



Management of children with hearing loss: when should we step in?



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Overview of session

- The need to review our practice
- The window of opportunity for language development
- Management options / support around the family
- Informed choice/ shared decision making
- When to step in and manage (e.g. with amplification, onward referral, etc)
- Case examples /discussion

Why is it important to review our practice?

- Technological advances
- Better understanding & evidence that children with hearing loss do not “catch up”
- Shift from medical model to shared-decision making
- “Provision of amplification ***where appropriate***” (BSA, 2021, Practice Guidance: Early Audiological Assessment and management..)

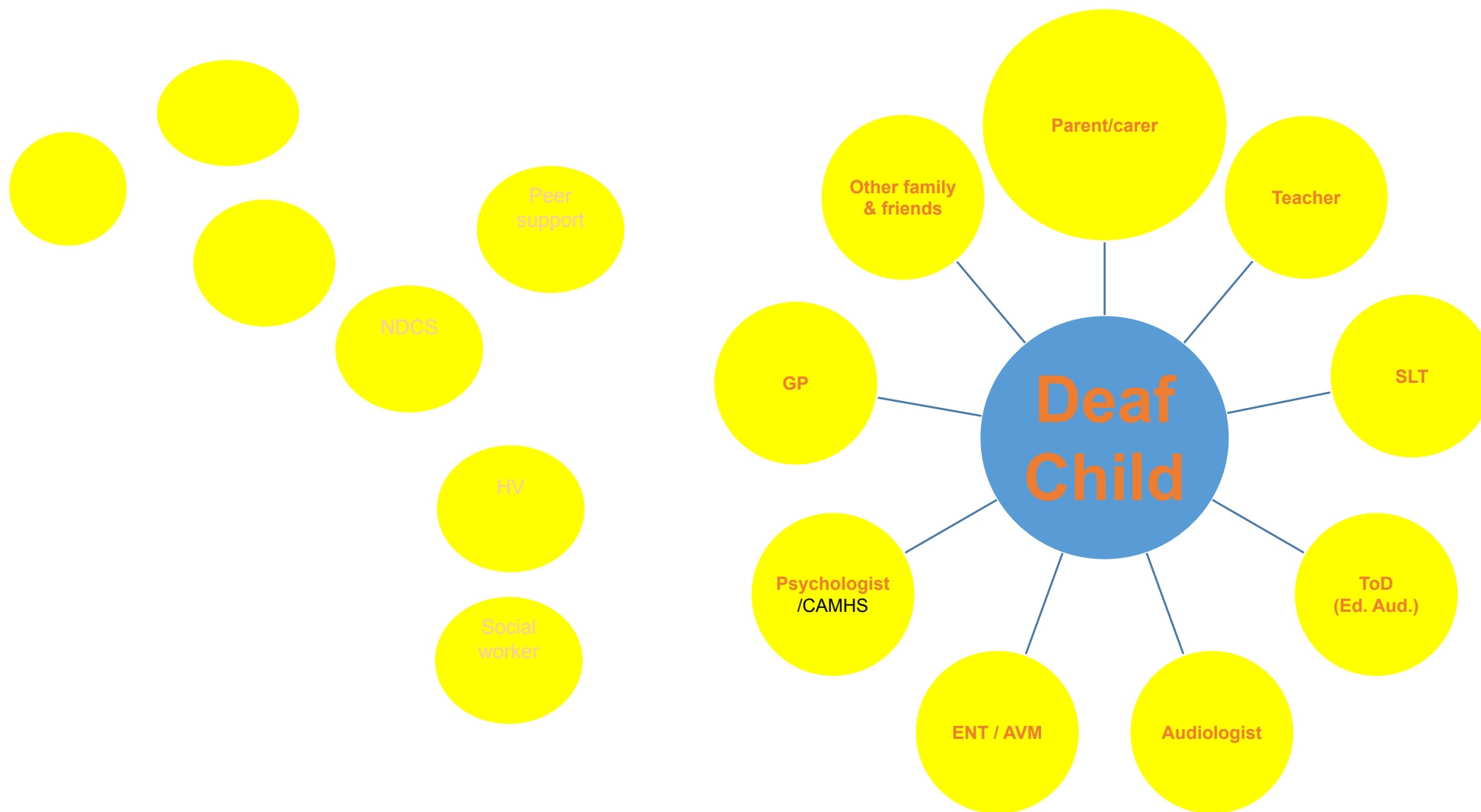


Essential early opportunities

- every day counts in the first years of a child's life.
- Functions like vision and hearing are present at birth but develop as neural connections are forming constantly
- Language starts to develop along with higher cognitive functions.
- Not being given the opportunity to develop language early (spoken or sign) will have lasting impact on a child's achievement and mental wellbeing.
- Children with hearing loss require 3x the exposure to learn new words and concepts (Pittman, 2008)
- Consistent device use is the biggest predictor of a good outcome as it equates to more consistent exposure to language



The team around the family



Parents on board – informed choice

- Parent/carer is the most important member of the team around the family
- child & family- centred care
- **joint decision making**
- Explain everything in clear, non-jargon, check understand, answer questions
- Demonstrate HL with & without HAs



Signpost to support -NDCS helpline

you need free independent advice? [Contact the Helpline](#)

Landline:0808 800 8880

Monday to Thursday 9am – 5pm and Friday 9am - 12:30pm

Free from all UK landlines and major UK mobile providers

SMS:0786 00 22 888 (SMS)

Monday to Thursday 9am – 5pm and Friday 9am - 12:30pm

Texts are charged at your standard network rate or taken from your monthly allowance

BSL Interpreter:[SignVideo](#)

Monday to Thursday 9am – 5pm and Friday 9am - 12:30pm

Contact us by making a free video call with a BSL interpreter

Enquiry Form:[Contact form](#)

Complete our online contact form at any time and receive a response within 10 days

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Chat to a member of the Helpline team online for free

What are the management options?

- Support around diagnosis

Sharing the news, support with informed choices – signpost to support

- Aetiological investigations, genetic referral.

- Referral to other professionals- introduction to the multi-professional team

“for children whose results show a definite hearing loss, whether permanent or temporary, there must be clear and agreed pathways for review and referral to other relevant services (education, audiology and audiological medicine, ENT, Paediatrics, voluntary sector etc)” BSA (2021)

- Hearing aid fitting (inc trials)
- Onward referral- e.g. to C.I. programme
- Other

Practice Guidance: Early Audiological Assessment and Management of Babies Referred from the Newborn Hearing Screening Programme

BSA 2021

Further management and referral onwards

- For those children whose results show a definite hearing loss, whether permanent or temporary,, there must be clear and agreed pathways for review and referral to other relevant services (education, audiology and audiological medicine, ENT, Paediatrics, voluntary sector etc).
- Management of a baby with confirmed permanent hearing impairment should be discussed with the parents/carers and multidisciplinary team. Options include ongoing audiological assessment and monitoring, provision of amplification and referral to early intervention services. The actual management approach adopted will depend upon the clinical findings including the likely degree and type of hearing loss, the developmental status of the baby including the existence of other disabilities and the views and wishes of the parents.
- With parental consent, referral should be made to the Early Years Support Team for Sensory Impairment within one working day, with a clear system for rapid visit and support, and initiation of appropriate audiological and educational management.
- Hearing aid fitting should be offered, when appropriate, within 4 weeks of confirmation of PCHI.
- Prompt referral for aetiological investigations should also be offered.
- It can be useful to keep a checklist with the notes to ensure that the appropriate actions have been initiated. The following items should be included:-
 1. Parent information (written and verbal) complete.
 2. Results of hearing assessment documented and copied to all appropriate professionals including GP, HV and parents using appropriate understandable language.
 3. Medical consultation offered, arranged and carried out.
 4. Referral to or consultation with early support arranged (with appropriate consent).
 5. Appropriate referrals to other professionals made.
 6. Follow-up programme of further hearing tests organised.
 7. Provision of amplification where appropriate
 8. Plan for monitoring of progress and response to sound.

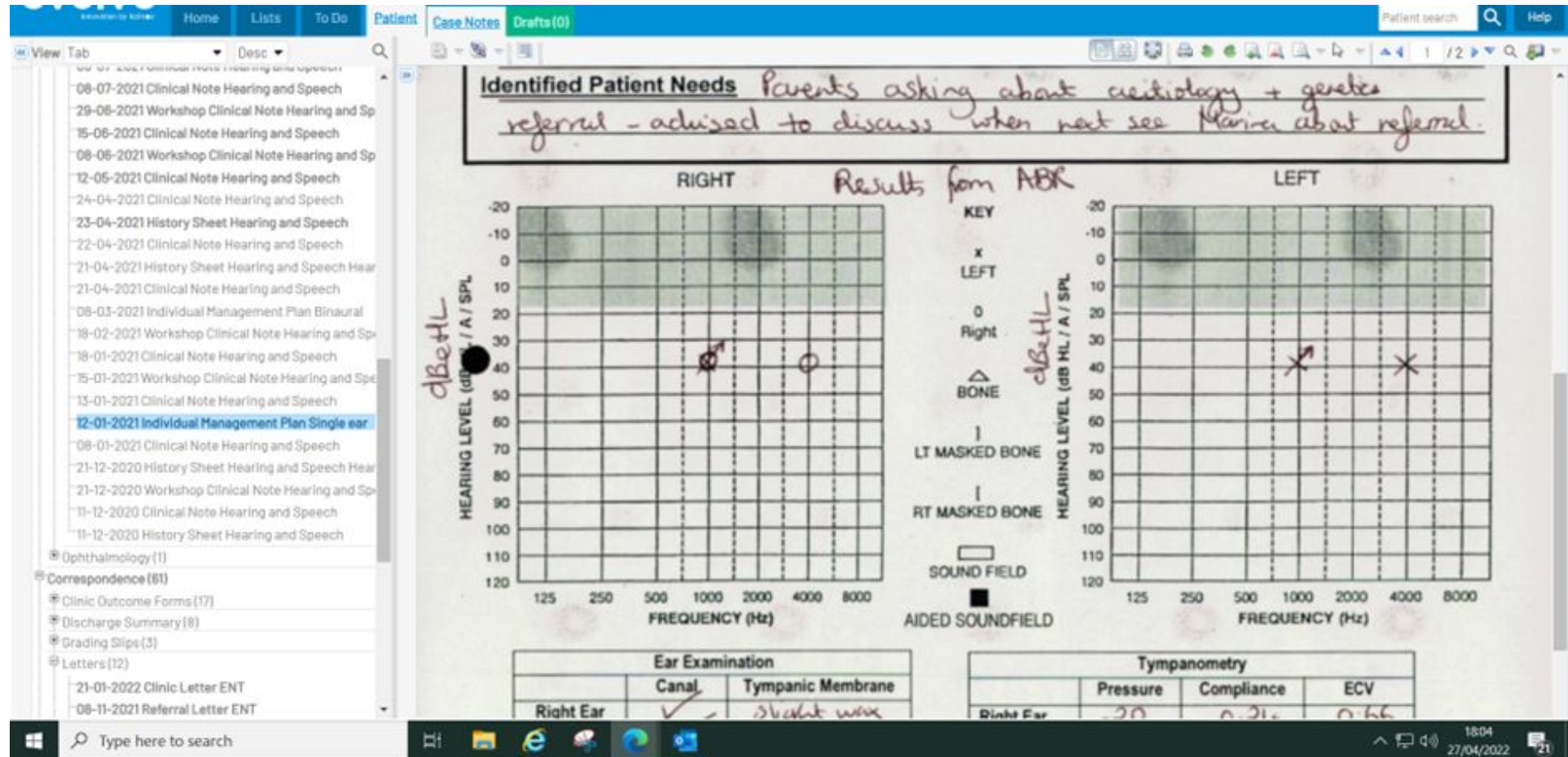
Example IMP from Scottish QS

Example 2:	3 month old baby referred from the hearing screen
Referral:	Referred by hearing screening. Refer response on otoacoustic emissions and automated auditory brainstem response bilaterally.
History:	Family unsure about hearing. Born at 28 weeks, ventilated for 3 weeks, jaundice requiring phototherapy. Discharged home at 8 weeks of age. Reported to be making good general progress.
Assessment:	Tympanic membranes normal but not clearly visualised High frequency tympanograms, good peak Transient evoked otoacoustic emissions absent both ears Click evoked auditory brainstem response – repeatable wave forms at 90dBnHL right and left ear Tone pip ABR, Repeatable responses at 55dBnHL at 500Hz, 70dBnHL at 2000Hz and 95dBnHL at 4000Hz in both ears. Responses repeated on 2 separate occasions 1 week apart. Results explained to family, (paediatrician also present).
Agreed Needs:	<ul style="list-style-type: none"> • Information about hearing loss • Support • Fitting of hearing aids
Agreed Actions:	<ul style="list-style-type: none"> • Family to be given UNHS information leaflet and NDCS Understanding booklet • Education Services and Health Visitor to be notified of outcome of assessment by phone • Referral letters to be sent to education, speech and language therapy and social work for the deaf • Family to be given information about NDCS • Paediatrician to arrange urgent home visit.

Why not “*wait and see*” before aiding?

- Children need to be constantly exposed to language
- *Consistent device use from an early age* is the biggest predictor of a good outcome
- Children with hearing loss require 3x the exposure to learn new words and concepts (*Pittman, 2008*)

Child A: baby identified with mild HL



Child B:

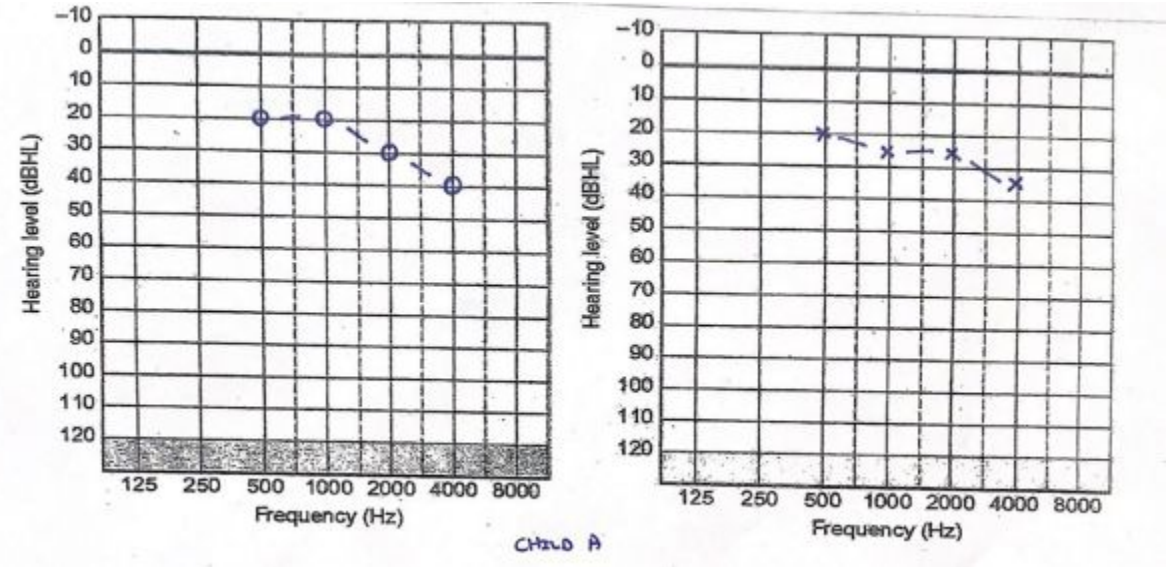
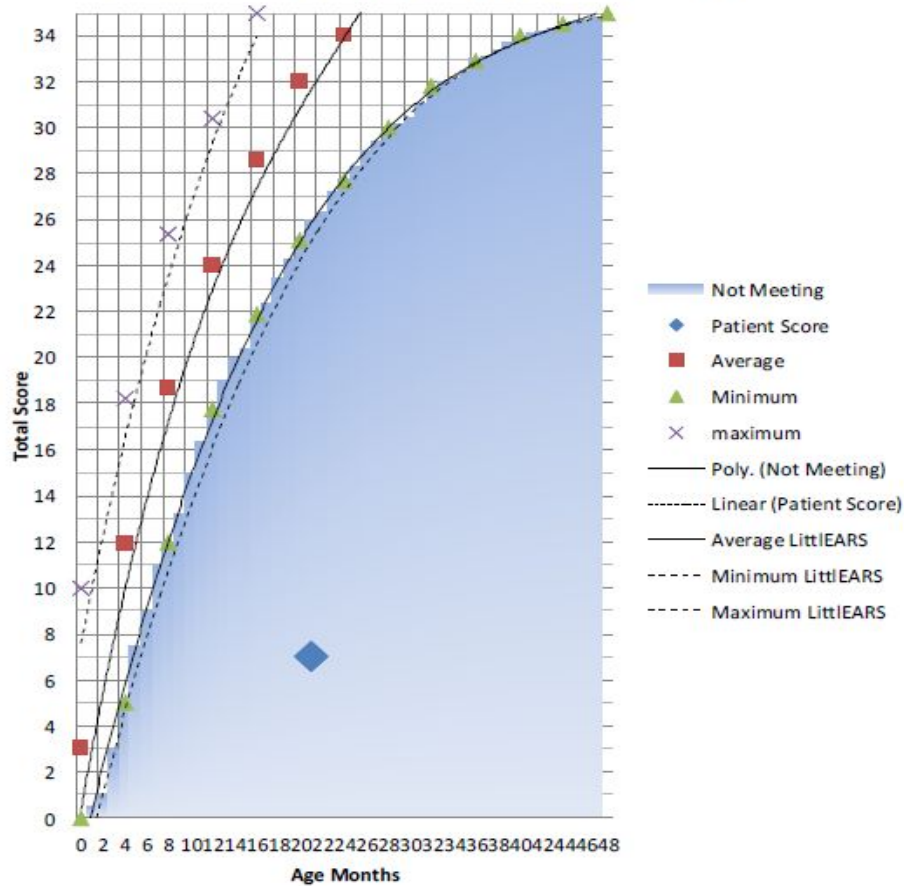
Referral:

Please could you see this 1 year 7 month old with concerns over speech? She previously passed her newborn hearing screening but nursery are concerned with her reactions to sound and speech intelligibility



Child B

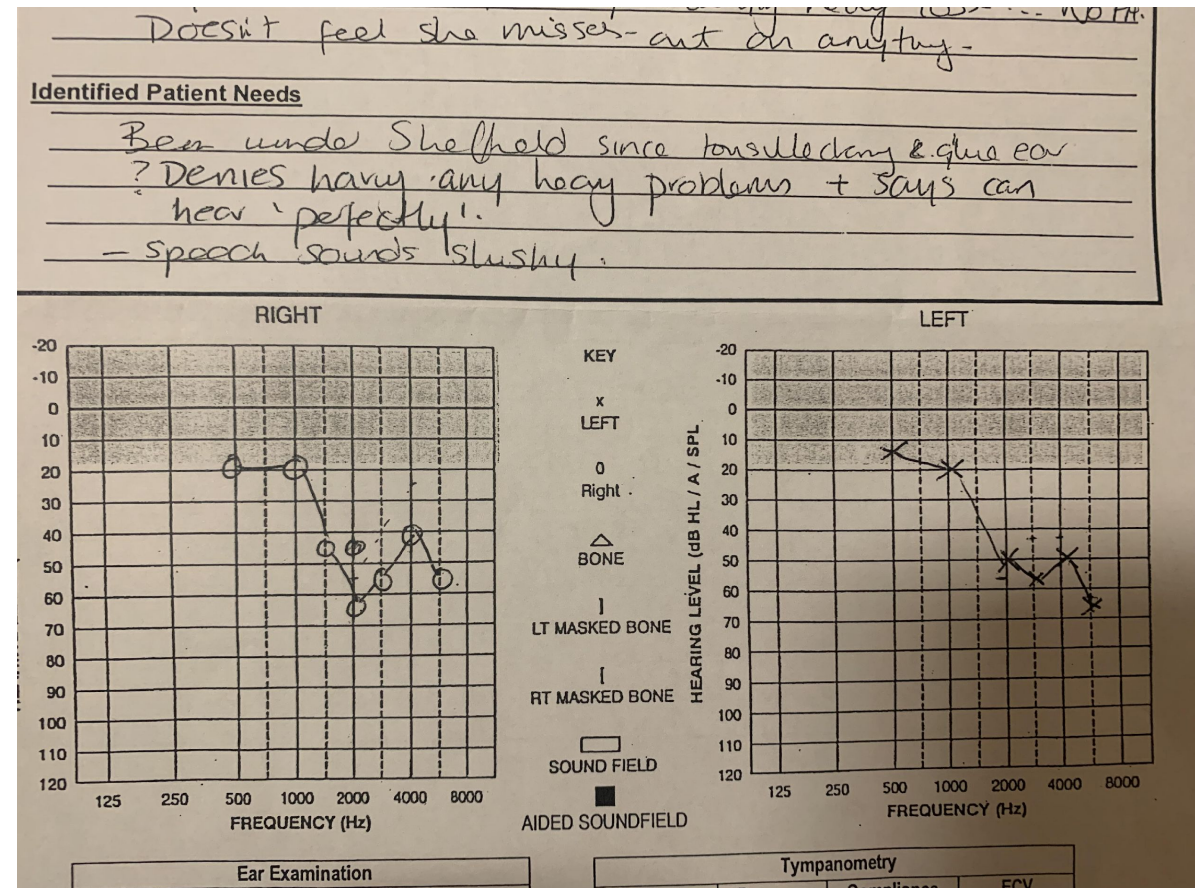
LittleARS Auditory Questionnaire Score Sheet



226Hz Tymps are Peaked
OAEs are Absent

Child C: 13 year old with moderate mid & high freq HL- never aided (AB)

- Referred from NHSP
- Reportedly “passed” follow up test (but no record-out of area)
- First seen at SCH for recurrent tonsillitis, and found to have SNHL with overlying glue ear
- Offered amplification, chose not to, continued to monitor and offer
- At 13 years still denying HL and “slushy speech” attributed to teeth



Child D

History:

Diagnosed from NHSP, ABR at birth shows =65 at 1kHz, = 80 at 4kHz eHL both ears with > 45 BC both 1 and 4 and peaked tympanometry.

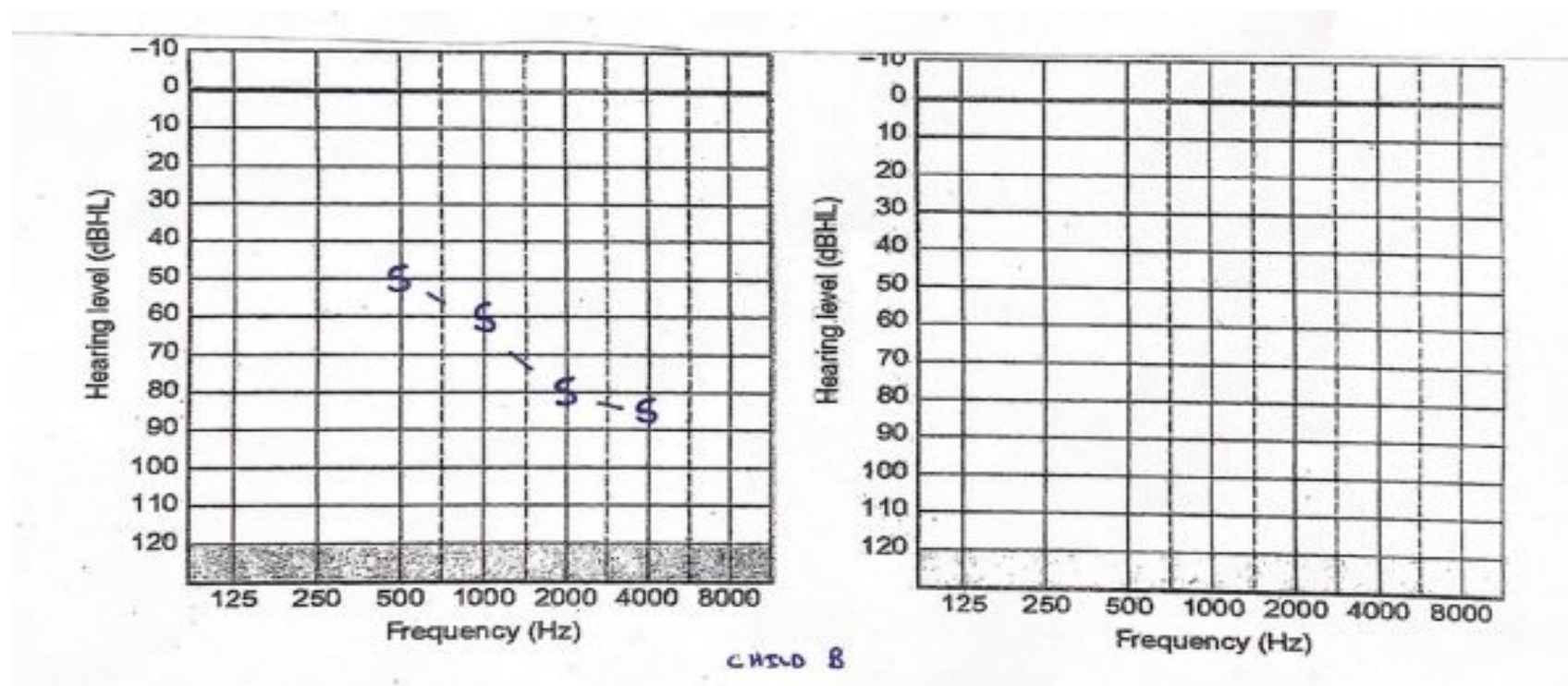
Aetiology picked up no obvious cause for the hearing loss.

They have been aided since 11 weeks of age and a good hearing aid user.

Mum and TOD report seeing minimal benefit from with or without aids. Attempted behavioural testing at 7 months corrected age but they were unable to condition.

Child D

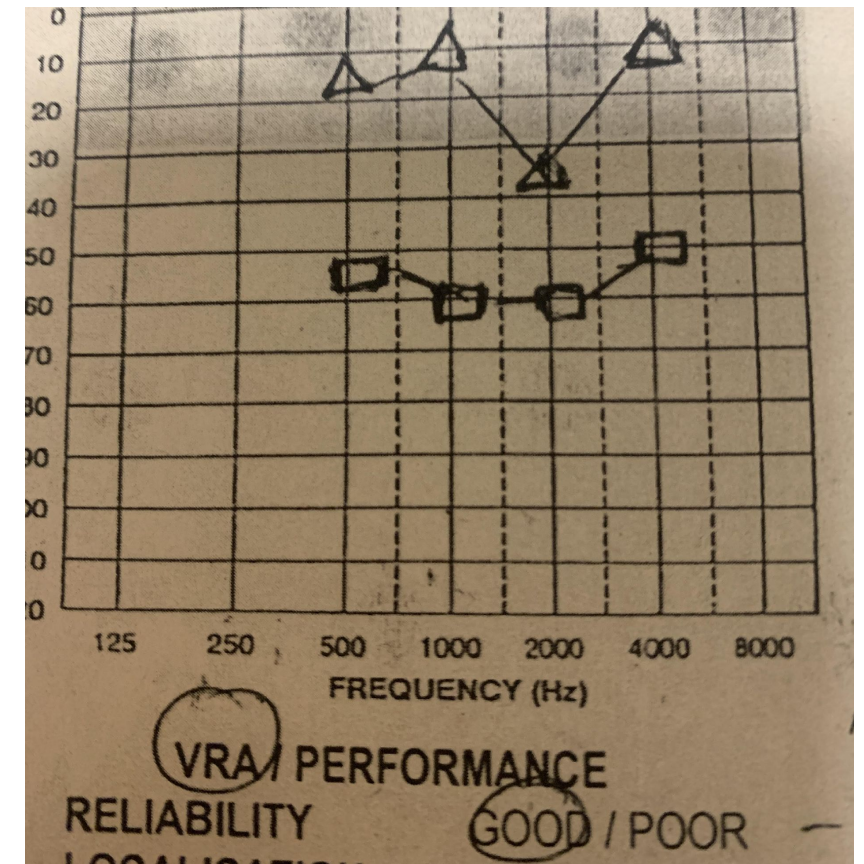
They were put for 3 week review and you are happy with the soundfield VRA the child has just produced of:



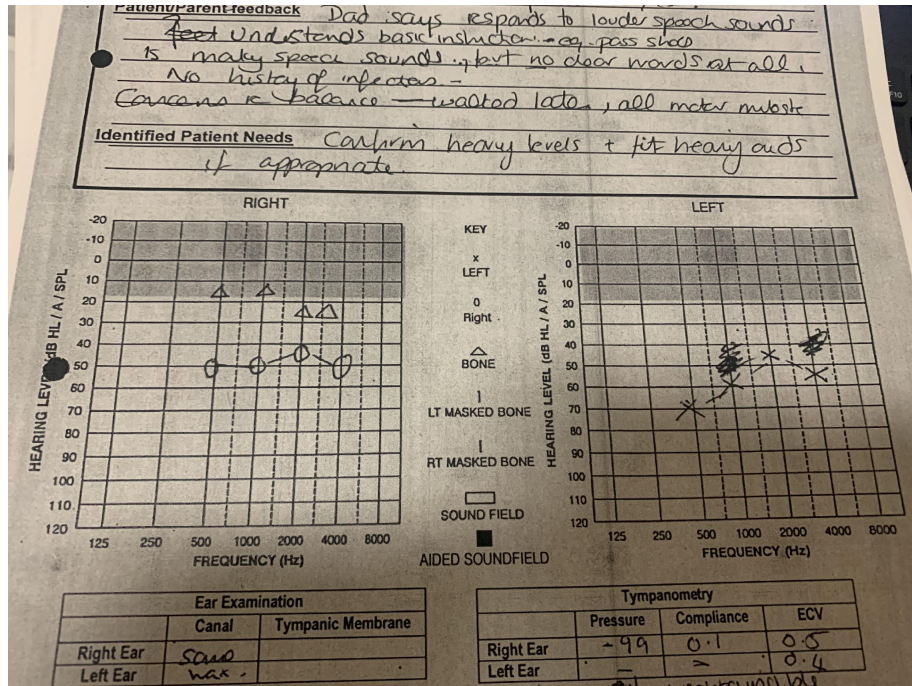
Tympanometry is flat

Child E- TS complex needs, neurological condition associated with ventriculomegaly; developmental impairment

- Referred from NHSP, diag ABR- moderate CHL, put down for 8 month follow up. Then “passed” VRA test (but mum said at time that he wasn’t responding, but looking around the room)
- Local service agreed to review when was 3 years old
- From out of area.- referred in for Neurology, who referred to audiology as parents report doesn’t respond to sound
- We saw at 2 years- parents very concerned - not responding to quieter sounds- also balance concerns
- Normal tymps- permanent CHL?
- Discussed options: aiding with BTEs, BAHA on softband, referred to ENT, local TODs- parents opted for BTEs



Child E (cont) TS



- Bilateral permanent CHL confirmed
- consistent use of OPN play HAs - parents don't want to change to Marvels
- Making progress with auditory devt according to parents and LittLEARS Q, but remains below PEDAMP targets for age



Child F

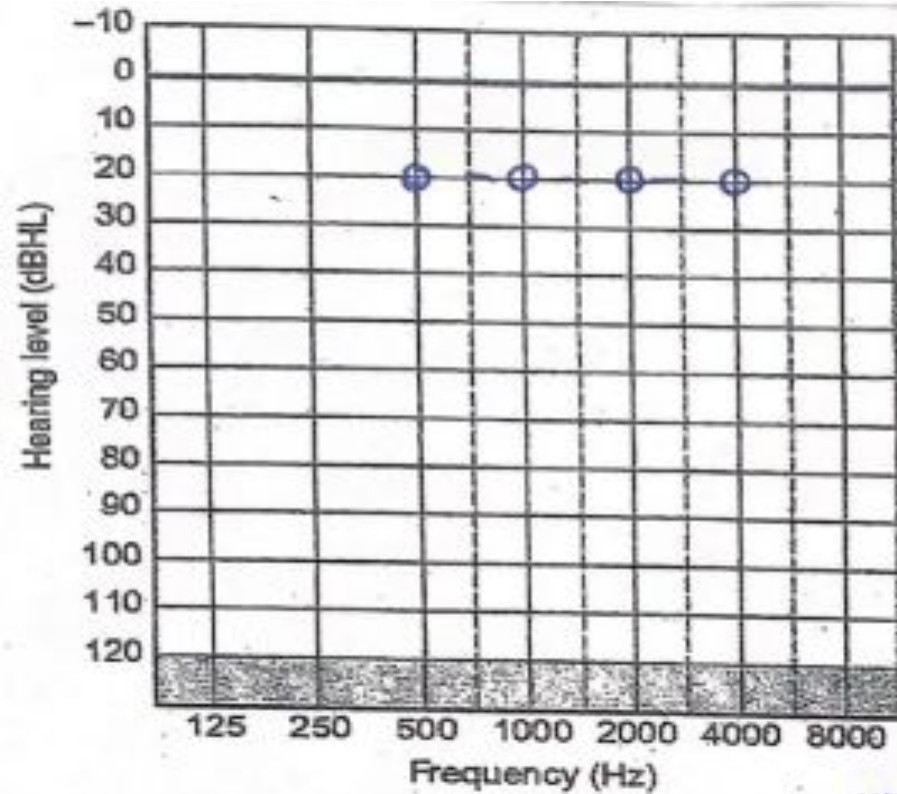
Please can you see this 7 year old who is complaining of not being able to hear very well out of his left ear.

All looks fine and I have reassured mum its probably nothing, however she would be grateful for your expertise.

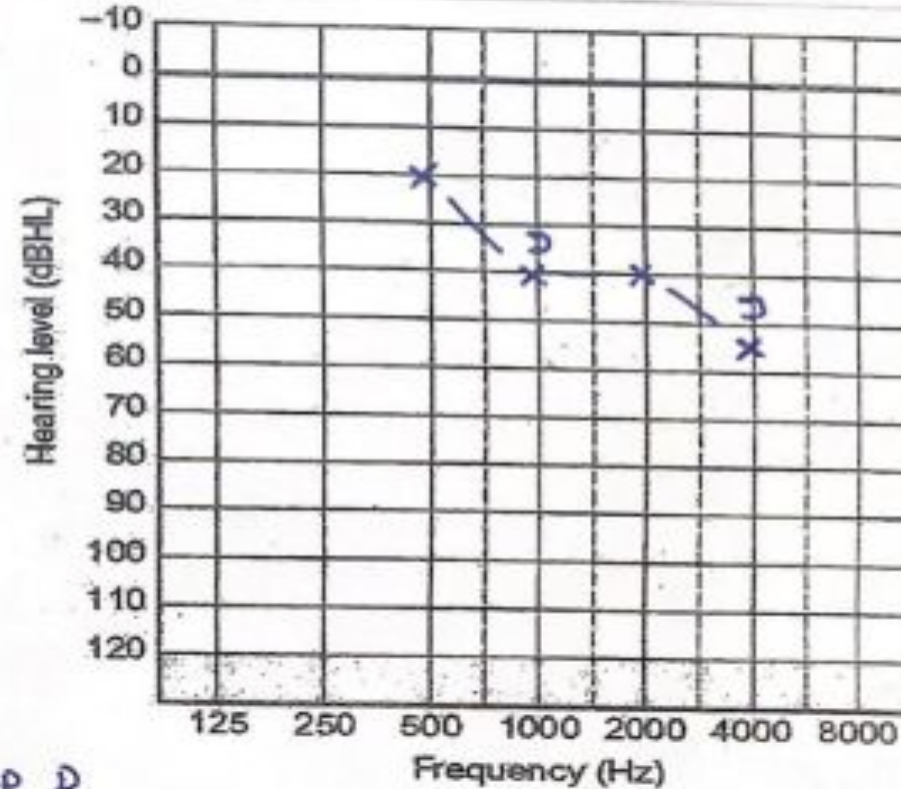
He previously passed his newborn hearing screen.



Child F



CHILD D





Child G

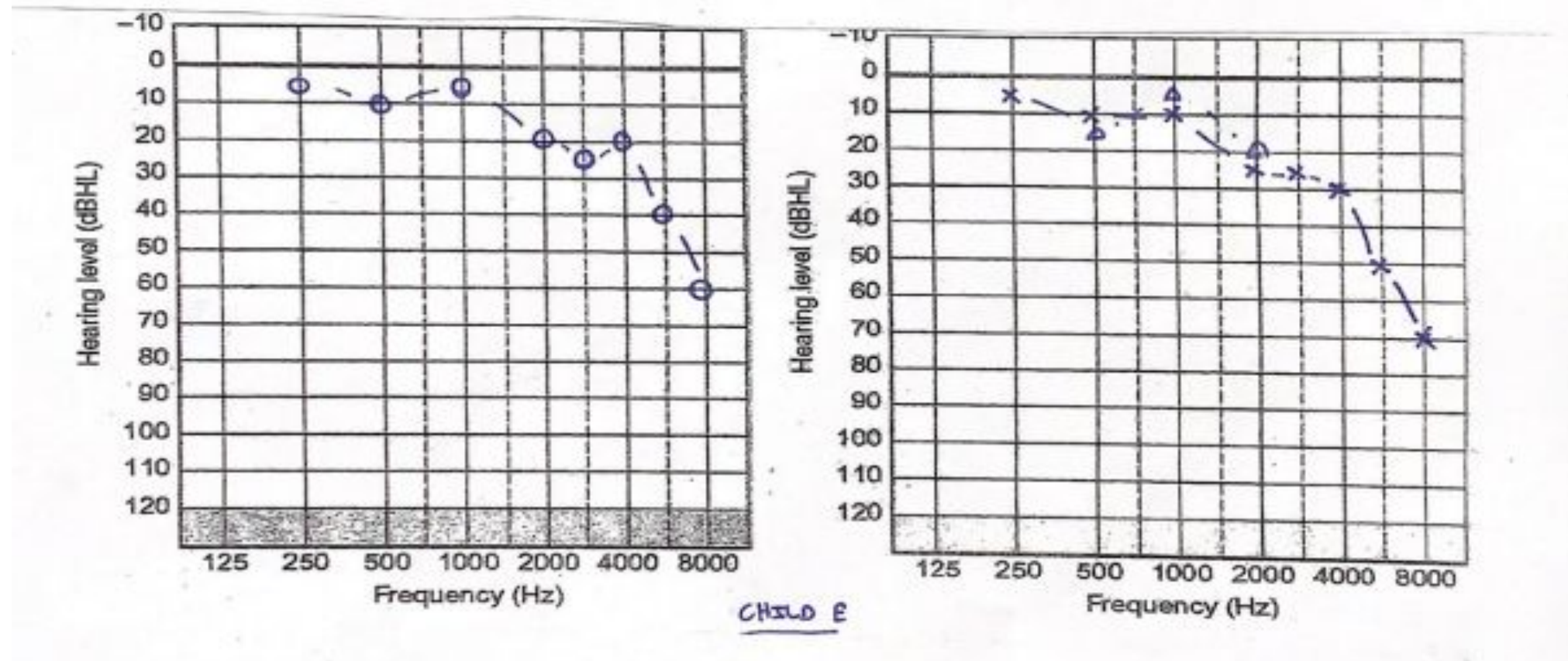
14 year old, previously saw the service when she was 3 year old with concerns however was not brought to a few appointments and so was discharged.

I note she is now complaining of not hearing her friends so well in crowded situations and having to have the sound turned up on her airpods to get any clarity in music.

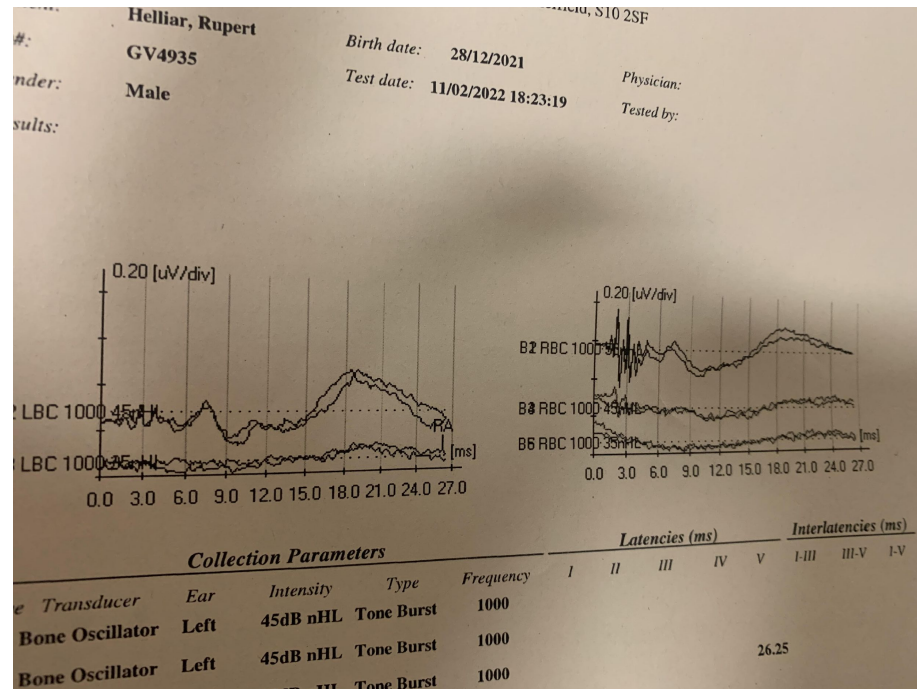
No other significant history



Child H



RH- baby with ANSD



- Well baby, 42 weeks, ABR at 5 weeks consistent with ANSD? No responses at 4kHz bilaterally, but responses at 1kHz. CM present bilaterally (local NHSP team had results reviewed by an expert)
- CI discussed early on
- Ref to TOD
- MRI arranged- hypoplastic nerves, so what are possible outcomes?



When to step in and manage?



- When there is a hearing loss
- When the parent is keen to trial a hearing aid even after limitations are explained
- If concerns re S&L development
- Other complex needs
- If there is a child who needs its exposure to language optimised!