**Care Pathway encompassing Local Guidelines for**

**Children with Hearing Impairment (HI)**

The care pathway outlined below is designed for any child referred to the Speech and Language Therapy Service who presents with hearing impairment and communication difficulties.

Hearing-impairment in infancy or early childhood can have an impact upon all aspects of an individual's life and their ability to communicate and integrate with family, friends and the broader community. It can have a serious effect on education, employment and recreational activities (Austen 2004). It may affect the development of understanding, expression, vocabulary and grammar and reduces speech intelligibility.

Fortnum et al (2002) reported that almost 30% children with a hearing-impairment have a co-morbidity.

Hearing impairment in children is a global term which refers to a hearing loss that is educationally and/or socially significant, whether congenital or acquired, sudden or progressive. The service for hearing impaired children is provided for children from 0 to 19 years who have a diagnosed bilateral sensorineural, permanent conductive or mixed sensorineural and conductive hearing loss at 40db and above which is affecting their acquisition of speech, language and/or communication skills. Where a child who is already being seen by a Community Therapist for speech or language difficulties is diagnosed with such a hearing loss, that child will remain with the Community Therapist unless their progress shows they require a more specialist form of input. Such children will then be transferred to the HI caseload, with prior consent from parent/caregiver and Highly Specialist Therapist in Hearing Impairment (HI Specialist). Children with fluctuating hearing loss can be referred to the main Speech and Language Therapy service and will be allocated to the appropriate Speech and Language Therapist for their care. Where hearing loss is not a child’s primary medical diagnosis (i.e. children with complex needs), the HI Specialist will see the child in the first instance and will provide advice and strategies regarding the child’s hearing needs. The child’s ongoing care will be undertaken by either a Community Therapist or Complex Needs Therapist. The HI Specialist will take a consultative approach and will be available to provide advice to community colleagues as appropriate. The HI Specialist will provide ongoing care for a child with additional needs if that child attends a resource base for hearing impaired children. Children attending a special school will be seen by the Speech and Language Therapist allocated to that setting.

1. **Referral**

 Referrals for children with a diagnosed hearing impairment can be made by a Teacher of the Deaf or healthcare professional by letter outlining the child’s hearing status and presenting difficulties. This letter should also attach the child’s most current audiogram.

1. **Referral accepted**

 Referrals received are screened by the HI Specialist using the information contained in the referral letter . The Care Aims model Section 1 form is used to prioritise referrals. Accepted referrals will be seen by the HI Specialist for individual triage in the first instance.

1. **Diagnostic assessment**

 The initial assessment will usually be completed in a clinic environment, via observation, parental report, informal and formal assessment as deemed appropriate by the assessing therapist. The purpose of the initial assessment is to gather information about the child’s functional listening skills, the nature and severity of the child’s speech and language difficulties and how these impact upon their functional communication.

 During the initial assessment, the HI Specialist will explain their role to the parents and complete a case history using the Paediatric Service questionnaire on SystmOne, to include details of the type of hearing loss, mode of amplification, date fitted, languages used at home/nursery etc.

 An informal assessment of the child will be carried out in order to look at the child’s play, speech, language and mode of communication. A formal assessment may take place during a separate, follow-up appointment.

Informal evaluation will be made, with particular reference to

1. awareness of sound
2. level of social interaction
3. means of communication

Informal assessment should look at the child’s abilities/needs in the following areas:

1. visual awareness and attention levels
2. listening skills - both to environmental noises and speech sounds
3. lip reading skills
4. auditory discrimination (without lip reading)
5. understanding - both speech and sign language, with reference to receptive vocabulary and maximum length of command understood

Assessment of expressive skills, both speech and sign, will be made, with reference to:

1. level of communicative success
2. maximum phrase/sentence length
3. expressive vocabulary
4. enjoyment of communication
5. Other non-verbal means of communication, e.g. facial expression, mime, gesture, use of voice for means other than speech

Assesment of speech sounds will be made with reference to:

* level of intelligibility to listener
* articulation
* prosodic features of stress and intonation
* volume
* airstream mechanism
* resonance

(a tape/video recording may also be made)

Assessment will include Teachers of the Deaf and parents throughout the assessment process, who will be kept informed of assessment processes and results. Written reports will be completed as appropriate

If it is felt appropriate, formal assessment will also be carried out which may include the following:

* Specialised speech assessments designed for deaf children e.g. PETAL
* Specialised assessments which focus on auditory skills eg. GRASPS, DASL
1. Formal assessments of receptive language, e.g. TROG, BPVS, administered in sign supported English if appropriate;
2. Formal assessments of expressive language, e.g. RAPT
3. Derbyshire Language Scheme assessment and language programme may be administered orally (using Sign Supported English if required) or in BSL (as far as is relevant).
4. The Clinical Evaluation of Language Fundamentals, The Preschool Language Scales (UK) and Assessment of Comprehension and Expression may also be used to gain an overall standard score and/or age equivalent language score.
5. Other formal assessments may be used at the SALT’s discretion.

The HI Specialist will ascertain whether any previous therapy has been accessed, and the outcome of any such intervention. Parental expectations for therapy will be discussed and motivation for change will be considered.

Following the diagnostic assessment, the child/parents/carers will be given information about management options if assessment findings indicate the individual will benefit from Specialist Speech and Language Therapy intervention.

Those children who do not need the intervention of a Speech and Language Therapist to continue to develop communication skills will be discharged from the service at this point. Children who have a communication difficulty but for whom specialist input may have no real benefit or effect on their skills and/or rate of progress, may be transferred to a Community therapist.

At this point in the pathway, the local clinician may seek the advice of the HI Specialist, via a supervision discussion or second opinion if indicated and will continue to manage the case at a local clinic level. The opinion of the HI Specialist can also be sought later in the pathway if required.

1. **Intervention episodes**

Information from the diagnostic assessment is used to guide an informed decision regarding the level of clinical risk each individual child has at that time. Children may be offered indirect or direct treatment at any time based on their level of clinical risk and need and the HI Specialist’s informed decision about which intervention strategy is most appropriate at that time. Different direct treatment options are available and are outlined on the care pathway flow chart. The HI Specialist may work alongside colleagues in Health and Education Services when working with this client group.

Due to the recognised ongoing and pervasive impact of hearing impairment on learning and all areas of the National Curriculum, the preferred option is to integrate therapy targets into the curriculum through collaborative practice.

1. **Management commenced with goal negotiation**

Management is guided by assessment findings. Any intervention begins with an agreement of long and short-term goals for each episode of care. All goal setting is agreed with the individuals involved in therapy. The Malcolmess Care Aims model is followed. It is likely that intervention will aim to maximise the child’s communicative potential and minimise the impact of hearing impairment on their interactions and educational success.

* 1. Indirect

The HI Specialist may make an informed decision that an individual’s case is most appropriately managed by offering indirect therapy. This may involve advising the child or parents/carers of strategies to implement in the home setting with monitoring at individually agreed intervals by the HI Specialist; virtual sessions may also be offered which allows the HI Specialist to observe parent child interaction within the home setting and to offer coaching to parents on-line. Indirect strategies may also include school visits to explain the targets and model the activities suggested together with virtual sessions which allows the HI Specialist to monitor a child’s progress against set targets within the school setting.

(b) Direct

Direct therapy may involve 1:1, small group or paired work in the clinic or the educational setting, at intervals agreed between the HI Specialist, child and parents/carers. Different therapy approaches are used as judged most appropriate for the individual, based on assessment findings and discussion with the child and/or parents/carers. Therapists have responsibility to ensure intervention is evidence-based.

1. **Reassessment**

 Following an episode of care, the individual’s needs are reassessed against the targets set out in the care plan. If there is an ongoing clinical risk, they may re-enter the care pathway for a further episode of care. Where appropriate, the child will be formally assessed on a yearly basis to ensure that their skills are progressing.

1. **Discharge**

Local discharge procedure is followed when aims of intervention are achieved, no further difficulties present, discharge is requested by the patient (this may be implied through non-attendance) or it is agreed that an individual is able to self-manage their own communication needs. Additionally, a child may be discharged at assessment if it is felt they do not present with communication difficulties and Speech and Language Therapy will not be of benefit to them.

1. **Referral for specialist assessment outside the Trust**

 Where it is felt that a more specialist opinion is required than can be offered locally, a child may be referred for assessment at a specialist centre at any point in the pathway. This may, for example, involve a referral to the Nuffield Hearing and Speech Centre at the Royal National Throat, Nose and Ear Hospital or the Cleft Palate Team at Great Ormond Street Hospital or St. Thomas’ Hospital.

**At any point in the pathway, referral may be instigated to other relevant agencies to support needs which go beyond the scope of Speech and Language Therapy**

Accepted: Primary need = difficulty acquiring speech, language and communication skills due to hearing loss -

* bilateral sensorineural,
* Permanent conductive,
* mixed conductive + sensorineural

Hearing loss = 40db and above (moderate)

Diagnosed Auditory Neuropathy Spectrum Disorder

Referral received and paper triaged by HI Specialist

Not suitable for specialist caseload due to: unilateral HL, fluctuating hearing loss (glue ear) bilateral mild hearing loss, hearing loss is not the child’s primary need eg. complex needs, Downs Syndrome

Child allocated for group triage, individual assessment or further management at local clinic as child would not benefit from Specialist HI input.

Initial assessment

Intervention – provided at clinic, within mainstream settings, within specialist HIUs

direct

indirect

School visit or virtual sessions with LSA and/or parent + child to monitor progress against targets

Rolling block of therapy, every other week

Intensive weekly therapy

Transfer from HI caseload to local clinic if child shows slow progress which is attributed to a new diagnosis which is found to be the child’s primary need

 Monitoring by local ToD or Head of Unit if child attends HI Unit

In accordance with local discharge procedure

 Discharge

Short blocks of 1:1 sessions

 Review

Care Plan