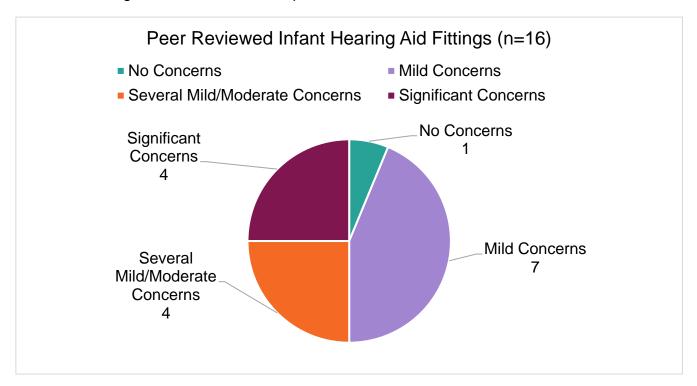
Infant Hearing Aid Fitting Peer Review Analysis

22 audiologists were requested to submit peer reviews from across 10 Health Boards.

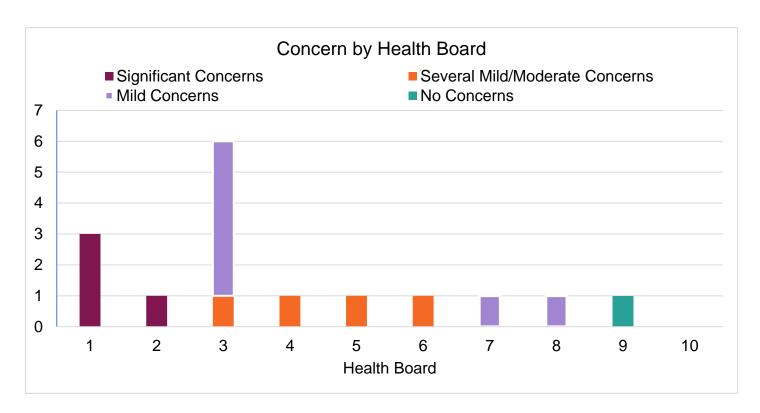
16 audiologists submitted data for peer review from 9 Health Boards



The 6 audiologists who did not submit data gave the following reasons:

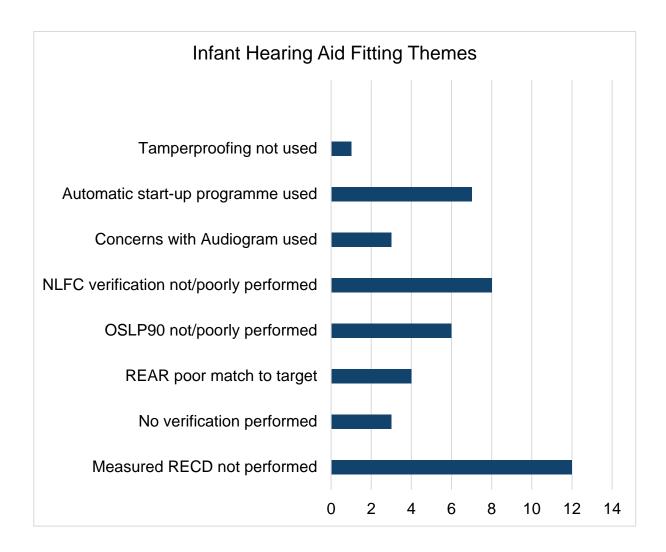
- 4 audiologists from 3 Health Boards confirmed that they did not fit infants with hearing aids and should not have been approached for submission
- 2 audiologists from 2 Health Boards confirmed that that whilst they are responsible for fitting infants with hearing aids, they had not done so in 2022.

4 submissions marked as 'severe concerns' from two Health Boards



Themes

- Most concerning is 4 cases where no verification was performed. These hearing aids may therefore not be providing appropriate amplification.
- Measured RECDs were not performed or performed poorly in the remaining 12 cases. Whilst this is a reasonable last resort, the prevalence is unexpectedly high and will likely result in sub-optimal amplification.
- One infant was not issued with tamperproofed battery drawers which poses a risk to life.
- There appears to be limited understanding of the application of non-linear frequency compression verification

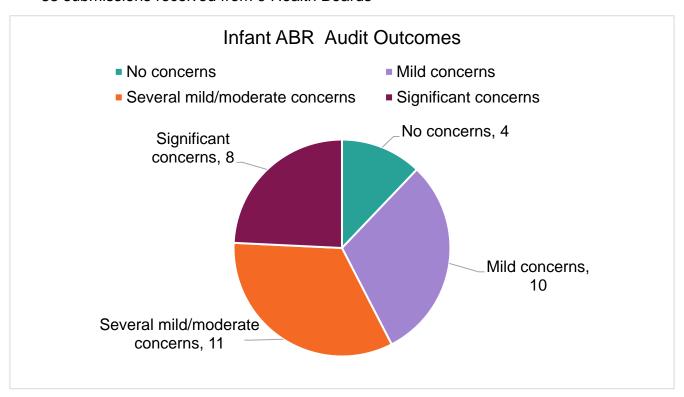


Root Causes and recommendations

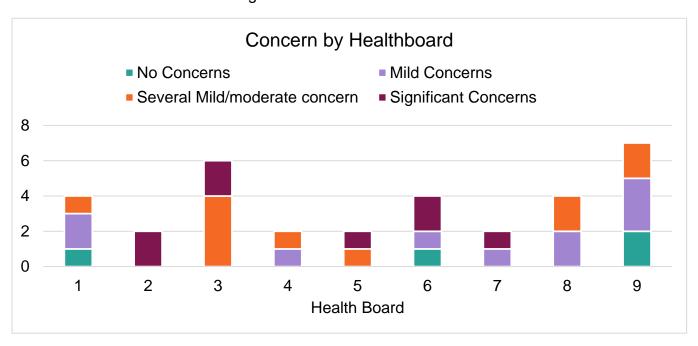
- Several audiologists cited lack of training in measuring RECDs, NLFC verification and verification in general as factors influencing their ability to practice to best practice standards. Verification training should be prioritised.
- Several audiologists cited faulty equipment as factors influencing their ability to practice to best practice standards. A review of equipment and facilities should be prioritised.
- The volume of infant hearing aid fittings per audiologist is low with two audiologists having not performed an infant hearing aid fitting in 2022. Whilst there is no guidance for minimum number of infant hearing aid fittings required per year for an audiologist, this low volume poses a significant challenge for individuals to maintain their skills in this highly specialist area. A 'minimum birth rate' for infant diagnostic and infant re/habilitation sites should be considered to ensure audiologists have the necessary skills and experience to meet the needs of the population. This may be achieved through specialist centres or hub-and-spoke arrangements.

ABR Peer Review Analysis

33 submissions received from 9 Health Boards

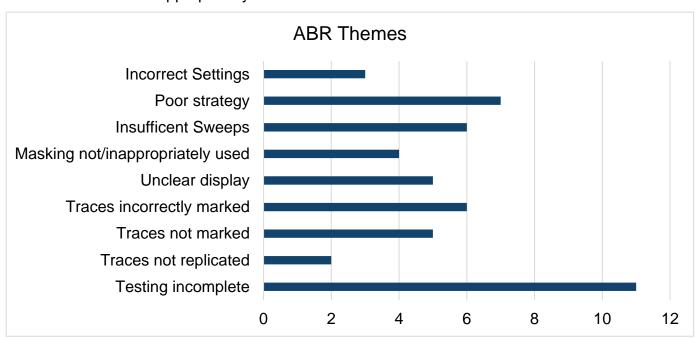


9 submissions marked as 'significant concern' from 5 Health Boards



Themes from cases marked 'significant concerns'

- In all cases marked as 'significant concerns' management decisions have been made e.g. to fit hearing aids or discharge, without a completed ABR
- Testing strategy is generally poor with significant amounts of time being used ineffectively e.g. repeating air-conduction rather than testing bone-conduction
- Interpretation of traces is generally poor with 'Inconclusive' results marked as 'Clear Response' or 'Response Absent'.
- Bone-conduction is often not tested when indicated (linked to strategy)
- When bone-conduction testing has been attempted, masking is often not used or used inappropriately.



Root Causes and recommendations

- No clear route causes could be identified from the submission.
- Significant urgent ABR training is required with specific focus on test strategy, interpretation, bone-conduction testing and masking
- The volume of ABR's performed per audiologist appears to be low. Whilst there is no guidance for minimum number of ABRs per year for an audiologist, this low volume poses a significant challenge for individuals to maintain their skills in this highly specialist area. A 'minimum birth rate' for infant diagnostic and infant re/habilitation sites should be considered to ensure audiologists have the necessary skills and experience to meet the needs of the population. This may be achieved through specialist centres or hub-and-spoke arrangements.

Endnote: The participation of Audiologists to prepare and submit material for review is acknowledged. The survey only explored specific elements of clinical practice. Outcomes are not a reflection on the professional commitment of Audiologists towards these complex and demanding areas of clinical practice.

Date: 20/04/2023