

SCHEDULE 2 – THE SERVICES

A. Service Specifications

Service Specification No.	11J/0202
Service	Pan Dorset Local Children’s Hearing Service (Paediatric Audiology T2 & T3)
Commissioner Lead	Maternity and Family Health CDG
Provider Lead	
Period	
Date of Review	

1. Population Needs
<p>1.1 National/local context and evidence base</p> <p>In England about 1,000 babies are born each year with a permanent childhood hearing impairment (PCHI), two thirds of whom will be affected bilaterally. In 40 percent of these children the hearing loss will be severe or profound. Bilateral PCHI can have a major impact upon these children and their families, and is often associated with a life of consistent underachievement. This means that approximately 1.6 per thousand babies born will have a permanent hearing disorder which equates to approximately 12 babies born with a PCHI a year in the Dorset CCG population, with about 60 preschool and 240 school age deaf children in the Dorset CCG population.</p> <p>In England, an estimated further 600 children a year will develop or acquire PCHI by the age of ten. This may be the result of congenital causes (e.g. exposure to cytomegalovirus (CMV) in utero), which manifest after a period of time, or genetic progressive hearing loss. The principal causes of acquired hearing loss are mumps, meningitis, head injury, autoimmune ear disease, drugs which can be toxic to the ear and other unexplained causes.</p> <p>By the age of ten, therefore, in each year’s cohort of children in England there will be up to 1,200 children with congenital or late onset bilateral hearing impairment and between 600-800 with unilateral deafness, and 16,000-20,000 children aged 18 or under who have bilateral moderate severe or profound hearing impairment, a high proportion of whom will routinely use hearing aids, cochlear implants and other implantable devices to hear sounds.</p> <p>In addition Otitis media with effusion (OME), or glue ear, is a condition which fluctuates, causing hearing loss which may be prolonged, although transient, and in some children may have a detrimental impact on behaviour, development and achievement through to late teenage years, particularly if it was untreated in childhood. 80 percent of children have had an episode of glue ear by the age of ten and require assessment and monitoring by paediatric audiology services or sometimes in a children’s Ear, Nose and Throat (ENT) clinic if it gives cause for concern. In some cases, children are fitted with hearing aids for management of conductive hearing loss due to glue ear as an alternative to grommet insertion where surgery is contraindicated or not acceptable.</p> <p>Published in 2008 <i>Transforming Services for Children with Hearing Difficulty and their Families</i> sets out a best practice approach to the provision of paediatric audiology services. The vision for children who are deaf or have hearing difficulty is for them to be identified,</p>

assessed and receive appropriate intervention as early as possible. They and their families need to receive early support from high quality, efficient and integrated services across agencies, which respond well to their changing needs. Children’s hearing services need to be delivered as locally as possible, and to have low waits at every stage of the pathway, recognising the potential impact of unmanaged hearing loss on learning and development.

2. Outcomes

2.1 NHS Outcomes Framework Domains & Indicators

Domain 1	Preventing people from dying prematurely	
Domain 2	Enhancing quality of life for people with long-term conditions	*
Domain 3	Helping people to recover from episodes of ill-health or following injury	
Domain 4	Ensuring people have a positive experience of care	*
Domain 5	Treating and caring for people in safe environment and protecting them from avoidable harm	

2.2 Local defined outcomes

- All [Newborn Hearing Screening Programme \(NHSP\) Quality Standards](#) relevant to Tier 2 and 3 are met.

3. Scope

3.1 Aims and objectives of service

The service will be delivered by a wide range of professionals working collaboratively in a multidisciplinary team and in a network arrangement supported by the local Children’s Hearing Services Working Group (CHSWG). The service will involve a number of different healthcare providers in partnership with professionals from other agencies including the third sector, which plays a key role in supporting parents, through providing unbiased information and peer support.

The service will identify and assess children who are deaf or have hearing difficulty so that they can receive appropriate intervention as early as possible; recognising the potential impact of unmanaged hearing loss on a child’s learning and development. Early identification gives babies a better 'life chance' of developing speech and language skills and of making the most of social and emotional interaction from an early age. The service will provide children and their families with early support from high quality, efficient and integrated services across agencies, which respond well to their changing needs.

3.2 Service description/care pathway

- The service will be delivered as locally as possible and will comply with NHS Constitution standards with regard to access and wait times.
- The defined quality standards will be delivered consistently across the service, delivered by a critical mass of appropriately trained staff with the clinical skills and competencies required to deliver best practice at every step of the child’s pathway

- The service has a role in educating other non-specialist children's services on recognising hearing loss or difficulty and supporting these children and young people.

Newborn Hearing Screening Audiological Referral Pathway (8 Month Targeted Follow Up)

Babies older than 3 months of age, or where screening is incomplete or where the baby is otherwise not eligible for screening, will be considered for referral to audiology.

Babies with a clear response in both ears but with relevant 'risk factors' will be referred directly to audiology for audiological assessment at 7 – 9 months of corrected age. Further details of relevant risk factors are given in "*Guidelines for surveillance and audiological referral of infants & children following the newborn hearing screen*" on the NHSP website. All parents whose baby required targeted follow up should be offered an assessment which should take place before the baby is 9 months of age.

All babies with unilateral and bilateral no clear response outcomes and incomplete outcomes requiring immediate follow-up will be referred for audiological assessment at the time of screen completion or within 3 working days in exceptional circumstances. All parents of babies referred from the screen and who wish to continue should be offered an appointment that is within 4 weeks of screen completion or by 44 weeks gestational age. Note: corrected age is used for babies born at <40 weeks gestations.

Once a baby referred to audiology has been seen for assessment within audiology, it is discharged from the responsibility of the screening programme and responsibility for management transfers to the audiology service.

The Audiology service is responsible for ensuring outcome data from screened babies, as well as any children with later identified PCHI, is entered into eSP to allow screening outcomes to be effectively assessed. All audiology data should be entered electronically on eSP by the audiology service provider as soon as possible (within three working days of the test being carried out), where it is not automatically downloaded. The Audiology service and / or the paediatricians are responsible for following up on any aetiological information which has not been entered, allowing screening outcomes to be effectively assessed.

See Appendix A for components of the Dorset Children's Hearing Service Network

See Appendix B for 'Newborn Hearing Screening Programme Audiological assessment pathway' and 'NHSP Permanent childhood hearing impairment management pathway'.

3.3 Population Covered

The Local Children's Hearing Service will cover all children registered with a Dorset GP practice. Referrals to the 8 month targeted follow up element of the children's hearing service will be accepted for babies of any age, but they will not be seen for targeted follow up until they are at least 7 months corrected age.

3.4 Any acceptance and exclusion criteria.

Acceptance:

- Children who have passed their newborn hearing screen but have **specific neonatal risk factors (below)** and have not yet received a targeted follow up.

- Syndromes associated with hearing loss (including Down's)
- Cranio-facial abnormalities including cleft palate
- Confirmed congenital infection (toxoplasmosis, rubella or CMV)
- SCBU/NICU over 48hr with no clear response OAE both ears but clear response on AABR

Exclusion from 8 month targeted follow-up service:

- Any child who has already received an 8 month targeted follow up
- Children with risk factors for hearing loss that have been removed by NHSP from the list requiring targeted follow up e.g. family history of hearing loss (See prevailing [NHSP Guidelines](#) for surveillance and audiological referral of infants & children following the newborn hearing screen).
- Children who have failed to attend more than one previous targeted follow up appointment.

3.5 Interdependence with other services/providers

This specification is an essential part of the overall Children's Hearing Service Network / current audiology and hearing services across Dorset. The provider will work in close partnership with the local network, NHS England Public Health Commissioning Team, local providers of the NHSP, and the regional Supra-Specialist Centre Tier 4.

4. Applicable Service Standards

4.1 Applicable national standards (e.g. NICE)

All relevant prevailing guidance and best practice recommendations including (but not limited to) that by NICE, NHSP, BSA, NHS England, MCHAS, BAAP, NDCS, DH, RCP, UKAS, RCS. The provider is required to meet the acceptable and work towards the achievable prevailing programme standards (as detailed on <https://www.gov.uk/government/collections/nhs-population-screening-programme-standards> and amended from time to time) as relevant to the audiology service

In participating in the delivery of a national programme and to ensure national consistency, the provider is expected to fulfil the following, in respect of its role in the newborn hearing screening pathway, in conjunction with guidance from the national screening programme where appropriate and as detailed in the Standard Operating Procedures available on <http://hearing.screening.nhs.uk/protocolsandprocedures>

- work to nationally agreed common standards and policies
- implement and support national IT developments relevant to *NHSP*
- use materials provided by the national programme, e.g. leaflets, and protocols for their use
- respond to national actions/lessons such as change of software, equipment supplier, techniques
- work with the newborn screening programme provider in reporting, investigating and resolving screening incidents
- take part in quality assurance processes and implement changes recommended by QA including urgent suspension of services if required comply with failsafe procedures

5. Applicable quality requirements and CQUIN goals

5.1 Applicable national standards (eg NICE)

The provider is required to participate in a scheme for external peer-review process of ABR (as described at <http://www.thebsa.org.uk/bsa-groups/electrophysiology-group/ep-additional-resources/>).

This specification should be read in conjunction with:

- NHSP protocols <https://www.gov.uk/government/publications/newborn-hearing-screening-care-pathways>
- Managing Safety Incidents in NHS Screening Programmes <https://www.gov.uk/government/publications/managing-safety-incidents-in-nhs-screening-programmes>
- Modernising Children's Hearing Aid Services (MCHAS) protocols and guidelines <http://www.psych-sci.manchester.ac.uk/mchas/innfantHAFittingguidelines>
- diagnostic audiology protocols <http://www.thebsa.org.uk/resources/>
- Guidelines for the early audiological assessment and management of babies referred from the Newborn Hearing Screening Programme Version 3.1 July 2013 https://www.thebsa.org.uk/wp-content/.../NHSP_NeonateAssess_2014.pdf
- Guidelines for surveillance and audiological referral of infants & children following the newborn hearing screen Version 5.1 June 2012 NHSP Clinical Group https://www.gov.uk/.../NHSP_Surveillance_guidelines_v5-1_290612.pdf

Public Information

Providers must always use the nationally-developed public information leaflets relating to the screening pathway to ensure accurate messages about the risks and benefits of screening and any subsequent surveillance or treatment are provided and should involve the local and national screening team before developing any other materials.

Staffing

All staff supporting the newborn hearing screening programme work within agreed national NHSP protocols. Details of these are available on the NHSP website.

Clinical and corporate governance

The provider will:

- Ensure co-operation with and representation on the local screening oversight arrangements/structures e.g. screening programme boards/groups
- Comply with the UK NSC guidance on managing screening incidents

Working across interfaces

The screening programme is dependent on strong working relationships (both formal and informal) between the screening programme, eSP system and the local children's hearing service, as well as other teams across the pathway.

Accurate and timely communication and handover across these interfaces is essential to reduce the potential for errors and ensure a seamless pathway for service users. It is essential that there remains clear named clinical responsibility at all times and at handover of care the clinical responsibility is clarified.

Data collection, monitoring and reporting

The provider shall ensure timely and accurate completion of audiology assessment and follow-up data onto eSP for babies referred from screening as well as any children with later identified PCHI. Data should be entered onto eSP within 3 working days

Information recorded on eSP is available to the national screening programme and the provider as part of the IT system functions.

Quality assurance

The provider shall participate in national Quality Assurance processes

Safety concerns, safety incidents and serious incidents

The provider shall comply with the national guidance for the management of safety concerns and incidents in screening programmes and NHS England guidance for the management of serious incidents (<http://www.screening.nhs.uk/incidents>)

5.2 Applicable standards set

6. Location of Provider Premises

The Provider's Premises are located at:

Services will be provided as close to home as appropriate. Providers will make use of all available soundproofed rooms within the County to support this and Service Users will be offered appointments in the location closest to their home without having to travel across the county for appointments.

Elements of the service that do not require soundproofed rooms will be held at range of additional locations across the county to enable easy access to the service and minimise travel requirements for Service Users.

7. Individual Service User Placement

Components of the Dorset Children’s Hearing Service Network - Local Children’s Hearing Service and Specialist Centre (previously known as Tier 2 and Tier 3)

Case mix

- Assessment of children whose hearing is giving cause for concern, referred from primary care, parents and other professionals according to locally agreed criteria;
- Children with speech and language delay;
- Children referred from school entry screen;
- Children identified by NHSP as being at risk of late onset deafness;
- Babies referred from the Newborn Hearing Screening programme;
- All cases of OME: actively monitor hearing loss for 3 months;
- OME which requires vigilance and intervention (not watchful waiting);
- Children with cleft lip and palate, Down’s Syndrome and congenital CMV infection for routine surveillance and management of hearing loss;
- Cleft lip and palate specialist care (if CLaP Centre at this level);
- Children with complex problems;
- Complex external or middle ear disease e.g. as in Microtia, Down’s syndrome;
- Syndromic conditions with possible hearing and balance disorders;
- Fast track referrals of complex cases from GP;
- All permanent sensorineural, conductive or mixed hearing losses;
- Access to auditory processing disorder service;
- Auditory neuropathy;
- Balance problems;
- Dysacusis requiring investigations;
- Urgent referral for children ‘at risk’ of deafness through bacterial meningitis, ototoxic drugs or head injury etc.

Functions - Initial specialist assessment post 6 months

- First assessment (post 6/12),
 - Visual Reinforcement Audiometry (VRA) in the soundfield.
 - VRA inserts
 - VRA BC
- Performance testing;
- Play audiometry;

- Toy tests, several modalities;
- Full PTA;
- Speech audiometry, several modalities;
- Tympanometry;
- Active monitoring of OME once other causes of hearing loss have been excluded;
- Monitoring of some permanent conductive or sensorineural hearing losses e.g. mild sensorineural hearing losses which have been shown to be non-progressive and where a hearing aid management is not necessary. This could also include minor congenital notches or long term conductive hearing losses where surgical or hearing aid management is not appropriate;
- Distraction testing when clinically necessary / appropriate.

Assessment/investigations to include all the tests in the Children's assessment centre

Plus

- Auditory Brain Stem Response (ABR) testing with availability of appropriate transducers (Inserts, TDH headphones, bone conductor), stimuli (tone burst) and masking;
- Cortical evoked potentials;
- Transient Evoked Otoacoustic Emissions (TOAE);
- Distortion Product Otoacoustic Emissions (DPOAE);
- Auditory Steady State Responses (ASSR);
- Cochlear microphonic;
- Specific Tests for further investigating auditory neuropathy/dyssynchrony;
- Assessment of children who are 'difficult to test';
- Medical investigations for aetiology of hearing loss and investigation for associated medical problems;
- Access to paediatric vestibular assessment service;
- Access to paediatric tinnitus assessment service;
- Clinical genetics opinion;
- ENT opinion;
- Access to imaging (CT/MRI/Renal US) with facility for anaesthetic (via paediatrician);
- High Frequency Tympanometry;
- Other examinations under anaesthetic or sedation.

Diagnosis

- Evaluate the degree and type of hearing loss;

- Recognise presence of other conditions which may present as hearing loss and refer onwards for further evaluation;
- Differential diagnosis of other conditions presenting as hearing difficulties (e.g. autism, unilateral symptoms, balance problems, unusual presentations, hearing difficulties with normal PTA);
- Alert to mental health and safeguarding issues;
- Paediatric audiovestibular medicine;
- Refer to auditory processing disorders (multidisciplinary, SLT / Psychology / Audiology / Medical) service;
- Multidisciplinary approach – this may at times include joint ENT/Audiological medicine/audiology clinics;
- Multidisciplinary approach – this may at times include joint clinical genetics / Audiology / Audiological Medicine clinics.

Treatment/Management

- Manage and actively monitor OME referred from primary care, and onward referral to ENT according to agreed criteria or temporary amplification (parental choice) NICE guidelines;
- Protocol driven follow up, review and monitoring of:
 - Children who have been fitted with grommets;
 - Children with documented hearing loss;
 - Monitoring of some sensorineural hearing losses where hearing aids not required. E.g. confirmed mild non progressive hearing loss or minor congenital notches;
 - Children with hearing aids;
 - Digital hearing aid fitting for children of all ages without significant additional needs;
 - Replacement digital hearing aids;
 - Hearing aid fitting and reviews for complex cases;
 - Provision of ear moulds and replacement digital hearing aids for complex cases;
 - Children with cochlear implants and other specialist implants;
 - High risk groups identified through NHSP;
 - Rehabilitation of hearing loss;
 - Provision of ear moulds.

Long Term Support

- Liaison with teachers of the deaf and multiagency team (incl. education, social care, voluntary and

CAMHS);

- Ideally near to community paediatric services and child development centre;
- Alert to mental health and safeguarding issues;
- Transition to adult services;
- Multidisciplinary review with appropriate professionals;
- Referral to National Deaf CAMHS.

Workforce Skills Possibly Shared with Specialist Centre, Depending on Geography and Population

Coverage

- Multi-agency team (incl. education, psychology, social care, specialist speech and language therapy, third sector);
- Clinical Audiologist with appropriate training and experience in Paediatric Audiology testing;
- Clinical Audiologist Assistant / Associate Practitioner with appropriate training and experience in Paediatric Audiology testing;
- Paediatric audiovestibular physician;
- Developmental paediatricians;
- Paediatric ENT surgeon;
- Clinical genetics;
- Paediatrician with special interest in audiology (with adequate training);
- GP with Special Interest with appropriate training;
- Admin staff;
- Trained in safeguarding (one person trained at level 3);
- DSB checked;
- Know about mental health issues.

Facilities/Technology

- Easily accessible soundproofed test room to ISO 8253. [See BSA Guidelines for available test environment](#) We would not expect every site to offer this facility;
- Equipment to do the tests listed above;
- Vestibular testing facilities;
- Equipment for multidisciplinary work e.g. APD tests, speech in noise, localisation test etc.;
- Family friendly, children's play area;
- Data collection facilities and IT support. Access to the national screening management system

(eSP), Service User Management Systems and other Service User information systems, and NHS relevant databases e.g. PIMS/PAS.

To note a new NHSP IT system (eSP) is in the development, to be named 'SMaRT4Hearing' (S4H). Any reference to eSP refers to either eSP or S4H

Identification

- All newborn children are screened by specifically trained staff either in hospital, or at the primary home visit (10 to 14 days after birth);
- All professionals working with children and families are vigilant to the possibility of hearing loss;
- Where there is concern about a child's hearing, speech and language development or behaviour, they receive a timely hearing assessment;
- All children who have recovered from meningitis are referred for hearing assessment;
- School screen.

Referral and Access

- All children have timely access to the audiological services which they require;
- There are clearly defined referral pathways which are widely disseminated, and are monitored and reviewed to ensure compliance;
- Urgent referrals are seen within a 4 week period;
- Routine referrals are seen within time limits according to locally agreed 18-week Pathway;
- Waiting times for assessment are monitored effectively (e.g. using IT systems) and there are sustainable strategies to reduce waiting times.

Initial Assessment (in children's hearing service except for newborns, who go straight to the specialist centre)

- All children are assessed by audiologists trained to work with children, from a multidisciplinary team (MDT), and receive audiological assessment commensurate with their age and stage of development. Parents are recognised as key members of the team;
- Testing is carried out in appropriately sound treated paediatric test rooms;
- Accurate and complete audiological information is gathered to inform decisions about aetiology and prognosis and discussions about further management;
- All audiological procedures use equipment which is calibrated at least annually, and meets national and international standards;

- The outcome of the assessment should inform a clearly defined care management plan;
- Parents are given an appropriate verbal explanation of the audiological assessment result on the day of the assessment;
- Option of access to interpreters during the child's audiological assessment, if required;
- After the assessment, parents are given appropriate written information;
- Results of the audiological assessment are reported to the parents, referrer, GP, child health department and any other relevant professionals within seven days;
- There are written local protocols and care pathways which define appropriate management options arising from assessment, and comply with national guidance.

Management: Individual Care Plans and Multi-Agency Working for Children with PCHI (spanning the network of services as appropriate)

- An audiology individual care plan (ICP), which encourages holistic discussion of needs, agreement of priorities and regular reviews of support provided, will be developed and documented within three months of diagnosis of PCHI, by the MDT and the parents for each child with a significant hearing loss;
- Families are enabled to participate in the development of the ICP, to understand information and to make informed decisions;
- The ICP should span the constituent parts of the network which provide care and support to the child and parents;
- Outcome measures are used to evaluate the effectiveness and benefit of the service provided and to shape the ICP;
- The intended and actual outcome of any intervention is recorded in the clinical records, along with any variance from the ICP;
- Copies of the ICP and of care plan meetings are given to the parents and all other members of the MDT;
- Formal arrangements are in place for sharing information between agencies and with the parents;
- The local children's hearing service MDT includes the parents, who are central to it, and expertise in paediatric audiological assessment, development of language and speech skills, medical aspects of audiology, child development and family support, education. There will be liaison with a wider team, including paediatric otologist, social services and educational psychologist;
- The MDT has an appointed co-ordinator and a key worker for each case;
- The ICP is delivered effectively by the MDT and is reviewed and revised at regular intervals (at least six-monthly for pre-school children and annually for school age children) to ensure that objectives

have been achieved, it responds to the child's changing needs and is flexible enough to incorporate additional information as required;

- Accurate and unbiased information is shared between members of the MDT including the parents, to ensure that care is co-ordinated;
- Parents are given information about the role of the voluntary sector.

Management: Hearing Aids

Specialist centre

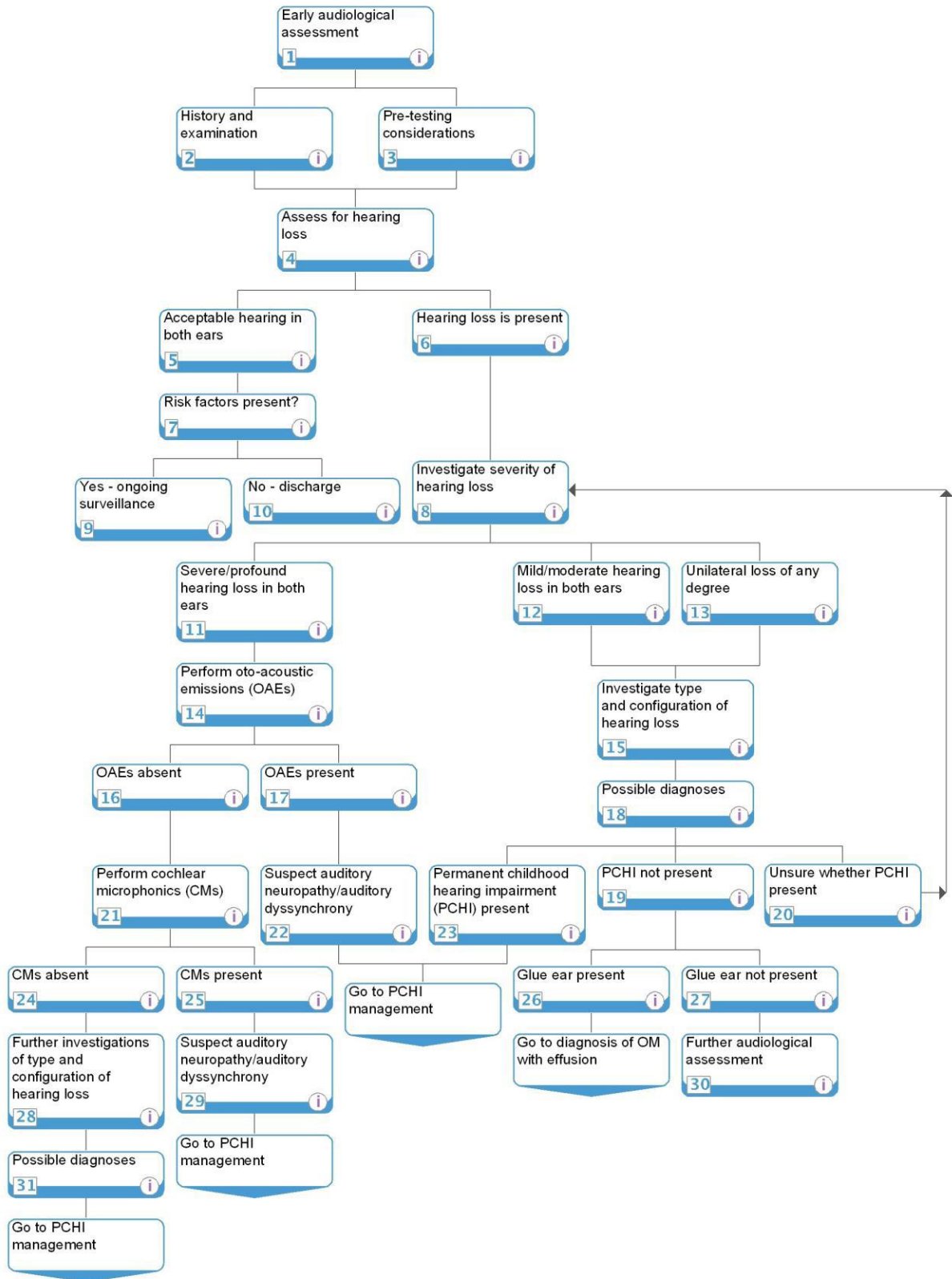
- The selection, fitting and verification of hearing aids should follow accepted best practice guidelines;
- Hearing aids should be fitted within four weeks of diagnosis and programmed to the hearing loss, taking the child's age and needs into account to ensure effective amplification. This may take longer for a new born baby, until the precise nature of the hearing loss is understood;
- Good liaison with local teacher advisory service for hearing loss;
- For children wearing hearing aids, there is same day access to a repair service, and a quick turnaround postal service (three working days) for replacement batteries. Moulds are returned or replaced within five working days;
- Service users' satisfaction with repair and replacement services is monitored.

Family Centred Care

- Each service has in place processes and structures to facilitate communication with families;
- Services are family friendly, with good play areas for children attending appointments and siblings;
- Families are given clear information to facilitate attendance and reduce anxiety;
- Children and young people's views are sought and listened to in respect of amplification options and their impact, and information about their hearing loss is provided to them at age-appropriate levels;
- Views of service users are sought in an annual survey of families and children;
- Systems are in place to manage transition to adult services.

Appendix B

Newborn Hearing Screening Programme Audiological assessment pathway



NHSP Permanent childhood hearing impairment management pathway

