British Society of Audiology
Promoting excellence in hearing and balance

Minimum Discharge Guidance Consultation Comments and Responses

Thank you to everyone who took the time to respond to the consultation for the Minimum Discharge Guidance. Due to the level of comments, authors felt it important to share responses and reasoning.

General Comments

Consultation Comment	BAA/BSA Reasoning and reply
In relation to the section on objective hearing assessment for children referred from other pathways other than NHSP; Why is the OAE criteria only 2 Bands. If the test is being used diagnostically rather than for screening surely there should be a sticker criteria. What is the reason for saying OAEs cannot be used to discharge but the suggestion is that doing an ABR at only 4kHz would be adequate to discharge.	Following discussion and the criteria for OAE has changed to 3 bands (with the same other criteria, i.e. overall size and bands centred at)
With regard ABR testing I don't agree with discharging when only the hearing at one frequency (4k) has been established. Would it not be appropriate to at least have results at 1 and 4k.	It is not felt that 1kHz testing is essential under sedated / ABR, however it is considered good practice, therefore statement has been added around this
Why is the comment "Please note children with specific conditions such as congenital CMV will require more long 162 term monitoring and should not be discharged." In this section (lines 162/3) when this issue is covered elsewhere in the document	We have removed this duplicated statement as its covered in section 4
There's not enough detail about complex children, who can't do behavioural testing or where minimal response levels are thought to be substantially supra threshold but are unable to be sedated for ABR.	We feel this is covered in section 8 appropriately and would direct the reader to the first bullet point of this section
What consists of reasonable efforts, should we be seeking a second opinion from another department?	We have added a line to clarify this
Good document however by providing more clarity on timely assessment might give audiology departments some leverage in gaining more staff and resources.	We feel this is covered in appendix 2
Regardless of comments above we already use all of the minimum discharge criteria mentioned in the document.	Thank you for your comment
The BAA based this national document on one which I had written considerable amounts for, for the East Midlands Paediatric Audiology Network. I would like some acknowledgement of this in the final version of the BAA document.	Apologies for this oversight, we have now added an acknowledgement
When you use the word 'should' in the document. What do you mean? This needs defining. Consistency with BSA use of 'should' and 'shall' would help the reader.	We have added a line to clarify this - for complete clarity, the term 'shall' is used in this document to refer to essential practice, and 'should' to refer to desirable practice.

Line 200: 'Ideally' the document needs to be more clear on what this means. This is open for interpretation and could mean 'should' be done on all. If this is interpreted like this then this is then contradicted by the next paragraph 'sound field assessment may be satisfactory depending on the diagnostic clinical need / development of the patient'. The wording of these two paragraphs at the start of 7.1 needs more explanation and narrative so that the reader e.g. clinician or IQIPS assessor are both explicitly clear on the expectations.	We have changed the word ideally to preferably, and made it clear that ear specific testing is desirable practice by referring to it as 'should be obtained'. We feel the paragraph following explains that where it is not possible to achieve, soundfield assessment is entirely suitable for discharge in certain situations.
Line 277: Tympanometry should be performed where indicated. This statement open to interpretation. What does this mean? This needs clarification, e.g. performed in cases of CHL or history of potential OME. What happens if there is normal hearing and abnormal tymps e.g. normal hearing with flat tymp consistent with OME etc., are you saying it's still ok to discharge or does there need to be a review? If tympanometry is being included as a section this needs more explanation.	Statement added to be clear that you can discharge consider discharge with flat or abnormal tympanometry in cases where the other audiometric criteria are met
Line 287: What do you mean by an 'expert' audiologist? The term an experienced paediatric audiologist would be better but you need to define 'experienced'.	Its beyond scope for us to define the basis of expert. The service should have a clear escalation plan for patients which are untestable as per the BAA Quality Standard
Line 52: 'from has', typo? Should it be 'has'	Typographical change
Line 83: 'children', typo? Should it be 'child'	Typographical change
Line 165: formatting use ≤ instead of <= to be consistent with the other formatting in the rest of the document	Typographical change
Line 184: What's the evidence base for choosing 3 months? If there are no risk factors and medical history hasn't changed can SF be at minimal levels within a longer timescale?	There is no evidence base behind the 3m number, it is however felt to be a practical solution
Line 217: 'declined', typo – repeated word	Typographical change
Line 225: 'measures', typo – the word should be singular	Typographical change
Line 267: dB(a) typo – should be capital A	Typographical change
Line 172 may simply be highlighting that I don't understand the BSA OAE guidance, but in that document on page 25 (and also page 15) it suggests that amplitude of response should be >0 dB SPL, whereas this document is indicating it should be >=0dB dB RMS SPL, please could the guidance in the two documents be consistent?	The guidance is consistent across the two documents if you look at the overall acceptance criteria within the OAE guidance
Lines 200-202 are difficult to understand, I suggest a change in wording: Ideally, ear specific behavioural thresholds meeting the below criteria should be obtained prior to discharge. Soundfield behavioural responses which meet criteria, together with Clear Response OAEs in both ears can be used to conclude that the child has satisfactory hearing in both ears. Given the note about DPOAEs, should 'OAEs' in line 202 be changed to 'TEOAEs'?	Thank you for suggested wording, we agree and have changed the wording
Line 248 could be clarified by changing it to '≤20 dBHL bilaterally at 1 kHz & 4 kHz'	We have reworded this section slightly based on other comments
Lines 252 and 253 could be simplified by changing to: '≤20 dBHL bilaterally at 4kHz and bilaterally at 2 of the following frequencies: 500Hz, 1kHz, 2kHz.'	We have reworded this section slightly based on other comments
Lines 263-264 could be simplified by changing to: '≤25 dBHL at 4kHz and at 2 of the following frequencies: 500Hz, 1kHz, 2kHz'.	We have reworded this section slightly based on other comments
Given that we are discussing minimum discharge criteria, I think the 'at least' in these lines is not required.	We were referring here to the fact that you should do 'at least' 3 frequencies. In this case it is fine to do other frequencies if you wish

Lines 267-268 could be simplified by changing to: '≤30 dBA at 4kHz and 2 of the following frequencies: 500Hz, 1kHz, 2kHz.'	We have reworded this section slightly based on other comments
Lines 272-273 could be simplified by changing to : '≤20 dBHL at 4kHz bilaterally and 2 of the following frequencies bilaterally: 500Hz, 1kHz, 2kHz.	We have reworded this section slightly based on other comments
Please could line 285 be amended so that 'uncertainty' is changed to 'certainty'?	We have changed this
Background context: Waiting time for paediatric audiology appointment average 178 days (NDCS, 23) About one third of preschool children referred to audiology do not respond to simple sounds conventionally used in testing. These children may have social communication delay (SCD). Rates of developmental language disorders (DLD) have increased fourfold (7.6%). Many have aversion to equipment near their ears There are unfilled posts in paediatric audiology and training in practical testing skills is highly variable even in conventional testing. Current need is for new minimum discharge guidance (MDG) which provides a balance between risk of missing an individual case, for example with mild unilateral hearing loss, against needing multiple repeat assessments to fulfil stringent MDG for all children with SCD profile. One option is that children who: 1) respond in sound field for a low-, mid- and high-pitch signal and 2) who passed the newborn hearing screen and 3) have normal tympanometry in at least one ear are reviewed at 4 years of age or before starting reception for ear-specific testing. These children can be referred onward to treatment services including developmental paediatrics and speech and language therapy on the basis of sound field responses. This avoids fully saturating paediatric audiology. Aim is to demonstrate that bilateral hearing loss is not the primary cause of spoken language delay.	Thank you for your comment. Whilst we appreciate the demands on paediatric audiology services at this time, we do not feel that discharging children in accordance with this document is overly strenuous on services and we feel this document represents current, good, safe practice. The comments around social communication delay and reviewing at 4 years of age are felt to be out of scope within this document
Test Battery Approach section Include the option of looking at localisation as component of test battery approach. Include the use of non-conventional stimuli (including music, Ling sounds and environmental sounds with known frequency content) with options for upskilling and training in use across paediatric audiology sites. Missing reference for Madell et al (2019).	The document states that VRA responses should be obtained as defined in current practice guidance which would include localisation for soundfield VRA. We have added the reference.
Where Minimal Testing is not Possible section All of the children with profiles of SCD need multiple follow-up appointments to fulfil the current MDG criteria. This is not in “exceptional instances” currently, the inability to fully define absolute hearing levels in each ear at a single appointment is a widely observed and reported finding across the UK and in other countries. It will be helpful to have a form of words for use in reports so that parents, ENT and other practitioners understand the constraints of the test result	Whilst we accept that some children with profiles of social communication delay may need multiple follow ups to fulfil the current documented criteria, we disagree that it is 'all children'. It is up to us as audiology professionals to find safe, effective ways to test our caseload. Wording for use in reports is outside of scope

Ongoing Monitoring and Timescales for Review section We suggest implementation of a 2-tier system: 1) for children with concerns and management-needs for their hearing, and 2) children for whom hearing assessment is the start or initiation point for accessing communication-based services and delayed communication.	We disagree as evidence has shown that parental concern is a very poor indicator of hearing loss (or normality). We therefore feel the guidance does not need splitting and is appropriate
Speech testing should be included as an important functional attribute which is easily derived in a short time either through live voice or sound field testing. Criteria of 40 dBA with live voice testing and 35 dBA with adaptive presentation from a loud speaker (eg Phoenix system, Sound byte solutions)	Speech testing, whilst good to include as part of a test battery approach is not a test which should be discharged off. It has therefore been omitted from this document and considered outside of scope
Inclusion of information in the case history of: Does the child respond to their name, familiar phrases (e.g. clap hands). Do they point to things that they want or wave to "bye bye" (yes/no). How many words does the child have that are used in context that the parent recognises? Does the child respond to music? Do they have a favourite song or tune?	Case history is outside of scope of this document
The option of patient-initiated follow-up (PIFU) gives patients control over when they receive care and is being used to reduce unnecessary follow-up appointments for families who are not primarily concerned about hearing responses. If the MDG is too stringent this option may be used by services as a way of deferring responsibility to families rather than using valid and practical test strategies to derive meaningful hearing levels.	PIFU is outside of scope for this document. Whilst we accept that some services may do this, we feel they would then be acting against section 8 of the document which is clear with what to do when the discharge criteria cannot be met
The current MDG criteria are a gold standard but are not practical or cost-effective with paediatric audiology services in the UK at present. Over time it may be feasible to reinstate this good practice document but it is neither realistic or desirable with the current profile of caseloads coupled with recognised training-needs in paediatric audiology. There is need for pragmatism in moving children through the system based on results showing that there is not a bilateral moderate or greater sensorineural hearing loss for children with SCD profiles. There will be a small number of cases, for example mild high-frequency hearing loss missed but the referral onward for the majority of SCD children is a more urgent priority. These children should be seen around their fourth birthday for full ear-specific testing with a functional measure of speech recognition. There is a need for training in recognising the developmental profile of children, use of non-conventional stimuli, localisation testing and acceptable and unacceptable modifications to testing for children seen in paediatric audiology.	We strongly disagree that these criteria or not practical or cost effective. We feel that for the vast majority of children seen within audiology services, these criteria are entirely appropriate and facilitate safe and effective care. If the service is struggling with demand and capacity, this is outside of scope of this document
In light of Lothian, this is a needed and timely document, however, the pendulum may have swung ever so slightly too far the other way, requiring more information to be gathered than perhaps necessary (see comments below).	We disagree that these criteria are too stringent and feel that for the vast majority of children they facilitate safe and effective care

We think this all seems reasonable overall. It's good to see that you have included a part about informed choice/decision making and acknowledged that there will be some circumstances were the minimum discharge criteria cannot be met and parents may choose to decline further testing. We can easily forget this is an option sometimes.	Thank you for your comment, we also agree that shared decision making with families is a key part to an audiologists job role
Line 262 Stimuli presented via Sound-field speakers: Line263: ≤25 dBHL in at least 3 frequencies must be obtained which must include 4kHz Line 264 from: 500 Hz, 1 kHz, 2 kHz & 4 kHz - Staff member thinks there should be a line saying if there is any risk factors or its target follow-up then OAE as a minimum should be done in each ear	This is covered in section 6.1 which discusses at length the situations that ear specific testing is required in
Line 158 ABR threshold of ≤30 dBeHL bilaterally at 4kHz air conduction- Staff member thinks this should be 20dBeHL	It is not felt that testing down to 20dBeHL is essential under sedated / ABR, however it is considered good practice, therefore statement has been added around this
Line 171 · ≥6dB SNR for 2 bands, from the half octave bands centred at 1.5 kHz, 2 kHz, 3 kHz, 172 4 kHz with a minimum response 0 dB rms SPL - Staff member thinks this should be 3 band pass	Following discussion and the criteria for OAE has changed to 3 bands (with the same other criteria, i.e. overall size and bands centred at)
Could you please include advice on babies that are referred due to having missed the newborn hearing screen. This cohort as far as I am aware is not covered by either NHSP nor BSA. So for example, it is ok to discharge a child that missed newborn hearing screen that has no other risks with TEOAEs only as they would have had if they had their hearing screened (current document suggests that no child is to be discharged with just TEOAEs outside NHSP) or other minimal discharge criteria should apply?	This is covered in section 6.1 (bullet point 7)
Line 108: "In most cases it should be possible to perform more behavioural testing than the minimum requirements described below." The term "should" would benefit from clarification throughout the document.	We have added a line to clarify this - for complete clarity, the term 'shall' is used in this document to refer to essential practice, and 'should' to refer to desirable practice.
Line 287 – define "expert".	Its beyond scope for us to define the basis of expert. The service should have a clear escalation plan for patients which are untestable as per the BAA Quality Standard
Overall we think it will be a very useful and will be well used in our service. It will be useful to have a guideline to refer to when deciding management of complex patients which we don't have currently. The guidelines regarding a "normally developing child" are clear and can be followed without a problem. However, for complex children this guidance will require a local management SOP as it will need to take bits from the different sections of the document	Thanks for your comment
Line 207 – the list does not include congenital CMV	It does not include cCMV as these children will not be discharged and will be on long term monitoring
Line 217 – there are 2 x declines in this sentence	Typographical change
Would some permanent hearing losses be missed without the stipulation that all four frequencies of 500Hz, 1, 2 and 4KHz must be obtained prior to discharge?	In any testing strategy there is a degree of risk, whilst we accept some hearing loss may be missed by this testing strategy we feel it is likely to be minimal. These guidelines represent a minimum, it is fine to do more

A decision tree might be useful Has the child any risk factors Y/N – if no has soundfield VRA been performed Y/N etc	We don't feel the document warrants a decision tree at this time
Would departments having on open self/parental referral policy change minimum discharge criteria for complex cases?	We feel this is covered in section 8 appropriately, particularly the section around shared decision making and risk
Why is the acceptable ABR and ASSR discharge <=30dBeHL, surely it should be <=20dBeHL? Why leave room for a potential mild loss?	In any testing strategy there is a degree of risk, whilst we accept some hearing loss may be missed by this testing strategy we feel it is likely to be minimal. These guidelines represent a minimum, it is fine to do more
I agree with the guidance and believe it to be accurate, clear and complete.	Thank you for your comment
Great document – which will make things safer for children and families.	Thank you for your comment
6.1.1 Auditory Brainstem Response (ABR) – can you include (for babies not referred from NHSP) in the title?	As the document refers to children over 6m of age, and the section specifically says this is not for infants referred from NHSP, we do not feel this is necessary
Line 172 – this information needs a reference	This is taken in part from the BSA OAE guidance - reference added
Line 179 OAE needs changing to AOAE	Typographical change
Line 202 OAEs – these should be clarified as TEOAEs	Typographical change
Line 217 has 2 x commas and the word declined repeated twice	Typographical change
Easy to read	Thank you for your comment
6.1.1 – I'm curious to know why we accept 4kHz alone on ABR? Especially when the minimum criteria for behavioural testing includes the lower frequencies (7.1.2.1). I wonder if this could be clarified in the document.	It is not felt that 1kHz testing is essential under sedated / ABR, however it is considered good practice, therefore statement has been added around this
I think the document is well written and very clear.	Thank you for your comment
Thanks – I think a more standardised approach is greatly needed.	Thank you for your comment
line 217: declined is written twice	Typographical change
This is a comprehensive document overall – sincere thanks to those involved.	Thank you for your comment
Line 52 – "safe discharge" – I feel this needs to be defined here or signposted to definition as outlined in Section 6	We have removed the word 'safe' as this is felt to be a confusing factor.
Line 52 – Typing Error – word missing towards the end of this line	Typographical change
Line 60 – Need to define hearing thresholds within normal limits for both ears e.g. <=20 at each of 3 or 4 frequencies or an average over 3 or 4 frequencies.	We are not referring to averages. For the avoidance of doubt, this means responses must be present at those frequencies at those levels. Averages are not acceptable
Line 74 – and the referrer with parents/carers consent.	There are some situations (e.g. safeguarding) where information is shared without consent and so this has not been changed
Line 83 – Typing error – either "child does not" or "children do not"	Typographical change
Line 106 – the word "multitude" suggests there are a lot of different test options, in reality there are not that many – although you have a selection of behavioural tests, in reality, only one behavioural test will be applicable to a particular child at their age/stage. Then you have tympanometry and only two objective tests.	Changed to say 'from a range of tests'

Line 155 – It is not clear if you are stating the discharge criteria for babies <3 months via NHSP or neonatology referral (e.g. meningitis under 3 months) here even though you have noted it is outside the scope of this document. Suggest this should not be included if it is for these babies and just signpost to the NHSP pathway document. If it is for babies and children over 3 months then I am not sure it fits the criteria for safe discharge as per section 6. It may be necessary to be clear that the NHSP Audiological Discharge criteria are based on ruling out a moderate or greater bilateral loss that would need early intervention – this is not the same as safe discharge for an older child as per the definition in section 6.	The document is for children aged 6m and over. There are still a number of children within this age group where ABR will be the first line diagnostic assessment post meningitis and so we feel the section is appropriate
Line 198 – Section 7 – Ear Specific Testing in general – should there be a difference between community based 2nd Tier services and Audiology department tertiary services depending on reason for referral?	We do not feel there should be a difference between tier 2 and other tiers in terms of minimum discharge criteria
Line 198 – Section 7 - Separately, should the need for ear specific be considered in light of child's NHSP results E.g. 2-year-old with speech delay – if CR obtained bilaterally for NHSP we would start with SF and if minimal levels obtained discharge based on extremely low risk for permanent unilateral loss in this scenario. If the child had no NHSP results for any reason then the risk increases a bit – the need for individual ear testing should, perhaps, be based on a risk rating – this could be achieved by completing a simple series of questions and scaling based on how many Yes or No answers there are – I am happy to help with this if it would be useful. Having just moved on to read lines 208 to 217 you have pretty much covered the risks here so perhaps flip this around to state discharge on SF testing is acceptable unless any of the risks listed in 208-217 are present in which case ear specific must at least be attempted and if not possible without sedated ABR should then be considered as part of a risk assessment not just automatically referred for sedated ABR given the cost of this type of appointment to both the family and the NHS.	We feel that the section on requiring ear specific information (section 6.1) is explicit in that it says for any child referred, if the concern is speech delay, whilst its always desirable to obtain ear specific results, they can be discharged off soundfield testing alone. We then feel that the shared decision-making process is covered at length in sections 3 and 9, which would relate to explaining to parents the risk in the situation you describe
Thank you for producing the document, I feel that a national approach is extremely positive. I also, appreciate that writing a document to cover all cohorts is difficult. Like many services, I believe we are seeing an increased number of children with social communication difficulties and I am particularly referring to those known to community paediatricians or awaiting their assessment. As a service we have been using a minimum discharge level of one middle and one high – typically 1 & 4 kHz with every effort to obtain further frequencies. For, the majority of general referrals the draft minimum criteria are completely understood and as a service we would endeavour to get more but we set our minimum criteria with the view of the more complex child too and that no one should be seeing any child with the mindset of only achieving the minimal requirement but to get as much information as possible.	Thank you for your comment, we agree that whilst this document sets out the minimum, it is often possible (and desirable) to hopefully achieve more than this sets out

My concerns with the minimum draft criteria: - 1) Will require more follow up's on children that clinically not over concerned with. This means that potentially not seeing children there could be significant concerns with as timely. 2) If clinically not over concerned, parents not over concerned and child just gets incredibly distressed is it good for the child holistically. 3) Likely to get increased WNB. There have been occasions when we have OAE's bilaterally, however, the child has not been interested in any stimulus or reward with VRA but playing something, they are interested in a very low levels gets an immediate response. With clear documentation, discussion with parents and sharing of information with both AVP and community paeds (these children are always known as there are behavioural concern pathways that they are on) we have then discharged but also with the understanding that should there be concern at any stage the child can be referred back. So, we incorporated this into our minimum discharge criteria for such circumstances – Is this the type of case that section 4 refers too?	We feel it is very important to have a minimum discharge criteria and these have been reached by clinical consensus. We don't feel that these criteria are overly strenuous or unachievable in clinical practice. Whilst we accept that for some children, audiological assessment can be distressing, we feel this is covered in section 8 in shared decision making and would advise services to have a clear conversation with the parents as described. It is important however to consider that research has shown that other than for profound bilateral hearing loss, parental concern is not a good indicator of hearing loss
For the most part this is a very helpful and welcomed document. It is, however, understandably more a test than child focused document Obviously where there is a suspicion of hearing loss, we should definitely seek to have ear specific results. I think that there needs to be further acknowledgement that for children with complex needs (which may include an aversion to being touched), if there are reliable binaural/freefield behavioural assessment results and no hearing concern, a review of the child's communication environment and support is explored and documented. Then a shared care decision making process is taken with parents/carers about further depth of testing. The issue I have overall is that because the doc is so test focused, it becomes a do this test and get these results or else you or the parents are being negligent and the holistic approach to the needs of a child, particularly one with complex needs is overlooked. (I am aware that there is a need for a doc such of this due to reported negligence of clinical care but while shared or informed decision is mentioned, more could be done to emphasis the need and value of this but in a way that isn't a blanket get out clause for not trying to get ear specific results.) If minimal testing is not possible or a decision is made to discharge on binaural results, I suggest that mitigating factors should be specifically documented eg advised on hearing or support strategies (child may have 1-1 support, have supported communication eg signed or alternate support) 'open' appointment if hearing concerns develop.	We feel that the section on ear specific testing (section 6.1) and the section shared care and decision making (section 8) covers your comment. We are absolutely not saying that if a test cannot be completed either the child or the audiology professional has in any way 'failed'.
Very useful document but just needs to be mindful of a holistic approach to the child as well as test results	We feel this document is very clear on the holistic approach and has an entire section on shared decision making with parents (section 8). If minimum discharge guidance is not met, it is clear that it is a shared decision-making process with the family that should be clearly documented.
The document is very useful and I thank BAA/BSA for their work. My only concern is that there needs to be more room for a holistic approach to management, rather than just managing test results.	We feel this document is very clear on the holistic approach and has an entire section on shared decision making with parents (section 8). If minimum discharge guidance is not met, it is clear that it is a shared decision-making

	process with the family that should be clearly documented.
The guidance is a very much welcomed document, however, I think there is concern from myself and other members of our department that for some children and families Sedated ABRs may start to occur more regularly which would be resource intensive. We have complex children who may not complete a hearing test but we get good distraction testing responses or responses to non conventional VRA sounds. I would be reluctant to offer an ABR to these patients but it feels like the guidance suggests we should be offering an ABR.	We accept that over recent years there appears to be a change in the profile of children being referred for audiological assessment and that this has likely increased the number of sedated ABRs being offered. It is this documents scope to determine a minimum discharge criteria, but beyond scope to discuss its impact on further services. It is up to audiology services to undertake the usual management / leadership procedures (raising a business case / employing more staff) should demand increase within any area as any other service would
We welcome this collaborative effort by the BAA and BSA to support the audiological profession to safely meet needs. • It is also helpful that the guidance covers a range of clinical settings	Thank you for your comment
It would be helpful to include the age criteria on the front page of this guidance. It would also be helpful to signpost audiologists to management guidelines for children 0-6 months.	We have included the age on the front page to make it explicit it is for children of 6m +
Line 83 - Change to “the child does not have”.	Typographical change
Line 84 - Change ‘are’ to ‘is’, OR put a comma after guidance	Typographical change
Lines 88-91 - The guidance helpfully sets out to support consistency in service delivery and secure good outcomes for all children. In context, would providers that “routinely deviate” be a cause for concern? The challenge with local procedures in diagnostics is that it might increase the risk of future system failures. However we appreciate a balance needs to be struck given that each child, and specialist clinics, might have specialised pathways in place. On balance it might be helpful to delete the word “routinely”.	We agree and have removed the word 'routinely'
Line 100-102 - We agree that in some cases it is not clinically necessary or possible to perform tympanometry	We agree and have changed the wording of this section
Line 114-117 - We welcome recognition of the importance of professional registration, as both the AHSC and HCPC also set out the need to always work within scope of practice and keep skills and knowledge up to date. However, as statutory and voluntary registration is not currently compulsory for all audiologists, we would suggest the following form of words are added “In all cases practitioners should work within their scope of practice and keep their knowledge and skills up to date”.	We agree and have changed the wording of this section to reflect your suggested wording
Line 124-127 - We welcome this addition and agree it is very important to include mention of parents/carers	Thank you for your comment

Line 140-142- As the goal is to improve consistency in care and outcomes, would it be preferable to consider the following form of words: 'Audiology services are encouraged to develop clear and evidence-based local guidelines which include timescales for planned reviews and onward management/referrals for patients who do not meet the discharge criteria and have one of the conditions covered by Appendix 1. Services should document how these local guidelines were developed and keep them under review'	We agree and have changed the wording of this section to reflect your suggested wording
Line 285 - Change to 'if two or more attempts at obtaining audiological certainty via behavioural testing have been unsuccessful,	Typographical change
Line 311- Incorrect use of the word 'thus'. Delete.	Typographical change
This is a helpful technical document. In terms of implementation in busy clinics, it might be beneficial to review use of clear instructions throughout. For example instead of "no child shall be discharged on tympanometry alone" (line 276-77), consider "Do NOT discharge based on tympanometry alone" Similarly the guidance uses "must" and "should" etc, it would be helpful to define the strength of recommendations at the start of the guidance.	We have added clear definitions of should and shall at the start of the document (which are the same as used within the BSA guidance
Thank you first of all for developing this document. We think the document is generally well written and we welcome professional recommendations but it's tricky to articulate minimum discharge criteria given the complexity and variables that we ordinarily weigh up in the behavioural assessment of young children. Discussion at the Wales Paediatric Audiology Quality Assurance Day last month highlighted the challenges that audiologists are facing and clear guidance would be welcomed where possible. However, we feel that some sections of the guidance are too exacting in the context of large numbers of children with ASD / suspected ASD being referred to audiology services. This context and possible changes to reasons for referrals being made to Audiology is important; the traditional paradigm of not discharging any child unless normal hearing has been proven, might be too rigid for the changing times and mix of children referred to us. Professionals referring such children (suspected ASD) to Audiology may be referring for a number of reasons. This will inform their own management decisions and developmental diagnosis. Therefore, we think that there should be reference in the paper to identifying and addressing the questions posed by referrers and carers when considering when to discharge. Additionally, As we know, pre-school age children with ASD also present challenges with assessment, requiring multiple appointments and/or referral for GA/sedated ABR, both of which are demanding of time and resources. We need therefore to be very mindful of the resource impact of adopting strict criteria applied across the board. These complex cases are not just exceptional but now represent a not insignificant proportion of workload. The implications of diverting resources towards repeat assessments (due to too stringent discharge criteria) is that services may not be able to offer speedy access to new	We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child's likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document

referrals; with delayed diagnosis of hearing loss as a consequence, which is the last thing that we'd want to see as professionals. Consequently, we advocate a more flexible approach that recognises the reality of this shift in mix of children referred to Audiology (see further evidence based comments below). It might be useful if the introduction to the paper made reference to this reality to provide proper context. Our comments below are influenced by the context described above,	
Line 58 The guidance refers to the BAA Paediatric Standards which are not the standards collaboratively created in 2016 and currently endorsed in Wales. Review of these standards is underway with BAA involvement and so it is possible that this criteria may change. We would not agree with the terminology 'strict discharge criteria'. We understand that it may be felt that strict discharge criteria might be desired but in a behavioural context it is unlikely to be appropriate. Use of the word 'strict' would suggest that it is achievable and must be achieved in ALL cases and that any cases where this is not achieved is a clinical error and there no justifiable variation from the criteria. Therefore, we do not agree with the inclusion of this line. More appropriate and possibly future proofing may some thing like 'BAA Paediatric Standards' includes criteria relating to minimum discharge criteria'.	The use of the word strict in line 58 is a direct lift from the BAA paediatric quality standards and is therefore out of scope for this document to change. We do however agree with the principle that a clear discharge criteria is essential for services to operate in a safe and effective manner. We are not trying to say here that the criteria must be met in every case and where it is not is down to clinical error or at there is no justifiable variation, a point we feel is clear in section 8
Lines 60-63 This para might better come after para 64-68	We agree and have changed the structure
Line 65 We would add 'developmental age' rather than use an absolute age. It may also be useful to specify in the title as it could easily be missed in the text	We feel this is more an absolute age than development age (hence the inclusion of ABR under natural sleep within the document) - we have taken the suggestion to add the age to the title
Line 99 The word 'attempt' should apply to both the examination and to the behavioural result. In some cases a behavioural test will be attempted but not achieved.	We agree, but feel this is covered within the document already
Line 107 Why is testing beyond the minimum encouraged? It should be considered dependent on the referral question but encouraging testing beyond the minimum without due consideration to the value doesn't sit well with prudent or value based health care. We would suggesting adding the words '….only where it is prudent to do so and adds value'	We feel that paediatric audiological assessment is a test battery approach, and therefore if there is time and space allows, it's always better to go above the minimum. For example for a child with speech and language concerns, whilst the minimal may be soundfield testing, we would always recommend that ear specific testing is attempted if in the child is able to as it gives a more complete picture
Lines 108 and lines 123 state that in most cases it should be possible to achieve the minimum discharge criteria stated and that it the cases where this cannot be achieved are exceptional. We would disagree with this statement. Local audit of cases comparing a 6 month period 2017/18 to 2023/24 showed an almost 3 fold increase in the numbers of children requiring sedated ABR as children were unable to perform conventional behavioural assessment. The numbers of children being discharged without having achieved the locally defined minimum discharge criteria has also risen. This echoes the findings of others around the UK. We think that the wording could lead	Whilst we accept that there may have been a significant increase in the number of children referred for sedated ABRs, we still feel that most children who attend for behavioural assessment are able to meet the criteria detailed within the guidance. We don't feel the wording of the document suggests that those children who cannot meet this criteria are failing and would draw attention to section 8 around shared decision making with the families

services who receive a high proportion of referrals for children with complex needs to appear to be 'failing' despite these being potentially more skilled and effective at assessment and decision making than those services that receive lower proportions of referrals for children with complex needs. 'Many' cases would be more appropriate than 'most' and it would be more appropriate to specify the cases that we are referring too, eg 'for children with presenting with complex health needs, behaviour or communication', rather than using the words exceptional circumstances.	
Line 119-127. Where testing to minimal levels is not possible, other factors become proportionally more important to help judge risk and to safely guide further management, including consideration of discharge from Audiology. In particular, available test results (accrued from the test battery), any history of risk factors and parental/professional observations. We think this should be usefully stated here.	We've now combined this into section 8
Line 202 This contradicts the advice given that TEOAE is not acceptable for discharge alone as if TEOAE is not sufficient then it should not be considered ear specific assessment in combination with sound field behavioural assessment. (This isn't to say that it could not form part of a picture and could be used to discharge with the relevant verbal and written explanation, but we would be reluctant to call it ear specific assessment in the context of everything else described in this document as minimum discharge criteria).	We have reworded this section based on other comments
Line 200 – 203 We agree with the end of line 203 'sound field assessment……' to 206 but believe that line 200 with the word 'ideally' is not appropriate and the start of 203 is not required. Sound field assessment of young children without risk factors or specific concerns have been acceptable for a long time and there is a risk that services who routinely complete sound field assessment in order to rule out hearing loss as a contributing factor to speech and language or social communication delay (probably the largest proportion of referrals) could be labelled as 'not ideal'. Labelling sound field assessment as 'not ideal' would mark a significant change in approach to paediatric hearing assessment which would probably require	We have changed the word ideally to preferably, and made it clear that ear specific testing is desirable practice by referring to it as 'should be obtained'. We feel the paragraph following explains that where it is not possible to achieve, soundfield is acceptable to discharge on.
Line 215 Aninoglycosides are not the only form of ototoxic medication (we note content of Appendix 1). Suggest 'Children referred due to history of ototoxic medication at levels providing risk of ototoxicity' Additionally, should there be reference to testing above 4 kHz in cases of possible ototoxicity, although accepting that this might be out of the scope of minimum criteria?	We have changed appendix 1 as per the suggestion. We feel comments about testing above 4kHz in certain conditions are beyond scope for this guidance
Line 216 Some of us disagree that children who have not previously received a hearing screen in the UK should cannot be discharged without bilateral assessment. This possibly reflects the difference between the NBHW protocol in Wales and other parts of the UK. Just as with children referred for other reasons which aren't one of the listed risk factors, if sound field responses are achieved and there are no other risk factors and the parents/guardians understand the results then sound field responses should be satisfactory.	We feel that the addition of this group for ear specific testing is appropriate, given the increasing evidence base around the impact of unilateral hearing loss from birth

Line 236 For consistency it would be more helpful to describe frequency filtered stimuli in a similar way to distraction testing rather than dismissing it out of hand entirely. It still represents a response to sound in the same way as a novel sound modified distraction test might for children with whom conventional assessment has been entirely unsuccessful.	For this section we are referencing the BSA VRA guidance on how to perform VRA testing and feel therefore that to expand into this further would not be appropriate
There is no mention of acoustic reflexes in providing supporting information, specifically in its role of ruling out ANSD where electrophysiology is not possible or wanted by parents.	We discussed including acoustical reflexes and whilst useful in the way described, we have also not included tests which contribute to the audiological picture but cannot be discharged off alone (such as toy speech testing). We feel that to list every test would make the document somewhat impractical and that this is covered in the section around 'wider test battery'
In context, in Wales, whilst we currently have a one ear pass criteria for NBHSW (although this may change in the future), we do have a national pathway for school entry hearing screening which requires a bilateral pass. Therefore, our consideration of this guidance made in the context of these two screening programmes – eg children may be discharged from Audiology mindful that school screening is anticipated. In summary, we largely agree with the minimum discharge criteria set out in the draft guidance with a few exceptions as described above for children who are ordinarily able to complete conventional assessment but have concerns about the language used in a number of places. More emphasis on consideration of the minimum discharge criteria in the context of the referral question and in joint decision making with both parents and the wider team around the child is required. One way of managing the challenge of setting a minimum discharge criteria might be to divide the paper in to three sections along the lines of 'developmentally appropriate conventional testing completed' / 'Where conventional testing is not possible 'yet'' / 'Where conventional testing not possible and unlikely to be so'.	We don't feel that one criteria for areas which have school screen and another criteria for areas which don't is appropriate at this time. We feel that the criteria detailed are appropriate, achievable and proportionate for providers and section 8 covers the shared decision making required with families to explain and clearly outline the situation when the criteria are not met.
Thank you for the work on this, it's a really essential document and broadly in agreement with most of it – it's not miles off our existing regional one. It's going to be very hard to strike a balance between clinical safety and the resources available to each particular service and then there's a follow up question of well do you set it as an aim, that services can point to in their hospital to say they're not currently meeting, or make it more reflective of reality and lower the bar for what's happening. Very tough, so please take any feedback given here on the understanding I think we probably have some appreciation of the dilemma's you're facing and don't envy the authors.	Thank you for your comment
Line 150 – I don't know if its worth including, but being explicit about what we are and aren't achieving with 30 dB eHL at 4 kHz in both ears, and some advice about medicolegally where you'd stand if you hadn't said 'this doesn't rule out a severe reverse hearing loss' and they turned out to have one. I know this is an edge case, but some guidance about how you report what is essentially a screen. 145 says 'believed to allow' – maybe if at all possible you could base some form of % on aetiology / likelihood of the very rare conditions that might prevent this. A bit of the	We have now included a line about it being good practice to aim to achieve 1 and 4khZ down to 20dBeHL. We feel the part in section 3 around sharing the results with the parents to provide informed decision making covers the wider point of your comment

old ‘uncertainty of measurement’ as regards to what is ‘satisfactory’ rather than ‘believed to allow’	
We weren’t sure if references were supposed to be included at this stage, but the Maddell reference on line 98 isn’t in the list of references. There’s something in here that I think is an ongoing problem for everyone about inserting hyperlinks – a good few documents from the BSA now contain dead hyperlinks. I would be inclined generally to have a PDF version, but also have a read only word version that contains all the relevant documents / web pages embedded too assuming they’re copy right free / owned by BSA. This is also true for historic look backs etc and having that data available to future Audiologists.	Referenced added
Line 443 typo – is it worth considering a very hard line for results? I.e. if you’ve got absolutely nothing for a year, then you should be looking at ABR regardless of concern if parents consent?	We feel this is now covered in section 8
Line 140: I understand why it’s there but I think these guidelines should be national rather than local as its such duplication of work.	We feel this is unlikely to be achievable without significant work (as departments across the country have very different service models. It is beyond scope for this document
Should BOA be explicitly discussed like in the VRA Doc?	We feel strongly BOA should never be used as the basis to discharge a child
I think I’m maybe in the minority here, but some mention of none-verbal children being offered yearly ‘ear health’ check ins rather than discharge is our preference, just to keep an eye on wax / middle ear health in the same way we might for adults with LD.	Whilst we think this is a good idea, it is beyond the scope of this document
This document provides information where a gap existed previously. So well needed and welcomed.	Thank you for your comment
Section 1, line60 define what normal limits are or refer to the definition in relevant sections	We feel each section defines the minimum discharge level for that test
Section 1 line 74. Clarification required for ‘As a minimum…’. I understood it to mean that all records (inc. journal entries and result records) should be shared with parents/carers not just the clinic report that describes the results. Records should off course be available to parents but there are specific policies to be followed for that.	We were referring here to the reports, however, to make it explicit we have added the words 'or available to' and therefore said 'these records should be shared with or available to parents/ carers and the referrer.
Section 2 line 77 define ‘safe discharge’. Wording can be taken from sentence in line 309 e.g. low risk of child not having access to language or developing language (whether this is oral or sign or a mixture of both). This needs to be defined early on as it can mean different things to different professionals.	We feel this is defined in section 5 and does not require any further expansion
General comment: in addition to the above, it is important for clinicians to bear in mind re uncertainty of measurement and limitations. E.g. normal results with ABR at 4kHz does not rule out a significant low frequency permanent hearing loss.	We have discussed this point at length. There is always a degree of risk for every test with not every test ruling out every type of hearing loss - e.g. normal hearing at 500, 1 and 4 does not rule out a 2kHz dip. These guidance are the minimum and it is acceptable for people to go above them if they wish - we feel the risk of something like this should be discussed with the parents when the clinician explains the results and is covered within different sections of the document
Section 5 line138 . Timescales should be dependent on multiple factors e.g. developmental stage of child, other concerns, family wishes, development of speech, referral question etc.	Whilst we agree with the comment, appendix 2 is only suggested timescales and it is for services to define these more locally

Overall section: there seems to be an inconsistency with regards to what is considered normal result without enough justification for the rationale behind this. E.g. fi carrying out ABR then DC is 30dBeHL but for some behavioural it's 20?	There is little to no evidence base behind any of the levels quoted, they are based on clinical consensus and the definition given at the start of section 5 - 'These levels recommended for discharge are those believed to allow children sufficient access to sounds to access spoken language, but do not mean that a child's hearing thresholds have been proven to be absolutely within normal limits at all frequencies.'
Overall document: I would wish to see what role alternative stimuli such as Ling play (if only to say they are or they are not appropriate) in discharge criteria. There needs to be a clearer definition of what soundfield stimuli are referred to in the test (e.g. differentiation between warbles, pure tones Fresh noise and Broad Band frequency centered stimuli).	We have specifically said that VRA testing should be performed as per the BSA VRA guidance. We would draw your attention to that document as to which stimuli are appropriate for use
Line 216: I disagree that well children who missed their newborn hearing screening for any reason and that is the only reason why they end up in the audiology service should necessarily have behavioural results. That would put them at an advantage to (or the system would be biased against) all other well children who had their screening and were discharge on AOAE for example. If there are any justifications, please could you add those for clarification.	Children who enter the service who have not undertaken a newborn hearing screen have no evidence of satisfactory hearing at birth. As the evidence base behind the impact of unilateral hearing loss at birth expands, we feel it is important to ascertain ear specific results for this cohort.
Line 52 remove "from"	Typographical change
Line 107 An OAE test provides more information than a tympanogram and should be the priority measurement, with the tympanogram being supplemental if TOAE absent – not really needed if TOAE clear.	We agree with your comment but felt this did not require a change to the text
Line 155 This should be a min requirement but where possible supplemented by additional ear and frequency specific testing, ie using ASSRs. If a risk factor present 1kHz AC should be provided and where Downs Syndrome / Cleft palate BC advisable to establish satisfactory cochlear function to 20 dBeHL.	We have added 'however it is good practice to aim to achieve <= 20dBeHL at 1 and 4kHz ABR'
Document should clarify that ABR (ie 4kHx LS) should be performed before ASSRs undertaken.	The document already states, 'in the presence of a normal morphology ABR' and references the BSA ASSR document. We therefore feel this is appropriately signposted
This is a very welcome document to ensure equity of services, though many will apply stricter criteria !	Thank you for your comment
I think the document is very well detailed and informative and takes lots of factors into consideration whereby the minimum levels may not be possible and offers alternative suggestions and options.	Thank you for your comment
It would be good to have some documented guidance on otoscopic examinations (i.e. if it is not possible to do so, if wax is occluding visually but not on tympanometry) etc	We feel you should always attempt otoscopy, as outlined in section 3. We feel that any further guidance on otoscopy is beyond the scope of this document

My impression is that line 400 & 401 are different to what we currently do and this was also dropped from the 2022 newborn hearing screening guidance: 400 Family history of unknown or genetic progressive sensorineural hearing loss in 401 childhood/early adulthood I wonder if we have capacity to see every child with a 'family history' of hearing loss because this is open to interpretation. Seeing as most hearing losses in young people do not have a cause identified, we'd end up monitoring loads of children and I don't think our services would cope. I also don't think its completely necessary. The family could ask for a referral if they are concerned.	This is only for children with a history of a known progressive hearing loss and so we feel the inclusion is appropriate
Overall it is positive that the BAA are taking this approach and providing guidance to follow	Thank you for your comment
Do you propose to include BOA in these guidelines? Bearing in mind that for some complex children this may be the only option, and can be performed reliably with inserts e.g. to obtain thresholds for hearing aid fitting, or to rule out hearing loss after meningitis. These children may also be contraindicated for sedation or GA so BOA is the most reliable test available, and as long as it is documented what the response was and that you are looking for repeatability in those responses then (in my experience) it can be used as a measure of hearing thresholds (not just MRLs).	We strongly disagree that BOA can be performed reliably with inserts and do not feel that BOA can be used to obtain thresholds of hearing. For this reason, BOA is not in the guidance and should never be used as the basis to discharge on
Thank you for providing this consultation, this is an important and timely piece of work. What I see as the biggest challenge is ensuring staff competency particularly with those tests not routinely used, and knowing when it is safe to discharge. I do believe that BOA with inserts is arguably a more reliable test than anything in the soundfield though, as it is an innate response and measurable in the ear canal, so would like to see this included. I understand I may be outnumbered in this argument though, but then where does it stand in the test battery if this is the only behavioural test you can do?	We strongly disagree that BOA can be performed reliably with inserts and do not feel that BOA can be used to obtain thresholds of hearing. We strongly refute and disagree with the comment that BOA with inserts is a more reliable test than soundfield VRA. For this reason, BOA is not in the guidance and should never be used as the basis to discharge on
This is going to be a really helpful document so thank you for all the work that has gone into putting it together.	Thank you for your comment
Personally I would not feel comfortable discharging on <=30dBeHL at 4kHz with ASSR – if you are doing ASSR then I think its perfectly reasonable to obtain more than one frequency (we use a min of 3 frequencies but I think two would probably be sufficient) and I always go down to <=20dBeHL. I don't really have any basis for this, other than I just feel more comfortable!! I think perhaps I'm thinking about what I would have needed to discharge from the behavioural clinic (i.e. three frequencies in SF or IET as appropriate) so therefore I'm trying to get as close to that as possible with the objective hearing assessment? So to me just to get one frequency with ASSR isn't equitable – especially when its so quick to do. I do understand your logic though as it is consistent with ABR discharge criteria.	We have now included a line about it being good practice to aim to achieve 1 and 4khZ down to 20dBeHL.
Content is what we would expect and in line with current practices	Thank you for your comment
It is useful to have the appendix suggested follow up times	Thank you for your comment
I feel it should be clearer that we are aiming for ear-specific information and perhaps we should advise to have at least 2 attempts at ear specific testing before considering discharge.	We feel the document makes clear that the aim is for ear specific information, however we feel it is acceptable in some clinical situations to discharge without ear specific information, as outlined in the document

As the specific test really is irrelevant perhaps having a clear bullet pointed list of standard discharge criteria would be more useful with more detailed and non-routine information following afterwards	We don't feel the specific test is irrelevant (although can see that lots of the behavioural tests have similar discharge levels).
More consideration given to the limitations of testing children with SCD and when deviating from the MDC might be acceptable	We feel this is clearly explained in section 8 and the key in this situation is good, shared decision making with parents and families
Document states you can discharge without tympanometry. Perhaps also be explicit that discharging without Otoscopy is ok.	We do not feel it is necessary to be this explicit with otoscopy
No mention of ASSR here, would it be helpful as a option in the battery.	ASSR is specifically covered in 5.1.2

OAE

Consultation Comment	**BAA/BSA Reasoning and reply**
Why has >=6dBSNR for 2 bands been chosen when this definition isn't even in the BSA OAE protocol? What reference will be given for this? I don't understand why screening criteria of 2 bands would be chosen, I would suggest it should be 3.	We have changed the OAE criteria to 3 bands - the rest remains the same
Additionally, I disagree with the line that states "diagnosis on the basis of a TEOAE test alone should not occur". It is extremely idealistic to think that centres have other options available to them freely to do other tests alongside TEOAE. A lot of children we see with SCD do not sleep in the day given the age they are referred (3-4 years old), and the only option we have for ABR is then GA. If parents have no concerns, then this is generally a step that parents do not want to undertake, or even that ENT would consider. There is no other option therefore then to discharge on TEOAE (if lucky enough to even get this), unless we were to keep attempting unsuccessful behavioural. Parents are obviously informed of the limitations of the test. I'm aware there is a paragraph at the end that advises what to do if parents don't want further testing, but given this, would it not be worth writing the TEOAE in a less hard and finite way?	We have changed the OAE section wording to allow for discharge on OAE alone in certain circumstances with clear shared decision making
We have had in our protocol that we can discharge on TEOAE after meningitis from studies previously written showed this was an acceptable test for children following meningitis – obviously ear specific behavioural is attempted more than once but if the child has other difficulties and cannot participate, again parents are not always keen to pursue other forms of objective testing, especially if their child has been significantly unwell and they do not have any concern over hearing. Again there is no reference given, how often does ANSD / central hearing problems occur with meningitis?	As stated, there is little to no evidence base behind most of the recommendations and they have been determined by clinical consensus - we feel that children who have had bacterial meningitis should have ear specific testing (either behavioural or ABR) before being discharged, however accept that if this is not possible, section 8 would apply

Lines 195 and 196 explicitly reference DPOAEs rather than generic OAEs and yet the comments made do not appear to differ significantly to the ones made re TEOAEs in line 187. In neither case would the OAE permit discharge in isolation but only when coupled with behavioural testing. Why are the two types of OAEs treated separately. I am aware of historical suggestions of higher levels of hearing loss needed to ablate DPOAEs than TEOAEs but these findings were to low N values and have not been replicated, indeed a recent PhD thesis in Southampton found both modalities equally affected when 65/55 DP levels were used. I don't find this distinction helpful or relevant.	We are not aware of the recent findings and would encourage you to write to the BSA regarding this for a review of their OAE guidance, which states that "DP OAEs may have CR present but abnormal for cochlear (outer hair cell) hearing loss (pure tone hearing thresholds) within the range of 15 to 40 or 50 dB HL, and NCR for cochlear (outer hair cell) hearing loss greater than 40 or 50 dB HL." We do not feel comfortable on this basis recommending DP OAE's for discharge
TeOAE: 6.1.3 Line 171 to174 – agree with discharge criteria for OAE when used as part of test battery. Disagree that discharge based on OAE should not occur. There are children with complex needs whereby behavioural testing is not possible/successful, with no parental concern re hearing therefore, in these circumstances, there should be a more robust OAE discharge criteria (3/4 frequencies including 3 or 4KHz) alongside the documenting in notes and explanation to parents regarding what isn't known.	We have changed the OAE section wording to allow for discharge on OAE alone in certain circumstances with clear shared decision making
Line 172 – Minimum response 0 dB rms SPL – this is not the typical language used for OAE criteria – it would usually be SNR of 6dB – perhaps consider changing this to avoid any confusion around terminology and levels required.	This is the correct terminology, it considers both the size of the band (>6dB SNR) and the overall size (>0dB RMS SPL)
Line 174 – Discharge on the bases of TEOAE alone should not occur may lead to unnecessary sedated ABR testing if no threshold behavioural results are feasible. Currently if we have a child who does not respond to quiet behavioural sounds but does respond to supra-threshold levels and parents report they respond to sound of interest at home and we get CR to TEOAE as per new BSA criteria then we would discharge on the basis of good cochlear function and having seen evidence of responses to sounds of interest. Perhaps a risk assessment around likelihood of ANSD should be included here to determine if sedated ABR is justified. This is a really tricky area and there may be no risk factors for ANSD but we know well babies can also have ANSD, however, given that there are limited resources within the NHS at what point do we consider likelihood versus over-testing based on very low risk?	We have changed the OAE section wording to allow for discharge on OAE alone in certain circumstances with clear shared decision making
Line 170 - I think when I've looked before, there was at least one paper on why 2 was chosen as a fair trade off in showing overall cochlear health – is it worth including some rationale as to why 2 bars has been chosen, and not 1, or 4?	We have changed the OAE criteria to 3 bands - the rest remains the same. There does not appear to be any clear evidence base to say that 3 is more robust than 2
Line 195 – The DPOAE line feels a bit odd – is 196 repeating the point made at 173? Or is it a separate thing that you shouldn't be using DPOAE with SF to aid dis charge decision?	We have changed this section and we feel that this has now been resolved
Line 232 – errant full stop	Typo changed

If there are no specific risk factors or parental concern re hearing, then discharge by TOAE (meeting 3 bands SNR with 4kHz mandatory) should be permitted. This should be applicable to CAYP with complex needs where behavioural testing may be never possible and that GA/sedation may not be appropriate or deemed acceptable to parent. We cannot offer simple annual reviews for these cases. If referred then AEP testing should be offered if concern.	We have now changed this section and detailed situations where the discharge by TE-OAE is permissible
In Ireland we have a 2 year waiting list to see children, limited capacity and unlikely to be able to recruit additional paed staff (which are a limited resource anyway). Additionally most of children seen on WL actually have satisfactory hearing when tested – as such there needs to be an alternative approach to managing high referral volume to Audiology. The large volume mean that we cannot get through to the genuine PCHI cases efficiently Recommending a full Dx assessment for every case therefore I do not believe is clinically appropriate or feasible in many services. . VRA / PLAY audiometry itself are only screens to 20 / 25 dBeHL.	We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child's likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document
I question line 174 – discharge on the basis of TEOAE alone is 'good enough' for thousands of babies every week so where TEOAEs are recordable at NHSP stage, and the child returns later with no hearing concern (whether a service should accept that referral is a different discussion) then why would TEOAEs not be sufficient for discharge again? Particularly if the alternative if GA ABR with the risks involved in that procedure.	We have now changed this section and detailed situations where the discharge by TE-OAE is permissable
OAE's within 3 months of behavioural tests may be unrealistic, particularly for children with SCD. Often a picture is built up little by little over 12 months. Perhaps 'ideally within 3 months, to a maximum of 12 months?'	We feel that an OAE which has been performed within 3 months of behavioural testing is more accurate than one within 12months and therefore feel the 3m recommendation is appropriate
We felt 3 bands would be safer than 2	We have changed the OAE criteria to 3 bands - the rest remains the same

Distraction

Consultation Comment	BAA/BSA Reasoning and reply
It says not to use this for discharge but for our very complex patients distraction and OAEs together demonstrates good cochlear function, and appropriate interpretation of sound, so although maybe not to be used on it's own, could it be combined with objective testing to discharge?	Distraction testing should not be used to discharge off, however the document now discusses how it is possible to discharge off OAEs and distraction with shared decision making with the parents. For clarity, it is therefore the presence of the OAE that is being discharged off, not the distraction testing
As stated, distraction testing is not recommended as a method of behavioural testing though it may be part of the test battery approach. Child responding to parent phone at minimal sound level playing favourite tune is an important observation for guiding the audiologist in the best clinical strategy. Use of a sound level meter (SLM) measurement for documenting the signal level, even for a wide band signal, is helpful.	Whilst we agree with the comment, we feel this is outside of scope as this is a minimum discharge guidance and distraction testing should not be used to discharge off

There is no recommendation with regards further testing if OAE/ear specific testing not possible. It mentions that it is not always possible to achieve ear specific results for example for those highly complex children who will only perform distraction, we would be comfortable discharging after a 2nd appointment with the same results within 3-6 months if supported with no parental concern and no risk factors. The guidance suggests that we should not discharge these patients but book for a sedated ABR – is this correct?	We do not agree that 2x distraction tests are suitable for discharge. This guidance suggests you should have a clear, documented conversation with the parents and establish a shared decision. For most children, this is likely to be sedated ABR
227- Unclear which additional tests would comprise a sufficient battery to allow DT to form part of recommended discharge protocol. To clarify, with some children with ASC it will not be possible to obtain conventional behavioural responses and tympanometry might not be tolerated. Occasionally OAEs can be, although typically only DPOAEs as TEOAEs have a higher impulse level and so are frequently rejected, would DT plus DPOAE and otoscopy be thought acceptable in a tertiary complex clinic?	We have made it clear that OAEs can be used in this circumstance, but for clarity, it is therefore the presence of the OAE that is being discharged off, not the distraction testing
While I agree that Distraction testing alone should not be used to discharge patients, there needs to be a role for clinical judgement and assessment based on - reason for referral, parental or professional concerns, history and clinical assessment (even if DT is the only test that can be done). Keeping a best interest approach in mind and in the absence of other concerns where the clinician is satisfied with the responses obtained on DT to frequency specific sounds, sedation or GA for ABR can be avoided, following discussion with parents. A follow-up can be arranged , rather than arranging ABR as the next step. A reference to Section 4, starting with row 19 will be useful here	We agree and would point you to section 8 around reaching a clear, documented. shared management decision with the parents
We have a small cohort of children where distraction is the only test we can get, a lot of these children would possibly not be medically fit to have sedation/GA.	We agree, and whilst we would encourage you to try OAE testing, we would point you to section 8 around reaching a documented, clear, shared management decision with the parents
Clear and important. Good clarity about its usefulness in certain cases even if not used as a diagnostic tool	Thank you for your comment
Needs to be done be senior staff with considerable experience in DT.	Distraction testing should not be used to discharge off, however the document now discusses how it is possible to discharge off OAEs and distraction with shared decision making with the parents. For clarity, it is therefore the presence of the OAE that is being discharged off, not the distraction testing
Also line 227 – while I agree that DT may not be accurate, in terms of measuring MRLs if performed well it can surely be more accurate then e.g. VRA, if the child is more responsive to the novel stimuli used in presentation than they are warble tones. For a small subset of children this may be a more reliable method than VRA.	Following discussion, we feel that novel stimuli and the debate around those are outside of scope

I disagree that this cannot be used for discharge, as DT when performed well can be used to measure MRLs accurately, and arguably in an albeit small number of patients more reliable due to the different stimuli available.	Distraction testing should not be used to discharge off, however the document now discusses how it is possible to discharge off OAEs and distraction with shared decision making with the parents. For clarity, it is therefore the presence of the OAE that is being discharged off, not the distraction testing
Surprised to see this section in here taking up so much space, I thought this test had been phased out years ago. DT is not really a hearing test and the section makes that clear as in bold it says DT should not be used.	Thank you for your comment

VRA

Consultation Comment	**BAA/BSA Reasoning and reply**
What is the reason for suggesting that low, mid and high freq hearing does not need to be assessed. The document is suggesting that 4k and only 2 out of the following frequencies 500, 1k, 2k need assessing. This in contract from what has previously been in recommended procedure documentation but there is no justification for this change	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
I don't understand why if you haven't got 500Hz in the sound field you then have to get 3 points with inserts, but 500Hz isn't a mandatory point?	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
Where it is mentioned that when transferring from sound field to insert VRA 2 frequencies for each ear can be accepted providing 500hz has been measured by soundfield. This is unlikely to be available as most depts start with 1khz soundfield so would you then be performing 1k in each ear and 4k in each ear and then going back to 500hz soundfield or 500hz in each ear? I understand it rules out single side cookie bites but this way it makes more sense to alter the order of the test to maximise responses and test time.	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
4khz is difficult for children to listen to and doesn't travel well in the soundfield. It can be misleading and alerting if a 4khz hearing loss is found and the majority of the time it is behavioural not pathological. I think more work needs to be done to use a lower frequency like 3khz for discharge and/or increase soundfield minimum discharge level eg do hearing losses in children exist just at 4khz and what impact would that have on the child's speech development and would we fit a hearing aid?	We do not feel the evidence base for this statement is clear and at this time we feel, through professional consensus, that the criteria stated are appropriate. The discussion around hearing aid fittings is outside of scope for this document
SF and Insert VRA do not have consistent discharge criteria. e.g. you could do 1,2,4kHz SF and then insert 1, 2, 4 kHz with inserts and meet the discharge criteria without ever testing 500Hz. Line 248, should this also give the option of 2kHz which must include 4 kHz for consistency with e.g. PTA discharge criteria	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed

I am very confused about how to understand the VRA section. The way I read it is that we can discharge on SF VRA if the criteria in section 7.1.2.1 are met We can also discharge on SF VRA for children where ear-specific information is required, if we meet criteria in 7.1.2.1 AND obtain CR on OAEs (presumably TEOAEs?) bilaterally. (This was stipulated previously in section 6.1.3, at least, I think it was). If not using TEOAEs, then an alternative way to obtain ear-specific information is to use insert VRA as described in 7.1.2.2. Is that correct? The VRA guidance is to start with 1 or 2kHz warble tone for SF VRA, however if I required ear-specific information and I was looking to maximise test efficiency, then I'd probably start SF VRA with 500Hz, then move to insert VRA for 1 and 4kHz. That seems an unintended consequence of section 7.1.2.2.	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
This section needs to include the use of non-conventional stimuli (NCS) as the majority of SCD children do not respond to the conventional signals currently specified in the draft document. Line 236 stating that there is “insufficient evidence for frequency-filtered sound”, while largely correct, is ducking the question. If this is the only signal a child responds to, this is important and relevant information. These children will be seen at a developmental age (around 4 years) when conventional testing is more likely to be feasible, at least for some. It is not feasible to request objective testing for all of the SCD children. It’s crucial that SCD are not held on audiology waiting lists rather than being referred onwards to therapeutic professionals.	The line around insufficient evidence for frequency-filtered sound is a direct quote from the BSA VRA guidance. We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child’s likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document
The stimuli presented via sound field speakers should be 35 dB HL rather than 25 dB HL. The levels need to allow recognition of signals to elicit a head-turn response, rather than detection of signals. This may be a sensation level of around 10 dB additional signal.	There is no / very limited evidence around minimum response levels at different ages. The levels in the document have therefore been obtained from professional consensus of the authors
Same for handheld or table-top warbler of 30 dB HL	There is no / very limited evidence around minimum response levels at different ages. The levels in the document have therefore been obtained from professional consensus of the authors
Insert VRA should be < 25 dBHL especially at 500 Hz for negative middle ear pressure.	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
Item 7.1.4 headphones or inserts should be increased to 30 dB HL for a 500 Hz signal to allow for the effects of a negative middle ear pressure on tympanometry in either ear.	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors

Inclusion of information on VRA localisation with NCS of the side of presentation with training in how this can be done when the child has already shown detection levels for a low mid and high pitch signal in at least one ear. This is important as a functional demonstration of likely similar hearing levels in each ear and better validation of the hearing responses to parents and carers.	We feel this is covered in the fact that VRA testing should be performed in accordance with the BSA procedure, which includes localisation
I would be happy to think about discharge with normal levels at 4kHz ear specific if there are normal tymps, normal soundfield at at least 2 other freqs and no other concerns. This is comparable with a pass on newborn hearing screening	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
240 and 252- With ototoxic therapy treatment for oncology patients or post meningitis patients, I would typically include both 6 and 8 kHz. Whilst this would not be a discharge criterion for ongoing treatment it might be a treatment cessation.	We feel comments about testing above 4kHz in certain conditions are beyond scope for this guidance
7.1.2.2 I don’t understand, and no reasoning given, regarding why inserts are needed at 2 freq’s if 500Hz soundfield (SF) tested but 3 freq’s if not? Examples below demonstrate my confusion; Case 1; SF 1, 2, 4K at <=25. Inserts 1, 2, 4K bilat <=20 – discharge criteria met but still haven’t tested 500Hz and have had to gain an additional insert threshold in each ear compared to case 2 below. Case 2; SF 500, 1, 4K <=25. Inserts 1, 4K bilat <=20 – discharge criteria met but still haven’t tested 2K If a child meets discharge criteria apart from a SN dip at 2K then this is more likely to be aided or require management than a dip at 500Hz, so why is 500Hz deemed more ‘important’ than 2K. I suggest that SF discharge criteria be 3 freq’s, including 4K. Inserts, if SF not tested, be 3 freq’s including 4K. If SF has been tested then inserts 2-3 freq’s, including 4K, so that the combination of SF + inserts covers at least 3 freq’s i.e. if SF at 4K only, would need to do 3 freq inserts (including 4K), if SF obtained at 1 and 4K then inserts at 2 freq’s (0.5 or 2K + 4K) needed.	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
I ask that, due to the increased MRL response variance at 500Hz, although 25dB is the ideal discharge level, that 30dB at SFand 25dB inserts at 500Hz be considered as acceptable discharge criteria providing the other 2 freq’s tested are within criteria. Explanation to parents and documentation in notes would, of course, be expected. This would mean it less likely that we would be continually reviewing children with hearing wnl at all freq’s except 5dB outside discharge criteria – this level of loss would not be aided or grommet inserted and is unlikely to have any functional impact.	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors

I feel that the minimum discharge criteria should include 4 points in SF. In particular I can think of cases where if 2khz wasn't tested in SF a hearing loss affecting speech clarity wouldn't have been picked up. What is the relevance of 'where SF VRA has not been performed at 500Hz' – where it then doesn't specify that 500Hz should be measured in ear specific testing.	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
Line 244 – Consider "Insert or Headphone" VRA rather than "Insert" only as same outcome would apply	Changed
Line 248 and 252 don't answer the same clinical question. Presumably, 500Hz is considered as glue ear impacts lower frequencies so it makes sense to have this in SF and then 1 & 4 individual ear. If just individual ear, then it should be mandatory 500, 1 and 4 and 2 if child continues to engage OR mandatory 500, 2 and 4 with 1 if possible – there is some debate about the best 3 frequencies to aim for if 4 frequencies will not be possible if child loses interest etc	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
The concern I have with the draft document is that I can potentially discharge with soundfield <=25 dBHL 1, 2 & 4 kHz (If discharging with this information we would make it clear that we have be unable to exclude unilateral loss). But if I opt to go for separate ear measurement but only obtain 1 & 4 kHz bilaterally which I believe is more optimal than soundfield <=25 dBHL 1, 2 & 4 kHz – I am unable to discharge without 500Hz soundfield at <=25dBHL even though if only testing with soundfield the 500Hz is not required? And I typically find that self-distracting children are a little noisy and 500Hz for them in soundfield at <=25dBHL can be hard for them to hear and that given the nature if they are not optimally quiet and fairly still that <=30dBHL can be deemed as satisfactory in these cases? I also certainly would not want to move to ABR for these children if I have obtained separate ear at <-20dBHL at 1 & 4 kHz, especially if when doing ABR we are saying that happy to discharge with only 4 kHz anyway? Likewise, if I were to only get <=20dBHL at 1 & 4 kHz bilaterally or in soundfield with OAE's – again I have felt comfortable to discharge.	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
Section 7.1.2 We agree with the minimum discharge criteria for VRA soundfield. We do not agree with the minimum expectation of multiple ear specific frequencies if the MDC has already been achieved for soundfield. If the MDC for soundfield is acceptable then there should be no MDC for ear specific (except possibly in cases where ear specific information is required as listed). It is not always in a child or family's best interest to schedule further assessment for additional ear specific frequencies if parents if	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed

their concerns have been allayed by the information achieved and explanation provided.	
Line 239 It would be preferable to specify a 500, 4 kHz and either 1 or 2 kHz should only 3 points be achieved rather than potentially 1, 2, and 4 kHz being achieved.	We have now changed this section to say that 500 and 4kHz are mandatory frequencies. One frequency of either 1 or 2kHz should also be performed
Lines 239-253: suggest it be made clear that levels stated for VRA are MRLs, according to BSA VRA guidelines, section 4.3 page 18-19 relating to both presentation in the soundfield and inserts. Also the BSA VRA guidance paper does provide correction factors, based upon those published for inserts. These vary by frequency, whereas the figures in the discharge criteria guidance (this paper) do not. Consequently, the requirement for <=20dBHL at 500Hz and 1 kHz may be too exacting/cautious	We have now stated that these are minimum response levels not thresholds. The MRLs quoted in the VRA document are from a very small data set of a very specific age of children and we feel that further research is required in this area
What's the rationale for <=25 in the SF and <=20 with inserts? I can think of a few, but would be good for this to be explicit, or a specific reference to a passage in the VRA policy - I know it should be obvious but is it worth explicitly stating 'VRA Current Practice Guidance 2024' ?	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
More clarification about stimuli, are all frequency specific stimuli acceptable e.g. Fresh noise?	The test should be performed as per the BSA VRA guidance, we would point the commenter to that guidance as to suitable stimuli
No mention to VRA with headphones. As far as I know this is acceptable practice.	We agree, added headphones
As 500Hz can be more susceptible to patient generated noise, minimal threshold should be increased to 25 or 30dB HL, otherwise I can see a bias to avoid testing it. Line 266. Not clear why 30HL was chosen instead of 20dBHL	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
Specify re MRLS v thresholds – clarify what should be being used.	We have now stated that these are minimum response levels not thresholds.
Using 2/3 freqs could still miss cookie bite loss, HF SNHL etc – just as much as TOAE could miss some cases – nothing 100%!	There is no / very limited evidence around minimum response levels at different ages / frequencies. The levels in the document have therefore been obtained from professional consensus of the authors
A bit disappointing that filtered sounds are not included. I'm sure a lot of services would like some guidance on this. I understand the position statement about this in the document, but could you use this in combination with other testing to discharge? I know many services who do.	The line around insufficient evidence for frequency-filtered sound is a direct quote from the BSA VRA guidance. We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child's likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document
Clearly states the criteria, easy to understand. I agree with levels as minimum criteria.	Thank you for your comment

Can frequency filtered stimuli be used as a guide to decide follow up times and help guide decisions around sedated/GA ABRs? Would be useful to acknowledge this as I believe some departments are using it for this also. Need to be mindful that the incidence of SCD is growing and not all services have sedated/GA ABR options.	There is insufficient evidence for frequency-filtered sounds at this time. We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child's likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document
Useful to acknowledge that this isn't available everywhere, I think there should be more consideration of frequency filtered sounds	There is insufficient evidence for frequency-filtered sound at this time. We feel that for the majority of children which attend audiology services, these minimum discharge criteria are achievable and with work from providers (such as a pre appointment questionnaire to find out the child's likes and dislikes) this number may even further increase. We accept that there will always be some children where meeting these criterion may not be possible and that it why section 8 is within the document

Soundfield Performance

Consultation Comment	BAA/BSA Reasoning and reply
What is the reason for suggesting that low, mid and high freq hearing does not need to be assessed. The document is suggesting that 4k and only 2 out of the following frequencies 500, 1k, 2k need assessing. This in contract from what has previously been in recommended procedure documentation but there is no justification for this change	We have now made it mandatory to assess both 500Hz and 4kHz
why is the criteria slightly different when using a sound-filed speaker during performance testing and that when using a warbler, play audiometry or VRA	We have changed this slightly to point out the difference between dB(A) and dB (HL)
Fixed speaker soundfield can often mean 2 tester, which is difficult to achieve in many clinic set ups. It can also be difficult to achieve as 1 person in 1 room without visual cues. I would recommend similar to VRA with a combination of soundfield (fixed or warbler) and 4khz ear specific	We have changed this section slightly, but feel that fixed speaker, soundfield performance is often achievable with one tester and so have left it within the guidance
Section 7.1.2.1 SF VRA: Suggestive that only 4k is mandatory, with local decision on whether can discharge of other frequencies (e.g. can do 1 and 2kHz) and meet SF. However insert VRA minimal discharge (section 7.1.2.2) based on 1-4k only states that must have 500Hz in SF to discharge. Alternatively you would need to do at least 3 frequencies on ear-specific if SF 500Hz was not completed) (but that ear-specific only mandates 4kHz) and therefore can still meet discharge on ear specific completing 1,2,4kHz, having never tested 500Hz.	We have now made it mandatory to assess both 500Hz and 4kHz
Why does VRA require ear specific testing with inserts, but Soundfield performance does not?	VRA does not require ear specific testing with inserts in certain circumstances (section 6.1)

With ototoxic therapy treatment for oncology patients or post meningitis patients, I would typically include both 6 and 8 kHz. Whilst this would not be a discharge criterion for ongoing treatment it might be a treatment cessation.	We feel comments about testing above 4kHz in certain conditions are beyond scope for this guidance
7.1.3 I completely disagree with the use of handheld warbler if there are fixed speakers available, unless there is only 1 tester available with the audiometer in a different room to the child….and even then I'd say that they should be brought back to a 2 tester clinic with fixed speaker i.e. use of warbler should only be in very exceptional circumstances. Child's compliance should not be a reason for using a warbler as there is no reason why a child isn't as compliant using fixed speakers as they are with a warbler, but there is a far higher risk of poor practice when using a warbler e.g. cueing and variable intensity. If there is only 1 tester then it isn't possible to use the warbler, work with the child and monitor the SLM, therefore I suggest that this is not safe practice and therefore the child should be reviewed when a 2nd tester is available.	We disagree and feel that use of a handheld warbler, when done used correctly and with sound level meter monitoring is a safe and effective method of performing soundfield performance testing. Hand held warblers allow children to be tested off the calibration spot, in any part of the room and thus we disagree with the comment and feel there are situations where children's compliance is better with a warbler than fixed speakers
You're suggesting that it is acceptable to discharge at 30dB when accepted discharge criteria is 25dB – there is no justification for the lowering of the standard unless a warbler is the only equipment available, and I would still be uncomfortable discharging based on this alone. I understand that some services say that children can be more compliant when tested with a warbler rather than a fixed speaker, but I would suggest that that is more to do with the way the audiologist is used to doing the test rather than any technical/clinical reason. Therefore 'audiologists comfort zone' should not be a reason for the lowering of standards regarding discharge criteria and introduction of the known associated risks of testing with warblers.	The criteria quoted was in dB A. We have now added a note to be clear on levels of dB A vs dB HL
A very small thing but, I wonder if it should be clarified that if possible the sound level meter (SLM) should measure the stimulus levels during testing (with a second tester holding the SLM at the patients ear level) as this gives the most accurate measure – or if measured after testing the distance between the SLM and the warbler should be equal to the distance the warbler was from the child during testing.	Whilst we agree this is the gold standard practice, this is not always practically possible and therefore it's important to be pragmatic whilst understanding limitations. We feel being explicit about this is beyond scope of the document
Same as VRA – 4 points in SF should be required It is unclear from the guidance whether after performing soundfield performance ear specific CPA should be performed or whether TEOAE would be acceptable.	We have changed the wording slightly to be clear that either ear specific VRA or soundfield VRA with clear response OAE in both ears both count as ear specific
Line 267 – May need to include options for different hand-held warblers and stimuli so maybe "<= 30 dB(A) or 25dBHL depending on calibrated output levels of the stimuli being used". This will provide some future proofing if new devices come on the market	Done

Line 266 Why is there a difference in the levels for sound field handheld and fixed speaker? Also ‘A’ rather than ‘a’. We would prefer criteria referenced to dBHL when using hand held warblers, which is practicable and results can be plotted on audiograms. BSA Soundfield audiometry practice guidance documents states: ‘……for most practical purposes dB(A) and dB HL can be used interchangeably’ – see Appendix 3 of same doc for dBHL to dBA conversion figs. However, we consider it better (more accurate) to calibrate hand held devices (at Stage C) to dBHL, using RETSPLs at each frequency, rather than adopt a single dBA criteria level across all frequencies.	We have changed this slightly to point out the difference between dB(A) and dB (HL)
Line 261 Measurement of levels is not practical when assessing children with a handheld device during clinics particularly where testers are working alone. Hand held devices should be calibrated (Including clinic level Stage A checks) and used as specified by the manufacturers.	Whilst we agree this is the gold standard practice, this is not always practically possible and therefore it’s important to be pragmatic whilst understanding limitations. We feel being explicit about this is beyond scope of the document
Line 270 Same comment as for Line 239 - Lines 239-253: suggest it be made clear that levels stated for VRA are MRLs, according to BSA VRA guidelines, section 4.3 page 18-19 relating to both presentation in the soundfield and inserts. Also the BSA VRA guidance paper does provide correction factors, based upon those published for inserts. These vary by frequency, whereas the figures in the discharge criteria guidance (this paper) do not. Consequently, the requirement for <=20dBHL at 500Hz and 1 kHz may be too exacting/cautious	Technically, performance testing is not minimum response levels (only VRA is)
I disagree with this and the information in the acoustics document to be honest. I don’t think there’s enough consideration of the ‘psycho’ part of psychoacoustics. I’ve attached a paper below that you could feasibly imagine also applies to Performance in terms of sound source. But also locus of attention of a child and what’s going on there. I’d argue you can also potentially get more accurate levels as you’re able to move dynamically with the child. Potentially in minority here but anyway	We feel this is beyond scope of this document
what’s the rationale for 30 dB with a warbler? If anything if you’re were worried about the validity of a warbler you’d then want to go lower down to 20?	We have changed this slightly to point out the difference between dB(A) and dB (HL)
If the suggestion is you should sound level meter every time, I’d disagree with that as well as I can’t see it gives you any advantage unless you’ve dramatically ignored patient and warbler placement, which you should be noting anyway.	Whilst we agree this is the gold standard practice, this is not always practically possible and therefore it’s important to be pragmatic whilst understanding limitations. We feel being explicit about this is beyond scope of the document
Specify MRls v thresholds – clarify which should be used	Technically, performance testing is not minimum response levels (only VRA is)

Play

Consultation Comment	BAA/BSA Reasoning and reply
With ototoxic therapy treatment for oncology patients or post meningitis patients, I would typically include both 6 and 8 kHz. Whilst this would not be a discharge criterion for ongoing treatment it might be a treatment cessation.	We feel comments about testing above 4kHz in certain conditions are beyond scope for this guidance
7. Behavioural hearing assessment Ear specific testing- may be needed in other medical conditions such as cCMV (if not picked up in neonatal period), syndromes known to be associated with hearing loss (or new syndromes where not much is known about them yet!), vision impairment , tinnitus, etc. Therefore, there needs to be a mention that the list is not exhaustive and medical conditions where ear specific testing may be needed, need to be considered.	We feel this is covered in the risk factor guidance appropriately (the last point in the list)
I think it should be clearer that if a child is 8 years or older the document should advise normal pure tone audiometry across all frequencies should be performed unless there is developmental delay/behavioural issues. Where there are risk factors perhaps we should be advising all 4 frequencies obtained bilaterally as a minimum or offering a further review to obtain this.	We agree and have added a statement that: Where the child is older and capable of undertaking full PTA, all frequencies should be undertaken as per BSA PTA guidance

Tympanometry

Consultation Comment	BAA/BSA Reasoning and reply
In the tympanometry section please could it be clarified that it is acceptable (or not!) to discharge a child with abnormal tymps so long as the appropriate hearing threshold criteria have been satisfied?	We have now been clear that it is "acceptable to consider discharge with flat or abnormal tympanometry where the hearing assessments meet the above criteria"
Section 8 – very woolly. Agree don't discharge on tymp alone. But wording unclear as states "should" be performed where indicated, however does not report when it is indicated. ?should be performed in presence/ suspicion of conductive hearing loss and/or cases where there is a risk for persisting OME.	We have clarified this section
It is not stated whether discharge is supported should hearing thresholds meet criteria but tympanometry indicate middle ear dysfunction.	We have now been clear that it is "acceptable to consider discharge with flat or abnormal tympanometry where the hearing assessments meet the above criteria"

Line 277 – “performed where indicated” this could be more detailed – usually if ear specific minimal levels are obtained we would not perform tympanometry even if eardrums look a little dull – I can see there would be reasons for doing this and reasons for not doing this so some discussion about this would be good – in general we should not be conducting any test that would not change our management of the patient and it may depend on whether they are already under the care of an ENT doctor or have been referred via a health visitor for example in relation to speech delay – a tricky one to pin down and appreciate there is a need for clinical judgement here but feels like a good opportunity to open the floor for discussion perhaps?	We have clarified this section
Welcome the acknowledgement that it is acceptable to discharge without tympanometry results if not clinically indicated ie hearing thresholds are within normal limits at the required thresholds. However, it is important that if there is any doubt about the reliability of the responses, where hearing results are satisfactory, further testing should be undertaken.	We have now been clear that it is "acceptable to consider discharge with flat or abnormal tympanometry where the hearing assessments meet the above criteria"
Should not be the priority test, TOAEs give more information ie use tymps if TOAE absent	Whilst we agree, we think its important tympanometry has its own section
I agree with the role of tympanometry in how you have described it, i.e. not always essential depending on the history, but can be used to provide additional information.	Thank you for your comment

Moving On

Consultation Comment	BAA/BSA Reasoning and reply
Why is this specifically stating ABR testing rather than objective testing more generally	We've now talked about it being objective testing and included ASSR
more clarity on what is timely as we need support for provision of melatonin staff and capacity.	We feel this is beyond scope of the guidance, however as a diagnostic test, melatonin ABRs would fall under DM01
Using the following language “reliable behavioural thresholds are unlikely to be obtained by other adapted test methods performed by expert audiologists” feels contradictory to “DT should not be used as a tool on which to discharge paediatric patients”. Does this mean that DT is suitable for discharge in some situations?	No, discharge on distraction testing alone should not be performed
Is it worth saying that all departments should have a process in place to be able to access sedation/ GA for ABR, even if it requires onward referral to a neighbouring service. It is not acceptable to not be able to offer this service.	This is up to services to determine and beyond scope of the document

See comments in TeOAE section above. If no behavioural results obtained but discharge criteria OAE pass bilat (my stricter pass criteria suggested), no parental concern or risk factors, should ABR GA/sedation be offered? I'm posing the question rather than giving an opinion but I think that this scenario should at least be mentioned in this section.	In this situation, we would now discharge (as per 5.1.3)
I'm not sure I understand what "audiological uncertainty" means.	It was a typo and should have said audiological certainty
Line 285 – "If two or more" is too elusive – there was a service many years ago that undertook excessive behavioural assessments that delayed diagnosis. There needs to be clarity here – perhaps no more than two attempts performed by expert audiologists (and no more than 4 tests in total including secondary and tertiary settings before there should be a discussion with the parent/carer etc.	We agree and have removed the words 'or more'
Line 298 – under sedation or general anaesthetic – could this include the option for melatonin to be mentioned – services who do not currently offer this may be able to establish it's use if it is included in a recommended procedure. It is much more cost effective than sedation that requires administration on a hospital ward where it is suitable.	We feel melatonin is a form of sedation, and so it is covered within this guidance. It is beyond scope to comment on the exact drugs
Line 317 – "involved in the child's care." perhaps add "with parental consent	Agree and added
This can be a helpful informative next step for many children. There is no acknowledgement however that while ABR is a good audiometric next step for those in whom behavioural hearing assessment is not possible, it may not be a suitable one for the child for medical reasons or an acceptable one for the parents. An example of what is meant by 'reasonable efforts to obtain hearing assessment' would be useful This section reads as more of a blame section re who is promoting/accepting the need for the test and consenting or not consenting with no acknowledgement that there may be valid reasons why an ABR may not be suitable for the child at that point in time. For a child who is supported and responding in a total communication environment, clarifying levels of hearing may be low on the parental priorities. Where relevant, it would be helpful to specifically document reasons why ABR may not be a suitable next step and specify mitigating factors like the communication mode and environment as part of any documented decision making.	We are not trying to 'blame' anyone within this section. We are actively encouraging audiology professionals and families to have a clear, documented discussion in the circumstances where these criteria cannot be met to come up with an agreed management approach for these children
Sleep induction using melatonin needs to be mentioned along with sedation and GA for ABR	We feel melatonin is a form of sedation, and so it is covered within this guidance. It is beyond scope to comment on the exact drugs

I think consideration needs to be given to the concerns around the hearing, often children are referred to have a hearing assessment due to the backlog on the neurodevelopment pathway, often parents / professionals will report a child doesn't turn to their name but as soon as they hear the fridge door open they come running into the kitchen. Are we suggesting that these children will still need an ABR and that we should be offering it to all where the behavioural testing is inconclusive? I also have the issue that if we do that, we will have a small cohort of children where sedation/GA will not be suitable for medical reasons, we will also have a cohort where we give parents an informed decision but the decision will be impacted by guilt of potentially not doing something that has been recommended by a professional and also for those under safeguarding where they feel there could be repercussions for not going ahead with the assessment even though we can see that they respond well in certain circumstances.	We are actively encouraging audiology professionals and families to have a clear, documented discussion in the circumstances where these criteria cannot be met to come up with an agreed management approach for these children
Line 127 It should be recognised that joint decision making would also be made with other professionals involved in the care of the child, for example a community paediatrician or speech and language therapist. The NDCS document referenced is not in the reference list.	We have added the NDCS document to the references. It is not always the case that at the time where the decision is being made, the child is under the care of other professionals and so this has been left out
Line 157-158 We are unclear why the ABR discharge criterion should be <=30dBeHL bilaterally at just 4 kHz, whereas the criteria for behavioural based assessments are more exacting (multiple frequencies and lower level). Testing at just 4 kHz alone would not provide assurance that the child has access to sounds to access spoken language (line 146-147). If time were limited for ABR testing (eg under GA in theatre) a better prioritised strategy might be to test at say 1 and 4 kHz to one side.	We have added a comment that it is best practice to achieve 1 and 4kHz testing under ABR, the requirement for a limited number of frequencies is due to the time it takes to obtain those results
Line 303 Parents should be offered a no further assessment option. Multiple failed behavioural assessments can be stressful for children and their families. In the context of joint decision making with families and the wider team around the child 'do nothing' (with option of re-access) should always be an option.	In section 8, we are actively encouraging audiology professionals and families to have a clear, documented discussion in the circumstances where these criteria cannot be met to come up with an agreed management approach for these children
I think there should be some form of paragraph on safe guarding here, or somewhere in the document. Otherwise all good.	We feel safeguarding is beyond scope of this document
I feel other factors should be taken into consideration, e.g. previous results, concern, referral question. Where it states behavioural testing has been unsuccessful does that mean with frequency specific stimuli or any stimuli (e.g. can think of multiple cases where we've obtained clear responses to music but no other behavioural results. I would consider this behavioural result although would not consider discharging but would take into consideration in determining management plan)	In section 8, we are actively encouraging audiology professionals and families to have a clear, documented discussion in the circumstances where these criteria cannot be met to come up with an agreed management approach for these children

A recommendation regarding management of cases where there remains presence of Audiology uncertainty ie escalate from staff to senior staff, and then on to offer of GA / sedated AEPs if professional and parental concern (sorry was in document!). Possibly using terminology for AEPS rather than just specifying ABR	In section 8, we are actively encouraging audiology professionals and families to have a clear, documented discussion in the circumstances where these criteria cannot be met to come up with an agreed management approach for these children
Agree with this, however locally we have introduced an intermediate step of MDT with community paeds, if they have referred the child, to determine whether the risk of sedation or GA is necessary given the child's presentation.	Thanks for your comment
In the ABR section it says 30dBeHL for children without risk factors, they should refer to the risk factors as the same as those listed for suitability to discharge on soundfield. It might be helpful to add if there is concern of a mild loss with family or professionals (or due to the size of the response obtained i.e just barely a response) clinical judgement can be used to test lower. This is so professionals don't have a blanket approach to testing down to 30dBeHL only.	We have added a comment that it is best practice to achieve 1 and 4kHz testing under ABR
The vast majority of children needing an ABR will not allow you to perform this under natural sleep, the main reason for GA/sedated ABR is behavioural difficulties. For example children with autism/adhd are prescribed melatonin to try and encourage natural sleep but even this is not likely to sedate them enough for an ABR. I think it might be useful to acknowledge this more in this document as unsuccessful natural sleep ABR attempts are really stressful for parents and the child and highly likely in this cohort of patients.	Natural sleep ABR is still often possible in a number of complex cohorts, including SCD children by working with the family to pick a time that works around the child's standard routine. We have not therefore made any changes

Appendix 1

Consultation Comment	BAA/BSA Reasoning and reply
It would be helpful to have a fuller list of syndromes that affect hearing – knowing not every syndrome could be covered but I think more should be included.	A full list is simply not possible to put together and something will always be left out, we feel the list included includes the most common
See Line 129 above – consider signposting to this information in NHSP Surveillance document rather than having it in an Appendix within this document	Whilst the NHSP document is very good, we feel having a copy of this within this document is useful
We have a local table for follow ups for surveillance pathways – It would be really great to move to an agreed national approach in terms of frequency of follow up, etc – Are their plans to work on this?	There are no current plans to our knowledge to look at this nationally
Neurofibromatosis type 1 is not a reason for audiological monitoring	We have adjusted to just be NF2
Could include craniosynostosis under craniofacial abnormalities	There are many conditions under each bullet point which are not listed and so we haven't change this at this time

In theory, I like this idea. There's something about it not being exhaustive I find a bit frustrating, as beyond things we don't know, it feels like we could create an exhaustive list. I'd really like this document to have suggestions for each of these but understand why there aren't.	A full list is simply not possible to put together and something will always be left out, we feel the list included includes the most common

Appendix 2

Consultation Comment	BAA/BSA Reasoning and reply
This requires an introduction should children referred to CI/ BAHA centres where follow up care is transferred to them be listed here?	These are now included
Line 458 and Line 460 – These read as very similar so perhaps clarify if line 460 relates to children with PCHI who may not be fitting with hearing aids either by choice or not meeting criteria but still require review	We have clarified this
423: not sure if means review the next available appointment (which might not be 4 weeks), that the next available appointment should be within 4 weeks or the next available ie URGENT appointment AND again within 4 weeks (the urgent appointment may show normal levels and therefore further testing not needed)	This is saying that children in this group should be booked the next available appointment, which should be no longer than 4 weeks
446-7 The 'Surveillance-and- audiological-referral-guidelines' does not have any section which has a 6 or even 12 month follow up	This reference is for the conditions within the guidance, not the review time
Including cCMV in those needing review under 4 weeks	Children with cCMV do not require review in under 4 weeks if their hearing is normal. If it is not normal, they would fall into other categories
Row 144 Test incomplete but results to date suggests normal hearing This may not need to be a 3 month review if there are no other concerns about the child's hearing. Due to the large increase in children referred with speech and language difficulties where parents are either unsure or not concerned about their child's hearing- it would be unnecessary to see them in 3 months. It would clog up the waiting lists and cause unnecessary delay to those who definitely need to be seen on time. 6 to 12 months may be more appropriate in this group, provided we are happy with the results obtained to at least 1 high and 1 low pitched sounds. Again, the timescale needs to be individualised to the child.	These are only suggested. We would recommend that a shared decision is made with parents (as per section 8)
'Child which passed NHSP' Change 'which' to 'who'	Agree and changed

P436 – I do wonder if it's worth somewhere trying to advise people to being 'clinically alert' to not falling into a trap of endless reviewing without results and making that a bit more explicit somehow, as I think it's probably a theme from recent reviews / my experience. On that note I really liked the lines about results not tying up and being alert to that.	We have said in section 8 that no more than 2 appointments should be completed before a shared decision is made with parents regarding next steps
Line 446 – we were a bit confused by this line as the document reference is for NHS P Babies – it doesn't necessarily fit well with a 6 month review schedule as there a number of categories in there each with their own potential review time lines. It feels like the 6 and 12 month section are both referring to that document without being specific about which conditions it might apply to.	There are some conditions and age ranges where you may review the same condition differently (for example the guidance around cleft lip palate reviews changes significantly as the child ages
Is it worth having a specific bullet for onward referral to implant centres?	We have added a bullet point
As per further comments section, consideration should be given on a number of factors such as: screening results, referral question, all information from history taking including parental concerns, cumulative results obtained at any point, developmental concerns, ASD concerns, speech development. Also parental wishes. For some children it can take years before any discharge criterion is met. Surely the period review throughout the years can vary.	This is an appendix, it is only suggested times.
If a child is waiting for grommets and has a BCHA could they be seen in 6 months rather than 3 months? The 3 month monitoring period for glue ear is to aid the decision to refer to ENT if this has been done and a bone conduction aid has been provided then might be appropriate to have 6 months review.	This is an appendix, it is only suggested times.
An acknowledgement could be made that waiting lists might mean children are not seen on time. If this is the case a prioritisation system should be implemented and the waiting lists reviewed to ensure more urgent patients are brought forward.	This is an appendix, it is only suggested times.