

Newborn Hearing Screening Wales (NBHSW) – Peer Review Summary Document

December 2018

Introduction

The Early Assessment Guidance documentation, produced by Newborn Hearing Screening Programme (NHSP), and adapted for use by Newborn Hearing Screening Wales (NBHSW)¹, recommends that there should be peer review of assessments carried out following referral from neonatal hearing screening.

A system of peer review of all referrals, from NBHSW, attending for diagnostic assessment, has been in place since March 2007, with rotational allocation of peer reviewers across Wales since June 2009. All individuals undertaking NBHSW assessments are expected to send completed assessments for peer review, and to undertake the role of peer reviewer. Participation in the process is monitored by assessment sites, and verified as part of the NBHSW Quality Assurance external audit process, which takes place biennially^{2,3}.

Aims of the Peer Review Process

The British Society of Audiology (BSA) produced a guidance document outlining the principles of external peer review⁴ in 2014. The All-Wales process, which was already well-established and working effectively at time of publication of the BSA guidance, meets the key aims and objectives, as listed below:

1. To ensure the accuracy of ABR measurements undertaken on babies referred from the newborn hearing screening programmes specifically to ensure:
 - Safe discharge for babies with satisfactory hearing
 - Comprehensive, reliable and accurate assessment of babies with hearing impairment upon which further management can be safely based
2. To develop and improve the quality of paediatric ABR assessment and interpretation of ABR results nationally.
3. To facilitate the exchange of knowledge and best practice and encourage productive networking in order to foster developments in quality.
4. To provide feedback to shape the development of improved guidelines and protocols eg where ambiguities are identified in the interpretation of guidance.

NBHSW Peer Review Process:

Mission Statement: To assure that neonatal hearing assessment has been carried out in line with current National Guidance, and that appropriate audiological management has been instigated.

- Assessments for all babies referred by NBHSW should be peer reviewed to assure the quality of the assessment process for all babies throughout Wales, even if the assessment has not been fully completed.
- The peer review process is not designed for 'coaching' or expression of personal opinion, and the remit of the peer reviewer is to confirm the safety and quality of assessment and management of a baby.

Accountability

The responsibility and liability for the patient, and ultimate decisions on trace interpretation and patient management, resides with the tester and the tester's organisation.

NBHSW Peer Review Process Details:

This document outlines the roles of both the tester (in preparing and sending documents for review) and the reviewer (in terms of completing the peer review and associated paperwork), together with the roles of other personnel ie. Regional Audiology Network Lead and Co-ordinator.

The flow chart (Appendix A) summarises the process.

Tester

Testing should be performed as per current NBHSW/NHSP Assessment Guidelines.

Completed Results Record Sheet, all traces and test results and masking noise calculator (if used) should be sent, electronically, for peer review within 7 days, or less, of final assessment. Specific guidance regarding sending, storage and retention of data has been written by NBHSW⁵.

		Requirements	Other Information
Results Record Sheet (RRS)	Demographics	Initials, date of birth, NHS Number only identifiers	Must include gestational age, risk factors and referral reason
ABR Printouts	Demographics	Initials, date of birth, NHS Number only identifiers	Must include test date
	Collection and Stimulus Parameters	Amplifier gain/sensitivity	Where masking has been used, a screen shot of the masking noise calculator should be sent.
		Filter settings	
		Transducer	
		Stimulus rate	
		Stimulus type	
ABR Printouts	Display	Remove waveform markers	Only one frequency and stimulus type per window
		Appropriate latency/amplitude ratio, with traces optimally superimposed	Tone pips and CMs should not be displayed together
		Maximum of 8 pairs (including averaged waveforms) per window	
		Use of 'show flat line' as appropriate (see ABR guidance document)	
Additional Tests	Tympanometry/OAE	Initials, date of birth, NHS Number only identifiers	Scanned/embedded copies to be sent
Timescale		Send by email within 7 days of final assessment (or planned date if DNA)	Record date assessment sent and log return, to ensure timely turnaround. Contact reviewer if feedback not received within 14 days of sending.

A tester can discuss peer review feedback with their NBHSW Co-ordinator if required/indicated.

Peer Reviewer

		Requirements	Other Information
Practicalities of Peer Review	Starting Point	Look at all results and make independent judgement <i>before</i> looking at RRS	
	Test Parameters	As per current protocols Minimum sweep number as per protocol	
	Air and Bone Conduction Thresholds as per protocol	Use Assessment Protocol to determine if 'gold standard' met/all required testing has been performed, including use of correct level of masking (if needed)	Where this is 'no', determine if this is justifiable eg. Baby very unwell and poor recording conditions (see tester's notes for information, or seek further details). Justifiable reasons may include Family Reason (eg. non-attendance), Baby State (eg. too restless, would not sleep), Other (to be documented)
	Tympanometry completed as per guidance	1000 Hz tympanometry performed, if needed, for complete assessment of hearing status	
	Agreement in analysis of data	Use CR, RA and Inc guidance in interpretation of ABR waveforms	Includes analysis of tympanometry, CM and OAE results
	Agreement in use of = or ≤	Use CR, RA and Inc guidance in interpretation of ABR waveforms	
	Appropriate use of correction factors	Check against gestational age at test, transducer and stimulus level factors	
	Correct Recording of Results	Check that waveform print outs, results table and summary/conclusions are consistent and correct	
	Suitable Management Plan in Place	Based on your interpretation of the results, determine if the correct management plan been put in place for the baby	
	Discussion Required	If insufficient information has been provided, or clarification is needed, make contact with Tester as soon as possible to commence discussion*	Contact can be made by phone or email

		Requirements	Other Information
	Discussion Resulting in Change to Plan	Record whether any discussions result in a change to the management plan*	
Demographics		Only minimal patient identifiers (ie. NHS number, initials, doB) plus relevant clinical information eg. Gestational age, risk status, reason for referral should be included on the RRS and accompanying results	Where additional patient identifiable information is included, or necessary clinical information is omitted this should be flagged-up to the Tester, but is not reportable. If this occurs persistently, the Tester's Co-ordinator should be notified.
Timescale		Completed and returned within 14 days of receipt	Ideally complete, or discussion started if needed, within 7 days of receipt.
Peer Review Audit Form	Completion	Complete yes/no/na for each criteria	
		If any of 1-8 are answered 'no', or there are any comments regarding discussion/management plan – details should be given on the form	
		If there is a justifiable reason for assessment not being completed to protocol, details should be given on the form	This would not constitute a variation from guidance, but should be notified to the RANL and Co-ordinator for quality monitoring purposes
	Peer Review Timescale	Record date of final planned assessment, date sent and date peer review completed and returned	If date of return is >14 days, the Tester will report this to the Peer Reviewer's RANL and Co-ordinator
	Assessment Completed To Guidance	Return form to Tester by email	
Variation from Guidance	Return form to Tester and his/her Co-ordinator by email, and copy to Tester's RANL (for audit purposes)		

*If agreement cannot be reached between peer reviewer and tester, this should be notified to the Tester's Co-ordinator who will seek further independent review of the case.

Retention of Data

The peer reviewer must keep the completed peer review form for a period of five years. Other documentation may be destroyed after agreed review. When variances from guidance are identified

and notified to Co-ordinator and RANL, consideration should be given to retention of documentation for short period of time to facilitate discussion.

Regional Audiology Network Lead

The role of the RANL in peer review is simply to hold an anonymised record, per Region, of reported variations from guidance, and to ensure that the relevant Co-ordinator is aware of these variations from guidance. The RANL is also expected to report on variations from guidance at Regional/All Wales meetings.

The RANL may be contacted with regards to procedural queries, but should not be used for second opinion.

Co-ordinator

The role of the Co-ordinator in peer review is to be aware of variations from guidance within the Region and to take action should completed peer review indicate that further investigation/change to management plan is needed.

When agreement cannot be reached between tester and peer reviewer, the tester's Co-ordinator will arbitrate, in discussion with other Co-ordinators and, if required, audiologists. Opinion outside of Wales may be sought if necessary.

The Co-ordinator may be approached by a tester to discuss peer review feedback.

In the case of serious errors, the Co-ordinator will notify the Head of Maternal and Child Screening.

Audit of Peer Review Process:

Variations from Guidance

Annual review of variations from guidance/justifiable reasons for not completing to protocol across Wales will be undertaken by the RANL(s) and reported on at All-Wales training.

Themes in variations from guidance will be used to develop further training for Audiologists, in order to try and improve practice throughout Wales.

A formal report on variations from guidance will be presented at least every two years to the Quality and Clinical Governance Board of NBHSW.

Reviewer Moderation

Consistency between peer reviewers has been audited at two points, but as per BSA Guidance, moderation of peer reviewers needs to be considered, and is under development.

References

¹ Guidelines for the early audiological assessment and management of babies referred from the Newborn Hearing Screening Programme (Version 6 - Wales), Ed J Stevens, G Sutton, S Wood, Oct 2013:

www.wales.nhs.uk/sitesplus/documents/980/EarlyAssessmentGuidance2013Wales%28i%29.pdf

² Quality Standards for Children's Hearing Services (Version 2), July 2016

www.gov.wales/docs/phhs/publications/161201childrens-hearingen.pdf

³ Quality Standards for Children's Hearing Services – The Assessment and Audit Tool (Version 2), July 2016

www.gov.wales/docs/phhs/publications/161201child-assessment-toolen.pdf

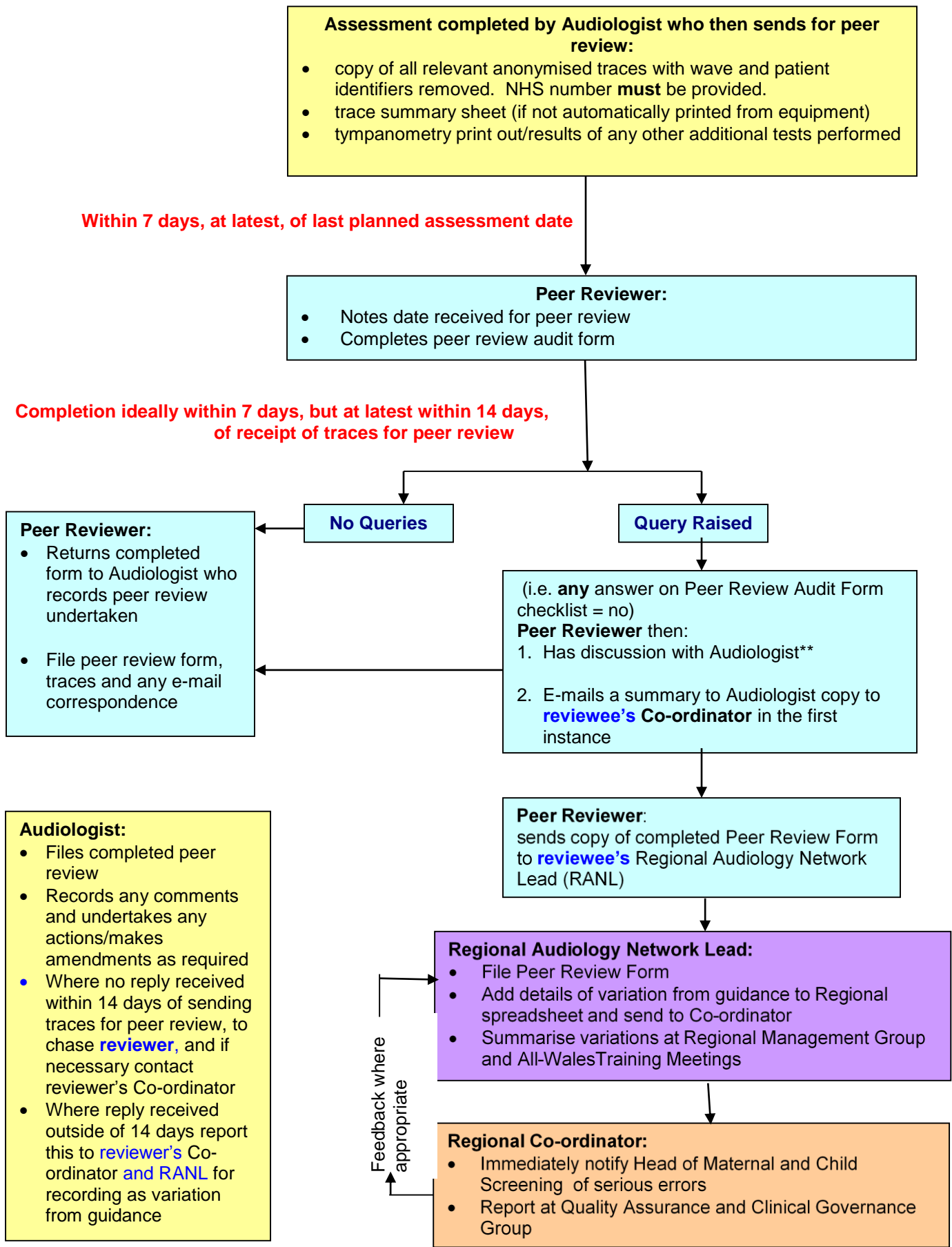
⁴ Principles of External Peer Review, British Society of Audiology (2014):

www.thebsa.org.uk/wp-content/uploads/2015/02/Principles-of-external-ABR-peer-review.pdf

⁵Guidance for Health Board Staff Undertaking Newborn Hearing Assessment and Peer Review: Storage and Retention of Electronic Records Version 2.0, Jan 2016

[www.newbornhearingscreening.wales.nhs.uk/Information for Professionals](http://www.newbornhearingscreening.wales.nhs.uk/Information%20for%20Professionals)

APPENDIX A - PROCESS FOR PEER REVIEW



** where agreement cannot be reached between Tester and Reviewer, the Reviewer is responsible for sending the assessment to the Tester's Co-ordinator who will arbitrate, in discussion with other Co-ordinators and, if required, audiologists. When outcome agreed, the processes of the peer review should be completed.

NBHSW DIAGNOSTIC ASSESSMENT PEER REVIEW AUDIT FORM

Number of review allocated by reviewer	
Name:	
NHS Number:	
Date of Birth:	

Reviewer must make decision on threshold before looking at trace

summary sheet

1 Correct test parameters used	Yes/No
2 Frequency-specific air and bone conduction thresholds established as per Protocol**	Yes/No
3 Tympanometry completed as per guidance	Yes/No/NA
4 Agreement between reviewer/audiologist analysis of data? (for ABR, significant variation from guidance is ≥ 10 dB difference in threshold)	Yes/No
5 Agreement of use of = or \leq in interpretation of data	Yes/No
6 Appropriate application of correction factor(s)	Yes/No
7 Correct recording of results (includes ear/transducer)	Yes/No
8 Suitable management plan in place	Yes/No
9 Traces sent for review ≤ 7 days from last planned assessment date	Yes/No
10 Peer review completed and returned ≤ 14 days of receipt	Yes/No
11 Discussion required	Yes/No
12 Discussion resulting in change to plan	Yes/No
13 ** If 'no', does peer reviewer feel that this is justifiable, and therefore, should not be recorded as a variation from guidance	Yes/No

If any of 1-8 are answered 'no', or there are any comments regarding discussion/management plan – give details below:

If 13 is 'yes' – give details below :

Family Reason	<i>DNA/Decline/Additional Information</i>
Baby State	<i>Too restless/Will Not Sleep</i>
Other	<i>Please give details</i>

Peer Review Timescale:

Date of last assessment	
Date sent for peer review	
Date Review Completed and Sent Back:	

Feedback:

To Audiologist (all assessments)	Yes
Feedback to Audiologist and Programme/Regional Co-ordinator if any variation from guidance or 13 is 'yes'	Yes/NA
For variation from guidance and/or if 13 is 'yes', copy of traces and peer review to Regional Audiology Network Lead	Yes/NA

Name of Reviewer:

The responsibility and liability for the patient, and ultimate decisions on trace interpretation and patient management, resides with the tester and the tester's organisation.

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