-sensitive**.

3

Diagnostic hearing evaluation before 3 months of age

Be sure to schedule your baby's hearing test with a pediatric audiologist who has experience testing infants.

Additional Audiology Follow-Up appointments may be necessary

Your baby may need more than one appointment to obtain a complete picture of their hearing. If there is any level of hearing loss, the audiologist will help you understand the different options available to help your child.

6

Enroll in Early Intervention before 6 months of age

If your baby has any level of hearing loss, it is important to start early intervention (EI) services as soon as possible. Providers will support your family's goals and your child's developmental needs.

Utah Early Hearing Detection and Intervention (EHDI) Program

Screening

before 10 days of age

1st Screening:

Right Ear ☐ Pass ☐ Fail Left Ear

Your baby should be screened before they leave the hospital. If they were born at home, they should be screened no later than 5 days of age.

If your baby failed the 1st screening, be sure to complete the 2nd screening

2nd Screening:

Right Ear ☐ Pass ☐ Fail Left Ear

8.10.22

CMV Testing

before 21 days of age

Congenital Cytomegalovirus (CMV) is a common virus. A CMV infection during pregnancy may impact a child's development, including the brain, eyes, and ears. **It is a common cause of hearing loss.**

If your baby fails the 2nd hearing screening (Or if your baby fails a 1st screening after 14 days of age), a CMV test should be done as soon as possible. Your audiologist will need to know these results.

CMV testing is time sensitive!

Testing is painless. A saliva or urine sample will be collected.

91% of women do not know about CMV. To learn more go to: health.utah.gov/cmv

Diagnostic ABR

before 3 Months of age

Clinic: _____

Date: _____

Time: _____

Next Steps for children identified with hearing loss:

- ☐ Evaluation with **ENT** (Ear, Nose and Throat Doctor)
- ☐ Learn about **technology options** (Hearing aids, cochlear implants, FM systems, etc.)
- ☐ Your baby may need additional audiology testing
- ☐ Learn about **communication options**
- ☐ Contact the Utah Parent Center for **family support** at ehdiparents@utah.gov

Early Intervention

before 6 Months of age

The Utah Schools for the Deaf & the Blind **Parent Infant Program (PIP)**, empowers families as an unbiased guide to help the child reach their potential in language, social, emotional, and academic development. PIP services are free and available statewide.

Parent Infant Program USDB

- ☐ **PIP will contact you** once they receive the referral from your audiologist
- ☐ **Enroll in PIP services** as soon as possible to prevent delays
- ☐ **Build your Team**. There are a lot of people to help your child along this journey. PIP will help you reach goals and developmental milestones for your child.

Other Team Members:

- ☐ **Ophthalmologist (eye doctor).** Children with hearing loss are at higher risk for vision problems
- ☐ **Genetics evaluation.** This can help find the cause of a hearing loss and if there are risks for other health problems
- ☐ Other Medical Specialists as needed

Utah Department of Health & Human Services

Your Baby's Hearing Needs

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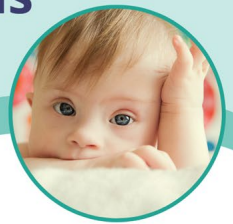


All Babies with Down Syndrome are higher risk for hearing loss.
Those who pass the newborn hearing screening should have their hearing tested again at **6 months of age** by an audiologist with expertise in testing infants and young children.

- If there are no concerns after appointment, your baby's hearing should be tested every 6 months until normal hearing is confirmed in both ears. If there are concerns, your baby will be referred for appropriate follow-up.
- Once normal hearing is confirmed in both ears, your child should continue to **receive a hearing test every year.**
- Continue to **monitor your baby's hearing behaviors** using speech and hearing milestones and at regular checkups with your baby's doctor. Your pediatrician will help you monitor the milestones.

How Does Your Child Hear and Talk?
asha.org/public/speech/development/chart/

Find a Pediatric Audiologist
https://arcg.is/n4HmC

Utah Department of Health & Human Services

Your Baby's Hearing Needs

Cleft Palate

Cleft palate is when a baby is born with a gap in the roof of the mouth. Babies with cleft palate are **higher risk for hearing loss.**

- If your baby passes their newborn hearing screening they should have their hearing tested again at **9 months of age**.
- If your baby **fails** their newborn hearing screening, they should return for a follow-up rescreen.
- If your baby does not pass the rescreen they need a diagnostic **evaluation with a pediatric audiologist before 1 month of age**.
- Your pediatrician will monitor for **middle ear fluid** as this can be common in babies with cleft palate and could cause a temporary change in hearing.
- **Continue to monitor** your baby's hearing behaviors using speech and hearing milestones (QR code). Your baby's pediatrician can help you monitor them at regular checkups

How Does Your Child Hear and Talk?
asha.org/public/speech/development/chart/

Find a Pediatric Audiologist
https://arcg.is/n4HmC

Infant Diagnostic & Early Intervention Referral Process

Infant Fails IP & OP Hearing Screening → UDOH CMV & Diagnostic ABR Orders → CMV Testing* → Diagnostic ABR → Parent-Infant-Program (PIP) / EI

Normal Hearing

Results to Parents, PCP, EHDI

*CMV Testing also required if 1st failed hearing screening is > 14 days of age

Undetermined

Results to Parents, PCP, EHDI

Refer to USDB-PIP & EHDI Parent Consultant

Schedule F/U Diagnostic ABR

Fluctuating Conductive

Results to Parents, PCP, EHDI

Schedule F/U Dx ABR in 4-6 weeks

If you can't confirm hearing status, refer to:

USDB-PIP by 4 months of age &

ENT Referral

Confirmed D/HH

Results to Parents, PCP, EHDI

Parent Notebook

Referral to USDB-PIP & EHDI Parent Consultant < 48 hours

deafpipreferral@usdb.org

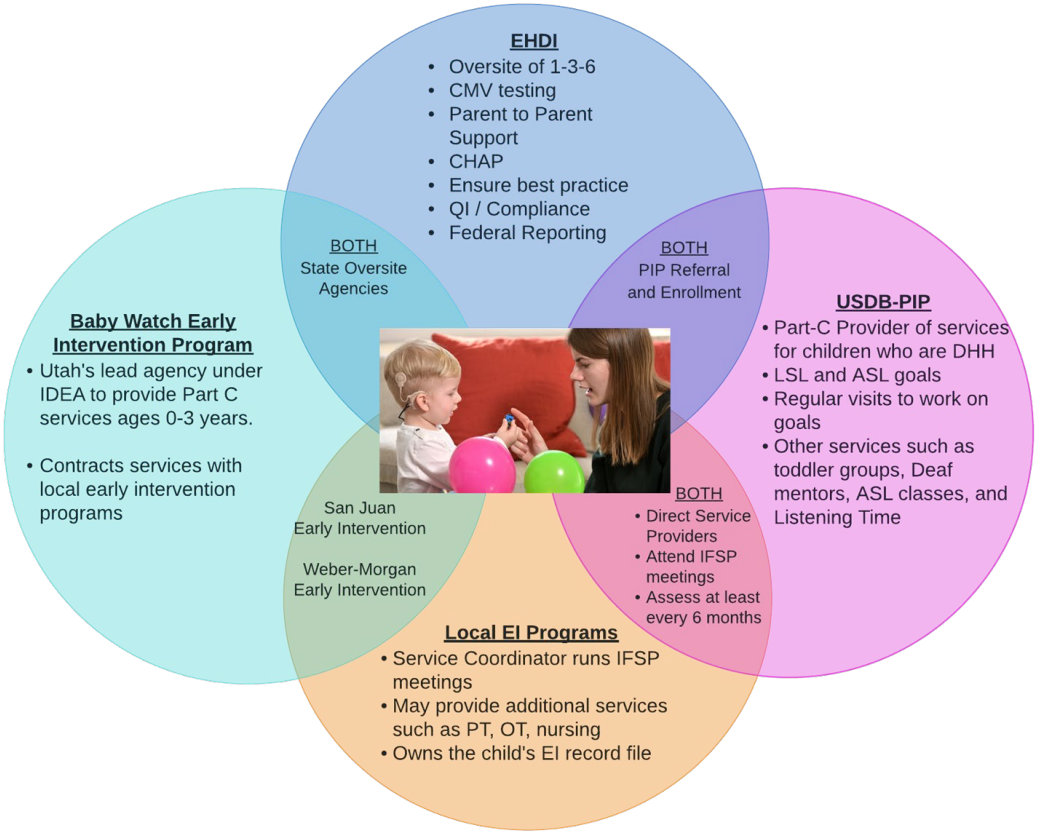
ehdiparents@utah.gov

Referral: ENT, Genetics, Ophthalmology

Schedule F/U Dx ABR

Utah Department of Health & Human Services

Family Health



Educate stakeholders on the differences between agencies that all serve DHH children and their families

UTAH DEPARTMENT OF HEALTH
Early Hearing Detection and Intervention
health.utah.gov/ehdi
801-273-6600

A Guide For Your Baby's Conductive Hearing Loss

Your baby has a conductive **hearing loss** which may be caused by fluid behind their eardrum(s). This can go away in a few weeks or may be long-term, needing medical treatment. Sometimes permanent hearing loss can be masked by the fluid, so it is important to **follow each step** of the guide below.

1st Diagnostic ABR: CONDUCTIVE HEARING LOSS

Be sure to complete CMV testing if you haven't already

EI Referral & Enrollment

Parent Infant Program for the Deaf and Hard of Hearing — USDB Utah Schools for the Deaf & the Blind

*Your audiologist will make a **referral to the USDB Parent Infant Program** for early intervention (EI) services. These services can help your baby avoid language delays. **Someone from PIP will contact you.***

2nd Diagnostic ABR
Complete by 2 months of age

*If these ABR results are within normal limits, you can stop further follow-up appointments. See **Normal Hearing** below.*

***IMPORTANT!** Attend 2nd appointment with **pediatric audiologist** to make sure your baby hears all sounds.*

Medical Evaluation
Complete by 3 months of age

*Attend the **ENT appointment** that will determine how to manage the fluid.*

***IMPORTANT!** Schedule your baby's audiology follow-up appointment for **4 weeks after** the ENT appointment.*

Audiology Follow-Up
Complete before 6 months of age

IMPORTANT!** Sometimes after the fluid is gone, a permanent hearing loss is identified. **Be sure to attend this appointment.

Your Baby's Hearing

NORMAL Hearing: Continue to **monitor speech and hearing development**. Contact your baby's doctor if any concerns arise.

PERMANENT Hearing Loss: Continue Audiology, PIP and EI services.

ABR - Auditory Brainstem Repsonse
ENT - Ear, Nose, & Throat doctor
CMV - Cytomegalovirus
PIP - Parent Infant Program
EI - Early Intervention
USDB - Utah Schools for the Deaf & the Blind

3/15/21

NAVIGATING THE NEXT STEPS

Keep your Clinic and appointment information below in case you have questions or need to reschedule.

Hearing loss is one of the most common birth conditions, occuring in 1 out of 300 babies. The first months and years of life are a **critical period for brain development**, including speech and language skills, social and emotional development, and academic success. Early identification of hearing loss and appropriate intervention ensures a child will have the opportunity to reach their maximum potential.

Audiology Clinic*:

ENT Clinic:

CALENDAR

- ☐ **2nd Diagnostic ABR Appointment:**
- ☐ **Follow-up ENT Appointment:**
- ☐ **Follow-up Audiology Appointment:**

*If you need help finding a **Pediatric Audiologist** in your area, use the QR Code or go to https://arcg.is/n4HmC for an interactive map.

Preparing for your next Diagnostic ABR Appointment

- **Bring your baby hungry and tired.** Plan on feeding your baby after your appointment has started -- This will help your baby sleep during the test.
- **Bring any items that will help your baby be comfortable and relaxed**, such as blankets, pacifiers, Boppy, car seat, etc.
- If your baby is sick, please call to reschedule your appointment.

SPEECH AND HEARING MILESTONES CHECKLIST

Monitor your baby's speech and hearing development. If you become concerned about their development, speak with your primary care provider, or contact your local early intervention program for a **free developmental evaluation**. You can find your local program at **utahbabywatch.org** or call **801-273-2900**.

3 Months
- Reacts to loud sounds
- Quiets or smiles when spoken to
- Coos and goos
- Has different cries for different needs

6 Months
- Responds to tone of voice
- Pays attention to music
- Turns to find voices
- Babbles different sounds including p, b, m

7 - 12 Months
- Turns when you call their name
- Imitating speech sounds
- Combines two syllables like mama, bibi, dada
- Understands "no" and "bye-bye"
- Turns to soft sounds
- Enjoys playing peek-a-boo and pat-a-cake
- Understands simple phrases, such as "Come here", and "Want more?"
- Listens to songs and stories for a short time

12 - 24 Months
- Responds to simple requests like "Where's your shoe?" and "Roll the ball"
- Points to pictures in a book when named
- Asks one- or two-word questions, such as "Where kitty?" and "What's that?"
- Puts two words together such as "more cookie"
- Use at least 10 words by 18 months and 100 words by 24 months

HEALTH UNIVERSITY OF UTAH
UTAH DEPARTMENT OF HEALTH Baby Watch Early Intervention Program
Parent Infant Program USDB
UTAH DEPARTMENT OF HEALTH Early Hearing Detection and Intervention
Intermountain Healthcare

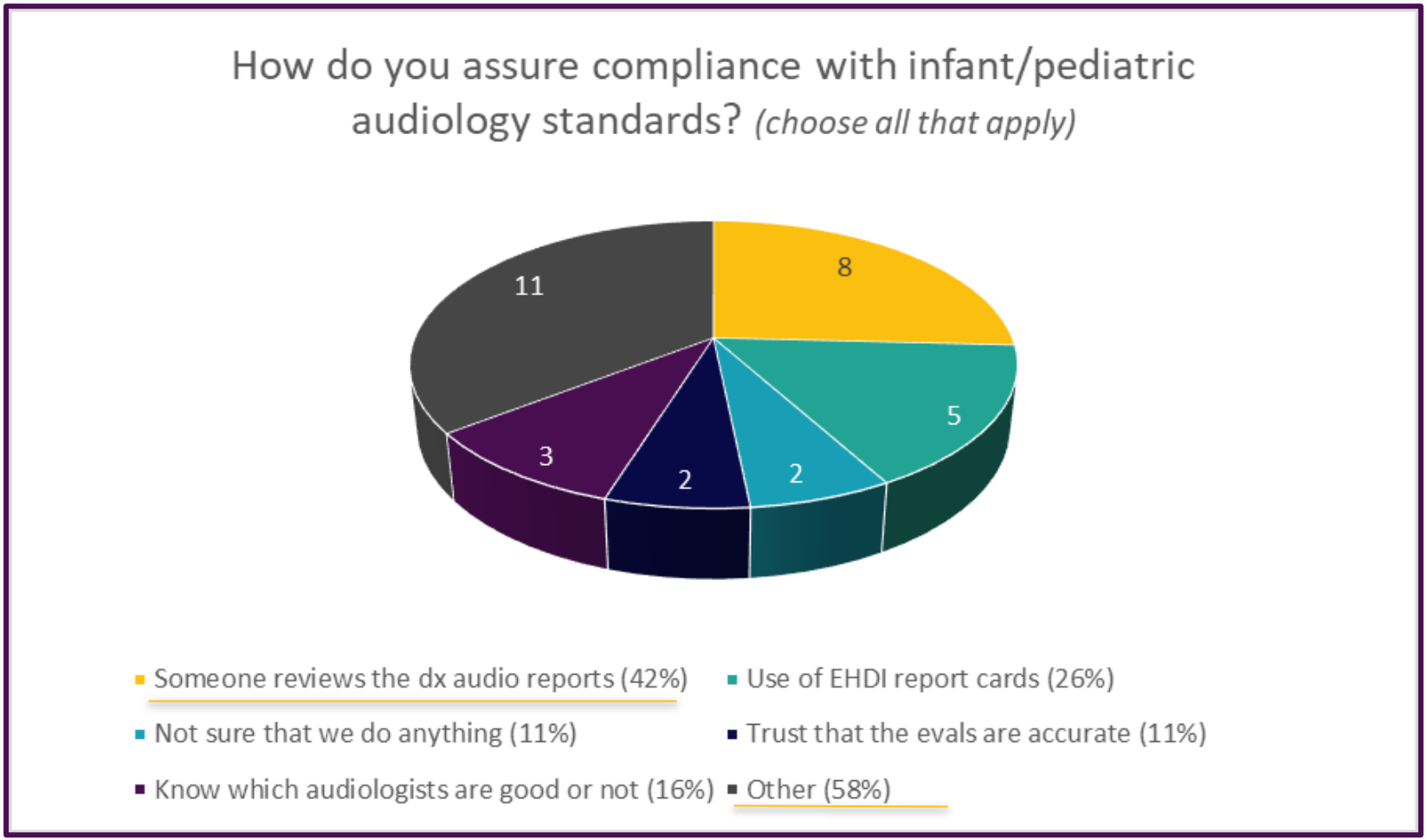
Fluctuating Conductive Hearing Loss

Get everyone on the same page.

Once the expectations have been clearly established from State EHDI, the compliance becomes NOT EASY, but EASIER

- Audiologists need to know WHAT we need and HOW to do it
  - Comprehensive testing
  - Consistent messaging to improve follow-up and early intervention enrollment
  - Reporting diagnostic results

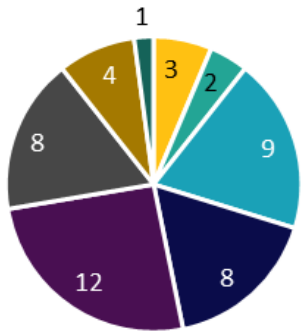
It's our job to provide the tools and educate them.



"It's believed to be under their license and ethics."

"We have been advised by legal that 'We're not the EHDI police'. We can

What do you do if a diagnosing audiologist isn't following evidence-based best practices? *(choose all that apply)*



- This has never come up (16%)
- Don't really do anything (11%)
- Call them (47%)
- Email them (42%)
- Counsel them on best practices (63%)
- Provide mentorship or mentoring opportunities (42%)
- Advise them not to see infants (21%)
- Prohibit them from seeing infants or doing dx ABRs (5%)
- Tell people not to refer to them (5%)

If you reach out to audiologists that are not in compliance with best practice standards, what do you say?

Educate on recommended best practices and share the audiologist toolkit.

It was a very painful conversation as the audiologist did not seem to be aware of the JCIH statement and did not seem to have even basic OAE equipment. The audiologist stopped responding to me after two calls. But the birthing facility no longer refers to that clinic.

It depends on the situation. We generally reflect on comments by parents/providers (usually early intervention providers) who have raised concerns.

We try to use data when possible and frame the conversation as a learning opportunity and offer further training and mentoring.

The EHDI Coordinator does not do this, the State EHDI Audiologist contacts audiologists whose submitted test results are not in line with national standards. **Conversations include requests for additional information as to why ear specific information was unable to be obtained. In addition, audiologists are provided with documentation from State regulations, JCIH, ASHA, and AAA that highlight the area of concern.**

If you reach out to audiologists that are not in compliance with best practice standards, what do you say?

None of the EHDI staff are audiologists, so we approach it as trying to better understand the 'why' of their testing. If there are differing diagnoses at 2 centers, we get permission from the family and ask the audiologists to meet and discuss.

Offer to review state mandates on EHDI, reporting requirements, EHDI Policy and procedure manual, in services, overviews, mentoring with local / state audiologists.

We share JCIH and pull out citations specific to the problem area; we also share the NHSTC (free CEUs) - it is for screening but it helps to round out their knowledge

If you reach out to audiologists that are not in compliance with best practice standards, what do you say?

Reference protocols

It honestly depends on the relationship we (EHDI program audiologists) already have with the audiologist/practice.

We typically try to phrase it in the terms of JCIH recommendations, state law, or share research.

I would report them to State Dept of Healthcare Services.

We advise them on best practices according to ASHA and our policies.

Depends on the issue, if it is repeat or er a conflict between results that acts as an opening to the conversation, or a delay ir to answer any questions or offer you training or mentorship.

Basic compliance

- Provide their diagnostic report along with your question
  - I try to give the benefit of the doubt
  - “I noticed this tympanogram says 226 Hz, but it was 1000 Hz, correct?”

- Not enough / no clinical history
  - “We’ve started to ask audiologists to document CMV testing results in their reports” — that’s been an expectation for years, but it’s a non-confrontational way to say that’s the expectation for them too.

- **Share state protocols, JCIH, AAA guidelines with email**

- **In addition to best-practices, <u>peer pressure works</u>**
  - “This is the process we all agreed upon in our PAWG meeting”
  - “This is what _____ clinic is doing”

When change hasn’t happened:

- Contact their manager with examples or data
- Give the clinic a specific problem, and “is there anyway this process can be changed?”
    - Hospital was scheduling out far for infant diagnostic ABRs
        - We brought the issue up with PAWG and others verified they were experiencing the same issue
        - Reviewed ramifications - later 1-3-6 milestones, impacts fitting timelines and therefore access to communication
    - Practice has recently opened up special appointment slots for NBHS diagnostic evaluations, with the goal of appointments within two weeks

When change STILL hasn’t happened:

- **Contact the compliance department** with your concerns. You will get a real quick response!
  - By this time, you have plenty of documentation of your requests, shared resources, etc.
  - Most of the time people will apologize for being slow to respond or change
  - Sometimes the compliance dept just forwards your email and that’s enough for the employee to jump
  - Sometimes it takes a formal QI action plan

- Most of the time this isn’t necessary

ENT Clinic (few infant patients)

- Full-term, out of hospital birth, no risk factors
- Per mom: Midwife screened for ~45 minutes, passed one ear, failed in the other ear. Had already failed first screening.
- ENT AuD results and recommendations: **OAEs fail bilat; Tymps 'peaked' normal** (sleeping baby; good fit). **Can complete ABR or repeat OAEs in 1 month, before referring to pediatric audiologist**. Mom chose the one month follow-up with OAEs (would have been the 4th screening).

EHDI email:

Audiology Coordinator: I wanted to let you know that we referred this family for a diagnostic ABR. I believe they're scheduled for this eval on *-**-2022. The reason that we moved forward with this was that the baby had already **failed several OAEs** prior to seeing you. **What made us concerned was** the normal tymps and absent OAEs.

Protocol share screened this baby; however **e lead in getting famili**

Ultimately it ended with asking if we could provide an 'EHDI 101' training, and did so about 2-3 weeks later with three audiologists.

It looks like you would have referred to _____ for the diagnostic ABR, **which is great. If this scenario were to happen again**, we would ask you to discuss with the family the need for **diagnostic ABR right away and encourage them to complete the CMV testing** at their local hospital outpatient lab.

I hope you're okay with my sharing this with you. It's truly just an opportunity to share the infant pediatric diagnostic process in Utah.

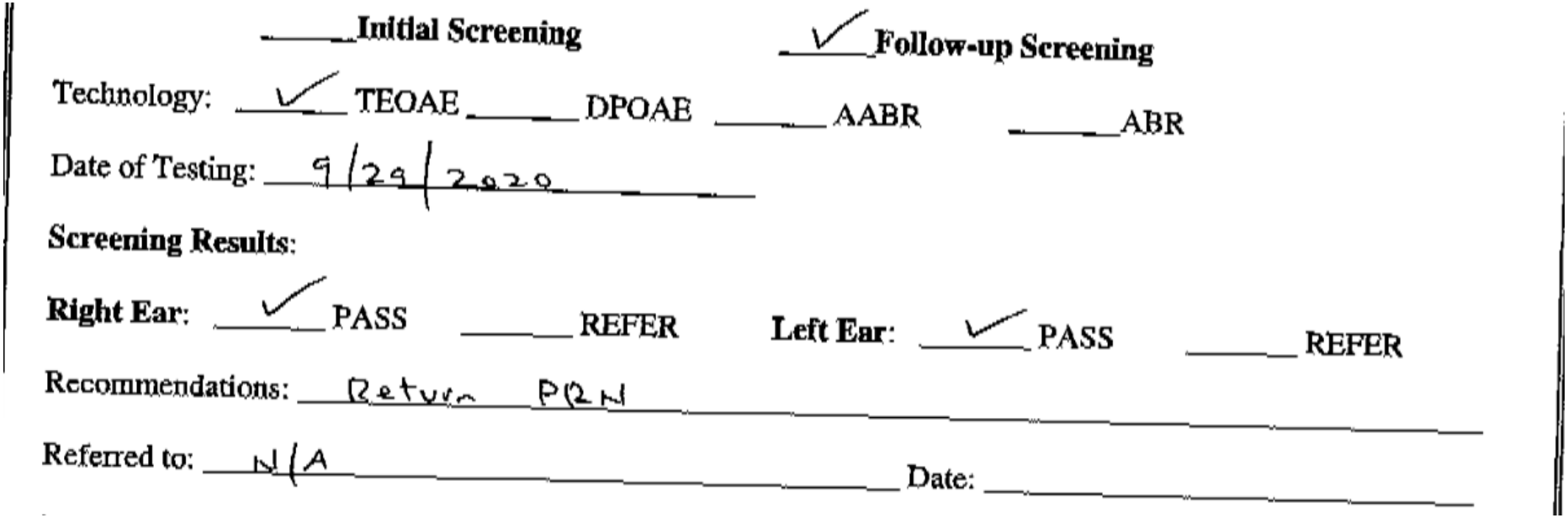
Failed NBHS.

Diagnostic eval: tymps and OAEs

- “ABR equipment not working”
- “I receive so many emails…”
- “Difficulty getting baby to sleep”

Reviewed protocol and offered to review waveforms with them

Audiologist called the following week to state they were **not comfortable completing diagnostic ABRs** and would refer infants to pediatric audiologist



____ Initial Screening ✓ Follow-up Screening

Technology: ✓ TEOAE ____ DPOAE ____ AABR ____ ABR

Date of Testing: 9/29/2020

Screening Results:

Right Ear: ✓ PASS ____ REFER **Left Ear:** ✓ PASS ____ REFER

Recommendations: Return PRN

Referred to: N/A Date: ____

“Rescreening” without a clinical history

Oh, perfect! I wanted to follow-up with you about some results we received yesterday about this baby (attached). Thank you for sending them! Be sure to do a good clinical history on any baby coming from -- this particular baby has a myelomeningocele with very abnormal ABR because of it. They definitely needed a 2nd diagnostic ABR to determine the baby's hearing. I contacted audiology to reach out to this family since they know the clinical history, but I just wanted to let you know. Sometimes parents aren't always forthcoming about what diagnoses their baby has, so we have to do our job in asking what their prenatal and birth history, any medical diagnoses, etc.

Thanks,

Shannon

I always try to give them an “out”, so that they can still learn but not get caught up in being defensive. Our goal is to educate people without making them feel bad. Establish partnerships where you can ask questions and have an open dialogue. Never burn bridges.

Provide state-specific expectations with best practice guidelines;
Educate, educate, educate! (did I say educate?);
Create partnerships and open dialogues;
Group consensus is powerful; Having best practice documents for your state are totally worth the time and effort; Continuous follow-up is necessary; You got this!

In Summary

Thank you!

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Utah Department of
Health & Human
Services