

A Framework of Competences for Level 3 Training in Community Child Health

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FOREWORD

I am very pleased to present this final stage, Level 3, of our Framework of Competences in Paediatrics. This level 3 document builds on the two preceding frameworks we have published, for Basic Specialist Training and for Core Higher Specialist Training, now re-named as Levels 1 and 2. The emphasis is firmly on the achievement of competences and not on a time-based training programme. From August 2007 all trainees will enter specialty training within the framework outlined in the Modernising Medical Careers initiative. Achievement of these competences will determine a trainee's progress through the specialty training programme.

The development of this Level 3 framework, with our fifteen sub-specialty curricula, has represented a huge amount of work. I would like to thank all those chairs and members of our College Specialist Advisory Committees (CSACs) who have shown such commitment and support to this project. In particular, we would like to thank Dr Edward Wozniak and Dr Gabrielle Laing, Chairs of General Paediatrics and Community Child Health CSACs respectively, who have been involved in the development of the competences at all three levels.

The College Officers responsible for training have guided and supported this work unstintingly for the last eighteen months and I would like to thank Dr Mary McGraw, Dr Claire Smith and Dr Ian Doughty for their commitment and involvement in the project. In addition, we would like to thank Kim Brown for the development and co-ordination of this work.

These documents have been prepared for submission to PMETB in July 2006 and we hope to publish them, subject to their approval, by Christmas 2006.

Patricia Hamilton
President, Royal College of Paediatrics and Child Health
1 July 2006

Section 1 Introduction

Who is this book for?

It is for doctors at Level 3 in their training in Community Child Health, their tutors and educational supervisors.

Why do I need it?

The book gives you and your tutors guidance about the areas you need to cover during your training. It gives a clear picture of what you have to have achieved by the end of this stage of training, before you become a consultant. You need this book as it forms the basis of your assessment at the end of Level 3 Training.

How do I use the book?

You can sit down with the book on your own and use it to help you identify areas of practice that you need to work on and those areas in which you feel fairly confident. You can talk to your tutor about the balance of your experiences and look for ways to ensure that you cover all the areas you need to.

Progression

This is the final stage in your training as a paediatrician. The competences you gained during Level 1 (Basic Specialist Training) and Level 2, Core Higher Specialist Training have formed the basis for your progression into Level 3 training and on to a Consultant post. Table 1 (page 8) illustrates this progression through your training.

A note about the format of this document

This framework sets out the competences that you need to achieve by the end of Level 3 Training. These build on and develop statements of competence set out for Levels 2 and 3. You are expected to work from all three documents throughout this final stage of your training to ensure that you maintain and continue to develop areas of competence already acquired as well as developing new ones.

Sections 2 and 3 present new statements of competence for Level 3 only, in order to keep the focus clear. Trainees will need to refer back to previous documents for Level 1 and 2 competences in General and General Clinical competences

A note about assessment

The statements in this book have been expressed as *learning objectives*. These are the focus of your training.

When it comes to your assessment, at the end of this phase of your training, we will want to know how *well* you have achieved these objectives and to be confident that you are fit to practise as a Paediatric Consultant. This is what we mean when we talk about your *competence*. So while here you may have, for example, a number of detailed objectives relating to consultation skills or communicating with children, in your assessment we will want to see how you bring all these together and how competent you are overall in your communication skills. This document is not intended as an assessment document but to support training. The assessment of your competence will be by work-based assessments already in use and currently being developed.

Working group:

Kim Brown	Training and Assessment Adviser
Ian Doughty	Officer for Level 3 Specialist Training
Gabrielle Laing	Chair, Community Child Health Specialist Advisory Committee
Mary McGraw	Vice-President for Training and Assessment
Claire Smith	Donald Court Fellow
Edward Wozniak	former Chair, General Paediatrics Specialist Advisory Committee

Progression in the Professional Development of a Paediatrician

During BST	During HST	Continuing development as a consultant
<i>Acquires fundamental knowledge base</i>	<i>Applies knowledge base to provide appropriate clinical care</i>	<i>Evaluates knowledge and modifies clinical care pathways to enhance patient care.</i>
<i>Acquires clinical examination and assessment skills and applies these in clinical practice</i>	<i>Analyses clinical findings to derive appropriate differential diagnosis and management plans.</i>	<i>Evaluates assessment findings; refines and modifies management plans.</i>
<i>Acquires all basic technical skills and basic life support</i>	<i>Proficient at all basic technical procedures, some complex procedures and provides advanced life support.</i>	<i>May relinquish some skills in these areas dependent on area of clinical practice. May acquire specialty specific skills.</i>
<i>Performs allocated tasks and begins to plan tasks</i>	<i>Plans and prioritises tasks appropriately.</i>	<i>Increasing expertise with evaluation of priorities and appropriate delegation across a wide range of professionals.</i>
<i>Performs allotted teaching tasks</i>	<i>Plans and delivers teaching to trainees and other professionals. Develops peer mentoring skills.</i>	<i>Plans and modifies curricula. Performs assessment and appraisal. Able to provide mentorship.</i>
<i>Aware of management issues</i>	<i>Develops management skills and able to take responsibility for a defined project. Contributes to Committees.</i>	<i>Can negotiate and deal with conflict. Can contribute to and lead committees. Evaluates and modifies management structures.</i>
<i>Performs allocated audit projects and understands the audit cycle</i>	<i>Designs audit project and understands risk management. Able to write appropriate clinical guidelines. Understands the Clinical Governance implications</i>	<i>Facilitates audit, and evaluates results. Evaluates guidelines and ensures implementation of appropriate changes</i>
<i>Understands the principles of critical appraisal and research methodology</i>	<i>Able to appraise the literature critically and apply to clinical practice</i>	<i>Able to evaluate critical appraisal performed by others. Able to lead research projects and support others in research.</i>
<i>Works in multi-professional teams</i>	<i>Able to take the lead and accept leadership from other members of the multi-disciplinary team</i>	<i>Evaluates and modifies multi-professional team-working</i>

DRAFT

What is a Paediatrician?

Paediatricians have a detailed knowledge and understanding of diseases in children. They are skilled in looking at health and ill-health in babies, children and adolescents, and at specific health issues, diseases and disorders related to these stages of growth and development. They develop expertise in practical procedures specifically related to the good clinical care of small babies and children. Paediatricians work in multi-disciplinary teams and with colleagues from a wide range of professional groups in hospitals, general practice and in the community, in social services and schools and with the voluntary sector. They have strong communication and interpersonal skills and take on a variety of roles within their different communities of practice. They share expertise effectively and assume the responsibilities of teaching, leadership and management roles where appropriate. They work with colleagues to ensure consistency and continuity in the treatment and care of children and young people in all aspects of their well-being. They are committed to a policy of advocacy for a healthy lifestyle in children and young people and for the protection of their rights.

Paediatricians are doctors who have a particular compassion and respect for children, young people and their families and enjoy working with them. They have an expert understanding of the ways in which illness affects the child, the parents and the rest of the family and are skilled in the management of emotionally complex family situations. They show patience and sensitivity in their communications with children and their families and a particular ability to explore each individual's perspectives of a problem. They are aware of religious and cultural beliefs that parents might hold about the treatment of their children. They know how to respond in these cases, when to seek support and where to find legal and ethical guidelines to support their practice.

Paediatricians ensure that they are up-to-date in their practice and endeavour to promote evidence-based medicine where possible. They are keen to develop innovative approaches to teaching in paediatrics and to research. They are committed to the highest standards of care and of ethical and professional behaviour within their specialty and within the medical profession as a whole. Central to their work is the principle that all decisions should be made in the best interests of the child or young person in their care.

Contexts for Learning

In drawing up this framework of competences, we have envisaged a wide range of opportunities in which trainees will learn. They will be expected to work on their own, using databases and electronic libraries to research particular conditions or areas of professional practice. This work might be in preparation for a clinic, or a presentation to a group of trainees and supervisors. Trainees may engage with a distance-learning programme in order to develop greater expertise in an area that interests them or that they need to strengthen. Supervisors will need to ensure opportunities for trainees who have undertaken independent study of this kind to share their learning with others. It is through teaching about something you have read or learned or understood differently that learning is consolidated and questioned.

Feedback is essential at all stages of the teaching and learning process. Even in the course of a lecture or on a ward round trainees can communicate important messages about their learning needs through facial expressions and body language as well as in their answers to questions. Tutors need to be ready to pick up on these, to seek out actively trainees' responses to their teaching so that they can make adjustments accordingly and ensure that effective learning takes place.

As well as independent study, trainees will find themselves in a number of different communities of practice. In many cases, their learning will result from shared discussion around the diagnosis of a condition, for example, or the identification of an injury. Experienced colleagues from a range of disciplines may join a specialist team, each sharing their expertise, in order to come to a safe diagnosis or decision about how to proceed, for example in the case of suspected abuse. Trainees need to be encouraged to join these discussions so that they develop confidence in their communication skills with colleagues and in their ability to contribute to clinical decision-making.

Supervisors need to be aware of the importance of asking questions in these situations and of the most effective way to do this, so that trainees are fully engaged and learning as they listen. Closed and open questions have their place, and explicit educational strategies such as 'scaffolding' are essential. The teacher takes the

learners, step by step, from their initial level of understanding of a condition or a process, for example, to a deeper or more extensive understanding, through a formal cycle of informing, questioning, informing, testing out and consolidating new information. Ward rounds and clinics offer good opportunities for this kind of interaction, with individual trainees and groups. The exchange may be brief or sustained and it is the close focus on understanding which gives this teaching technique its power. Trainees are also encouraged to write a reflective log and it is important to make clear that this needs to go beyond a narrative of events to an analysis of the process of learning they are experiencing. This, in turn, will equip them well to become teachers themselves of less experienced colleagues.

The college is committed to an explicit educational approach. Identifying contexts for learning is the first step. But it is important to go beyond this to a consideration of the way in which different contexts influence the teaching and learning that take place or that are required. It is helpful to be able to identify apprenticeship models, or experiential learning but these alone do not tell us much about the teaching and learning process. The curriculum sets out *what* is to be learned and we know *where* these things will be learned. But it is also essential to understand *how* teachers and trainees will learn.

With the completion of the curriculum, the college is now working on resources to support the teaching and learning of its contents and on guidance for trainees and supervisors on the pedagogical process of training in Paediatrics.

For an overview of teaching and learning in postgraduate medicine, see Liberating Learning (COPMED, 2002).

Section 2 General Competences

Knowledge and Understanding

Substantial re-wording or new statements of competence for Level 3 Training

- understand the impact of physical illness on mental functioning, for both children, young people and their parents and the effect of each upon the behaviour and functioning of the other
- understand the impact of relations and mental health upon a child's or young person's current and past emotions and behaviour
- understand the impact of culture and ethnicity in presentations of physical and psychological conditions
- know, understand and be able to compare and contrast medical and social models of disability
- understand the relationship between local health, educational and social service provision
- know about the agencies, both statutory and voluntary, that can provide general and condition-specific support to children, adolescents and their families in coping with their health problems
- know the objectives of paediatric follow-up
- understand and take account in their practice of risk issues to themselves and others, including those related to personal interactions, and bio-hazards
- have a working knowledge of risk assessment and its application to personal, professional, clinical and organizational practice
- understand and take account in their practice of measures to reduce clinical risk
- know how relative and absolute risks are derived and the meaning of the terms predictive value, sensitivity and specificity in relation to diagnostic tests
- know the legal and ethical guidelines to support their work and where to find more information when required
- be aware of the multidisciplinary investigation of sudden unexpected death in infancy

- understand the management of bereavement and be aware of national guidance documents on this
- understand the purpose of post-mortem examinations and know about procedures
- understand the process of bereavement in children and families and recognise abnormal grieving patterns

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- be aware of strategies for prevention of mental health difficulties
- know the range of treatments for children with mental illness and behavioural disorders and when referral to specialist services may be appropriate
- know the factors which help families engage with change
- know the range of treatments for children with disabling conditions and when referral to specialist services may be appropriate
- know the appropriate and effective interventions to use towards the best possible quality of life for the child, minimising the functional impact of impairments and preventing or managing associated medical conditions and mental health problems
- understand the statutory requirement to notify children who may have special educational needs to the Local Education Authority (LEA)
- have a good understanding of the role of the Designated Medical Officer to the Local Education Authority (LEA)
- understand the role of specialist teachers including in the management of children with sensory impairment
- know how to help families get the support services and equipment needed for the child's participation in social and educational activities
- understand the range of psychological and psychiatric difficulties seen in children with long-term conditions, and recognise how disorders may alter in their presentation in these circumstances

(see Good Medical Practice (GMC, 2001) - Good Clinical Care: 2, 3; Delegation and Referral: 45, 46.)

Skills

Substantial re-wording or new statements of competence for Level 3 Training

- recognise the breadth of different presentations of common disorders
- recognise features of undifferentiated illness which suggest serious or unusual pathology and initiate the appropriate clinical response with appropriate urgency
- recognise the diseases and host characteristics which make certain presentations life-threatening and manage these situations with vigilance and appropriate urgency
- be able to recognise when both physical and psychological problems are present and when more than one condition or disorder may be present
- be able to assess and manage co-morbidities associated with the range of paediatric presentations

- take a history from a child, young person and parent of the presenting difficulties to acquire information in sufficient breadth and depth in a range of possible symptom areas to allow accurate formulation of the problem
- be able to undertake an assessment of the mental state of children and young people, taking into account their age and stage of development and know whether they have the skills to help them and when to seek more expert paediatric, mental health or psychiatric assessment
- have developed observation skills to support their interpretation of children's or young people's developmental levels and possible physical signs when they are unable to co-operate with formal assessments
- be able to supplement clinical assessment with standardised instruments or questionnaires
- know when to gather information from other professionals eg those working in education, social work or from others who see the child in a variety of settings
- be able to seek the views of children and young people, whatever their illness, regarding individual care and service planning, using expert resources appropriately

- be able to make a decision on the ‘most likely’ diagnosis and discuss this effectively with children and young people and their parents or carers, and with other colleagues, in the context of a plan of investigation and management
- be able to formulate a management plan for complex cases
- be able to review and modify a management plan as appropriate and know when to request help from senior colleagues or other services
- be able to take responsibility for the longer-term management of common acute and chronic cases leading or working with the multi-disciplinary and multi-agency teams, sub-specialists or networks as appropriate
- have developed expertise in practical procedures specifically related to the clinical care of small babies and children, and young people
- be able to develop and work within care pathways
- be able to manage and know how to obtain support for the consequences of chronic illness for a child, young person and their family

- be able to work effectively in multi-disciplinary teams and with colleagues from a wide range of professional groups
- be able to interact effectively with professionals in other disciplines and agencies and from the voluntary sector
- be aware of their role in the team and of their impact in the team

- have developed skills in recording consultations accurately and sensitively whilst maintaining a good rapport with the young person and family
- have developed a wide range of effective age-appropriate communication skills specific to their work with babies, children, young people and their families
- have developed credibility in their relationships with children, young people and their families, and with colleagues through their knowledge and skills and experience in clinical practice and in their ability to work independently
- have developed strategies to manage a child’s or young person’s anxiety and personal anxieties
- have developed basic behavioural management skills with parents, children and young people and with other professional colleagues

- be able to recognise, acknowledge and manage different levels of parental anxiety
- be able to assess patterns of relationships and functioning within a family and how these might impact on a child's or young person's illness, seeking professional advice where appropriate
- have developed effective skills in the management of emotionally complex family situations
- be able to recognise indicators of stress or mental health problems in family members and communicate appropriately with relevant professionals
- be able to remain calm in stressful or high-pressure situations and take a timely, rational approach to the problem
- be able to approach new situations which require good clinical judgement with an analytic and informed approach
- show confidence and independence in decision-making in the care of patients

- be able to apply effectively to their practice the knowledge and understanding acquired during training
- have developed a reflective approach to their practice, with an awareness of their level of expertise and limitations and their development needs
- show an ability to learn from their previous good practice, and from clinical errors

- be able to practise evidence-based medicine and understand and analyse critically its limits
- be able to understand the limitations of guidelines, how to use guidelines effectively and when it is appropriate to work outside guidelines
- have developed skills to deal with issues of confidentiality and stigma associated with the presenting difficulties and family background issues
- be able to discuss an assessment of the psychosocial health of a child or young person with the multi-disciplinary team while respecting patient confidentiality

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- be able to take a broad history of the child's functioning, to include the child's personal history, early development, functioning in other settings and the impact of the disorder, family background, health and social circumstances
- be able to recognise forms of emotional abuse
- be able to recognise exceptional psychosocial circumstances (for example, child abuse or severe parental psychopathology), liaising appropriately with colleagues for example in Child and Adolescent Psychiatry or Learning Disability
- know about the specific problems and symptoms of the child with long-term conditions and be able to organise support to enable them to access school and normal life
- be able to support the primary health care team, including community nurses, in the management of children with developmental, behavioural and medical problems
- be able to co-ordinate educational, social, and psychological interventions
- be able to use skills of observation to interpret children's developmental levels and possible physical signs when they are not able to cooperate with formal assessments
- be able to maintain a broad vision throughout clinical assessment, refocusing on new areas as required, towards multi-axial diagnosis
- be able to obtain, review, summarise and interpret information from a range of sources and other professionals about individual children including those who see the child in a variety of settings
- be able to seek multi-disciplinary review as appropriate
- play an active role in working with other agencies to address how children with health and medical needs are managed at school
- be able to contribute to the local Special Educational Needs (SEN) panel
- be able to write SEN medical reports on the wide range of cases that may present
- be able to provide the medical contribution to SEN annual reviews and transition planning

- be able to notify children who may have special educational needs to the LEA (Local Education Authority)
- be able to manage the child with severe allergic problems, including development of appropriate training packs for schools and others, and the organisation of their delivery
- be able to manage a 'team around the child' review for a child with a life-limiting condition

(See Good Medical Practice (GMC, 2001) - Good Clinical Care: 2, 3; Maintaining Trust: 19; Working with Colleagues 34, 36; Probity: 50.)

Values and Attitudes

Substantial re-wording or new statements of competence for Level 3 Training

- be committed to a policy of advocacy for a healthy lifestyle in children and young people and for the protection of their rights
- understand national and contribute to local initiatives aimed at reducing inequalities in child health and well-being
- practise with compassion and respect for children, young people and their families and act as a role model for others
- adopt an open-minded approach to equality and diversity in their practice
- be aware of the effects of social, cultural and religious context and conflict upon families
- understand the importance of cultural diversity and the difficulties where religious and cultural beliefs that parents might hold about the treatment of their children are in conflict with good medical practice and know when legal and ethical guidelines will support your management or view of the situation
- have developed strategies to manage relationships where health-care beliefs might cause conflict
- be able to advise patients appropriately on debates and controversies in health care
- be sensitive to the effects of stigma on children and families in relation to medical conditions

- be able to work effectively with children, young people and parents or carers, to agree and help them follow management plans
- be able to work effectively with young people who may have or may develop health care beliefs which are in conflict with those of parents or professionals, and know when legal and ethical guidelines will support your management or challenge of the situation
- be able to accept complex and difficult challenges
- show an understanding of the importance of ensuring a healthy balance between professional and domestic priorities
- have the willingness to acknowledge and reflect on the way in which they may, influenced by their earlier life experiences, have an impact on perceptions of and interactions with young people, their families and professionals

(See Good Medical Practice (GMC, 2001) - Good Medical Practice: 1; Good Clinical Care: 5; Maintaining Trust: 19; Working with Colleagues: 36.)

Teaching and Research

Substantial re-wording or new statements of competence for Level 3 Training

- have developed a range of effective teaching and learning skills in a range of clinical contexts
- be able to identify learning needs in a wide range of professionals and build on this in their teaching
- be able to elicit and act upon feedback on content and presentation of teaching
- be able to participate in teaching and research on topics within their specialty and in related areas
- conduct research with honesty and integrity, seeking ethical approval where appropriate and safeguarding the interests of patients
- demonstrate an understanding of 'good clinical practice' for all aspects of the conduct of clinical trials
- demonstrate an understanding of the role of ethics committees for clinical studies and the process of ethics applications

- understand the techniques used in epidemiological studies
- demonstrate an understanding of how to perform and interpret systematic reviews, how they differ from narrative reviews and understand the principles of meta-analysis
- understand the difference between population-based assessments and unit-based studies and be able to evaluate outcomes for epidemiological work
- be able to develop clinical guidelines, understand how they are produced nationally and how these should be used to guide their own practice
- be able to evaluate research effectively in paediatrics and child health
- take responsibility for the training, supervision and assessment of undergraduates and trainees and other professionals such as nurses, teachers and social workers in and outside the specialty
- have developed skills in the presentation of information relevant to their clinical practice for a range of audiences, including spoken presentations at meetings, written information for children and families and training materials for different groups of colleagues
- be able to lead departmental teaching programmes, including journal clubs
- be willing to accept mentoring as a positive contribution to their own professional development
- be willing to learn from others, to discuss cases openly and to seek advice as appropriate and as necessary

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- be able to teach Community Child Health to a wide variety of health professionals as well as those from other statutory and voluntary agencies
- be able to carry out audit in a community-based setting in partnership with all stakeholders whilst working to identify best, evidence-based practice

(See Good Medical Practice (GMC, 2001) - Teaching and Training, appraising and assessing: 13, 14, 15, 16; Probity: 51.)

Leadership and Management

Substantial re-wording or new statements of competence for Level 3 Training

- be able to provide specialist support to hospital- and community-based paediatric services including primary care
- be able to take on a leadership role in a multi-disciplinary team when appropriate, for example by representing the health needs of a child, young person and their family at a discharge meeting, and know when it may be inappropriate to do so
- be able to work effectively in multi-agency teams, for example, with social workers and teachers, and have developed an awareness of their own role within the team and of the skills and expertise of others
- be confident to make decisions within a team and be aware of their impact on other team members

- be able to advise the team providing advanced life support and to liaise effectively with anaesthetic and PICU staff
- demonstrate effective leadership skills in clinical situations, for example through their ability to organise, prioritise and delegate, and be able to help others to develop these skills

- have skills and strategies to manage conflict effectively
- have understanding and skills to be able to participate effectively in clinical and management meetings
- have developed effective administrative skills including ways to make best use of secretarial resources
- be able to handle enquiries from the press and other media effectively
- recognise their own working preferences and accept different approaches of colleagues

- know how to respond appropriately to health service targets and be able to participate in the development of services
- be able to work with stake-holders so that a client- or patient-centred service is created and sustained

- have gained an understanding of national and local regulatory bodies, particularly those involved in standards of professional behaviour, clinical practice and education, training and assessment
- understand the value and limitations of evidence-based medicine

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- be able to contribute to planning and implementing population policies or strategies in the field of community child health
- understand and participate in structured planning of services for children both within health and across agencies in partnership with parents and children, including development of care pathways
- be able to use, as a matter of routine, available information, for example, on local child health information system or the Special Needs register
- be able to lead confidently and competently interagency teams providing services for children
- be able to organise meetings involving parents, children and other professionals
- be able to produce clear information to meet the needs of different audiences, for example giving presentations at meetings, or providing training for different groups and individuals about improving health and well-being

(See Good Medical Practice (GMC, 2001) - *Working with Colleagues*: 34, 35, 36, 39, 42.)

Personal Commitment to Professional Standards

Substantial re-wording or new statements of competence for Level 3 Training

- understand the duty of all professionals working with children to report concerns about child protection issues to Social Services
- be able to contribute to the implementation of national and local health policy initiatives
- know and follow key legal and ethical guidelines relating to confidentiality, consent to treatment, the right to refuse treatment, continuing changes in the

law and its interpretation and be aware of variability in Scotland, Wales and Northern Ireland

- be able to generate local and evaluate national clinical guidelines and protocols in paediatric practice and public health and recognise the individual patient's needs when using them
- participate and take responsibility for clinical governance activities, and encourage and support colleagues in their participation
- be able to carry out audit in a range of settings in partnership with all stakeholders in order to identify best practice
- know about and participate in clinical and research special interest groups relevant to their specialty

- know when in the interest of the child it may be necessary to break confidentiality

- know how to find, review and maintain relevant knowledge in their specialty in order to maintain their fitness to practise
- ensure that they are up-to-date in their practice and promote evidence-based medicine where possible
- be able to evaluate their own performance critically
- be open about sharing and reviewing their practice with others
- be aware of local processes for dealing with and learning from clinical errors and to be able to work within them

(See Good Medical Practice (GMC, 2001) - 1; Maintaining Good Medical Practice: 10, 12; Relationships with Patients: 17; Working with Colleagues: 35; Dealing with Problems in Professional Practice: 26, 27, 29, 30. Probity: 58.)

See also for all of these sections: Good Medical Practice in Paediatrics and Child Health,² London: Royal College of Paediatrics and Child Health (2002).

²*Good Medical Practice in Paediatrics and Child Health*, London: Royal College of Paediatrics and Child Health (2002). Online at www.rcpch.ac.uk/publications/recent_publications.html

Communication Skills in Paediatrics

Substantial re-wording or new statements of competence for Level 3 Training

- understand the importance of directing communications to the baby, child or young person as well as to parents and carers
- have developed skills to establish a child's or young person's and family's understanding of a situation and to build on this effectively in discussion about the condition and its management
- understand the importance of seeking the views of all children and young people to inform decisions about their individual care and to encourage their participation in their care
- encourage children and young people to participate in their individual care and in the development of services, using expert resources appropriately
- have effective active listening skills in consultations with children and young people and understand the need to respect their views in accordance with their age and maturity and to respond appropriately where, for example, a child or young person is felt to be vulnerable
- have developed effective skills in working with children, young people and families to achieve concordance in planning management and treatment, enabling children and young people to maximise control over their illness and its management
- be able to respond appropriately, and know where to find assistance, in cases where a child, young person or family may not all speak English or where there is a sensory impairment that may affect understanding
- be able to respond to babies, disabled children or young people who may not be able to express themselves verbally, including those who might be in pain or distress
- be able to recognise, interpret correctly and respond to verbal and non-verbal cues from children, young people and parents
- have developed observation skills to support their interpretation of children's or young people's developmental levels and possible physical signs when they are unable to co-operate with formal assessments

- demonstrate appropriate responses and empathy for children, young people and their families experiencing difficulty and distress
- have developed a range of language strategies, such as the use of metaphor or images which relate to everyday life, to explain clearly to a child or young people and their family, their symptoms, condition or treatment, their feelings or behaviour
- be able to counsel parents about serious conditions and abnormalities within their area of expertise
- have effective strategies for careful and appropriate use of language in difficult and challenging circumstances, for example, at the birth of a baby with disabilities or where there is a conflict with colleagues
- be able to discuss the indications, benefits and adverse events of a procedure to patients, relatives and carers in a manner that will allow informed consent
- have developed a range of approaches to communicating the breadth of diagnostic possibilities and other clinical information to children, young people and their families so that consent is always informed and the plan and progress of treatment understood
- be able to advise children, young people and their families about the importance of concordance and about medication interactions and side-effects
- be able to convey and share effectively difficult or bad news, including end-of-life issues, with children, young people, parents or carers and help them to understand any choices they have or decisions to be made about ongoing management
- be able to prepare and discuss with parents, carers and other professionals “Do not attempt resuscitation” policies as appropriate, taking due account of the Human Rights Act (1998), ensuring that the best interests of the child are held as paramount at all times
- be able to seek consent for post-mortem examinations and communicate effectively with the Coroner

- be able to confirm with children, young people and their families their understanding of a situation from what has been said and written and clarify this as appropriate
- be able to explain the role of other professionals and agencies to children, young people and their families
- have the confidence to be firm and diplomatic in difficult situations, for example, when dealing with angry parents
- understand the limits of their competence, particularly in stressful situations and be willing to seek help in managing sensitive and complex situations
- be able to demonstrate to trainees how to communicate a diagnosis and prognosis effectively to children, young people and their families
- be able to demonstrate and explain to trainees strategies used to conduct effective consultations with babies, young children, adolescents and their families

- have effective skills in written communications for a range of audiences, for patients and their families, colleagues and other professional organizations
- ensure that spoken and written communications with patients and families are presented in clear, straightforward English, avoiding jargon whenever possible
- ensure that written information in the form of booklets, leaflets, information sheets and websites support verbal communications wherever possible
- ensure that written communications summarise accurately discussions with children, young people and parents or carers, and, to avoid confusion and anxiety, do not include information that was not part of the original discussion

- be able to liaise with parent support and self-help groups when necessary
- be able to prepare a court report as a professional witness and develop the skills to present such material in court
- know how to write reports about alleged abuse of children and young people for social services or the courts
- be able to write reports that explain the condition of a child or young person to non-health personnel working in the courts, social services or education
- be able to use electronic communication media, taking into consideration the principles of confidentiality outlined in the Data Protection Act

- have developed effective professional networks to support clinical practice and other activities, including research, education and management

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- be able to teach children and parents about basic carbohydrate counting and insulin adjustments
- be able to give advice about diet and exercise to the child, family and other health professionals
- be able to give advice on the management of hypo- and hyperglycaemia
- be able to advise child and family about hypo- unawareness
- be able to advise the family and the team on diabetes monitoring

Section 3 General Clinical Competences

Development

Substantial re-wording or new statements of competence for Level 3 Training

- know the range of patterns of normal development from birth to adulthood
- know and understand the range of children's or young people's psychological and social development, including the normal range and what is outside it
- be able to identify when patterns of development are abnormal and where there may be a risk of abnormality which may only become apparent with time
- know the causes of disability, how disability might affect clinical examination and assessment and be able to contribute to a multi-disciplinary approach to management
- understand the severity of the presentation, taking into account normal development in appropriate domains
- know how to institute further assessment and investigation
- know about different modes of screening and health promotion strategies
- understand the ways in which children's or young person's mental health difficulties may present in infancy, childhood and adolescence
- understand the impact of biological factors, including genetic and cognitive factors, on the mental health of children and young people
- understand the impact of other environmental factors (including violence, trauma, neglect, abuse and disruption, wherever this has occurred) on a child's development, mental health and functioning
- be able to assess the effects of recurrent or chronic illness and its treatment on growth, psycho-social, emotional, physical and sexual development and have strategies to minimize adverse effects

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- know the patterns of skill acquisition for different functional areas in children 0-19 years with neurodisabling conditions
- be able to undertake quantitative assessment of children's development and functioning

Emotional development

Substantial re-wording or new statements of competence for Level 3 Training

- understand and recognise somatisation disorders and know how to provide initial management and how to access appropriate support
- recognise pointers to fabricated and induced illnesses and know how to provide initial management and how to access available support
- understand the emotional impact of illness and hospitalisation on children, young people and their families and take action to minimize this impact
- understand how a family's, child's or young person's attitude to the problem and services may have a significant impact on the presentation and its management
- recognise the need for specialised input in cases of serious emotional distress or mental illness and ensure their needs are met within local health provision
- understand the emotional dimensions of eating disorders and recognise and initiate treatment

- be able to assess parenting skills and recognise and respond to indications of unsatisfactory or unsafe parenting
- know how to access help in cases where children or young people of different ages might be deprived of opportunities to play and to learn
- know how to manage common behavioural problems

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- understand the possible effects of communication disorders on behaviour, emotions and development
- understand the concept of attachment and its expression at different ages and developmental stages
- understand how attachment difficulties may present at different ages and developmental stages
- understand the links between early childhood abuse and trauma and attachment difficulties
- understand factors or interventions which can ameliorate such difficulties

Social development

Substantial re-wording or new statements of competence for Level 3 Training

- be able to recognise and understand the impact of autistic spectrum disorders and other organic disorders on social development

Educational development

Substantial re-wording or new statements of competence for Level 3 Training

- demonstrate, in all aspects of their practice, an understanding, of the vulnerability of a child or young person with learning difficulties

Growth and Nutrition

Substantial re-wording or new statements of competence for Level 3 Training

- know the reasons for faltering growth, including emotional factors and how to investigate appropriately
- understand and assess normal and abnormal pubertal development and its relationship to growth
- understand the environmental factors contributing to obesity and how these might be altered
- be able to recognise feeding problems and work with parents directly to offer simple advice and to treat co-morbid conditions
- know about the principles and methods and indications for nutritional support and common problems that may arise from invasive methods or refeeding
- be able to identify nutritional deficiencies and growth failure which may occur in children and young people who undergo unsupervised dietary modification

Competences specific to the specialty

By the end of Level 3 Training in Community Child Health, trainees will:

- understand the feeding difficulties associated with disabling conditions and know when to investigate and refer
- be able to fulfil a health promotion role with regard to obesity and healthy eating
- be able to define obesity using body mass index (BMI) and an appropriate BMI growth chart

- be able to carry out a full clinical evaluation of an obese child looking particularly for medical causes of obesity
- be able to identify any serious pathological consequences of obesity and refer if necessary
- be aware that school, family and societal interventions should be considered to prevent and treat obesity
- understand that in most obese children weight maintenance is an acceptable goal

Adolescence

Substantial re-wording or new statements of competence for Level 3 Training

- understand what the specific needs of young people are, in terms of their emotional, mental and physical health, and how these are different from those of children
- know the epidemiology of the main causes of morbidity and mortality in young people
- ensure that young people have access to ‘in-patient’, ‘outpatient’ and other medical services that best meet their needs
- understand why young people harm themselves and respond appropriately to actual or threatened episodes of self-harm in adolescents
- understand the consequences of self-harm and be able to work as part of a clinical network in the management of the young person who self-harms
- be able to discuss sexual health issues including basic contraceptive advice and know how to help the young person access appropriate sexual health or genetic advice
- know about national policies concerning the health care of young people, including those which help to reduce teenage pregnancy
- understand the processes of adolescence including experimental behaviours, learning by experience, achieving independence from the family, and the consequences of these on health and illness in young people
- be able to discuss comfortably with young people important health behaviours such as the use of tobacco, alcohol or recreational drugs, and intimacy and sexual activities together with the promotion of appropriate strategies for these

in relation to specific conditions such as asthma, diabetes, cystic fibrosis, physical disability

- understand the particular needs of adolescents with regard to their independence and autonomy, education and work, body image and sexual identity, concordance with medication and risk-taking and understand how these factors may be affected in young people with chronic conditions
- be able to support young people in self-management of both acute and chronic disease where they want to, and have an understanding as to how to best help when the young person cannot or does not want to manage this
- be able to discuss the implications of chronic illness or disability for career options
- where appropriate and at a negotiated time, be able to raise and agree management of end-of-life issues with young people and their families and record conclusions in medical notes
- understand issues around transition from paediatric to adult care in adolescents with chronic conditions and disabilities, and be able contribute effectively to transitional care services
- understand and value the roles of members of the multidisciplinary team in the delivery of a transitional care programme

Section 4 Specialty-specific Competences in Community Child Health

Behavioural Paediatrics

- understand why young people harm themselves and its consequences and be able to work as part of a clinical network in management
- know the immediate and longer term reactions to stress, bereavement, loss and trauma and how to manage them as part of a clinical network
- recognise when emotional and behavioural symptoms may be a time-limited response to psychological or social stress
- understand the origin of enuresis and encopresis in children, including those with special needs
- understand the indirect effects of substance misuse on mental and physical health, through experimental behaviour and lifestyle, the effects on educational, emotional and behavioural development and the impact on self-care skills
- understand the possible impact of a sleep disorder on child and family
- be aware of the association of sleep disorder in developmental disorders such as ADHD, ASD, Learning Disability
- understand the principles of treatment of chronic fatigue syndrome/ME and the need to engage the family with a rehabilitative approach
- be able to recognise different temperamental characteristics in children and advise parents appropriately
- be able to recognise the nature and severity of behavioural difficulties in the context of developmental stage and social context
- be able to offer advice on behavioural difficulties to parents and young people
- be able to provide individual behavioural treatment with parents and young people in straightforward cases and to recognise when to liaise with specialists
- be able to recognize and understand the impact of behaviour disorders on those with developmental difficulties, including specific phenotypes

- be able to recommend appropriate medication in conjunction with child mental health colleagues for behavioural difficulties, taking into account the possible complications of coexisting conditions
- be able to help families recognise the impairment resulting from medically unexplained symptoms and help them engage with CAMHS services for a range of treatment inputs
- be able to involve colleagues appropriately to help with assessment and provide complex interventions for anxiety and depression in both parents and children
- be able to reassure and advise parents, and professionals on management, explaining normal adjustment processes and distinguishing them from more significant psychopathology

Child Public Health

- be aware of the literature on social capital and community development in relation to child health and well-being
- be aware of the evidence base for interventions to reduce the impact of poverty
- be familiar with the work of the National Screening Committee and BPSU
- be aware of data sources relating to health, the census, education and social services
- understand the relationships between data, information and knowledge to identify gaps and address them effectively in collaboration with public health colleagues
- be aware of the evidence base for the prevention of childhood obesity and promotion of breast feeding, healthy eating and physical exercise
- be aware of the factors which contribute to low immunisation uptake and some of the interventions which can improve these
- be aware of evidence base for effective interventions in injury prevention
- be aware of the commissioning process for children's services in their locality
- be able to use national recommendations, for example, Health for All Children for implementing and monitoring child health promotion programmes

- be able to plan, implement and monitor a health promotion initiative involving local stakeholders
- be able to enable other professional groups to incorporate health promotion activities into their practice
- be able to provide paediatric advice to the child health promotion coordinator
- be able to use existing data and survey results in support of advice to commissioners of child health services
- be able to improve services following evaluation/performance management of a screening programme, health promotion or service delivery
- be able to explain criteria for screening to parents and other professionals
- be able to explain the ethical dilemmas posed by screening to parents and others
- be able to use available outcome measures to monitor the health of a child population and understand how they might be used to guide, monitor and improve service delivery
- be able to contribute to the development of standards, protocols, measures and guidelines with a population perspective
- be able to contribute to needs assessment on a local child population
- be able to recognise the opportunity costs of introducing a new service
- be able to provide paediatric input to the management of acute public health crises
- have developed a range of skills to enable them to respond effectively to journalists and media colleagues on issues of public interest and controversy
- be able to support immunisation programmes by contributing to training and auditing outcomes
- be able to provide advice for parent and professionals regarding children with complex immunisation histories and queries
- be able to contribute to the implementation of an immunisation initiative
- be able to advise schools on the management of common infectious diseases and infestations
- be able to advise parents on injury prevention and contribute to local injury prevention programmes

Neurodisability

- know and understand a broad range of causes of disability
- understand the aetiology and prevalence of disability, including sensory impairment, in the population, how prevalence is monitored and the use of population registers
- have the knowledge and skills to manage the ongoing difficulties of children with neurological, neurodisabling conditions and sensory impairment as part of a clinical network, recognizing the limits of own expertise and seeking expert advice
- understand how information systems can be used to manage individual cases of childhood disability and to collect population data on disability
- understand the basics of seating and equipment for children with disabling conditions
- recognize the breadth of presentations of children with developmental, neurological and sensory disorders
- know and be able to recognise the early signs of common complications, associated medical conditions and mental health problems in children with neurodisabling conditions
- be able to distinguish simple developmental delay from developmental disorders and be aware of the cases which require specific or multi-disciplinary input and refer appropriately
- be able to identify infants and children at risk of sensory impairment and be able to recognise when that impairment might contribute to developmental difficulties and refer appropriately
- make appropriate use of neuro-diagnostic tools, including neuro-imaging and neurophysiology seeking expert advice appropriately
- recognize symptoms and signs of serious and life-threatening neurological disorders and initiate an appropriate and timely clinical response
- be able to manage common seizure disorders within national guidelines
- be able to contribute to the local provision of long-term care, working with specialty services and neurological and neurodisability networks

- be able to lead long-term management of the child's overall health and developmental needs working effectively with the family and other professionals involved
- be able to perform an accurate assessment of neuro-developmental status at all ages
- be able to examine the nervous system of a newborn baby, child and young person and interpret the findings
- be able to use a range of communication skills with disabled children, their families and other professionals
- be able to assess, investigate and diagnose a broad range of developmental, visual and hearing disorders, explain the outcome and management plan to parents, carers and young people
- recognise when children's levels of cognitive functioning fall outside the broadly normal range for age
- be able to undertake comprehensive assessments, recognising indicators of significant organic disease, co-morbid neuro-behavioural or developmental disorders (especially epilepsy and autism), interpretation of psychometric assessments and implications, reaching appropriate differential diagnoses and instituting appropriate management plans for children across the range of intellectual ability
- be able to assess and diagnose all main syndromes and behavioural phenotypes at all ages and stages of development
- recognise when a developmental pattern does not follow the normal pattern for that disorder, when further investigation and specialist advice may be indicated and to arrange timely and appropriate investigation and referral when necessary
- have developed a range of skills to recognize complex language disorders which may present as behavioural disorders, selective mutism, pragmatic language deficits or where communication skills are regressing (such as those associated with epilepsy) and be able to liaise appropriately with colleagues regarding specialist investigations and management

- be able to prescribe and monitor therapy for the common neurological and developmental disorders, recognizing the limits of own expertise and seeking expert advice appropriately
- be able to work with other services such as child protection, education, services for looked after children and adult services to support and manage the disabled child
- advocate for disabled children and their families
- be able to manage medical problems and secondary complications in children with disabilities in conjunction with other paediatric and specialist colleagues
- be able to liaise with the neonatal team and provide timely support and assessment for those at risk of developing problems and requiring follow-up and those with serious congenital abnormalities
- recognise the features of common chromosome or genetic disorders, malformation or deformation syndromes, investigate and identify associated anomalies in conjunction with specialist colleagues
- be able to participate in establishing and presenting genetic diagnosis to parents, offering appropriate information and support to parents whilst awaiting definitive diagnosis and responding appropriately when a chromosome or genetic condition is diagnosed within a clinical network, even when this is unexpected

Visual/Hearing Impairment

- be able to take and interpret a history for a child with suspected visual and/or hearing impairment including family history, developmental history and possible causes
- be able to recognise when a child with other disabilities may have a visual or hearing impairment and be able to investigate and refer appropriately

Visual Impairment

- understand the anatomy, physiology, genetics and functional effects of a range of eye conditions, especially those that cause visual impairment

- understand the implications of nystagmus, refer appropriately for further visual and/or neurological assessment and be able to provide paediatric input to management
- be able to assess the child with suspected visual and /or hearing impairment, undertake and interpret a range of visual and hearing tests and be able to establish the likely extent of impairment in conjunction with specialist colleagues – suggested umbrella statement here
- be able to explain the results of tests and their implications to the child or young person, parents, carers and other professionals
- be able to differentiate between, and understand the management of, paralytic and non-paralytic squint, refer appropriately and explain this to parents
- be able to recognise when ptosis may affect vision and refer appropriately for further management
- be able to recognise congenital cataract, corneal opacities, eye tumours and retinal infections and refer urgently for further management
- be able to recognise common conditions including otitis externa, otitis media with effusion, acute otitis media, perforation

Hearing Impairment

- know about screening methods and referral pathways for suspected hearing and visual loss
- know the risk factors, common and preventable causes of vision and hearing impairment
- understand the anatomy, pathophysiology and neuroscience of the ear and its relation to hearing loss
- understand the effect of hearing loss on the child and family and how this may affect emotional development, social relationships and leisure activities
- know about the principles of management of hearing loss, including hearing aids, cochlear implantation and communication needs
- know about the specific developmental patterns that occur in the child with hearing impairment
- recognize and interpret abnormal hearing behaviour

- know about educational approaches to the child with hearing or visual impairment
- know about the effects hearing impairment may have on other disabilities especially the particular problems of the deaf/blind child

Child Protection and Children in Special Circumstances

- understand the immediate and long term impact of parental factors on outcomes for children in child protection and for children looked after, for example substance misuse, domestic violence, mental health problems, chronic physical illness, learning difficulties
- know the health and lifestyle factors of carers/birth parents which may impair the current and future health and wellbeing of children, for example smoking, mental health problems, learning difficulties
- know the long term implications of being looked after, for example, the consequences of separation, loss, multiple moves, risk of subsequent abuse in care, disrupted education and routine health care
- have a sound knowledge of consent and parental responsibility in relation to child protection examinations and the health needs of looked after children and understand the relevance of the child's care status
- understand how their role fits in with those of other agencies in the management of children in need and those in need of protection and ensure suitable follow up
- know how to assess and support the needs of children in families where there are child protection concerns
- know the appropriate investigations and management of physical injuries in relation to abuse including use of radiology, medical photography and forensic tests and the limitation of these
- be aware it is impossible to date bruises accurately
- recognise that frequent A&E attendances may be a presentation of child abuse and neglect
- know that behaviour changes including soiling and/or wetting can be a presentation of emotional abuse or neglect, sometimes in association with other forms of abuse including sexual abuse

- know the 'Assessment Framework' in relation to children in need and the factors contributing to the three main components: a child's developmental needs, family and environmental factors, parenting capacity
- know about forensic assessment in relation to child abuse and understand the importance of a chain of evidence
- know about the role of the Forensic Medical Examiner and how this complements the role of the paediatrician
- recognise the role of the Forensic Odontologist in relation to bite marks
- know that sexual abuse forms part of the differential diagnosis of vaginal or rectal bleeding and vaginal discharge
- know when an expert genital examination is needed
- know how to access help for appropriate investigation and management of sexually transmitted disease
- know about emergency contraception and how this can be accessed
- be able to recognise fabricated and induced illness including the significance of repeated or bizarre physical symptoms, and be able to take appropriate action and know when and where to access help

- know the pathways to gather medical, education or social information on the child in whom factitious or induced illness may be considered and how to take this concern forward in a multi-agency setting
- know the medical conditions that may mimic abuse of all kinds
- understand the role and responsibilities of the Named and Designated professional for child protection and looked after children
- know about the role of the Medical Adviser on adoption and have attended the local adoption panel
- be aware of the difficulties of asylum seekers, refugees, travelling families, Forces families and young carers

- be able to conduct an assessment for physical abuse
- be able to assess injuries in relation to history, developmental stage and ability of the child
- be able to recognise when additional expert advice is needed, for example radiology, orthopaedics, neurology, ophthalmology

- be able to recognise fabricated or induced illness including the significance of repeated or bizarre physical symptoms and be able to take appropriate action and be able to access help at an appropriate time
- be able to instigate appropriate investigations and to initiate and contribute to multi-agency involvement in all forms of abuse
- be able to take part in and understand the importance of peer review in relation to all forms of abuse examinations and investigations.
- be able to recognise signs of abuse in disabled children and know that this group is more vulnerable
- be able to provide the medical opinion to case conferences, strategy meetings and court hearings
- be able to compile and write the range of reports required in child protection work including police statements, medical reports from social services and court reports

Section 5

Practical Procedures and Investigations

By the end of Level 3 Training, trainees will:

- know the appropriate indications for practical procedures and investigations
- know the contraindications and complications of procedures
- know the local and national guidelines for obtaining informed consent
- know the local and national guidelines for undertaking investigations or procedures
- know the local guidelines for providing sedation and pain relief for practical procedures
- know the relevant anatomical markers for invasive procedures
- know and practise scrupulous aseptic techniques
- be aware of safety issues for patients and staff in relation to investigations of body fluids and radiation
- understand the importance of post-mortem investigations
- know the national and local guidance for obtaining consent for post-mortem
- be able to interpret results of investigations requested and respond appropriately
- be able to record results and document procedures legibly and accurately
- be able to give appropriate medical information when requesting investigations
- know that results should be requested clearly and retrieved promptly
- understand common age-appropriate normal ranges or appearances
- be able to use all equipment required to undertake common procedures and investigations
- be able to explain the investigation results to parents and/or the child
- be aware of the factors that are likely to influence the anxiety of the child, parent and doctor and know how to enlist effectively the help of play-leaders, nursing staff and more senior paediatric staff when necessary
- be receptive to feedback from patients and parents/carers on the effects of medication/treatment

- know about the role of complex investigations e.g. CT and MRI scans and their diagnostic potential and complications
- recognise when the results of commonly-used radiological investigations are abnormal
- have developed confidence in independent performance of practical procedures
- be able to supervise and teach others
- recognise complications of procedures and be able to respond appropriately
- understand and follow the local guidelines for the prevention and management of needle-stick injury
- be able to recognise the importance of universal precautions as well as the disposal of sharps within the department
- have experience of speaking to parents when complications have occurred
- know about processes for critical incident reporting
- obtain informed consent appropriately
- supervise handover of results that still need to be obtained at the end of shifts

Diagnostic Procedures

By the end of Level 3 Training, trainees will be able to perform the following diagnostic procedures independently:

- collection of blood from central lines
- umbilical artery and venous cannulation and sampling
- peripheral arterial cannulation
- venesection
- capillary blood sampling
- suprapubic aspiration of urine
- urethral catheterisation
- routine testing of urine
- perform basic lung function tests
- electrocardiogram
- lumbar puncture

- non-invasive blood pressure measurement

Therapeutic Procedures

By the end of Level 3 Training, trainees will be able to perform the following therapeutic procedures independently:

- administer intradermal, subcutaneous, intramuscular, intravenous injections
- percutaneous long-line insertion
- bag, valve and mask ventilation
- needle thoracocentesis for pleural effusion or pneumothorax
- tracheal intubation
- intubation of newborn infants of most gestations
- administration of surfactant
- external chest compression
- insertion of intraosseous needle

Pharmacology and Therapeutics

By the end of Level 3 Training, trainees will:

- know and understand the pharmacological basis for treatments
- know the approved indications and justification for prescribing drugs in common paediatric problems
- know the pharmacokinetics and pharmacodynamics of commonly prescribed drugs
- be able to calculate drugs accurately according to specific dose for weight, or age/weight range or on a specific dose/surface area basis
- know the risks of prescribing in the child-bearing years, in pregnancy and in breast-feeding mothers
- know about the roles of the regulatory agencies involved in drug use, monitoring and licensing (for example the National Institute of Clinical Excellence, the Committee on Safety of Medicines, the Medicines and Healthcare products Regulatory Agency and Hospital Formulary Committees)

- be able to find out information necessary for safe prescribing through use of paediatric formularies and pharmacy liaison
- know about drug interactions of commonly used drugs
- know about procedures for obtaining consent in children and young people for the administration of drugs
- be able to use the local and national guidelines for the relief of pain in children
- know and follow local policies for intrathecal cytotoxic therapy
- respond appropriately to errors of prescription or administration and be able to talk to parents about this

- be able to prescribe safely and supervise prescription for the newborn, and for children of all ages
- know about the licensing of medicines for paediatric patients and unlicensed and off-label use and the implications of extemporaneous products
- know how to explain relevant potential adverse side-effects
- be able to advise and supervise safe prescription of intravenous fluids to medical and surgical patients
- be able to prescribe in a manner that enhances adherence and provide information and explanation that enhances concordance

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6. *Liberating Learning: a practical guide for learners and teachers to postgraduate medical education and the European Working Time Directive*, London: COPMED (2002)

Appendix Optional module for Paediatric Audio-Vestibular Medicine

This is an optional extended module for those who want to develop expertise in Paediatric Audiology. The generic Sections 2, 3 and 5 on pp. 12–31 of this document also apply to this curriculum but are not repeated here. The specialty-specific competences are listed below.

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Section 2 General Competences for Paediatric Audio-Vestibular Medicine

Knowledge and Understanding

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- know and understand basic room acoustics relevant to clinical practice in audiology
- know the physics of sound and its measurement
- know the detailed anatomy of the auditory and vestibular system
- know the embryology of the head, neck and ear
- know and understand cochlear and vestibular physiology and bio-chemistry
- know about the psychology of audio-vestibular disorders in childhood
- know the patho-physiology of vertigo
- know and understand the genetics of audio-vestibular disorders in paediatrics
- understand the impact of evolving technology on definitions, assessment and management of children with paediatric audio-vestibular disorders and auditory processing disorders

- know about normal development of auditory attention and behaviour
- know about normal, delayed and disordered speech and language development in the normally hearing child
- understand the difference between delayed and disordered language development
- know the range of speech, language and communication disorders in childhood

- understand the effect of multi-sensory impairment on development
- understand the effect of neuro-developmental problems on auditory behaviour
- understand the effect of hearing impairment and auditory perception on language acquisition and communication skills
- understand the impact of hearing loss and vestibular impairment on activity and participation
- understand the problems of hearing impaired child in hearing families and in the hearing world
- understand the needs of deaf teenagers

- understand that the child with hearing impairment can have a variety of complex medical needs, including visual impairment
- understand that deafness may be isolated or associated with other conditions
- understand the impact of severe and profound hearing impairment on mental health
- understand the range of reasons why children with hearing impairment may not make expected progress following interventions
- understand the need for support for families and the early introduction of communication strategies for children and their families
- know about communication options for hearing impaired children

- know about the causes, assessment and treatment options of childhood dizziness
- know the causes of central vestibular disorders in children
- understand the association between sensorineural hearing loss and abnormal vestibular function
- understand the role of physiotherapy in the habilitation of balance disorders

- know about the principles of hearing screening and monitoring and their application to local services
- understand the scope and limitations of different screening tests for hearing impairment
- understand the scope and limitations of newborn hearing screening programmes in the context of national screening programmes
- understand the Public Health perspective on Permanent Childhood Hearing Impairment (PCHI)
- know about the application of Public Health and epidemiological data to local services
- know about the application of the local child health computer system to audiology
- know the aetiological trends in Permanent Childhood Hearing Impairment
- know the risk factors for Permanent Childhood Hearing Impairment

- know about referral pathways for further assessment of hearing impairment to local and tertiary services
- know about tertiary and national mental health services for children with Permanent Childhood Hearing Impairment (PCHI)
- understand the different needs of pre-school, school age children and school leavers with hearing impairment
- know the statutory aspects of education in relation to hearing impairment
- know the educational options open to children with hearing impairment
- know about local units and resource centres for children with hearing impairment
- understand the debate on the polarity of views about the education of children with hearing impairment
- respect the choice of children and families with regard to treatment within the context of local provision
- understand the role of the specialist speech and language therapist
- understand the key role of the teacher and deaf communicators in the hearing impaired service
- know and understand the role of Non-Governmental Organisations (NGOs) in childhood deafness and the importance of working with them
- know the statutory requirement for informing families of local and national NGOs and support groups
- know about other national and local support groups
- know about the statutory role of Social Services, including teams that work with deaf families
- understand the importance of parent representation on Children's Hearing Services Working Groups (CHSWG)
- know about the range of communication aids available
- know about family-centred intervention
- know about benefits and allowances for children with hearing impairment
- know about the application of the Disability Discrimination Act to local hearing impairment services

- understand the prevalence, recognition and management of child protection issues in relation to hearing impairment and non-organic hearing loss

Skills

- be able to apply basic acoustic principles to their practice
- be able to take a history of auditory behaviour in a variety of situations, collecting information from the child, parents or carers, teachers of the deaf and specialist speech therapists
- be able to elicit information about onset, fluctuation or progression of audio-vestibular symptoms
- be able to evaluate a paediatric history, taking into account risk factors in the family such as associated metabolic disease, visual problems, genetic factors in order to formulate an investigation plan to reach an aetiological diagnosis
- be able to assess disability due to hearing impairment
- be able to recognise clinical presentation of mental health problems in deaf children and refer accordingly

- be able to perform otoscopy and recognize clinical presentations of significant pathology
- be able to take a history in order to identify acute and chronic problems within the vestibular system
- have developed skills to elicit information about acute vertigo and associated symptoms
- be aware of apparent psychological presentations such as those which mimic other neurological or clinical conditions
- be able to perform a neuro-otological assessment of a child
- be able to conduct a neuro-developmental examination, including clinical and diagnostic tests
- be able to investigate for the aetiology of hearing impairment
- be able to select, initiate, conduct where appropriate, and interpret age-appropriate behavioural and objective audiological assessments

- know when to request sedation or general anaesthesia for the audiological assessment of some children
- be able to manage wax build-up, which may affect hearing assessments, obscure a clear view of the ear-drum, or cause acoustic feedback in hearing-aid use
- promote communication between carers and children with hearing loss
- be able to advise on available communication methods and options
- to be able to make shared decisions about management options, including the family plan for children with audio-vestibular conditions, their families and professionals
- be able to liaise effectively in management plans with the specialist speech and language therapist for hearing impaired children
- be able to advise local health providers on the school-entry hearing screening programme

- be able to liaise with teachers of children with hearing impairment, with the Sensory Impairment Team, and with educational audiologists
- know about classroom amplification systems
- be able to help children and families develop strategies to cope with a hearing loss

- be able to perform statutory educational medicals and contribute to reviews
- be able to contribute information to adoption panels for children with Permanent Childhood Hearing Impairment (PCHI)
- ensure that signing interpreters are present where required at child protection consultations and medicals
- be able to set policies to raise awareness of early identification of Permanent Childhood Hearing Impairment (PCHI) and the importance of audit
- be able to set policies and procedures for paediatric audio-vestibular services
- know about referral pathways to specialist paediatric audio-vestibular services
- prepare and follow in their practice protocols for referral to audiology when there is a risk of acquired hearing impairment

- recognise and elicit risk factors for congenital and acquired Permanent Childhood Hearing Impairment (PCHI)

Values and Attitudes

- understand the ethical dilemmas posed by newborn hearing screening
- understand the dilemmas posed by issues such as genetic testing and pre-natal diagnosis
- understand the implications of interventions such as early cochlear implantation
- understand the perspective of the deaf community

Leadership and Management

- ensure implementation of audiological management within care pathways for conditions such as Down's Syndrome, meningitis, cleft palate
- be able to lead the Children's Hearing Services Working groups (CHSWGs) when required and value the roles and contributions of other members of the group
- be able to manage jointly a budget for hearing aids, equipment
- be able to apply clinical governance issues in the paediatric audiology team

Teaching and Research

- be able to train colleagues with regard to the impact of hearing impairment on development
- be able to take responsibility for updating colleagues on recent developments in paediatric audio-vestibular medicine
- be able to contribute to the training of screeners, health visitors, school nurses and assistant technical officers in screening and surveillance procedures
- be able to supervise special study modules on topics related to audio-vestibular medicine
- be able to take responsibility for teaching and training SPRs in audio-vestibular medicine and paediatrics, SHOs and medical students, nurses and undergraduate and postgraduate students

- be able to run training sessions for parents and staff

Personal Commitment to Professional Standards

- know and follow in their practice the published standards for assessment such as the those produced by the British Society of Audiology
- contribute to standard-setting for ear-mould replacement
- ensure that they and their colleagues attend a Deaf Awareness course and apply this in their practice
- keep up-to-date with technological advances in audiology
- know about recent developments in auditory processing disorders (APD)
- keep abreast of basic research and outcomes in interventions for deaf children
- ensure that good practice in family-friendly audiological services is followed, including the timely provision of hearing aids
- know about local arrangements for employment, training and monitoring of personnel involved in paediatric testing
- know about local policies for hearing assessment of audiological staff
- know about local infection control procedures

Communication Skills in Paediatrics

- have developed strategies to enable children to describe their audio-vestibular symptoms
- recognize and respond to the ways in which a child may express verbally and non-verbally their audio-vestibular symptoms, including deterioration or sudden loss of function
- know about the principles of manual communication and when to request a British Sign Language interpreter for consultations
- know about the range of communication aids available
- be able to prepare and promote clear printed information for parents and children, for use locally, on common paediatric audiological conditions, on the early detection of hearing impairment on acquired hearing loss, and on the effect of social and leisure noise

- be able to explain the findings of tests, and the types and degree of hearing loss in an appropriate manner to carers and children
- have developed the skills to share with children and parents and professionals the results of assessments which may lead to uncertainty about permanent hearing impairment and the degree of the problem
- be able to discuss with children and parents the need for the introduction of early amplification, the choices available, and their right to choose, in collaboration with the audiologist and teacher of the deaf
- be able to write reports explaining technical audiological information in a manner that does not cause alarm, through a careful use of language, for example, by using 'sensor' and not 'electrode'

Section 3 General Clinical Competences

Development

Competences specific to the specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- know about deaf and blind awareness

Emotional development

Competences specific to the specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- understand the barriers to emotional development in deaf children
- understand the prevalence, causes and management of mental health problems resulting from disordered emotional development

Social development

Competences specific to the specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- understand that hearing problems might mask other conditions and vice versa and ensure that hearing impairment is considered as part of routine assessment
- be able to perform audio-vestibular assessment on children with disruptive behaviour or communication difficulties
- understand the barriers to social development in deaf children

Educational development

Competences specific to specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- understand the barriers to educational development in deaf children
- understand how Educational Attainment can be used as a long-term outcome measure of successful audiological management

Growth and Nutrition

Competences specific to the specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- recognise syndromes which have a growth and nutritional dimension as well as hearing impairment

Adolescence

Competences specific to the specialty

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- know about national and local policies relating to transition care for young people with hearing impairment, in the context of the Modernisation of Children's Hearing Aid Services (MCHAS)
- be able to take on an advocacy role for adolescents who may choose deaf identity in the face of opposition from their parents
- be able to support young deaf people who may experience communication difficulties as they move from a protected educational environment to the world of employment or higher education

Section 4 Specialty-specific Competences in Paediatric Audio-Vestibular Medicine

Hearing-related conditions

Auditory behaviour

By the end of Level 3 Training in Paediatric Audio-Vestibular Medicine, trainees will:

- be able to establish a child's visual behaviour, and motor and tactile responses as part of the assessment of a child's response to sound
- know to take into account a child's developmental profile as part of the assessment of their response to sound
- know to use frequency-specific, and/or meaningful sound stimuli in order to look for reproducible responses which can be demonstrated to parents
- know the limitations of behavioural testing, particularly where non-frequency-specific stimuli are used
- know the kind of behaviours in children which may indicate a problem in the auditory pathway
- be aware of the fact that in children these behaviours may not necessarily indicate the child is deaf but may instead have auditory processing disorders, autistic spectrum disorders, language delay or disorder, specific learning difficulties, behavioural or psychological problems
- know about hyperacusis and the fact that it might indicate hearing problems, syndrome diagnosis or pervasive developmental disorders

Auditory processing disorders

- understand the debate around definitions, assessment and management of children with auditory processing disorders
- understand that assessment of auditory processing disorders is an evolving field
- know how to assess children to exclude autistic spectrum disorders, language delay or disorder, specific learning difficulties, behavioural or psychological problems and to refer on for specialist assessment
- be aware that auditory processing disorders and hearing impairment may co-exist

- be able to arrange or conduct investigations for auditory processing disorders
- be aware of the fact that assessment and treatment opportunities are limited

Auditory neuropathy

- know the diagnostic criteria for auditory neuropathy and the national protocols for newborn and older children
- understand the significance of specific risk factors for auditory neuropathy
- know the medical and genetic causes of auditory neuropathy
- understand the debate around definitions, assessment and management of children with auditory neuropathy
- understand that assessment and management of auditory neuropathy is an evolving field

Non-organic hearing loss

- understand that non-organic hearing loss may co-exist with organic loss
- understand that non-organic hearing loss can be a cry for help and should indicate further assessment of child and family functioning and referral to appropriate specialists
- understand that non-organic hearing loss is a diagnosis to be made following robust audiological assessment, including objective measurements
- be able to suspect, assess and manage non-organic hearing loss

Speech, language and communication disorders

- understand basic acoustics in relation to speech sounds
- understand the physiology and physics of speech perception in the normally hearing child
- understand the physiology and physics of speech perception in the hearing impaired child
- understand the psycho-acoustic effects dependent on the use of both ears
- understand the developmental hierarchy of auditory functioning development and speech perception
- understand infant speech perception
- understand the wide variation in auditory perception in children who wear hearing aids or have a cochlear implant

- understand the function of frequency discrimination and frequency resolution in the perception of speech in hearing impaired children
- understand the impact of fluctuating Conductive hearing loss on speech and language development
- understand the stages of language development of hearing impaired children
- be aware that children with SNHL are not a homogenous population and will acquire language at different, albeit delayed rates
- be aware that children with sensorineural deafness can also have a co-existing speech and language disorder
- be aware of the early literature on language development in deaf children and how this has affected our understanding of how deaf children's speech differs from their hearing peers
- understand the difficulties encountered in assessment of cognitive function in children whose language is limited
- understand the place of signed language for some deaf children and their families
- know how to interpret reports on speech and language in hearing impaired children
- be able to perform basic language assessment at an age- appropriate level
- be aware of the agreed plan for language and communication goals
- be able to advise the speech and language therapist regarding the child's auditory perception by the use of appropriate speech sound discrimination tasks
- know when to refer to specialist speech and language therapist for detailed speech and language assessment
- be able to communicate with children effectively in order to encourage spontaneous speech which may be of value in the assessment process
- know about communication systems for deaf-blind children

Tinnitus

- know the epidemiology and patho-physiology of tinnitus in children
- know the causes of tinnitus in childhood

- know that tinnitus might be an isolated symptom or may co-exist with hearing impairment or with vestibular conditions
- be aware of associated behavioural or psychological impact of tinnitus
- know how children describe tinnitus and be able to elicit a history from the child and family
- know when it is appropriate to initiate medical investigations on children with tinnitus
- know about the range of management strategies available and links with local specialists offering appropriate assessment and advice
- know about the local referral pathways for assessment of children with tinnitus
- be able to adapt existing patient information leaflets on tinnitus for use by older children
- be able to set policies and procedures for management of tinnitus in children

Hearing loss

Conductive Hearing Loss

- be able to recognize which presentations of recurrent otitis media with effusion (OME) require further investigation
- know the common syndromes associated with Conductive Hearing Loss (CHL)
- understand that children presenting with other problems may also have conductive hearing impairment
- know about the sequelae of persistent otitis media with effusion (OME)
- know about the natural history of OME and be able to explain this to parents
- have a sound knowledge of the evidence-base for management of OME
- have developed appropriate strategies to explain procedures to hearing-impaired children
- understand the importance of implementing evidence-based approaches to management of OME and of sharing this knowledge with the families, to inform their decision-making
- know about management strategies for children with hearing loss in the educational setting including classroom amplification systems

- recognize the conditions which require regular audiological review
- ensure that there are clearly agreed guidelines to support the review process in children with OME
- be able to negotiate protocols which include hearing assessments before and after surgery for OME
- ensure appropriate liaison for children on the waiting list for grommets, who are admitted for other planned surgery
- be able to arrange liaison with the cranio-facial team when necessary and share protocols and assessments of patients where appropriate
- have practical experience of ENT-OPD or conducting joint clinics
- be able to advise carers about the role of passive smoking and other risk factors
- be able to advise children and carers about ear care following surgery for OME

Suspected hearing loss with neurodisability

- know how to adapt audiological assessment procedures according to the individual child's level of function
- understand the importance of incorporating findings from the history-taking and observations by parents and other professionals of a child's auditory behaviour
- understand the need to allow adequate for time for these audiological assessments
- establish the degree of head and trunk control in order to interpret behavioural responses to sound stimuli
- observe and assess involuntary movements and persistence of primitive reflexes prior to testing in order to avoid false positive results
- establish the frequency and level of epileptic activity in a child with this condition prior to testing
- adapt seating and positioning in order to ensure that responses are repeatable and reliable

- adapt test materials to take into account a child's gross and fine motor skills
- assess a child's level of visual function and fields in order to adjust visual components of testing where appropriate
- have developed skills to work with children with autistic spectrum disorders who find change distressing and who may resist engaging in tests
- know what the local policy is about referral of a child to SENSE (UK Deafblind Charity) for further assessment

Sensorineural hearing loss

- know and recognise common and rare syndromes associated with hearing impairment
- understand and take into account the psychological, educational and social and family sequelae of hearing impairment
- be aware of the possible association of non-organic loss with sensorineural hearing loss
- be able to perform or arrange appropriate investigations for the cause of sensorineural hearing loss
- know the local and national protocols for aetiological assessment for babies and children with sensorineural hearing loss
- know which audiological tests to request to obtain relevant information about hearing thresholds
- know how to assess children for progressive deafness by comparing serial audiometric thresholds and reviewing medical diagnoses
- be able to diagnose and manage superimposed otitis media with effusion (OME) and be aware of management options for individual children
- ensure the timely introduction of hearing aids and early habilitation of deafness
- be able to explain cochlear implantation to parents to enable a timely and appropriate referral to the cochlear implant team
- know the local arrangements for genetic advice and referral

- know about audiological uncertainty following identification of significant hearing loss in the newborn period
- be aware of the pitfalls in interpretation of hearing thresholds of babies and young children across different assessment methods
- know the limitations of diagnostic hearing tests for the newborn
- know about the need to interpret objective audiometric test results in order to ensure appropriate hearing aid fitting
- understand the need for caution in the use of amplification for the newborn baby with hearing impairment
- understand the technical difficulties posed by fitting hearing aids to newborns
- understand that children with complex needs and their families may have additional difficulties adjusting to amplification

Hearing aids

- understand the role of amplification in the habilitation of the deaf child
- understand the reasons why a child may not be a good hearing aided wearer
- understand the reasons for rejection of hearing aids in different age groups
- know the structure, function and limitations of hearing aids
- be able to perform simple checks on hearing aids in order to recognise malfunctions in the hearing aid systems and advise accordingly
- know about basic earmould types and modifications
- be aware of the specifications of commonly prescribed digital hearing aids
- know and understand Standards 1-6 of the 'Modernisation of Children's Hearing Aid Services'
- know the principles of hearing aid prescription formulae in relation to children for example, Desired Sensation Level (DSL)
- understand the use of Real Ear Aided Responses in verification of hearing aid fitting and performance
- understand the use of Real Ear to Coupler Difference (RECD) and simulated Real Ear Measurements
- understand the use of parent and child-friendly questionnaires in the evaluation of hearing aid effectiveness
- encourage strategies to promote independent hearing aid system use and care

- understand the structure and function (and limitations of) the hearing aid
- understand the principles of the use of FM systems in educational settings
- contribute to local policy for replacement, access and turnaround times for earmoulds
- contribute to local policy for replacement of lost hearing aids following national guidance
- know which children may benefit from vibrotactile aids
- be able to arrange an assessment by social services for assistive devices such as vibrotactile alarms, flashing light systems and FM systems for TV
- know and follow in their practice national guidelines and protocols
- recognise the importance of organisations such as the National Deaf Childrens Society and RNID as a resource for parents of deaf children
- know when to refer a child to the cochlear implant team for assessment

Cochlear implants

- know how a cochlear implant works
- understand the basic surgical technique of a cochlear implant and the risks associated with the procedure
- understand the child's own user settings
- know the referral criteria and commissioning arrangements in the local health community
- know the range and importance of speech perception tests in the implanted child

- be able to explain how a cochlear implant works to the child and carer
- be able to explain basic surgical technique to the child and carer
- be able to perform basic troubleshooting
- know the immunisation status of implanted children
- work with the cochlear implant team to establish local referral criteria and review systems
- have agreed local policy for hearing aid use in the non-implanted ear
- know the procedures for follow-up of cochlear implanted children
- understand the effect of a cochlear implant on investigations such as MRI

- know about multi agency follow up of children with cochlear implants
- be able to negotiate with the commissioning team regarding contractual arrangements
- be aware of quality standards for children with cochlear implants and their families

Mild and Moderate and Unilateral hearing loss

- understand the impact of mild and unilateral hearing loss on participation and function
- know about the management options for mild and unilateral deafness
- understand the importance of parental guidance and the need to inform the teacher of the deaf and class teacher about the effect of the hearing loss in a school child
- ensure that there is a local protocol for investigation and management of mild and unilateral hearing loss

Sudden hearing loss

- know the causes of sudden hearing loss
- understand that children and babies who experience sudden hearing loss may present in different ways, for example, through changed behaviour
- ensure that a child with sudden hearing loss receives a detailed behavioural and objective audio-vestibular assessment
- be aware that there is a need for urgent medical investigation in cases of sudden hearing loss and know what the appropriate investigations are
- know what immediate medical and surgical treatment options are available and appropriate in cases of sudden hearing loss
- understand the option of cochlear implantation in the range of possible treatments for sudden hearing loss due to meningitis
- know the importance of involving the family, teachers of the deaf in early support of the child
- understand that fear and isolation may be experienced by a child as a result of sudden hearing loss and how this might present
- understand the importance of early habilitation with hearing aids and strategies to communicate

Aetiological investigation of the hearing-impaired child and family

- be able to apply national guidelines for medical investigation of babies and children with hearing impairment (ref websites)
- know that aetiological investigation is an ongoing process which should be revisited in the light of clinical or scientific developments
- recognise the importance of explaining the aetiological diagnosis to the child, for example genetic counselling for deaf teenagers

Vestibular conditions

- know the peripheral and central causes of dizziness and balance disorders in deaf and hearing children
- know the otological causes of balance problems in children and young people
- know the clinical presentation of balance problems including hypofunction and areflexia
- know the neurological disorders with vestibular manifestations, for example childhood migraine, neurofibromatosis, Usher syndrome
- be able to take a history of vestibular symptoms
- be able to make a differential diagnosis from neurological conditions
- know how to interpret eye movements
- know how to interpret ocular signs used in vestibular assessment in a child who also has visual impairment
- be able to perform basic age-appropriate neurological and clinical vestibular assessment using standard equipment, including the Hallpike manoeuvre
- be able to arrange appropriate investigations for a child with vertigo and how to investigate for site of lesion
- know how to adapt vestibular tests for use with small babies
- be able to explain vestibular investigations to a deaf child and the parents
- be able to explain the results of vestibular tests to a deaf child and the parents
- be able to interpret findings of vestibular assessment
- be able to give advice on medication, safety and leisure in the context of results obtained
- be able to identify children who require referral to physio

- know local protocols for referral to physiotherapy and child psychology
- be able to monitor outcomes post-intervention

Section 5

Practical Procedures and Investigations

- know the theory, performance and interpretation of the diagnostic distraction test
- know the performance and interpretation of behavioural observation audiometry
- know the theory, performance and interpretation of speech discrimination tests
- have a high level of competence in performance of otoscopy and interpretation of findings
- know the theory, performance and interpretation of VRA +/- insert earphones
- know the theory, performance and interpretation of co-operative tests
- know the theory, performance and interpretation of play audiometry
- know the theory, performance and interpretation of PTA including masking, loudness discomfort levels and the Stenger test
- know the theory, performance and interpretation of tympanometry
- know the theory and how to interpret evoked otoacoustic emission testing (transient and distortion product)
- know the theory, and how to interpret click Air Conduction and Bone Conduction or Tone Pip Auditory Brainstem Response tests
- know the theory and how to interpret request auditory steady state evoked potentials
- be able to establish the site of lesion by using objective tests
- be able to discuss the scope of the audiovestibular test battery used, including objective tests
- understand the pitfalls of each objective test when interpreting results
- be able to use standard speech discrimination tests in the evaluation of hearing aid settings
- be aware of national guidance on ear syringing and have local protocol for wax removal

Test Facilities & Equipment

- know about daily checks and the need for calibration of audiological equipment
- know about minimum standards for paediatric testing rooms and audiovestibular equipment
- know about disability access to clinical test areas
- be able to access local NHS IT systems and databases
- know about the significance of reverberation and its effect on sound field
- know the principles and how to use a sound level meters
- be able to use a range of noisemakers and hand-held warble tone generators during behavioural testing
- have had a recent audiogram to ensure their own thresholds are normal