Prevalence & Risk Factors

Presenters:

Christine Gilmore Eubanks, Ph.D., CCC-A
Valerie James Abbott (parent)

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LATE ONSET HEARING LOSS Awareness Week May 4-10

Disclosures

Valerie James Abbott

Relevant Financial Relationships:

- Receives royalties from a children's book about late onset hearing loss.
- Serves as director of Padapillo, PBLLC

Relevant Non-Financial Relationships:

 Serves as co-chair of the VA EHDI Advisory Committee

Christine Gilmore Eubanks

Relevant Financial Relationships:

None

Relevant Non-Financial Relationships:

 Voting Member, VA EHDI Advisory Committee



Learning Objectives

- ✓ Participants will be able to recite key facts about the prevalence and risk factors associated with pediatric late onset hearing loss.
- ✓ Participants will recognize the long-term consequences of language delays and deviations from typical, healthy early childhood development.



Abbott Family: Postnatal Hearing Loss











Congenital vs. Late Onset Hearing Loss:

Hearing loss that is present **CONGENITAL LATE ONSET** at birth **PROGRESSIVE** Hearing health that changes/degrades over time

Hearing loss that **begins** after birth

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Identifying Pediatric Hearing Loss:

Since 1992, ALL states required to do universal newborn hearing screening, and report:

- Total number of births
- Total number of pass vs. fail vs. not tested
 - Babies who do not pass are referred for complete audiological testing.
 - Babies with risk factors should be monitored.



Identifying Pediatric Hearing Loss:

Newborn hearing screening does a great job of identifying children born with HL greater than a mild loss level.

Children can still "fall through the cracks"

- Mild losses
- Initial pass but have progressive/late onset loss
- Miss being screened (e.g. homebirth)
- Not referred/delayed/missed appointment
- Loss to follow-up



Late Onset Risk Factors

The Joint Committee on Infant Hearing recognizes the following risk factors:

- NICU Stay >5 Days
- In-Utero Infections (e.g. cCMV)
- Genetics
- Craniofacial Anomalies/Certain Syndromes

- Ototoxic Medication
- Head Trauma
- Postnatal infections (Measles, Meningitis)
- Exposure to Loud Noise
- Untreated Otitis Media



Other Recognized Risk Factors

- Some conditions affect middle ear and/or inner ear (e.g. Down Syndrome, Cleft Palate)
- Children born with unilateral hearing loss are at risk for progressive and/or bilateral hearing loss.
- Children of Hispanic families/descent



Prevalence

- Incidence of hearing loss doubles between birth and school age
 - (Foust et al., 2013)
- Nearly 15% of students ages 6-19 have hearing loss
 - (Centers for Disease Control and Prevention, 2021)
- Incidence of hearing loss is higher for children in Hispanic communities in the US.
 - (Otolaryngology, Head and Neck Surgery, 2009)

Common Signs

- Limited or no speech
- Difficult to understand
- Not startled by sudden or loud noise
- Prefers high volume on TV, electronics
- Ignores questions or struggles/responds incorrectly

- Easily frustrated
- "Behavior problem"
- Short attention span
- Watches lips during conversation
- Has difficulty understanding if your face is out of view

Consequences

Left undetected, hearing loss in young children can negatively impact:

Speech/Language Acquisition

Social/Emotional Development

Cognitive Growth

Classroom Success

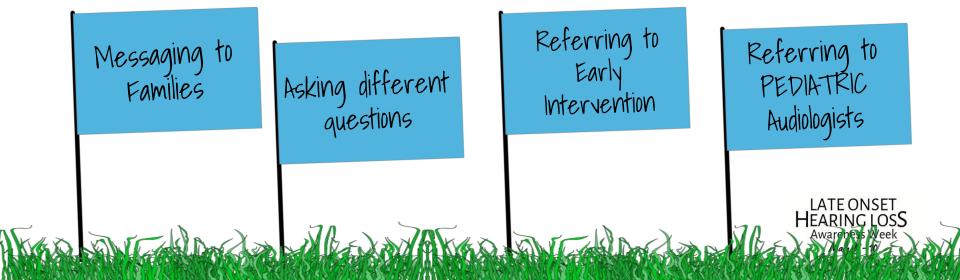
Literacy

Vocational Options



Planting Seeds of Change!

How can you contribute to improving identification rates of children with postnatal hearing loss?



Share What You Now Know!





Questions?

Give me a minute, please. I'm trying to remember what I already forgot.



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Contact Information

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References

Centers for Disease Control and Prevention. (2021, June 10). *Data and statistics about hearing loss in children*. Centers for Disease Control and Prevention. Retrieved February 23, 2022, from https://www.cdc.gov/ncbddd/hearingloss/data.html

Foust, T., Eiserman, W., Shisler, L., & Geroso, A. (2013, July 1). *Using otoacoustic emissions to screen young children for hearing loss in Primary Care Settings*. American Academy of Pediatrics. Retrieved February 23, 2022, from https://www.publications.aap.org/pediatrics/article-abstract/132/1/118/31309/Using-Otoacoustic-Emissions-to-Screen-Young

Mehra S, Eavey RD, Keamy DG Jr. The epidemiology of hearing impairment in the United States: Newborns, children, and adolescents. Otolaryngol Head Neck Surg. 2009 Apr;140(4):461-72. https://journals.sagepub.com/doi/10.1016/j.otohns.2008.12.022.

Wiley, S. (2017). *Risk Factors for Late-onset or Progressive Hearing Loss: Newborn Screening is just the beginning, not the end.* Cincinnati Children's Hospital, Division of Developmental and Behavioral Pediatrics. Retrieved February 23, 2022, from https://www.infanthearing.org/quality-improvement/docs-ehdi-qi-

toolkit/Presentations%20and%20Webinars/Identifying%20and%20Managing%20Risk%20Factors%20for%20Hearing%20Loss.pdf