



UK National
Screening Committee



Screening Programmes

NHS Newborn Hearing Screening Programme

Failsafe processes

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Introduction

The UK National Screening Committee (UK NSC) is developing Quality Assurance (QA) processes across all the national non-cancer screening programmes in the English NHS.

The aim of QA is to provide information to the public and professionals about the quality of screening programmes. Quality assurance and performance management are an integral part of all national screening programmes to ensure that all programmes achieve the highest possible standards. Part of this work involves the development of failsafe processes and Map of Medicine care pathways.

Further details of cross programme QA, including the work on failsafe, can be found at <http://www.screening.nhs.uk/quality-assurance>.

What is Failsafe?

Screening should be offered to the eligible population in a timely manner; and those who are screened should receive their results (whether positive or negative) with sufficient information to understand them, and have them acted on appropriately. The value of a screening programme will be diminished if appropriate action is not always taken to ensure that the right people are invited to be screened, or if the right action is not taken to follow up those with abnormal test results.

Failsafe is a back-up mechanism, in addition to usual care, which ensures if something goes wrong in the screening pathway, processes are in place to (i) identify what is going wrong and (ii) what action follows to ensure a safe outcome.

Most risks and errors in a screening pathway can be predicted. They often arise from systems failure occurring along the screening pathway, as opposed to individual error. A failsafe is a mechanism to “design out” or reduce these risks. It is a back-up mechanism, in addition to usual care, which ensures if something goes wrong in the screening pathway, processes are in place to identify the error and correct it before any harm occurs.

The Failsafe Process

Failsafe should be a ‘closed loop’ process. The effective monitoring of failsafe requires the point at which a required activity is commenced and the point at which it is concluded to be noted (usually through a systematic process and/or an IT system), and a system to ensure that all opened loops have been closed within an appropriate timescale.

Opening the loop – a trigger which indicates that a process requiring a failsafe control for an individual has started; for example a pregnancy reported either by self referral or through primary care triggers the offer of an antenatal screening test.

Closing the loop – an event or a stage of the screening pathway which denotes the conclusion of a process requiring failsafe control for an individual; for example, the dispatch of a letter to inform parents that the results of newborn blood spot screening are normal. There may be a number of events that can result in a particular loop being closed; for example, a loop which is opened by a ‘condition suspected’ antenatal screening result might be closed by diagnostic testing confirming that the pregnancy is not affected, by parental choice to continue an affected pregnancy, or by termination of an affected pregnancy.

Ensuring the loop has been closed – an additional check, usually on a group of individuals, to identify any individual for whom a failsafe loop has been opened but not closed within a defined timescale; for example a systematic check that a sample card has been received at the screening laboratory for all babies born 17 or more days previously.

Most screening pathways will involve multiple failsafe loops at different levels of detail. Loops can exist within other loops; for example, a failsafe loop to ensure that every screen positive woman is offered diagnostic testing can exist within a broader loop ensuring that every woman who is screened is notified of the screening result.

Implementation of Failsafe

For this failsafe strategy to be implemented requires action at national, regional and local level. The main roles and responsibilities are outlined below.

National: Screening programmes have assessed the screening pathway and identified areas of high risk that require failsafe measures. Assessments have considered the probability of an error occurring and the severity of the consequence, with this drawing on the learning from serious incidents. Each programme has developed a diagram superimposed on their Map of Medicine pathway(s) showing the key risks along the screening pathway.

Regional: The regional team will provide expert advice on reducing risks in local programmes to providers, commissioners and SHAs. They will assess the robustness of local arrangements through audit, as part of peer review and in the investigation of incidents. They will act as a conduit for information and dialogue between national, regional and local level.

Commissioners: Commissioners are expected to incorporate the national guidance to reduce risk within service specifications and to oversee their implementation and functioning. The PCT, via its screening lead, is responsible for ensuring that the whole pathway is commissioned and that the elements communicate properly to make all failsafes work. Working with providers, they should ensure that safeguards are in place throughout the screening pathway and for high risk groups. This will require clarity about roles and responsibilities of different providers, particularly at the interfaces.

Providers: All providers are expected to review and risk assess local pathways in the light of the national guidance and work with Commissioners to develop, implement and maintain appropriate risk reduction measures. This should involve mechanisms to audit implementation and report incidents. Effective implementation requires routine staff training and development and may need changes to local roles and responsibilities. Provider organisations are also expected to ensure that appropriate links are made with internal governance arrangements, such as risk registers.

The NHS Newborn Hearing Screening Programme

The NHS Newborn Hearing Screening Programme (NHSP) offers all new parents the opportunity to have their baby's hearing screened within the first few weeks of life. It is a core service within the NHS in England and part of the family of Antenatal & Newborn Screening Programmes.

More information on the NHS Newborn Hearing Screening Programme can be found on their website at <http://hearing.screening.nhs.uk/>.

The Map of Medicine

Map of Medicine is a visual representation of evidence-based, practice-informed care pathways for common and important conditions. Pathways are freely available for health professionals through NHS Evidence (<http://www.mapofmedicine.com/england>) and for the public via NHS Choices (<http://healthguides.mapofmedicine.com>). They are also signposted from each screening programme's website and from the UK Screening Portal (<http://www.screening.nhs.uk/mapofmedicine>). They have been developed to provide accurate information on screening for health professionals and to promote safe, high quality screening services throughout the NHS.

View the NHSP-related pathways:

Newborn hearing screening –

http://healthguides.mapofmedicine.com/choices/map/newborn_hearing_screening1.html

Early audiological assessment (including permanent childhood hearing impairment management pathway) –

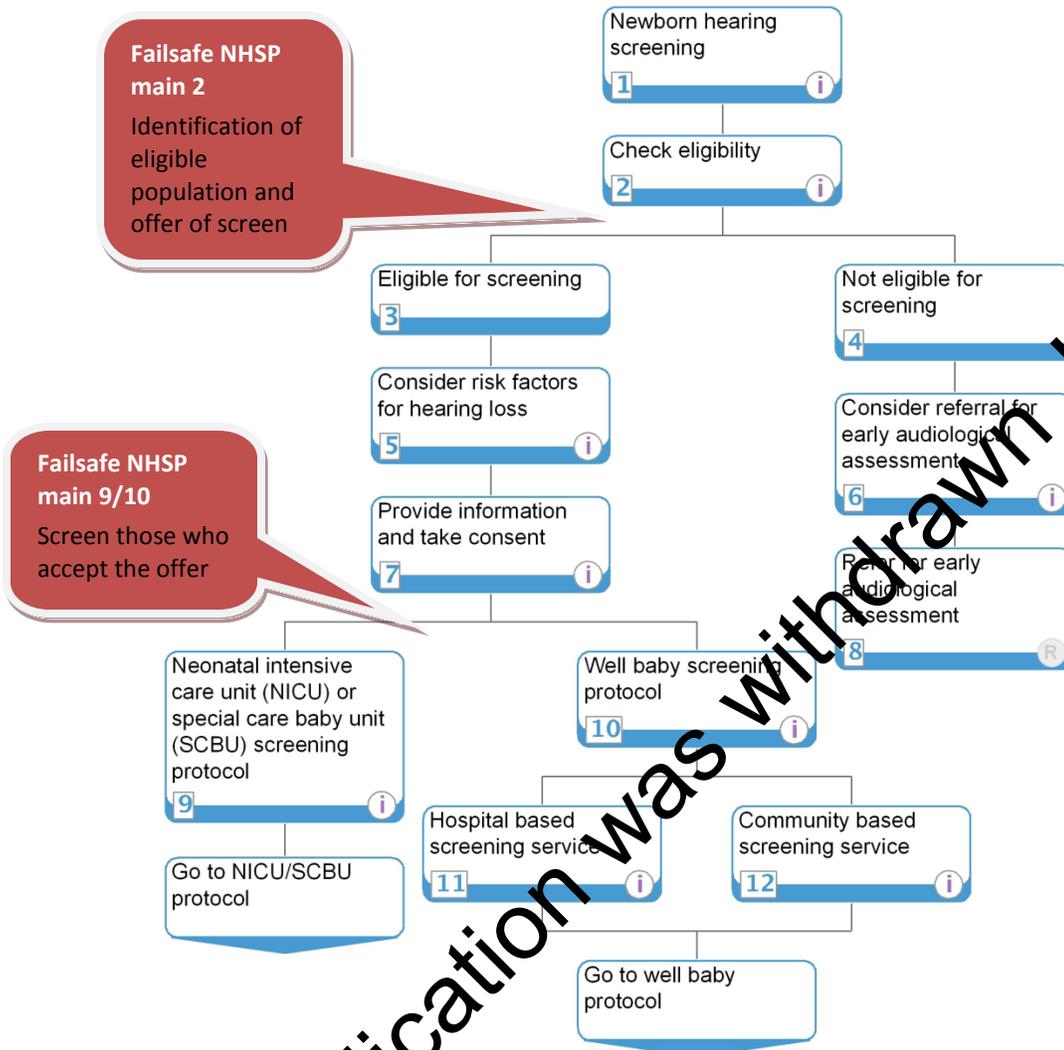
http://healthguides.mapofmedicine.com/choices/map/early_audiological_assessment1.html

NOTE : this pathway is currently (November 2010) undergoing major revision along with NHSP guidelines

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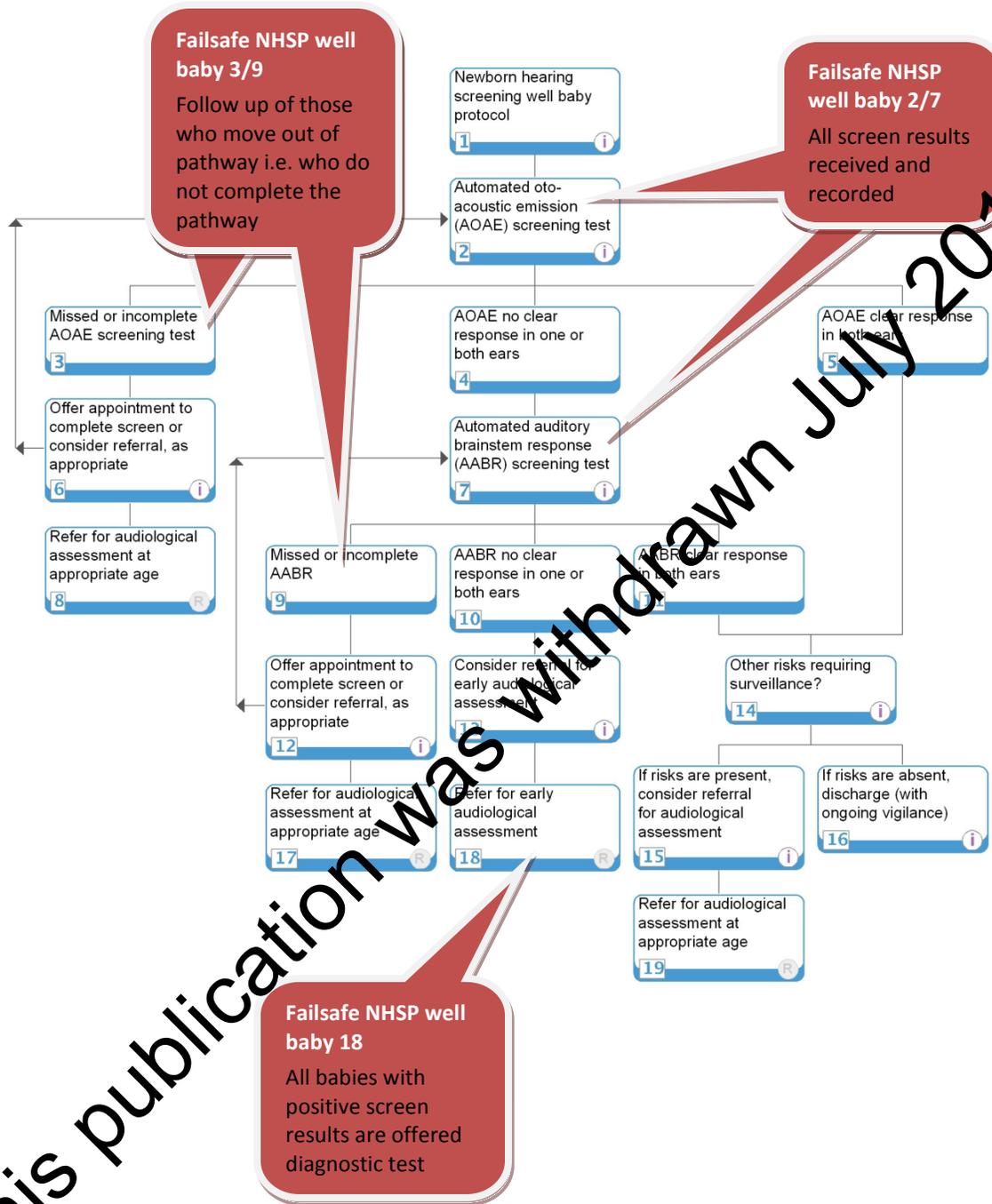
Failsafe Overview

A. Main screening pathway



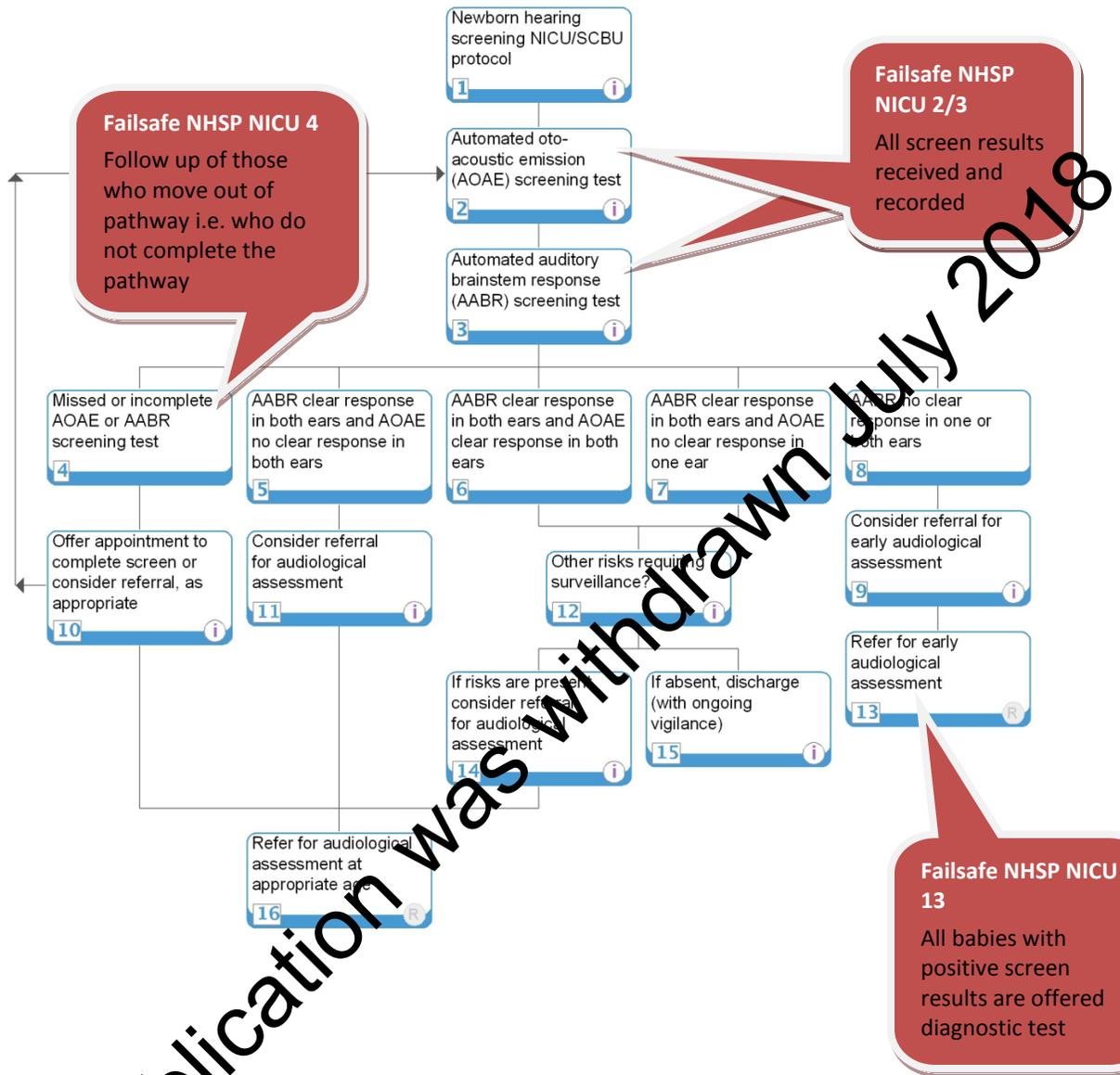
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B. Well baby pathway



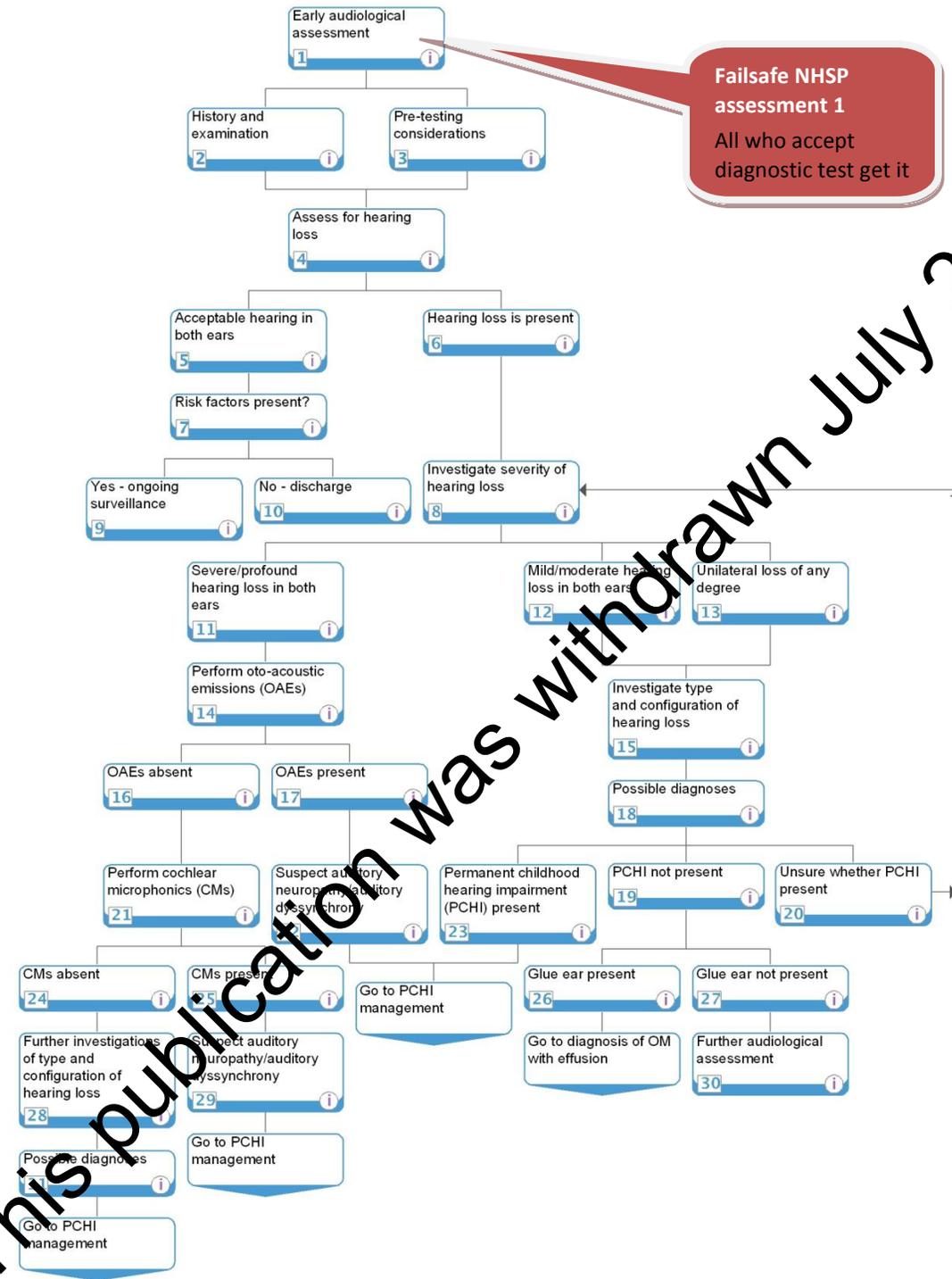
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C. NICU/SCBU baby pathway



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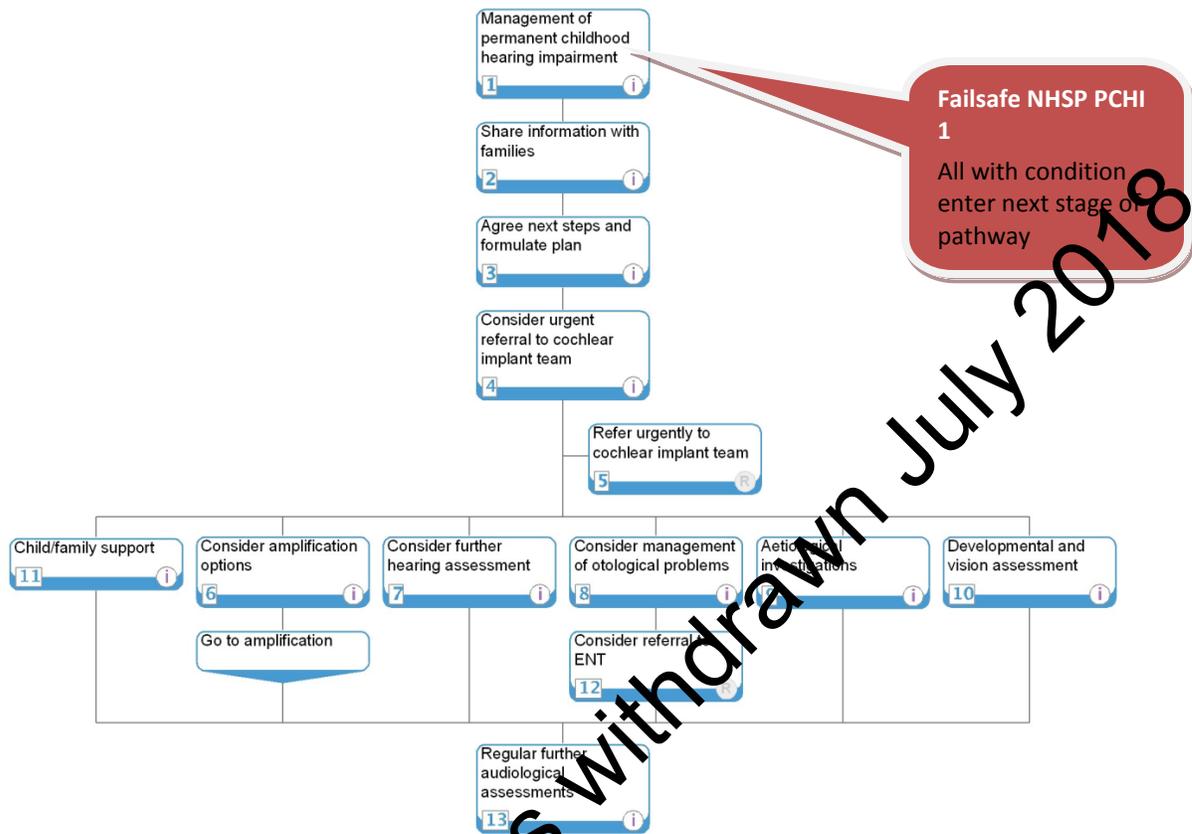
D. Audiological assessment pathway



Failsafe NHSP assessment 1
All who accept diagnostic test get it

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E. Permanent childhood hearing impairment management pathway



Failsafe Descriptions

Node(s)	Failsafe process	Opening the loop	Closing the loop	Ensuring the loop has been closed	NHSP Local Programme Management Task
Main 2	Identification of eligible population and offer of screen	Population identified, eligibility established	All eligible babies offered screen	<p>eSP is populated with birth notifications direct from NN4B</p> <p>There are processes in place to deal in the event of NN4B not available</p> <p>Local process to identify new registrations <3m corrected age. Request pending with C4H (Connecting for Health) to supply these direct as for birth notifications.</p> <p>Screeners check eligibility before screening offered</p> <p>Programme Centre(PC)monitors use of inappropriate screening outcomes via eSP</p>	<ul style="list-style-type: none"> • Patient Journey (Daily) • Transfers and Shares (Daily) • Duplicate records (Weekly) • Data Quality Checks - Exports (Monthly) • Data Management - cross checks with local Child Health System (Monthly) • QS Headline Reports (Quarterly) • NHSP Trends - ongoing review of programme performance
Main 9 / 10	Screen those who accept the offer	Screeners obtain written consent/decline and record in eSP	Screener carries out screening test	Regular checks in eSP to identify records with no screening outcome.	<ul style="list-style-type: none"> • Patient Journey (Daily) • Screen outcome

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					<ul style="list-style-type: none"> differs from eSP suggested outcome (Weekly) Data Quality Checks - Exports (Monthly) Incomplete outcomes (Monthly) QS Headline Reports (Quarterly) NHSP Trends - ongoing review of programme performance
Well baby 2 / 7 NICU 2 / 3	All screen results received and recorded	<p>Screener uploads individual screening test results electronically into eSP. Any manual entries recorded on a log and checked by local manager (hospital programmes).</p> <p>Local Manager/admin clerk enter results into eSP from paper record sent in by screener (Community programmes)</p>	<p>Screener sets screening outcomes in eSP (hospital programmes).</p> <p>Local Manager/admin clerk sets screening outcomes in eSP (community programmes)</p> <p>Note: eSP suggests correct screening outcome based on test results profile</p>	<p>Local screening manager audits accuracy of screening outcomes as per national guidance</p> <p>PC supplies programmes with monthly audit reports showing records with “clear response” screening outcomes without supporting test results</p> <p>Local Managers audit manually entered results using monthly audit report supplied by PC (hospital programmes)</p>	<ul style="list-style-type: none"> Patient Journey (Daily) Screen outcome differs from eSP suggested outcome (Weekly) Data Management - discrepant data/manual entries (Monthly) Data Quality Checks - Exports (Monthly) QS Headline Reports (Quarterly) NHSP Trends - ongoing review of programme

				<p>PC supplies Local managers with monthly audit report listing all test results electronically uploaded where the result has been changed from No Clear Response to Clear Response.</p> <p>Local Managers use Community data checker software to check results in eSP a free with results recorded on screening equipment (Community Programmes)</p> <p>PC publishes regular (quarterly/monthly) reports showing % screen complete by age 4wks, 5 wks and 3 months and % screening outcomes set by 3m.</p>	<p>performance</p>
<p>Well baby 18 NICU 13</p>	<p>All babies with positive screen results are offered diagnostic test</p>	<p>Screen outcomes are given to parents verbally and in writing by the screener at the time of test.</p> <p>Screener make a referral for a diagnostic audiological assessment for screen positives.</p>	<p>Audiology appointment date and attendance recorded in eSP</p>	<p>Screening Manager checks screen positives appointed in audiology as per national guidance</p> <p>For screen positives time from screen completion to first offered diagnostic test is published to sites in PC report, to QA team and via</p>	<ul style="list-style-type: none"> • Patient Journey (Daily) • Transfers and Shares (Daily) • Screen outcome differs from eSP suggested outcome (Weekly) • Audiological assessments - check

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				NHSP Trends	all screen referrals have appointments (Weekly)
				<ul style="list-style-type: none"> Data Quality Checks - Exports (Monthly) Screen Referral and Yield Report - review audiology data quality (Monthly) NHSP Trends - ongoing review of programme performance 	
Assessment 1	All who accept diagnostic test get it	Appointment for audiological assessment received by parents	Diagnostic assessment completed and results entered in eSP	<p>Screening Manager checks screen positives attended audiological assessment as per national guidance</p> <p>Screening Manager audits time from screen completion to first attended assessment</p> <p>For screen positives time from screen completion to attendance at assessment will be published in the next release of NHSP Trends</p>	<ul style="list-style-type: none"> Data Quality Checks - Exports (Monthly) Audiological assessments - check those >4 weeks post screen have completed assessment (Weekly) Audiological assessments - audit quality and completeness of assessment data on eSP (Monthly) Screen Referral and Yield Report - review audiology data quality

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					(Monthly)	<ul style="list-style-type: none"> NHSP Trends - ongoing review of programme performance
PCHI 1	All with condition enter next stage of pathway	Audiology refer all with identified condition to Early Intervention Service	Early Intervention service contacts the family	Robust referral route with acknowledgement of receipt of referral	<ul style="list-style-type: none"> Data Quality Checks - Exports (Monthly) Screen Referral and Yield Report - review audiology data quality (Monthly) NHSP Trends - ongoing review of programme performance 	
				<p>Dated referral recorded in eSP</p> <p>Time from confirmation of Permanent Childhood Hearing Impairment (PCHI) to referral to early intervention audited locally</p>		
Well baby 3 / 9 NICU 4	Follow up of those who move out of pathway i.e. who do not complete the pathway	<p>GP and HV notified if screen not completed</p> <p>Where non completion is due to physical move out of the area record is transferred to new screening site in eSP</p>	Audiology offer targeted follow up at 8m to those who did not complete the screen	Screening manager audits offer and attendance at targeted follow up	<ul style="list-style-type: none"> Data Quality Checks - Exports (Monthly) Screen Referral and Yield Report - review audiology data quality (Monthly) NHSP Trends - ongoing review of programme performance 	

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