



Module Specification: Paediatric Assessment (6 months +)

Version 2.1

Purpose of this specification

This document makes explicit the knowledge and skills that are expected from an HTS candidate relevant to the scope of this module, and outlines additional elements needed to be completed prior to examination, such as secondments and case studies. All the prescribed elements of the module must be completed prior to application for the final examination.

It is important that this document is read together with the HTS regulations which clarifies requirements and gives further guidance.

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1.0 Scope of this Module

This module relates to M-level training to develop theoretical knowledge and practical skills to enable competency assessing babies and children at or above over 6 month's developmental age.

Clinical competence is expected in testing children whose primary suspected problem is hearing loss or speech delay or both. Such cases should include new referrals and patients under review. Whilst it is recognised that cases are sometimes more complex than predicted from the referral, it is intended that these cases are 'routine', and would be typical of new referrals to a tier 2 paediatric clinic. Candidates are not expected to be competent in leading the assessment of cases where there are other significant disabilities that would provide major challenges to assessment (e.g., serious visual impairment, severe motor impairment, significant learning disability or social-communicative disorder).

Although candidates are not expected to assess cases with a lower developmental age or more complex needs, they are expected to be able to manage these cases appropriately should they present in a tier 2 clinic, for example by referring on as needed and providing appropriate debrief to parents / carers. Candidates are expected to be familiar with assessment options and referral routes for such cases so they can advise parents and carers appropriately and answer routine questions.

Candidates are expected to manage the situation if a permanent childhood hearing impairment is diagnosed, as would be the case in a Tier 2 clinic in their department. This may vary between different departments, with some departments involving a more senior member of staff should this situation arise, and others expecting the candidate to manage the situation themselves. As such, there is not a requirement for the candidate to have experience and demonstrate skills in PCHI diagnosis giving, but there is the expectation that the candidate will be able to manage such a situation appropriately, should it arise.

This module is classed as a large HTS module.

2.0 Minimum requirements for this module

This module requires candidates to have existing skills and knowledge equivalent to that of a BSc in Audiology.

The detailed minimum requirements for completion, prior to examination are summarised in the following table. However, it should be noted this is a minimum requirement only, many candidates require more experience or training than this to enable them to meet the examination standard, and / or would benefit from a wider variety of learning opportunities such as placements with other professionals. The guidance notes should be followed, any experience which does not comply with this guidance cannot be counted towards the minimum requirements.

Element	Minimum
M-level credits	10 credits
Total supervised clinical sessions *	40
Tutorials	5
Secondment sessions*	10
Placement sessions	1 in Soundfield calibration
Part A – direct observations of clinical skills	N/A
Part B – Competencies - periodic appraisals of whole patient management <u>and</u> reflective diary.	5 appraisals in each category
Case Studies	2**

*A session is a minimum of 3.5 hours to include clinic preparation, seeing patients and any subsequent record and report writing.

**One from each of the exam case types

3.0 Theoretical knowledge

The candidate is expected to gain the following theoretical knowledge through academic study, tutorials, self-study and discussion:

1. Knowledge of child development to include physical, cognitive and communication aspects to enable recognition of when development may not be following a typical path or timeline, such that onward referral may be appropriate.
2. To be able to contextualise childhood hearing loss from the socio-emotional, educational and medical perspective, to include:
 - a. knowledge of epidemiology, aetiology and risk factors
 - b. embryology and neuromaturation of hearing
 - c. genomics related to hearing loss and genetic counselling
 - d. the impact of childhood hearing loss on family and on child development
 - e. the importance of timely hearing assessment and its link to speech and language development

3. Critically evaluate the evidence relevant to benefit from early intervention for permanent hearing loss in children
4. Critically evaluate the evidence relevant to the effects, management and outcomes for children with temporary hearing loss
5. Appraise policies and guidelines, position statements and best practice with regard to child health and hearing including understanding of the principles and practice of surveillance and newborn hearing screening programmes and knowledge of national guidelines and recommended procedures that govern testing of babies and children
6. Knowledge of stage B calibration procedures for all equipment used in paediatric testing, with detailed knowledge of soundfield calibration
7. Content of a full and relevant history (including medical, developmental, and family aspects)
8. Integrative understanding of child maturation and development to choosing, interpreting and synthesizing different hearing assessment techniques in children
9. Knowledge of the different types of objective and behavioural assessment tests available for testing children, including their application at each stage of development
10. Detailed knowledge of hearing assessment techniques for babies and children with a developmental age of 6 months and above.
11. Understanding of the factors that contribute to successful hearing assessment of a child including accuracy, sensitivity, reliability and the scientific evidence underlying paediatric assessment methods
12. Knowledge of and ability to reflect upon the evidence and value of holistic, family-centred, and transdisciplinary care in paediatric audiology including informed choice, joint working, shared decision making and safeguarding, as well as sources of support
13. Knowledge of and the ability to critically evaluate the evidence for diagnostic, management and support approaches in a variety of paediatric conditions within and related to audiology e.g PCHI, OME, ANSD, APD
14. Knowledge of safeguarding to include types of abuse, risk factors and local procedures should any concern arise
15. Awareness of communication strategies and appropriate language when working with children and their families / carers
16. Knowledge of risk factors and preventative measures, and appropriate public health messages with regard to hearing loss prevention
17. How to integrate relevant information to make a shared informed decision concerning the diagnosis and management of individual cases
18. Understand their own role and those of other professionals (e.g. speech and language therapist, paediatrician, teachers of the deaf/educational audiologists) and agencies who contribute to the management and welfare of the child and their family / carers, and local referral routes

4.0 Learning outcomes

On completion of the module the candidate should integrate theoretical knowledge and practical skills to enable them to:

1. Prepare test facilities & equipment, to include daily calibration checks and room set up
2. Formulate assessment plans, liaising with the relevant professionals to co-ordinate assessments & care, as appropriate
3. Plan clinical approaches, using clinical reasoning strategies, evidence-based practice
4. Take a full and relevant history
5. Carry out testing in a safe and effective manner adapting as required to ensure testing is appropriate for the developmental age of the child, and information gained is maximised within the time available
6. Show creativity, initiative and originality of thinking in tackling and solving practical problems
7. Collate relevant information, interpret and make an informed decision concerning the diagnosis and management of individual cases
8. Ensure that parents / carers are part of the decision making with use of person centred care

9. Ensure any concerns regarding safeguarding are recorded appropriately and are acted on, adhering to local protocol
10. Keep parent/carers and patients fully informed during all aspects of the appointment, obtaining consent for procedures as appropriate
11. Give clear information on results of hearing tests, advice and recommendation for follow-up actions/interventions to parents/carers and/or patients using appropriate language and communication strategies. This includes the ability to 'share difficult news' to parents/carers about hearing loss in infants and children
12. Keep appropriate clinical records
13. Write reports on test results and recommendations suitable for the intended audience, to include a range of professionals and parents/carers
14. Demonstrate the ability to, and articulate clearly through presentation and constructive discussion with colleagues:
 - a. Relate their own practice to a supporting knowledge base – including reference to evidence-based and/or recognised good practice
 - b. Clearly justify any of their own clinical decisions made in the assessment or management of patients
 - c. Critically appraise the context of individual assessments within national and local structures/processes for assessment and diagnosis of hearing impairment
 - d. Critically evaluate and reflect on their own actions
 - e. Show independent thought through evaluation and presentation of alternative (and justified) approaches to existing local practice

In this module the above overarching learning outcomes will apply to the indicative content outlined in part A. These learning outcomes are used to assess competency in the part B appraisals and examination.

5.0 The range of procedures in which competence needs to be demonstrated (Part A)

1. Planning for appointment to include preparation of clinical facilities & equipment, to include daily calibration checks of audiometers, tympanometers, soundfield equipment, Transient OAE and speech testing, and room set up
2. Independently and succinctly obtain a relevant case history about the child in a logical but flexible progression, and
 - a. Identify possible aetiological or contributing factors as they arise and spontaneously probe for more relevant information
 - b. Show sensitivity to the parent/carer's concerns both in questioning and information giving
 - c. Record relevant information whilst maintaining a rapport with the parent/carer and being aware of their concerns
 - d. Involve the child as appropriate
 - e. Consider the appropriate timing and detail of history taking with the impact on the child's attention
 - f. Cover the main areas defined below, unless justifiably omitted
 - g. Reason for referral and parental concern (including determining the information needs of parents)
 - h. Description of child's hearing behaviour
 - i. Results of previous hearing tests
 - j. ENT and general medical history
 - k. Speech and Language development
 - l. General development including behaviour and status of vision
 - m. Involvement of other professional agencies
 - n. School/nursery placement

- o. Tinnitus
 - p. Pregnancy and birth history, neonatal and postnatal history and treatments
 - q. Family history of hearing impairment, speech and language delay or educational special needs or disorders/syndromes associated with hearing impairment. This may include exploration of potential consanguinity in parents
3. Distraction testing to include:
 - a. Test set-up
 - b. Instructions to parents/carers
 - c. Role of presenter
 - d. Role of distractor
 - e. Stimuli presentation, timing & measurement
 - f. No sound trials
 - g. Monitoring of visual cues
 - h. Awareness of pitfalls
 - i. Result recording
 4. Soundfield VRA to include:
 - a. Test set-up
 - b. Instructions to parents/carers
 - c. Role of distractor
 - d. Role of presenter to include conditioning techniques, timing of giving reward, monitoring of visual cues
 - e. Localisation checks / use of left and right speakers
 - f. Result recording
 5. Insert earphone VRA to include:
 - a. Visual inspection and insertion of earphones
 - b. Priority of testing
 6. Bone conduction VRA to include:
 - a. Positioning of bone vibrator
 - b. Priority of testing
 7. Speech discrimination testing appropriate to the age of the child to include:
 - a. Test set-up
 - b. Instructions to parents/carers
 - c. Test selection: Co-operative, toy/ picture and wordlists
 - d. Test techniques:
 - i. Ability to maximise child's attention
 - ii. Check familiarity of vocabulary for toy based tests
 - iii. Stimulus presentation – live voice / recording, with and without lipreading
 - iv. Monitoring of signal presentation
 - v. Criterion for “pass” level
 - e. Result recording
 8. Performance testing to include:
 - a. Test set-up
 - b. Instructions to parents/carers
 - c. Conditioning strategy
 - d. Verification of response and determination of threshold/MRLs
 - e. Monitoring of visual cues
 - f. Measuring signal intensity
 - g. Result recording
 - h. Choice of game
 9. Play audiometry to include appropriate modifications to maximise information
 10. Tympanometry to include positioning of the child
 11. Acoustic reflex testing

12. Transient OAEs to include:
 - a. Placement of probe
 - b. Parameters and pass criterion
 - c. When to use and limitations

13. Debrief to child / parents / carers to include:
 - a. Explaining results, implications for communication and proposed management using appropriate language
 - b. Responding to questions from parents/carers in an appropriate way, showing sensitivity and rephrasing /re-explaining as necessary to ensure understanding
 - c. Backing up information given with information materials for parent/child where possible
 - d. Using appropriate methods to break difficult news to parents /carers (using role play if situation does not arise in practice)
 - e. Involving child in debrief, as appropriate
14. Keep appropriate clinical records: record findings and interventions delivered clearly, in a consistent format, all of which must be dated and named
15. Write reports on assessment sessions, recommended treatment plans and / or outcome of treatment as required, suitable for the intended audience, to include a range of professionals

6.0 Types of cases for periodic appraisals of whole patient management (part B)

The specified appointment types / patient categories for this module are:

- 6 - 27 months developmental age (indicative procedures: distraction testing for younger end of age range, VRA)
- 27 - 42 months developmental age (indicative procedure: performance testing)
- >42 months developmental age (indicative procedure: Play audiometry)

Part B assessments will be assessed against same criteria as the examination marking guidance. One reason that patient categories have been defined on the basis of developmental age is to help ensure that the competency of the candidate in their use of a range of test procedures is assessed (as indicated above). However, it should always be the case that the candidate has freedom to select the most appropriate test method/s for an individual patient in order to maximise information obtained within the time available. The principal test procedures performed should always be recorded on the appraisal form.

7.0 Examination details

Examination will take place over a maximum of a one-day period at the candidate's training centre, assessing the candidate against the learning outcomes for this module. This examination has two components:

1. Practical assessment of clinical skills. This will involve the direct observation of the candidate in two appointments, as outlined below, followed by a case viva after each case, plus a written report on one of these cases. The report on any new case should include the following discrete sections: history, summary of findings, interventions delivered and individual management plan
2. General viva voce, to assess the level and scope of theoretical knowledge underpinning the learning outcomes. This may explore broader issues prompted by the practical exams, and the content of this module

For the practical assessment, candidates will be examined on the assessment of two children, one in each of two categories: 8-24 months and 30-42 months. Both patients should be new referrals and not review appointments.

8.0 Examination marking guidance

	Learning outcome	0 Does not meet examination standard	1 Meets examination standard	2 Exceeds examination standard
1	Prepare test facilities & equipment, to include daily calibration checks and room set up	Omits or incorrectly performs calibration checks and equipment setup, OR is unable to identify the consequences of proceeding with incorrectly calibrated or faulty equipment, or room set up inappropriate for the session	Performs calibration checks and equipment setup correctly, and is able to identify the main consequences of proceeding with incorrectly calibrated or faulty equipment, and the room is set up appropriately for the session	Performs calibration checks and equipment setup skilfully, and is able to identify detailed consequences of proceeding with incorrectly calibrated or faulty equipment, and room is set up with a high attention to detail and patient needs
2,3	Formulate assessment plans, liaising with the relevant professionals to co-ordinate assessments & care, as appropriate Plan clinical approaches, using clinical reasoning strategies, evidence based practice	Does not select appropriate or person-specific assessment or management plans, OR is unable to explain the reasoning behind the approach taken, OR does not show sufficient knowledge of the current research evidence and clinical guidance, OR does not liaise with relevant professionals as appropriate	Identifies appropriate assessment and management plans, and modified to meet individual needs. Is able to broadly explain the reasoning underpinning the approach taken using current research evidence and clinical guidance. Liaises with relevant professionals as appropriate	Creates an assessment or management plan which is highly tailored to the patient's specific needs and consistent with current clinical guidance and evidence-based practice and liaises with the relevant professionals as appropriate
4	Take a full and relevant history	Obtains insufficient information about the patient's symptoms, difficulties and needs, health, and listening environments	Uses effective questioning and listening to elicit sufficient information about the patient's symptoms, difficulties and needs, health, and listening environments	Uses skilful questioning, and active listening to elicit a comprehensive picture of the patient's symptoms, difficulties and needs, health, and listening environments
5	Carry out testing in a safe and effective manner adapting as required to ensure testing is appropriate for the developmental age of the child, and information gained is maximised within the time available	Assessment is unsafe, OR does not follow local or national guidance (or without evidence based justifications as to why not), OR is not completed within an appropriate time, OR does not adapt the testing process to maximise data collection	Performs assessment safely, according to local and national guidance and within the appropriate appointment time allocation. Adapts the testing process where appropriate to ensure the most valuable data is prioritised	Performs assessment skilfully, according to local and national guidance and within the appropriate appointment time allocation. Adapts the testing process where appropriate to ensure the most valuable data is prioritised
6	Show creativity, initiative and originality of thinking in tackling and solving practical problems	Does not show creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session	Shows creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session	Shows a high level of creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session

	Learning outcome	0 Does not meet examination standard	1 Meets examination standard	2 Exceeds examination standard
7,8	Collate relevant information, interpret and make an informed decision concerning the diagnosis and management of individual cases. Ensure that parents / carers are part of the decision making with use of patient centred care	Does not identify an appropriate range of diagnostic and management options for the patient or does not ensure parents / carers are part of the decision making process	Integrates the details from the history, test results, research evidence, current clinical guidance and patient preferences to identify a range of appropriate diagnostic and management options for the patient, including onward referral AND ensures the parents / carers are part of the decision making process	Integrates the details from the history, test results, research evidence, current clinical guidance to identify the full range of appropriate diagnostic and management options for the patient, (including onward referral) and their likely benefits and limitations, and fully involves the parents / carers in decision making
9	Ensure any concerns regarding safeguarding are recorded appropriately and are acted on, adhering to local protocol	Does not pick up on safeguarding concerns OR does not record them appropriately, OR does not act according to local protocol	Picks up on safeguarding concerns and records them appropriately according to local protocol	Picks up on safeguarding concerns and shows a high level of knowledge about how to act on these, using appropriate documentation and referring to local protocols
10,11	Keep parent/carers and patients fully informed during all aspects of the appointment, obtaining consent for procedures as appropriate. Give clear information on results of hearing tests, advice and recommendation for follow-up actions/interventions to parents/carers and/or patients using appropriate language and communication strategies. This includes the ability to 'share difficult news' to parents/carers about hearing loss in infants and children	Communicates information to parents / carers in a way that is generally unclear or contains irrelevant information	Communicates relevant information about testing and management options to parents / carers clearly and in a way that broadly meets their needs	Effectively and clearly communicates relevant information about testing and management options to parents / carers in a way that is highly tailored to their needs
12	Keep appropriate clinical records	Clinical record omits key information or is omitted from the clinical record system	Provides a clear summary of the clinical episode, which is stored in an appropriate clinical record system	Provides clear and detailed information about the clinical episode, which is stored in an appropriate clinical record system
13	Write reports on test results and recommendations suitable for the intended audience, to include a range of professionals and parents/carers	Report omits key information, is disorganised or written using unprofessional terminology	Report provides a clear summary of the clinical episode which is logically structured and written using professional terminology	Report provides clear and detailed information about the clinical episode which is highly organised, concise, and well written using professional but accessible terminology

	Learning outcome	0 Does not meet examination standard	1 Meets examination standard	2 Exceeds examination standard
14	<p>Demonstrate the ability to, and articulate clearly through presentation and constructive discussion with colleagues:</p> <ul style="list-style-type: none"> Relate their own practice to a supporting knowledge base – including reference to evidence based and/or recognised good practice Clearly justify <u>any</u> of their own clinical decisions made in the assessment or management of patients Critically appraise the context of individual assessments within national and local structures/processes for assessment and diagnosis of hearing impairment Critically evaluate and reflect on their own actions <p>Show independent thought through evaluation and presentation of alternative (and justified) approaches to existing local practice</p>	<p>Limited ability to reflect on and critically evaluate own clinical practice, or explain clinical reasoning</p> <p>Demonstrates limited knowledge of subjects discussed</p> <p>OR</p> <p>Does not demonstrate a good working knowledge of relevant national guidelines or policies, or evidence base, or calibration aspects</p> <p>OR</p> <p>Unable to interpret or make informed decisions concerning the diagnosis, needs or management of individuals cases</p> <p>OR</p> <p>Does not demonstrate a good working knowledge of local structures, or offer critical comment</p> <p>OR</p> <p>Does not demonstrate critical evaluation or reflection skills of own practice and others, or not aware of the limits of own skills or knowledge, or when to seek advice</p> <p>OR</p> <p>Does not show independent thought during constructive discussion</p>	<p>Able to reflect on and critically evaluate own clinical practice, and explain clinical reasoning</p> <p>Demonstrates comprehensive knowledge of subjects discussed</p> <p>AND</p> <p>Demonstrates a good working knowledge of relevant national guidelines and policies, relevant evidence base, has a good working knowledge of the relevant calibration aspects of any equipment used</p> <p>AND</p> <p>Demonstrates the ability to interpret and make informed decisions concerning the diagnosis, needs and management of individual cases</p> <p>AND</p> <p>Demonstrates a good working knowledge of the local structures (i.e. care pathways) for processing patients and offers critical comment</p> <p>AND</p> <p>Demonstrates critical evaluation and reflection skills of own practice and others, and awareness of the limits of own skills and knowledge and when to seek advice</p> <p>AND</p> <p>Shows independent thought during constructive discussion</p>	<p>Able to provide insightful reflection and critical evaluation of own clinical practice, and explain clinical reasoning with reference to research evidence and clinical practice</p> <p>AND</p> <p>Demonstrates wider knowledge of subjects discussed</p> <p>AND</p> <p>Demonstrates a high level of working knowledge of relevant national guidelines and policies, relevant evidence base, has a high level of working knowledge of the relevant calibration aspects of any equipment used</p> <p>AND</p> <p>Demonstrates the ability to skilfully interpret and make informed decisions concerning the diagnosis, needs and management of individual cases</p> <p>AND</p> <p>Demonstrates a high level of working knowledge of the local structures (i.e. care pathways) for processing patients and offers critical comment</p> <p>AND</p> <p>Demonstrates a high level of critical evaluation and reflection skills of own practice and others, and high awareness of the limits of own skills and knowledge and when to seek advice</p> <p>AND</p> <p>Shows a high level of independent thought during constructive discussion</p>

Candidates must achieve a final rating of 1 or 2 in every section of the examination to achieve a pass.