FAQ’s from the Joint Committee on Infant Hearing

National EHDI Conference
March 14, 2022
Historically: Children who are deaf or hard of hearing (DHH) were not identified until 2-3 years of age

JCIH established in 1969
- 1st Position Statement was in 1971; 1 page document

Late 1980s: Recognition of new technologies and opportunities for early diagnosis and prompt intervention

1990s: Newborn Hearing Screening Programs emerged
Annually in the US, ~ 5000 infants who are DHH and their families have the opportunity to experience improved outcomes in the child’s language development (through early access to spoken and/or signed language), as well as improved outcomes in the child’s overall well-being.
The mission of the Joint Committee on Infant Hearing is to address issues that are important for the early identification, intervention, and follow-up care of infants and young children with hearing loss.
Voting Organizations
Working globally to ensure that people who are deaf and hard of hearing can hear and talk.

We want all families to be informed and supported, professionals to be appropriately qualified to teach and help children with hearing loss, public policy leaders to effectively address the needs of people with hearing loss, and communities to be empowered to help their neighbors with hearing loss succeed.

The Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell) is the premier international organization focused on ensuring that listening and spoken language is an available outcome for individuals who are deaf or hard of hearing. The AG Bell Community comprises 70,000 individuals including people who are deaf or hard of hearing, parents/caregivers, and the professionals who serve them (e.g. audiologists, deaf educators, speech-language pathologists, psychologists, physicians, program administrators, and hearing research scientists) and university students.

www.agbell.org
The world’s largest professional organization of, by and for audiologists.

Advancing the science, practice and accessibility of hearing and balance healthcare.

The AAA mission promotes professional development, education, research, and increased public awareness of hearing and balance disorders.

The AAA delivers value, promotes Diversity, Equity Inclusion and Belonging.

The AAA comprises the American Board of Audiology, the Student Academy of Audiology, The AAA Foundation, and the Accreditation Commission for Audiology Education.

www.audiology.org
The mission of the American Academy of Pediatrics is to attain optimal physical, mental, and social health and well-being for all infants, children, adolescents and young adults. To accomplish this, AAP shall support the professional needs of its members.

www.aap.org

**Mission:** We engage our members and help them achieve excellence and provide high-quality, evidence-informed, and equitable ear, nose, and throat care through professional and public education, research, and health policy advocacy.

[www.aao.org](http://www.aao.org)
Making effective communication, a human right, accessible and achievable for all

The American Speech-Language-Hearing Association (ASHA) is the national professional, scientific, and credentialing association for 223,000 members and affiliates who are audiologists; speech-language pathologists; speech, language, and hearing scientists; audiology and speech-language pathology support personnel; and students.

www.asha.org
The Council on Education of the Deaf (CED), a national organization founded in 1930, promotes excellence in educating deaf and hard of hearing students. To achieve this mission, the organization establishes, promotes, and monitors teacher education standards embodying best practices, reflecting current research, and embracing diversity and multiculturalism.

CED implements its mission by accrediting university programs that prepare teachers of deaf and hard of hearing students, certifying highly qualified teachers who meet its standards, and collaborating with national, state, and local associations and agencies in a variety of activities, committees and workgroups.

https://councilondeafed.org/
Directors of Speech and Hearing Programs in State Health and Welfare Agencies

1. The mission of DSHPSHWA is to foster a better understanding of programming for speech, language, & hearing issues within the public health & welfare setting.

2. To encourage the development of more efficient programs for the diagnosis, treatment, and care management for children who present with speech, language, and hearing issues within the public health and welfare setting.

3. To encourage research studies of the services for speech, language, and hearing issues within the public health and welfare setting.

4. To provide a means for continued professional growth relative to programming for speech, language, and hearing issues within the public health and welfare setting.

DSHPHWA represents the “Voice” of EHDI Coordinators

www.dshpshwa.org
The mission of the Joint Committee on Infant Hearing is to address issues that are important to the early identification, intervention, and follow-up care of infants and young children with hearing loss.
Executive Summary

Endorsements

Need for audiology oversight of hearing screening programs

For well-born infants only, who are screened by AABR and do **not** pass, rescreening and passing by OAE is acceptable

Rescreening in the medical home in some circumstances

Provider is responsible for reporting results to the state EHDI program
JCIH published its most recent document in 2019

Published FAQ’s were drawn from questions addressed to the Committee over the past year

Statement covered screening, identification/diagnosis, medical care, early intervention, language acquisition and public policy recommendations.

http://www.jcih.org/posstatemts.htm
### JCIH FAQ Process

Moving forward, the Joint Committee on Infant Hearing (JCIH) will use WorkGroups to streamline Frequently Asked Questions (FAQs). For this process, the committee will utilize Quality Improvement methodology (Plan-Do-Study-Act) thus processes are subject to change.

<table>
<thead>
<tr>
<th>Assigned to</th>
<th>STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCIH Co-Chairs</td>
<td>1) As new questions come in, JCIH Co-Chairs will determine which workgroup should generate a response and subsequently send an email to the Workgroup Chair.</td>
</tr>
<tr>
<td>Workgroup Lead</td>
<td>2) The Workgroup Lead will lead efforts with the workgroup and come up with a response. We will leave it at the discretion of each Chair to determine how that is done.</td>
</tr>
<tr>
<td>Workgroup Lead</td>
<td>3) Within <strong>1 week</strong> of receiving question, the Workgroup Lead will send a response to the full JCIH Committee for <strong>Discussion Period for 48 hours</strong>.</td>
</tr>
<tr>
<td>Workgroup Lead</td>
<td>4) Make modifications to the draft response based on feedback and send to JCIH Co-Chairs for voting.</td>
</tr>
<tr>
<td>JCIH Co-Chairs</td>
<td>1) An email will be sent to all JCIH Voting members for <strong>Voting Period for 1 week</strong>.</td>
</tr>
<tr>
<td>JCIH Co-Chairs</td>
<td>2) When all votes are received JCIH Co-Chairs will respond to email request with an official response from the JCIH.</td>
</tr>
<tr>
<td>JCIH Co-Chairs</td>
<td>3) JCIH Co-Chairs will work with NCHAM staff to post responses online once system is set up.</td>
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**GOAL: 2 Week Turnaround or Sooner**
Position Statements from the Joint Committee on Infant Hearing

2019

- JCIH 2019 Position Statement
- JCIH 2019 Position Statement Frequently Asked Questions
  - Audiology FAQs [PDF]
  - General Topic FAQs [PDF]
  - Medical Considerations FAQs [PDF]
  - Newborn Hearing Screening FAQs [PDF]
Today’s Panel

To answer some of the most frequently asked questions, today's panel consists of several members of the Joint Committee on Infant Hearing
Patricia Burk, M.S., CCC-SLP, LSLS Cert AVT  JCIH Co-Chair

Patricia Burk is the Program Coordinator/Oklahoma EHDI Coordinator for the Newborn Hearing Screening Program at the Oklahoma State Department of Health. Patricia helps to promote early identification, diagnosis, and amplification of children with hearing loss throughout the State of Oklahoma. Before becoming the state educator for Newborn Hearing, she worked for an internationally acclaimed cochlear implant clinic where she specialized in intervention services for children and adults with hearing loss.

Directors of Speech and Hearing Programs in State Health and Welfare Agencies (DSHPSHWA)
Kirsten Coverstone, AuD
JCIH Co-Chair

Kirsten Coverstone is the EHDI Coordinator for the state of Minnesota and an audiologist. She works directly with birth facilities to establish and maintain effective hearing screening programs, audiologists for timely follow-up & confirmation of hearing status, provides education and guidance to PCP clinics, and supports stakeholders and outreach locally and nationally to improve early hearing detection and intervention.
Is it accurate to say that if a baby passes the screen in both ears regardless of when each ear was tested as an inpatient, that this should be sufficient?

Or should both ears be screened at the same time?
Both ears must yield pass results in the same screening session to be considered an overall pass.

Even if each ear has separately passed a screening, this does not constitute a pass outcome.

Rescreening should comprise a single valid rescreen of both ears in the same session, regardless of initial screening results, to ensure that fluctuation or progression in hearing levels are not missed.

Screen both ears.
Our facility has a difficult time making the 1-3-6 benchmarks. What if we cannot make the 1-2-3 benchmark?
Programs that currently meet the 1-3-6 benchmark goals should strive for a 1-2-3 timeline to further promote early access to optimal language and learning.
Alison Grimes, AuD
Past JCIH Chair

Director of Audiology and Newborn Hearing at UCLA Health. An audiologist for 40+ years, she has worked in a variety of practice sites across the country involving pediatric Audiology. Alison has been a delegate to JCIH representing the American Academy of Audiology since 2007.
FAQ – Audiology

When should an ABR be done?

What is a “comprehensive” pediatric audiologic evaluation?

What tests need to be included in a diagnostic ABR?
Timing of ABR

• 1-3-6 vs 1-2-3 diagnostic goal
• Sedation can be avoided if infants are tested at a younger age, optimally 2-3 months.
  • Evaluation in NICU or PICU
  • Evaluation in conjunction with anesthesia for other procedures
• For infants in NICU for a prolonged period of time, comprehensive audiologic diagnosis can and should be completed during hospitalization.
Audiologic Evaluation for the Child Under 3 Years

A “comprehensive” diagnostic audiology evaluation should include a battery of tests that define type, degree, and configuration of hearing thresholds for each ear.

Behavioral  
Physiologic  
Electrophysiologic
Audiologic Evaluation for the Child Under 3 Years

Requires audiologists skilled in infant assessment

Possessing all necessary equipment

Use of evidence-based protocols

Goal is to determine type and degree of hearing loss comprising frequency- and ear-specific air and bone conduction thresholds

Sufficient information to guide fitting of hearing aids

REFER baby to Audiology facility where **ALL** equipment, protocols, & personnel are available & used
Gold Standard for Threshold Estimation

• ABR is the gold standard test for infants & children who cannot complete reliable & valid behavioral audiological assessment
  • Air- and bone-conduction
• Behavioral Assessment of hearing is the gold standard dependent on child’s developmental age
  • VRA for infants 6-24 months
  • Conditioned Play Audiometry for toddlers 24+ months
Additional Tests to complete/complement/confirm ABR findings

Presence of Middle Ear Fluid Should Not Delay Diagnosis

- AC vs BC ABR thresholds indicate presence of or degree of conductive component
- When bone-conduction thresholds indicate PCHL, hearing aid fitting and/or CI candidacy evaluations, as well as enrollment in Early Intervention, should proceed

Tympanometry or wideband reflectance
- with high frequency probe tone as indicated

Acoustic reflexes
- Test of middle ear function
- Integrity of auditory brainstem pathways

Otoacoustic emissions
- Integrity of outer hair cells
- Differential diagnosis of auditory neuropathy and SNHL
- Cannot be used as a single measure of monitoring hearing
The new risk factor table recommends diagnostic audiology follow-up for all risk factors.

If a baby has passed AABR, is re-screening with OAEs for the risk factor follow-up appropriate?

Can the committee expand on this topic and the rationale for diagnostic testing?
Risk Factor Follow Up

A comprehensive diagnostic audiologic evaluation is recommended

- tympanometry
- OAE
- acoustic reflexes
- behavioral testing when developmentally appropriate

Continued use of OAE alone for monitoring hearing is insufficient for assessing children with mild hearing loss.
Risk Factor: Family history of early, progressive or delayed-onset permanent childhood hearing loss

- Infants at increased risk of delayed-onset or progressive hearing loss
- Recommended diagnostic follow-up
  - 9 months
- Based on etiology of family hearing loss and caregiver concern
- Caregiver concern regarding hearing, speech, language, developmental delay and/or developmental regression
  - Requires immediate referral
Oliver Adunka, MD, FACS

Oliver Adunka is a Professor and Vice Chair for Clinical Operations in the Department of Otolaryngology, Head & Neck Surgery at the Ohio State University Wexner Medical Center. He is the Director, Division of Otology, Neurotology, Cranial Base Surgery there. Additionally, he is the Director of Pediatric Otology & Hearing Program of Nationwide Children’s Hospital in Columbus, OH.

“The information in this presentation does not represent an endorsement or an official opinion/position of the American Academy of Otolaryngology-Head and Neck Surgery”
Susan Wiley is a developmental pediatrician at Cincinnati Children’s Hospital Medical Center (CCHMC) in Cincinnati Ohio. She is the co-director of the CHARGE program at CCHMC. Her clinical and research interests are in children who are “Deaf/Hard of Hearing Plus.” She is the American Academy of Pediatrics (AAP) liaison to the Joint Committee on Infant Hearing and the Ohio AAP Chapter Champion for EHDI.

“The information in this presentation does not represent an endorsement or an official opinion/position of the American Academy of Pediatrics.”
Medical Considerations – Risk Factors –

• Why are risk factors so confusing?

• Can you tell us more about what a risk factor is?
Risk Factor: why are these so confusing?

A risk factor is something that increases risk or susceptibility for a condition

- The older I am, the more likely I am to have cancer. Not all who live to the age of 90 get cancer.

Some risk factors place the child on a causal pathway for hearing differences, such as a congenital infection with CMV

- Children with CMV may have a hearing difference as it directly impacts the hair cells (causes hearing changes)
- Not all children with CMV have hearing threshold differences

Other risk indicators highlight a likelihood of one or many factors that are at play in impacting hearing thresholds, such as the NICU risk factor

- Children in the NICU experience many various risk factors for hearing differences.
- The NICU is a marker that is readily identifiable but in and of itself, is not causing changes in hearing thresholds
FAQ - Medical Considerations

What is considered a ‘prolonged stay in the NICU’ and how are recommendations different for babies in a Special Care Nursery versus a NICU?
Definition of Prolonged Stay in the NICU
What about Special Care Nursery?

The definition of prolonged stay in the NICU is greater than 5 days (Table 1, risk factor 2).

Considerations for babies in the special care nursery should be individualized for the infant based on specific risk factors.

- Lack of evidence in SCN: Literature does not delineate populations
FAQ - Medical Considerations

What about assisted ventilation?

Is this still considered a risk factor for possible delayed Hearing Loss?

If so, what type(s) of devices are considered assisted ventilation?
Assisted Ventilation:

The literature has supported the association of assisted ventilation to be an independent risk factor on hearing status.

The literature does not specifically describe the type of assisted ventilation.


Is assisted ventilation considered a risk factor for delayed hearing loss, and if so, what type of assisted ventilation?
I noticed that specifying ear tags and pits as a risk factor for follow-up was eliminated from the 2019 statement.

Do you have any additional insight on this, specifically if the committee still recommends follow-up for these babies when they pass the NHS and what that timeline should be?
Ear Tags and Pits: Removed as a risk factor

Hearing differences among children with isolated ear pits and tags is not higher or different as compared to children without ear pits and tags.

Important factor in the literature: Inclusion of comparison group (those without pits/tags)

Stacy Abrams is the Project Manager-Early Intervention at the Laurent Clerc National Deaf Education Center. Stacy has worked in the Deaf Education field for more than 20 years. Ms. Abrams is a representative for the Council on Education of the Deaf on the Joint Committee on Infant Hearing committee. She is a proud mom of two deaf bilingual teens. Stacy started the #whyisign campaign to encourage individuals to share their stories.
Is the term “hearing loss” no longer recommended for usage in early intervention?
In this 2019 Statement, the Joint Committee on Infant Hearing (JCIH) seeks to use terms that:

(a) are acceptable to a range of stakeholders
(b) clearly convey the intended meaning to the entire community.

• terms like hearing loss, hearing impairment, and hearing level have different values or interpretations depending on one’s cultural perspective

• convey audiological concepts using culturally sensitive language whenever possible.

• there are times the term hearing loss is retained to clearly convey audiological concepts/conditions
Because of the diversity of the committee’s composition and represented viewpoints, a compromise resulted in choosing currently recognized terms that reflect accepted, person-first language.

Ex. The commonly used term hearing loss is replaced, with the terminology such as hearing thresholds in the mild, moderate, severe, or profound range

• Done when it is grammatically appropriate to the written English language

• Acknowledges that for an infant who is born with hearing thresholds outside the typical (normal) range, no loss has actually occurred.
Does a power point presentation exist that highlights the differences from the 2007 Position Statement to the new Position Statement similar to the one that was produced some years back when comparing the 2000 to 2007 Statement as noted at www.jcih.org/posstatemts.htm
The committee is working together and with partners such as the Promoting EHDI Practices (PEP) workgroup on several items related to the 2019 position statement:

- Ongoing FAQ documents
- Checklists
- Learning modules
Moving Forward
Sneek Peek

• Shorter, topic focused documents
• 2 Simultaneous Documents:
  • Risk factors
  • Late onset or progressive hearing loss
• Resource Gathering
  • Please share research and resources you would like the JCIH to review

www.jcih.org/contactus.htm
Supporting Organizations

- American Speech-Language-Hearing Association
- HRSA Maternal & Child Health
- NIH National Institute on Deafness and Other Communication Disorders (NIDCD)
- BOYS TOWN Saving Children Healing Families
- CDC Centers for Disease Control and Prevention
- NCHAM National Center for Hearing Assessment and Management Utah State University™
Thank You

www.jcih.org