Non-Permanent Hearing Loss Survey Analysis

The Arkansas Department of Health’s Infant Hearing Program administered a survey to audiologists, otolaryngologists (ENTs), and early intervention (EI) providers in an effort to better understand the impact of non-permanent hearing loss and pressure equalizing (PE) tube placement on the timeline for follow-up hearing evaluations and EI referrals for children ages 0-3. Our respondents were comprised of eight audiologists, six otolaryngologists, and 19 EI specialists. The information we learn from this survey will be used to develop recommendations for follow-up procedures for children who receive PE tubes or a non-permanent hearing loss diagnosis to prevent delays in language development.

PE Tube Placement

Some children with middle ear concerns receive PE tubes. There are multiple reasons a child may receive PE tubes, and this survey investigates current clinical practices.

Do you refer patients for another hearing evaluation if a child does not pass the hearing screening(s) and receives PE tubes to address middle ear concerns?

- Yes, always: 62%
- Yes, if there are ongoing concerns for hearing loss: 38%
- No: 0%

We first asked the respondents who identified themselves as audiologists or ENTs whether or not they refer a child who received PE tubes for further testing after tubes are placed. Sixty-two percent responded that they always refer for further testing, while 38% said that they refer if there are ongoing concerns for hearing loss.

Next we asked about the timeframe for these referrals after tube placement and 77% responded that they would refer 0-3 months after tube placement, and 23% said they would refer 3-6 months after tube placement.

When a child is diagnosed with non-permanent hearing loss, what is the expected time frame before re-evaluation should occur?

- 0 – 3 months after diagnosis: 8/9
- 3 – 6 months after diagnosis: 4/3
- 6 – 12 months after diagnosis: 1/1

The figure above shows the responses we received when we asked the audiologists and ENTs to indicate when re-evaluation would occur after a child was diagnosed with non-permanent hearing loss. We asked for this timeframe when the hearing loss was due to a middle ear infection/fluid and when it had other causes.

When should a child diagnosed with non-permanent hearing loss be referred for early intervention services?

- DX= Diagnosis
- Not Referred for EI: 25%
- 0–3 months after DX: 57%
- 3–6 months after DX: 4%
- 6–12 months after DX: 7%
- 12–36 months after DX: 4%
- 36 months+ after DX: 4%
- Other (Please Specify): 0%

Most respondents indicated that a child with non-permanent hearing loss should be referred to EI services, and ideally that referral should take place as early as possible. Some classified that the child should only be referred if they are “not better within a few months of intervention” or “if the child is not meeting milestones”.

Other Causes for Loss
- Other Causes for Loss: 8 (100%)
- Loss Caused by Ear Infection/Fluid: 0 (0%)

The figure above shows the responses we received when we asked the audiologists and ENTs to indicate when re-evaluation would occur after a child was diagnosed with non-permanent hearing loss. We asked for this timeframe when the hearing loss was due to a middle ear infection/fluid and when it had other causes.
The two figures above illustrate that there is some discrepancy between the respondents’ beliefs regarding the age ranges for risk of delays due to a non-permanent hearing loss. When asked when a non-permanent loss presents the greatest risk to language acquisition, audiologists and ENTs selected the 12-36 month range while EI providers selected the 3–6 month range. When asked when a non-permanent hearing loss presents the greatest risk to social, emotional, or academic development, audiologists and ENTs selected the 6-12 month range while EI providers selected the 0-3 month range.

The recommended services that respondents selected for children with non-permanent loss closely align with the services children diagnosed with permanent hearing loss receive.

**Conclusion**

The information learned from this survey will inform discussions to develop appropriate follow-up evaluations for children who receive PE tubes or a non-permanent hearing loss diagnosis.

*For more information contact the infant hearing program at 1-501-280-4740 or visit www.arhealthyhearing.com*