

A Framework of Competences for Core Higher Specialist Training in Paediatrics

October 2005



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Royal College of Paediatrics and Child Health
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FOREWORD

I am very pleased to be able to present this second stage of our framework of competences. The framework for the first years of specialist training was published in October 2004 and this document builds on that publication. We have retained statements of competence which are fundamental to all stages of training and revised the levels of expectations of those which reflect growing confidence and competence in trainees. The statements of competence in this new framework reflect the higher demands and challenges of the job and the expectations that trainees will now take more responsibility and lead initiatives in their work.

As with the previous document, we are grateful to all the colleagues who have worked so hard with us over the year to ensure that we have the most comprehensive document possible. It represents a lot of hard work from our Officers, the CSAC chairs in General and Community paediatrics and our education adviser.

Council has approved this document and we have approval also from the Specialist Training Authority. It is on our website and it has been sent to all educational supervisors. Now that we have the curriculum in place, we are working on a range of assessment methods which will reflect the varied expectations of trainees across the very different domains of their work as paediatricians. We will want to ensure that they have a sound knowledge base, expertise in clinical procedures particularly relevant to their work with children and, in the more challenging areas to assess, sound clinical reasoning skills and effective interpersonal skills.

We would like to encourage anyone with comments and suggestions about the contents or the level of competence expected at this stage of training to contact us at the college. This will help greatly in the revision of the document over the next year as it goes into use in the workplace.

We would like to thank all those college members and those who were consulted and made such valuable contributions to the development of this framework.

Patricia Hamilton

President - Elect

October 2005

The document was approved by Council on 6 July 2005

1. Introduction

Who is this book for?

It is for doctors in the core years of Higher Specialist Training (HST) in Paediatrics and 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. You need this book as it forms the basis of your assessment at the end of Core Higher Specialist 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 second stage in your training as a paediatrician. The competences you gained during Basic Specialist Training have formed the basis for your progression now into Core Higher Specialist Training and later post-core training on to a Consultant post. Table 1 (page 10) illustrates this progression through your training.

A note about the format of this document

The way in which the statements are written in this document is intended to reflect the progression from one stage to the next. You will find under separate headings: statements from the BST framework where they continue to be relevant; changes to many of the statements to reflect your growing levels of confidence and competence; and entirely new statements to reflect areas of responsibility and challenge that have not been expected of you before. In the lists of competences, we have retained the BST wording (*in italics, in brackets*) wherever practicable to provide a point of comparison with the revised level of competence for core HST. For example, in the section on Skills, trainees at core HST level are expected to be able to:

show the use of (*begin to develop*) analytic, clinical reasoning skills

Where initially trainees were expected to understand what was required and ‘begin to develop’ competence in these skills, the expectation at core HST level is that they will apply these in their practice. Statements which do not include italics will have either minor changes of wording or will be entirely new, as indicated by the heading of the section in which they appear.

In the tables, we have used formatting **in bold** to indicate new statements of progression for core HST trainees. This helps to keep the text uncluttered and gives prominence to these new levels of expectation of trainees. For example, in the Dermatology section of the BST framework, trainees are expected to ‘know about serious drug reactions, for example, Stevens-Johnson syndrome’ (see page 39). This is identified as an area of knowledge and understanding and listed in that column. But by the time trainees reach the core HST years of their training, they are expected to ‘recognise this reaction’, not simply to know of its existence. An area of knowledge at BST has become a skill at core HST. The statement is placed accordingly in the Skills column and is presented in bold to indicate the change of wording and level of competence.

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. This is when we begin to 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.

This framework was approved by Council on 6th July 2005. It will be revised in a year’s time to take account of comments and suggestions made by those using the document in practice.

Acknowledgements

This document builds on the Framework of Competences for Basic Specialist Training. The editorial team is as before. We would like to thank Edward Wozniak, Gabrielle Laing and the General Paediatric and Community Child Health Specialist Advisory Committees for their tremendous support in helping us to put this document together. We would also like to thank individual members of the college, trainees and experienced paediatricians, who have contributed to specific sections and to the whole document. We are also very grateful to Carole Myer, Chair of the Patients and Carers Advisory group and lay representative on Council for her helpful suggestions.

Working group:

Kim Brown, Education Adviser

Patricia Hamilton, President-elect, Royal College of Paediatrics and Child Health

Gabrielle Laing, Chair, Community Child Health Specialist Advisory Committee

Mary McGraw, Vice-President-elect for Training and Assessment

Claire Smith Donald Court Fellow, Officer for General Professional Training

Edward Wozniak, 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>

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 speciality 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

Teaching and learning can look quite different in formal contexts such as a lecture theatre or a seminar room and in clinical contexts, such as a ward round. Where clear aims and objectives, a well-planned story-line and a handout might be essential parts of a good lecture, they may not be possible or appropriate in A&E or on the delivery suite. But what does bring teaching and learning in formal and clinical contexts together is the commitment to helping doctors in training understand, develop skills or clarify in their own minds something they understood less well before the teaching event took place. And the only way we can be sure that doctors *are* learning is to talk to them, firstly about their learning *needs*, the gaps in their knowledge, understanding and skills and afterwards about the ways in which they feel they have learned or understood something better than they did before. *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 actively seek out trainees' responses to their teaching so that they can make adjustments accordingly and ensure that effective learning takes place.

In drawing up this framework of competences, we have envisaged a wide range of opportunities in which trainees will learn. By structuring the competences around areas of knowledge and understanding, skills, values and attitudes we acknowledge the different ways in which they will be acquired. There will be new knowledge about genetics, for example or new research findings to absorb. These may best be gained through personal study or in a formal teaching context, such as a lecture or seminar. Then there will be practical procedures to learn and skills to develop, such as resuscitation treatment or learning how to talk communicate with young children. Role models are important in these areas of learning and trainees will need to watch experienced doctors and learn from them in their practice, in consultations and ward rounds, in intensive care units and other clinical settings. Values and attitudes present different challenges. Many of the competences in these areas confront trainees with their professional responsibilities and their personal views and the potential conflicts between them. Role-play, simulation and group-work tasks all offer safe and structured environments in which to explore these affective dimensions of learning and will be more appropriate than formal teaching settings.

(For an overview of teaching and learning in postgraduate medicine, see *Liberating Learning* COPMED 2002)⁶

2. General Competences

The learning objectives in this section reflect the general practice of a paediatrician and have been developed from our description *What is a paediatrician?* The detail of speciality-specific practice can be found in Section 4 (page 29).

The statements are mapped to *Good Medical Practice*¹ (2001) and to *Good Medical Practice in Paediatrics and Child Health*² (2002), essential reading for all trainees. In addition, you should ensure that you have read carefully the *Laming Report*³ (2003) and the *UN Convention on the Rights of the Child*⁴. For full reference see page 87.

By the end of Core Higher Specialist Training, trainees will:

Knowledge and Understanding

- understand the duties and responsibilities of a paediatrician in the safeguarding of babies, children and young people
- understand the duties and responsibilities of a paediatrician to support and enable parents and carers to be effective in caring for their children
- know and understand the scientific base relevant to clinical practice in paediatrics
- know the aetiology and patho-physiology of common and serious childhood conditions
- understand the promotion of health and the management of ill-health in babies, children and adolescents
- understand the specific health issues, diseases and disorders related to these stages of growth and development
- recognise the mental health components of all paediatric illness
- recognise the effects that school and other social settings may have on childhood illness and vice versa
- understand the factors that affect a child's level of anxiety about illness, treatment or examination
- recognise the impact on parents and the rest of the family of acute or chronic illness, hospitalisation or the death of a child
- understand the importance of effective strategies for the management of pain
- understand the importance of agreed management plans for individual patients
- understand the different factors that have an influence on the patient's journey
- know about the agencies, both statutory and voluntary, that can provide support to children and their families in coping with their health problems

Change of wording from the BST document:

- understand the limitations of their competence, in clinical practice and in their relationships with patients, and know where and when to ask for help, support or supervision

Substantial re-wording or new statements of competence for Core HST

- have a good working knowledge of the use of formularies
- have an understanding of common treatments for clinical conditions and the evidence-base for these
- know about common complementary and alternative therapies and where to find out about them so that an informed and safe choice about treatment can be made
- understand possible medical and psychosocial reasons which might lie behind a patient's difficult behaviour
- know about procedures and guidelines to support the management of conflict in relationships with children, young people and their families
- know how to access such national resources as the Contact a Family (CAF) Directory and the Internet as well as local sources to provide information to children and families about support groups

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

Skills

- be able to examine children and young people accurately and sensitively in appropriate settings
- recognise presentations of common disorders
- recognise case histories which suggest serious or unusual pathology
- recognise the diseases and host characteristics which make certain presentations life-threatening
- be able to assess the developmental level of children and young people
- be able to assess the mental state of children and young people
- begin to develop skills in the management of emotionally complex family situations
- develop expertise in practical procedures specifically related to the clinical care of small babies and children, and young people
- have begun to develop strategies to manage a child's anxiety and personal anxieties
- be able to use guidelines appropriately
- have strong communication and interpersonal skills to enable them to work effectively with patients and their families, and colleagues in multi-professional and multi-disciplinary teams
- demonstrate the ability to work in multi-disciplinary teams and with colleagues from a wide range of professional groups

- understand the need to interact with professionals in other disciplines and agencies and from the voluntary sector
- be able to make reliable and accurate mathematical calculations required in clinical practice eg drug and fluid prescriptions
- be able to prescribe safely and write legible prescriptions, using appropriate medications in correct doses
- keep accurate, legible and relevant medical records
- show effective time management skills in their professional roles
- be able to use information technology effectively in clinical practice and audit
- have begun to develop the ability to approach new situations which require good clinical judgement with an analytic and informed approach

Change of wording from the BST document

- be continuing to develop a wide range of (*have understood the need for and begun to develop*) effective communication skills specific to their work with babies, children, young people and their families
- be able to take responsibility for an effective consultation that routinely includes biological, psychological, educational and social factors in the child and the family
- be able to assess symptoms and signs accurately and interpret findings 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
- understand (*begin to understand*) their role in managing the consequences of chronic illness for a child and family
- show regular use of (*begin to develop*) analytic, clinical reasoning skills
- begin to take responsibility for the longer-term management of patients with common acute and long-term conditions (*be able to assess and initiate management of patients appropriately*)
- be able to initiate appropriate investigations and management plans appropriate to the case
- show that they are regularly using (*know how to access*) clinical databases and know where to go to find web-based information
- be able to give an evidence-based presentation and be able to analyse critically those given by others

Substantial re-wording or new statements of competence for Core HST

- have developed skills and strategies to respond effectively to challenges of increased responsibility

- be able to provide advanced neonatal and acute paediatric life support as demonstrated by successful completion of and assessment by a recognised course (APLS)
- be able to recognise, assess and initiate management of infants and children who may have been subject to child abuse
- show increasing confidence and independence in decision-making in the care of patients
- have developed the self-knowledge, confidence and personal high standards to acknowledge where an assessment may not be comprehensive and to recognise that they need to go back to the child, young person or family for further information
- be able to formulate an initial management plan for complex cases including the need for specialist advice
- 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 increasing ability to work independently
- have developed a reflective approach to their practice, with an awareness of their developing expertise and an ability to learn from their previous good practice, and clinical errors
- be able to think clearly and to prioritise in clinical decision-making and practice
- have developed skills and strategies to manage their personal emotional reactions effectively so that they stay calm in response to aggression or distress from parents or colleagues
- have developed skills and strategies to cope with uncertainty
- be able to assess accurately the levels of support and supervision that are required by different members of the team they supervise
- be able to delegate duties appropriately to colleagues whom they supervise
- have developed effective problem-solving strategies in clinical and management contexts, for example, where there is a shortage of beds or medical staff or other resources

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

Values and Attitudes

Continuing development from the BST document

- understand and follow the principle that all decisions are to be made in the best interests of the child or young person in their care

- 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 where to find legal and ethical guidelines to support their work
- work with colleagues in multi-disciplinary teams to ensure consistency and continuity and a holistic approach to the treatment and care of children and young people
- develop a commitment to a policy of advocacy for a healthy lifestyle in children and young people and for the protection of their rights
- be aware of the ways in which their personal experiences, values and attitudes might affect their professional practice and know when to refer a case to another doctor

Change of wording from the BST document

- show (*understand the need for*) compassion and respect for children, young people and their families
- show that they consider (*understand the responsibility of paediatricians to consider*) all aspects of a child's well-being including biological, psychological and social factors
- show that they are (*be*) aware of and sensitive to the way in which cultural and religious beliefs affect approaches to treatment and care and respond respectfully to the expressed needs of patient and carer
- understand (*begin to understand*) that young people may have or may develop health care beliefs which are in conflict with those of parents or professionals, when to seek support and where to find legal and ethical guidelines to support their work
- show that they understand (*understand*), and take into account when agreeing management plans, factors that influence children, young people and parents or carers in their approach to following prescribed management and treatment plans
- show that they are developing (*begin to develop*) strategies to help children, young people and their families to follow these plans

Substantial re-wording or new statements of competence for Core HST

- understand the importance of an open-minded approach to equality and diversity and follow this in their practice
- understand what constitutes bullying and harassment and ensure that they question this behaviour and do not collude with it

- to be able to keep an open mind with regard to others' health-care beliefs, such as complementary and alternative therapies, and to respect the patient, if not the therapy, as long as it is not harmful to the child
- be aware of the different cultural and religious beliefs held by the local population which impact on attitudes to health and sickness in children- and begin to develop strategies to manage relationships where these beliefs might cause conflict
- have developed a keen self-awareness so that they know when they are ready to take on new challenges, such as breaking bad news to a family, and when they continue to need support and guidance
- have developed an understanding of and a view on debates and controversies in health care (*understand the complexity of issues and conflicts in professional practice and have begun to develop strategies to respond*)

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

Teaching and Research

Continuing development from the BST document

- show honesty and integrity when contributing to peer reviews of colleagues' teaching or research

Change of wording from the BST document

- have developed some (*begin to develop a sound understanding and a commitment to the principles and practice of*) effective teaching and learning skills in a range of clinical contexts
- show that they understand (*understand*) their responsibilities to conduct research with honesty and integrity, seeking ethical approval where appropriate and safeguarding the interests of patients
- show that they have understood (*begin to understand*) basic concepts in research design and methodology including the difference between hypothesis-based and non-hypothesis based studies, and the difference between research and audit

- be able to plan a research project effectively under supervision (*understand the steps involved in planning*)
- have developed (*begin to develop*) critical appraisal skills and can show that they apply these to their reading of the literature, including systematic reviews, reviews of their own teaching and the teaching of others

Substantial re-wording or new statements of competence for Core HST

- know about the role of the Caldicott guardian and follow the principles of the data protection act and of confidentiality
- contribute to the training of undergraduates, postgraduate trainees and other professionals such as nurses, teachers and social workers
- participate in departmental teaching programmes, including journal clubs
- have developed (*begun to develop*) a reflective approach about their experiences of being a trainee in order to ensure positive experiences for trainees now under their supervision
- understand the importance of a positive and constructive approach to mentoring, giving support, guidance and feedback to trainees under their supervision
- be able to write a critical account of clinical practice, showing that they can deal with complex issues systematically and creatively and that when necessary they can write in line with conventions for academic papers
- demonstrate an understanding of when to use more complex statistical tests (*understand when to use simple statistical tests and their interpretation*) and how to interpret significance
- demonstrate an understanding of how bias and confounding variables may affect the conclusions of clinical research studies
- demonstrate an understanding of how clinical guidelines are produced and how these might be used to guide their own practice (*know how clinical guidelines are produced and how they might be used appropriately within the context of clinical practice*)
- demonstrate an understanding of how to perform and interpret systematic reviews and understand the principles of meta-analysis (*know how Cochrane systematic reviews are developed and the principles of meta-analysis*)

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

Leadership and Management

Continuing development from the BST document

- demonstrate the ability to take on differing and complementary roles within the different communities of practice within which they work, in hospitals, in the community, with schools and with social services

Change of wording from the BST document

- ensure (*understand the need for*) open and non-discriminatory professional working relationships with colleagues and be aware of the need to prevent bullying and harassment
- have developed effective organisational skills for themselves and for others, in prioritisation and delegation
- manage (*ensure*) effective hand-over procedures and clear communications with colleagues to ensure the continuing good medical care of patients

Substantial re-wording or new statements of competence for Core HST

- have experience of working with 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
- have developed confidence to make decisions within a team
- be able to take on a leadership role in a multi-disciplinary team when appropriate, for example at a discharge meeting and know when it may be inappropriate to do so
- ensure effective discharge procedures to community and primary care services
- to take on an advocacy role with regard to the best interests of the patient; to ensure appropriate care for patients; to be able to think independently and to challenge decisions or protocols where appropriate
- have gained an understanding of National Service Frameworks (NSF) for children and managed clinical networks, the role of National Institute of Clinical Excellence (NICE), the role of the Royal College of Paediatrics and Child Health, (RCPCH), the Postgraduate Medical Education Training Board (PMETB) and the General Medical Council (GMC) in professional life and in professional regulation

- have developed some leadership skills, for example in communicating the urgency of action in an emergency while enabling teams to remain calm
- be able to recognize and support colleagues who may be under pressure
- have developed some skills and strategies to manage conflict effectively
- have some experience of working within an organisation: attending different committees and meetings, for example College meetings, regional meetings, working parties, Trust meetings, medical staff committees, clinical governance meetings
- know about the structure of large NHS organizations, including management structures, governance, policy and procedures relevant to the care of children
- be able to recognise the qualities of effective management of meetings, such as having clear action points and achievable and recognizable outcomes
- recognise their own working preferences and how these may impact on teamworking

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

Personal Commitment to Professional Standards

Continuing development from the BST document

- ensure that they are up-to-date in their practice and endeavour to promote evidence-based medicine where possible
- understand how national and local policy initiatives impact on medical practice and social health and well-being
- know the principles of the UN Convention on the Rights of the Child⁴, apply these in their own practice and work for the protection of these rights
- demonstrate an understanding of and respect for legal and ethical issues relating to consent and confidentiality in paediatrics, including the Fraser ruling (formerly known as Gillick competence)
- demonstrate responsibility for their own health in so far as it might affect the welfare or safety of patients

Change of wording from the BST document

- act with (*understand the need for*) honesty and know the procedures to follow where there is concern about the professional practice of a colleague which might be putting the health of patients at risk

Substantial re-wording or new statements of competence for Core HST

- demonstrate probity in personal and professional life
- know the law with regard to consent to treatment and the right to refuse treatment, and be aware of variability in Scotland, Wales and Northern Ireland, continuing changes in the law and its interpretation
- begin to evaluate and generate (*be familiar with and follow*) local and national clinical guidelines and protocols in paediatric practice and recognise the individual patient's needs when using them
- participate in clinical governance activities, and support colleagues in their participation
- show a commitment to continuing professional development, which would involve not only seeking appropriate training opportunities, but also responding to complaints and enquiries as useful learning opportunities
- be aware of local processes for dealing with and learning from clinical errors
- be aware of patient safety issues and the importance of the prevention of nosocomial infection

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

Communication Skills in Paediatrics

Continuing development from the BST document

- be able to demonstrate courtesy to families, colleagues and members of the multi-disciplinary team at all times
- show patience and sensitivity in their communications with children and their families and a particular ability to explore their individual perspectives of a problem
- have experience of how to communicate a diagnosis and prognosis effectively to children, where appropriate, young people and their families

Change of wording from the BST document

- have developed (*begun to develop*) effective consultation skills and strategies with babies, young children, adolescents and their families
- demonstrate the ability to (*understand the need to*) conduct a consultation in such a way that a child or young person and their family feel able to talk about difficult or emotional issues
- have developed (*begun to develop*) active listening skills 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 is felt to be vulnerable
- have developed strategies to (*know how to*) respond appropriately, and where to find assistance, in cases where a child or family may not all speak English or where there is an impairment such as hearing loss that may affect understanding
- demonstrate an ability (*have understood the need*) 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
- have developed (*begun to develop*) appropriate responses and empathy for children, young people and their families experiencing difficulty and distress, for example, in the case of angry or dissatisfied relatives (*in the case of a child who is dying*)
- have begun to develop (*understand the need to develop*) strategies for careful and appropriate use of language in difficult and challenging circumstances, eg at the birth of a baby with disabilities or in confrontation with colleagues
- understand the limitations of their competence *at this stage of their training* and be willing to (*that they should*) seek help in managing sensitive and complex situations

Substantial re-wording or new statements of competence for Core HST

- be able to liaise effectively with consultants in order to obtain appropriate advice about clinical management
- be able to liaise effectively with colleagues in multi-agency teams, such as education and social services
- have begun to develop the confidence to be firm and diplomatic in difficult situations, for example when dealing with angry parents
- be able to advise families appropriately about complaints procedures

- have developed skills for effective written communications with patients and their families, with colleagues and with other professional organizations
- be thorough in making accurate records and reports that will subsequently withstand scrutiny in a Court of law or a complaints tribunal, and encourage others to do the same
- know when and why to share worrying information about a child or young person, when and how to ask for consent to share this information, and how to communicate concerns clearly, in person, by phone or by letter
- know how to write reports about alleged child abuse for social services or the Courts, making use of more experienced colleagues when necessary
- 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 making use of more experienced colleagues when necessary

3. General Clinical Competences

Development

Continuing development from the BST document

- understand the variations in relationship between physical, emotional, intellectual and social factors and their influence on development and health
- recognise deviations from normal patterns of development
- be able to identify abnormal patterns of development
- understand the need for further assessment and investigation and how to access these
- know and understand the principles of screening and monitoring
- be able to assess and monitor development using appropriate tools
- recognise that child neglect or abuse might affect a child's development

Change of wording from the BST document

- understand (*be familiar with*) the patterns of normal development from birth to adulthood
- know the causes of disability, how disability might affect clinical examination and assessment and be able to participate in (*understand the need for*) a multi-disciplinary approach to management

Emotional development

Continuing development from the BST document

- know the factors which influence healthy emotional development
- understand the emotional impact of illness and hospitalisation on children and their families
- be able to assess parenting skills and recognise indications of unsatisfactory or unsafe parenting
- recognise and know the principles of managing common behavioural problems
- understand a child's need for opportunities to play and to learn at different ages
- understand the emotional dimensions of eating disorders
- recognise the need for specialised input in cases of serious emotional distress or mental illness

- recognise pointers to fabricated and induced illnesses and know how to seek help
- understand and recognise somatisation disorders

Social development

Continuing development from the BST document

- know the factors that influence social development
- understand the impact of autistic spectrum disorders and other organic disorders on social development

Change of wording from the BST document

- demonstrate (*develop*) skills to prevent disruptive or antisocial behaviour in children, families and adolescents in clinical settings and to respond to them if they occur

Educational development

Continuing development from the BST document

- know the factors which influence intellectual development
- understand the vulnerability of a child with learning difficulties
- understand the impact of learning difficulty on social and emotional behaviour

Change of wording from the BST document

- contribute to (*know about*) the processes of formal statutory assessment of children with possible special educational needs and other educational strategies to support learning and development

Growth and Nutrition

Continuing development from the BST document

- be able to describe a child's nutritional status in terms of balance, body composition and function
- understand the range of factors, biological, psychological and social which influence normal growth and puberty
- understand the importance of emotional factors in feeding and nutrition, in particular in faltering growth (non-organic failure to thrive)
- understand the relationship between nutritional status and disease
- understand the effects of fetal growth restriction on long-term health

- understand the effects of obesity on long-term health
- understand the basic physiology of breast-feeding
- recognise common breast-feeding problems and refer appropriately
- be able to advise a mother about the benefits and risks associated with infant feeding
- be able to advise a mother about appropriate complementary feeding
- be able to identify families needing nutritional support or advice
- recognise cultural and religious issues related to nutrition

Change of wording from the BST document

- understand the differing nutritional requirements for healthy and sick children and advise on nutritional needs
- apply (know about) the principles of routine dietary supplementation
- be able to advise on interventional strategies involved in weight reduction
- be able to monitor growth using appropriate tools, including in disabled children

Substantial re-wording or new statements of competence for Core HST

- know about the principles and methods of alternative methods of feeding eg gastrostomy, nasogastric tube and common problems that may arise
- understand environmental factors contributing to obesity and how these might be altered
- describe the effects of malnutrition on clinical outcomes and be able to refer appropriately to the nutritional support team

Adolescence

Continuing development from the BST document

- understand the variations in relationship between physical, emotional, intellectual and social factors and their influence on adolescent development
- understand the different specific and changing health needs of adolescents as inpatients and outpatients
- recognise risk-taking behaviours, particularly those which pose a threat to chronic disease management
- understand and respond appropriately to episodes of self-harm in adolescents
- know about national policies for reduction of teenage pregnancy
- know about contraceptive and sexual health issues and where appropriate advice might be sought

- be aware of issues relating to gender and sexual identity
- understand and follow the principles and legal aspects of consent and confidentiality

Change of wording from the BST document

- understand (*know about*) and assess, under supervision, normal and abnormal pubertal development
- understand (*know about*) issues around transition from paediatric to adult care in adolescents with chronic conditions and disabilities

Substantial re-wording or new statements of competence for Core HST

- be able to engage effectively with adolescents

4. Speciality-specific Competences

This section sets out the competences trainees should acquire in the specialist areas of Paediatrics. They appear in alphabetical order and are grouped in lists and tables. The competences in lists at the beginning of each section apply to all conditions in that specialism. The tables offer detailed reference where specific skills or knowledge may be linked to specific conditions rather than to overall practice in this area.

Behavioural Paediatrics

Continuing development from the BST document

- know about normal emotional and behavioural development and how it may affect the child and family at different stages
- be able to look at behaviour as a form of communication and to take this into account when interviewing, examining and assessing children
- know about the effects of substance abuse

Change of wording from the BST document

- have developed (*begun to develop*) an approach to the assessment of behaviour problems that uses observation and information from other sources, such as school, as well as history-taking
- have developed some (*begun to develop*) strategies and skills to support and engage parents of children with emotional or mental health difficulties
- know about the effects of developmental difficulties and physical diseases on behaviour and vice versa and be able to recognise when this occurs
- know about the multidisciplinary nature of Child and Adolescent Mental Health (CAMH) services and be able to apply this knowledge in discussion of cases
- be able to recognise signs and symptoms that could indicate serious conditions such as attention deficit hyperactivity disorder (ADHD), autistic spectrum disorders, depression, psychosis
- are able to manage (*know the principles of*) common behaviour problems such as temper tantrums, sleep problems, the crying baby, feeding difficulties, oppositional behaviour, enuresis and encopresis, school refusal
- are able to undertake (*know about*) the initial assessment and management of common

causes of admission to hospital due to psychological distress such as self-harm, somatic symptoms of distress and to refer on when appropriate

Substantial re-wording or new statements of competence for Core HST

- know about the use of standardised questionnaires in assessing behaviour
- be able to recognise when behaviour features may indicate an underlying cause and to be able to refer appropriately for further assessment

Cardiology

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of babies and children presenting with cardiological disorders
- know the genetic and environmental factors in the aetiology of congenital heart disease
- be able to formulate a differential diagnosis
- be able to select and interpret appropriate cardiological investigations and know the indications for echocardiography
- understand the life-threatening nature of some of these conditions and when to call for help
- know the possible cardiac complications of other system disorders
- know when referral for specialist paediatric cardiology assessment for further management is appropriate

Change of wording from the BST document

- be able to provide advanced life support and lead the team at a (*respond appropriately to*) cardiac arrest

Substantial re-wording or new statements of competence for Core HST

- be able to identify common ECG abnormalities

Cardiology
Acute Presentations

The patient presents with:	Knowledge and understanding	Skills
Cyanosis	<p>know the normal fetal circulation and transitional changes after birth</p> <p>know the anatomy of the common causes of cyanotic heart disease</p>	<p>be able to differentiate between cardiac and non-cardiac causes of cyanosis</p> <p>be able to initiate emergency management</p> <p>be able to describe clinical signs and investigations accurately and effectively with a cardiologist</p> <p>recognise when treatment is urgent</p>
Heart Failure, including cardiac conditions which present with shock	understand the causes of heart failure	be able to initiate appropriate investigations and treatment
Arrhythmia	know the causes of arrhythmias	<p>be able to recognise common arrhythmia on ECG</p> <p>be able to initiate emergency treatment in arrhythmias such as paroxysmal supraventricular tachycardia</p>
Infective Endocarditis	<p>know when prophylaxis against endocarditis is indicated</p> <p>know the causes of endocarditis</p>	<p>be able to advise parents about prophylaxis against endocarditis</p> <p>be able to recognise the possibility of endocarditis</p> <p>be able to initiate appropriate investigations and treatment</p>

Cardiology Outpatient Presentations

The patient presents with:	Knowledge and understanding	Skills
Heart murmur	know the causes of common heart murmurs and the haemodynamic reasons for them know about the effects of heart disease at school	be able to interpret correctly heart sounds and added sounds be able to identify an innocent cardiac murmur be able to advise families appropriately about the effects of heart disease at school
Hypertension	know and understand the causes of hypertension in children	be able to measure and interpret correctly blood pressure measurements at different ages recognise the importance of examining femoral pulses in all children
Palpitations	know the cardiac and non-cardiac causes of palpitations	be able to initiate appropriate investigations
Syncope	know the cardiac causes of syncope	be able to differentiate syncope from seizures be able to initiate appropriate investigations including ECG analysis

Child Protection and Children in Special Circumstances (Social Paediatrics)

Continuing development from the BST document

- understand concepts and factors underpinning child protection work
- recognise where families are distressed and need help to prevent child abuse
- understand the emotional impact of abuse on the child, family and on professionals
- keep accurate records of all findings and communications with the child, family members, and all other professionals
- be able to record clearly the results of an examination of a baby, child or adolescent using body charts

- recognise the importance of noting all observations of the child's demeanour and interactions with parents or carers
- understand the need to initiate a safe response where abuse is suspected, while treating the family with respect and courtesy at all times
- understand the ways in which their own beliefs, experience and attitudes might influence professional involvement in child protection work
- understand the effects of family composition, socio-economic factors and poverty on child health
- have an understanding of how the different disciplines and agencies collaborate locally with respect to looked-after children, children with disabilities and over child protection issues
- know about the resources that may be available from health and other agencies, including the voluntary sector, to support families in need
- be aware of child health exploitation issues including child prostitution, child labour and children in combat
- be aware of the effects of armed conflict on child health
- be aware of the millennium development goals ⁵
- be aware of the implications of sustainable development in low income countries

Change of wording from the BST document

- be familiar with the different categories of abuse and recognise that they may occur together: physical, emotional, sexual, neglect, fabrication or falsification/induction of illness in a child
- recognise features in the presentation where child protection may be an issue, for example where there are patterns of injury, delay in presentation, inconsistencies in the history and know how to act on them
- be able to recognise and assess increased needs in children who are fostered, adopted or in residential care
- be able to assess and initiate (*recognise and outline*) the management of the child in need of protection
- know the local guidelines and national guidance and follow the procedures for cases where child abuse is suspected
- know how to access the Child Protection register and understand its role and its limitations
- be familiar with legal processes, legislation, the role of the family court, guidelines and

recommendations, such as those in the Laming Report (2003) relating to child protection and children in need

- know how to access (*have some familiarity with the roles of*) and understand the roles of allied health professionals and other agencies in the support of children and families
- understand the work of (*be aware of*) the World Health Organisation and UNICEF

Substantial re-wording or new statements of competence for Core HST

- have attended a training course in child protection
- be alert to the diversity of physical signs and symptoms that might indicate child abuse
- be able to conduct an assessment for physical abuse, recording findings and come to a conclusion about the nature of injuries under supervision
- know what to do if a child discloses allegations of abuse
- know where help with management can be obtained and understand the pathways to ensure follow-up
- understand the role of named and designated professionals
- understand the difference between civil and criminal proceedings
- understand the difference between a medical report and a witness statement for the police and be able to produce either
- be able to compile and write, under supervision, the range of reports required in Child Protection work including police statements, medical reports for social services and court reports
- be able to contribute to case conferences, strategy meetings or court hearings under supervision
- be able to appear as a professional witness in civil or criminal proceedings
- be able to undertake and document a comprehensive medical assessment of a child looked after by the local authority
- be aware of the role of the Medical Adviser on adoption, of the local adoption panel and know how adoption medical reports are compiled

**Child Protection and Children in Special Circumstances
Acute Presentations**

The child presents with:	Knowledge and understanding	Skills
Physical injury	<p>know how to assess in relation to history, developmental stage and ability</p> <p>know appropriate investigations when child abuse is a possibility, e.g. skeletal survey when appropriate</p> <p>be aware of the impossibility of dating bruising</p>	<p>be able to initiate appropriate investigations</p> <p>be able to recognise new and old fractures on an X-ray</p> <p>be able to initiate a multi-disciplinary investigation in consultation with a more experienced colleague</p>
Head injury	<p>know about acute and chronic presentations of subdural haemorrhage</p> <p>know that this may cause symptoms mistaken as having a metabolic or infective cause in an infant</p> <p>know the appropriate investigations and involvement of other disciplines, e.g. ophthalmology, radiology</p> <p>know that retinal haemorrhages may be difficult to detect</p> <p>know that, when there is suspicion of non-accidental head injury, an ophthalmologist should be involved</p>	<p>be able to perform fundoscopy and recognise retinal haemorrhage</p> <p>be able to initiate emergency management and urgent investigations</p> <p>be able to co-operate in multi-disciplinary and multi-agency working</p>

<p>Vaginal or rectal bleeding</p>	<p>know that sexual abuse forms part of the differential diagnosis</p> <p>know when an expert genital examination is needed and the role of colposcopy as part of that</p> <p>know about the risk of acquired sexually transmitted infections</p>	<p>be able to refer to a colleague experienced in examination for sexual abuse</p>
<p>Self-harm</p>	<p>recognise this as an expression of distress, acute or long-term</p> <p>recognise repeated self-harm as indicating serious emotional distress</p>	<p>be able to refer to the CAMHS team</p>
<p>Apnoeic episodes as an infant</p>	<p>be aware of this as a possible presentation of imposed airway obstruction and know the indicators that this may be the case</p> <p>understand the life-threatening nature of imposed airway obstruction</p>	<p>refer promptly to an experienced colleague for help</p>

**Child Protection and Children in Special Circumstances
Outpatient Presentations**

The child presents with:	Knowledge and understanding	Skills
<p>Faltering growth</p>	<p>be aware of the high incidence of a non-organic cause</p>	<p>be able to instigate appropriate investigations</p> <p>be able to institute multi-agency involvement with the help of an experienced colleague.</p>

<p>Soiling/wetting</p>	<p>know that this can be a presentation of emotional abuse or neglect sometimes in association with other forms of abuse, including sexual abuse</p> <p>know the other physical, psychological or maturational problems leading to soiling and wetting</p>	<p>be able, with appropriate history and observations, to elucidate factors within the child's life that may be causing these problems</p>
<p>Vaginal discharge</p>	<p>know that this may be a presentation of sexual abuse</p> <p>know when an expert genital examination is needed and the role of colposcopy as part of that</p> <p>know about the many other causes of vaginal discharge</p>	<p>know when to consult with a senior colleague experienced in sexual abuse when there is any question of this</p>
<p>Behavioural change</p>	<p>know the association of this with abuse, including emotional abuse, neglect, and sexual abuse</p>	<p>be able to take a history to elucidate social and emotional factors that may be involved</p> <p>be able to seek the help of a senior colleague</p>
<p>Repeated or bizarre physical symptoms</p>	<p>know the possible signs of factitious and induced illness</p> <p>know how to recognise the over-anxious parent</p> <p>know the pathways to gather medical, educational and social information on the child</p>	<p>be able to refer to a senior experienced colleague</p>

Child Public Health

Continuing development from the BST document

- know about the organisation of NHS management structures and service networks
- know about national and local education and social services
- know about current government policies which relate to children
- be aware of the effect of non-health policies on child health
- be aware of the effect of the media on public perception of health care issues
- understand the principles of public health needs assessment
- know the local, national and international structures for healthcare
- understand the role of the paediatrician in advocating for children at individual, community, national and international levels

Change of wording from the BST document

- understand (*be aware of*) the key determinants of child health and well-being
- show that they understand, in their practice, how healthcare services relate to education and social services
- know about (*be aware of*) available outcome measures which are used to monitor the health of a child population and how they might be used to guide and monitor service delivery
- understand (*be aware of*) the indices of social deprivation
- understand and be able to contribute to (*be aware of the principles of*) health promotion and health education and be aware of current health promotion activities carried out in the community
- show that they understand, in their practice, the causes of outbreaks of infection, its investigation and control
- begin to use (*understand*) principles of evaluation, audit, research and development and standard-setting in improving quality

Substantial re-wording or new statements of competence for Core HST

- be able to conduct an audit of screening, health promotion or service delivery under supervision
- understand the principles of immunisation programmes, national and local structures that deliver immunisation programmes, and how they might be monitored and audited

**Child Public Health
Acute Presentations**

Topic	Knowledge and understanding	Skills
Screening and surveillance	<p>know about screening and surveillance programmes, including their implementation and evaluation</p> <p>know about conditions currently screened for</p> <p>understand the ethical dilemmas posed by screening</p>	<p>be able to explain specific screening issues to parents and organise these tests as necessary</p> <p>be able to conduct developmental examinations at different ages</p> <p>be able to refer appropriately when required</p>
Health promotion	<p>understand the importance of evidence to support health promotion activities</p> <p>know the role of health promotion programmes, for example, to prevent dental decay, smoking, accidents, obesity, sudden infant death</p>	<p>be able to incorporate health promotion activities in their practice</p> <p>be able to advise parents on avoiding risks for children</p> <p>include health promotion messages during the consultation where appropriate</p> <p>be able to contribute to health promotion programmes</p>
Public Health and epidemiology	<p>understand population statistics and know how they might be used in service development</p> <p>understand the role of public health doctors in commissioning NHS services</p> <p>understand good study design</p>	<p>know the principles of how to conduct population studies</p> <p>be able to evaluate evidence and critique clinical research papers</p>
Accidents and injuries	<p>understand the epidemiology of injuries in children and young people</p> <p>know about effective injury prevention initiatives</p> <p>know about the sequelae of injury</p> <p>know about rehabilitation</p>	<p>be able to recognise when injury may be non-accidental and to assess that injury</p> <p>be able to recognise and treat accidental ingestion and deliberate self-poisoning</p> <p>be able to advise parents on injury prevention and contribute to local injury prevention programmes</p>

Child Public Health Acute Presentations

<p>Immunisation</p>	<p>understand passive and active immunisation</p> <p>understand the principles and the rationale behind the national immunisation policy for children in Britain</p> <p>know about immunisation programmes and schedules in the UK and elsewhere</p> <p>understand the role of the Immunisation Coordinator</p> <p>know the indications, contraindications and complications of routine and specific childhood immunisations</p>	<p>be able to advise parents and professionals about commonly referred immunisation problems</p> <p>be able to contribute to immunisation programmes by contributing to training and auditing outcomes</p> <p>know where and from whom to seek advice for the most complex histories about immunisations</p>
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Dermatology

Continuing development from the BST document

- be able to describe accurately any rash
- have the knowledge and skills to be able to recognise, investigate and manage common skin complaints
- know about the cutaneous and mucosal manifestations of systemic disease
- recognise the serious nature of some skin disorders or their associated conditions and know when to ask for help
- know about chronic skin rashes
- understand the principles of therapy for skin complaints
- understand the impact of severe dermatological problems on children
- know when consultation with other specialties is appropriate
- know the indications for and the procedure involved in skin biopsy

Change of wording from the BST document

- understand (*be aware of*) the different potencies of topical steroids and of their side effects
- know (*be aware of*) the common causes of hair loss and hypertrichosis

Dermatology
Acute Presentations

The patient presents with	Knowledge and understanding	Skills
Skin failure e.g. toxic epidermal necrolysis, staphylococcal scalded skin syndrome and epidermolysis bullosa	know the features and management of staphylococcal scalded skin syndrome be aware of the rarer causes of skin failure	be able to assess and to start initial treatment promptly recognise when to consult dermatology and ophthalmology specialists
Skin infections	know the causal bacteria, features, complications and management of cellulitis including periorbital cellulitis	recognise when to consult ophthalmology and ENT – specialists recognise and be able to treat scabies, pediculoses, and common viral and fungal skin infections recognise the features of and manage infected eczema and eczema herpeticum
Cutaneous drug reactions	be aware of the different patterns of drug reaction and of the common precipitants	be able to assess mucosal involvement recognise when to consult dermatology and ophthalmology specialists recognise serious drug reactions e.g. Stevens-Johnson syndrome
Erythema nodosum	know the causes of erythema nodosum	recognise the features in the presentation which suggest significant pathology and which indicate a particular diagnosis

Erythematous rash and fever	know the causes of fever and an erythematous rash with or without desquamation	<p>be able to recognise and institute treatment of Kawasaki syndrome</p> <p>be aware of complications and know when to refer, for example, to a cardiologist</p> <p>recognise and initiate management of rare but serious causes e.g. toxic shock syndrome</p>
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Dermatology Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Eczema and seborrheic dermatitis	know the common treatments for eczema and the reasons for treatment failure	<p>be able to manage mild eczema and seborrheic dermatitis</p> <p>be able to advise parents about these conditions</p>

Diabetes and Endocrinology

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of patients presenting with diabetes, growth or endocrine presentations in inpatient and outpatient settings
- be able to measure children accurately and to assess their growth using appropriate growth charts and taking into account parental stature and pubertal status
- be able to assess accurately pubertal stages of development
- know about changes to insulin and steroid therapy in children with diabetes and hypoadrenalism during acute illness or perioperatively
- understand the endocrine complications of other diseases

Acute Presentations

The patient presents with:	Knowledge and understanding	Skills
A child presents 'well' with diabetes mellitus	<p>know the pathophysiology of diabetes mellitus</p> <p>recognise the early features of this presentation</p> <p>know the principles of diabetes management including commonly used insulin regimens</p> <p>know about the long term complications of diabetes and about ways to reduce the risks of these occurring</p>	<p>be able to explain this condition to parents</p> <p>be able to liaise with the children's diabetes team</p> <p>be able to give basic advice about diet and exercise</p>
Diabetic ketoacidosis	<p>understand the pathophysiology of diabetic ketoacidosis</p> <p>know how to treat and monitor progress</p>	<p>be able to recognise the clinical features of this condition</p> <p>recognise potential complications including cerebral oedema</p> <p>be able to lead the team when initiating resuscitation and early treatment</p> <p>be able to manage ongoing treatment safely with guidance</p>
Hypoglycaemia	<p>know the causes, complications and treatment in the neonatal period and beyond</p> <p>know that blood glucose is an urgent investigation in patients with impaired conscious level</p> <p>be aware of the clinical features which would suggest hypopituitarism or adrenal insufficiency</p> <p>know when to consider rare causes of hypoglycaemia and what investigations to perform during the hypoglycaemic episode</p>	<p>be able to take relevant investigations required for the confirmation of cause</p> <p>be able to assess whether any change to insulin treatment is needed to prevent recurrence in diabetic patients</p> <p>be able to treat hypoglycaemia safely and effectively with intravenous glucose or glucagon where appropriate</p> <p>recognise the need to inform the diabetes team of serious hypoglycaemia in their patients</p>

Neonatal thyrotoxicosis	know the cause of this condition and its natural history	recognise this presentation and the need for urgent treatment
Ambiguous genitalia	be aware of the causes of this presentation understand the features of congenital adrenal hyperplasia and its early management	recognise the extreme sensitivity of this presentation and of the need to seek urgent help from senior colleagues with regard to management and counselling parents be able to give appropriate information to parents whilst awaiting help from senior colleagues

Diabetes and Endocrinology Outpatient Presentations

The patient presents with:	Knowledge and understanding	Skills
Short and tall stature Abnormal rates of growth	know the causes of short stature or slow growth and the characteristics of these conditions know when short stature needs to be investigated understand and know the rationale behind the baseline and subsequent investigations be aware of treatments that are available for pathological short stature know about the causes of tall stature	be able to explain to patients and parents non-serious causes of short stature eg genetic short stature, constitutional delay and hypothyroidism recognise the need to rule out Turner's syndrome as a cause of short stature in girls
Delayed and early puberty	know the causes and possible investigation of early and late puberty	recognise when the cause may be pathological rather than physiological
Goitre and thyroid disorders	know the causes of congenital and acquired hypothyroidism know about the national screening programme for hypothyroidism understand the need for precise treatment and monitoring during infancy and early childhood know the associations of auto-immune diseases and of trisomy 21	be able to assess thyroid status be able to interpret thyroid function tests on and off treatment be able to recognise thyrotoxicosis

Polyuria and polydipsia	<p>know the causes of this presentation including diabetes mellitus and insipidus</p> <p>know the dangers of water deprivation</p>	<p>be able to select patients who may require investigation and initiate this</p> <p>be able to advise parents about habit drinking</p>
Obesity	<p>understand the causes of obesity</p> <p>understand the long term complications</p> <p>understand interventional strategies that are involved in weight reduction</p> <p>be aware that body mass index charts may be a useful therapeutic tool</p> <p>know about the presentation of Type 2 diabetes during childhood</p>	<p>recognise features in the presentation which suggest serious pathology</p> <p>be able to use body mass index charts to diagnose obesity</p> <p>be able to explain the long-term complications to parents</p>

Gastro-enterology and Hepatology

- have the knowledge and skills to be able to assess and initiate management of patients presenting with common gastroenterological problems in acute and outpatient settings
- understand the role of interventional procedures eg endoscopy or colonoscopy in the investigation of gastro-enterological disorders

Acute Presentations

The patient presents with:	Knowledge and understanding	Skills
Acute abdominal pain	know the causes of acute abdominal pain	<p>recognise when to request a surgical opinion</p> <p>recognise conditions which require urgent intervention eg intussusception</p> <p>recognise the need to consider acute appendicitis in very young children</p> <p>recognise signs of pain in an infant or small child</p>

Acute diarrhoea and/or vomiting	<p>know the causes of the symptoms of acute diarrhoea and vomiting</p> <p>understand the scientific principles for oral and intravenous fluid therapy</p>	<p>recognise features in the presentation which suggest serious pathology eg haemolytic uraemic syndrome, appendicitis, intestinal obstruction</p> <p>implement local isolation policies</p>
Jaundice	<p>know the causes of neonatal and childhood jaundice</p>	<p>investigate appropriately and know when to refer to specialist services</p>
Upper and lower gastro-intestinal bleeding	<p>know the causes of upper and lower gastro-intestinal bleeding</p> <p>understand the potentially life-threatening nature of this presentation</p>	<p>recognise features in the presentation which suggest serious pathology</p> <p>be able to assess the severity of the condition</p> <p>institute appropriate emergency treatment</p>
Abdominal distension	<p>know the causes of abdominal distension</p>	<p>initiate investigation and seek surgical opinion when required</p>
Acute liver failure	<p>know the causes of acute liver failure</p> <p>know the management of paracetamol poisoning</p>	<p>be able to assess the severity and complications of this condition</p> <p>be able to initiate appropriate resuscitation and liaise early with the paediatric liver unit</p>
Congenital abnormalities	<p>know the presenting features of congenital abnormalities including tracheo-oesophageal fistula, malrotation, bowel atresias, Hirschsprungs disease, abdominal wall defects, diaphragmatic hernia</p>	<p>institute appropriate emergency treatment, and be able to assess the fitness of the baby and the need to transfer to a specialist centre</p> <p>recognise when the bowel might be compromised</p>

Congenital abnormalities cont..	<p>be familiar with potential associated abnormalities</p> <p>know when ante-natal transfer to a Neonatal Surgical Centre should be considered</p>	<p>recognise the need to liaise with surgeons and when this is urgent</p>
Gastro-oesophageal reflux and oesophagitis	<p>know the range of presentations of gastro-oesophageal reflux and oesophagitis in otherwise well infants and children and also in disabled children</p>	<p>recognise the range of signs and symptoms associated with gastro-oesophageal reflux and oesophagitis</p> <p>manage mild and moderate gastro-oesophageal reflux and recognise when to refer</p>

Gastro-enterology and Hepatology Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Chronic or recurrent abdominal pain	<p>know the possible biological, psychological and social contributing factors in chronic or recurrent abdominal pain</p> <p>know which features suggest that reassurance rather than investigation is needed</p>	<p>recognise features in the presentation that suggest the importance of different aetiologies</p> <p>be able to refer appropriately to psychology when required</p> <p>consider when there might be child protection issues</p>
Chronic diarrhoea and/or vomiting	<p>know the causes of chronic diarrhoea and/or vomiting</p> <p>be aware of the characteristics of bulimia</p>	<p>be able to initiate investigations</p>
Constipation with or without soiling	<p>understand the relevance of predisposing conditions eg hypothyroidism, neurodisability, psychosocial problems</p>	<p>be able to follow local and national guidelines for management</p> <p>manage simple constipation with and without soiling</p> <p>recognise when to liaise with more senior paediatricians, specialist nurses, psychologists and psychiatrists</p>

Dysphagia	know the causes of dysphagia	be able to distinguish between organic and functional dysphagia
Malabsorption	know the causes of malabsorption including coeliac disease and cystic fibrosis and its consequences understand the principles of treatment of the different types of malabsorption	be able to explain and initiate investigations, nutritional assessment, dietary principles and liaise appropriately with the dietician
Malnutrition	know the causes of malnutrition including organic and non-organic causes be familiar with the consequences of malnutrition know the principles of enteral and parenteral nutrition support	be able to assess nutritional status be able to initiate investigations to establish the diagnosis and to detect nutritional deficiencies
Iron deficiency anaemia	know the causes of iron deficiency anaemia including poor diet, bleeding, malabsorption understand factors which predispose to dietary iron deficiency anaemia be aware of the consequences of the condition	be able to manage iron deficiency anaemia be able to counsel parents about preventing dietary iron deficiency

Genetics and Dysmorphology

Continuing development from the BST document

- understand the scientific basis of chromosomal disorders and inheritance
- be able to construct a family tree and interpret common patterns of inheritance
- understand the basics of molecular genetics

- know the basis of prenatal screening and diagnosis, the conditions for which they are used and the ethical dilemmas they pose
- have an awareness of the use and non-directive nature of genetic counselling
- understand the risks of and cultural issues posed by consanguinity
- have an understanding of the ethical dilemmas and the implications of pre-symptomatic or carrier testing in children
- have experience of interviews where diagnoses of serious conditions are communicated to parents
- have experience of how geneticists work with fetal medicine specialists neonatologists and paediatric surgeons
- be able to recognise features suggesting dysmorphic or genetic syndromes and to identify associated anomalies
- be aware of environmental factors which may affect pre-natal development eg alcohol and drugs

Change of wording from the BST document

- recognise (*know about*) the features of common chromosome disorders
- be able to recognise and investigate (*describe the features of a baby or child associated with*) common malformation or deformation syndromes and to identify associated anomalies
- begin to participate in (*know the processes involved in*) establishing and presenting the diagnosis to parents
- be able to give appropriate information to parents whilst awaiting help from senior colleagues
- be able to respond appropriately (*know what to do*) when the diagnosis of Down's syndrome is suspected at delivery or on the post-natal wards

Substantial re-wording or new statements of competence for Core HST

- be able to follow local and national protocols for the management of genetic disorders

Haematology and Oncology Presentations

Continuing development from the BST document

- be able to initiate management in common presentations of non-malignant disorders
- know the principles of cancer treatment
- be familiar with the indications and complications of bone marrow transplantation
- know about national and local blood transfusion policies and procedures

Change of wording from the BST document

- have the knowledge and skills to be able to assess and initiate investigation of patients presenting with haematological or oncological presentations in inpatient and outpatient settings
- work effectively with (*be aware of*) specialist nurses and members of palliative care teams
- know (*be aware of*) the short- and long-term side-effects of chemotherapy and radiotherapy and be able to explain the common ones

Substantial re-wording or new statements of competence for Core HST

- know about local policies for intrathecal cytotoxic therapy

Haematology and Oncology Acute and Outpatient Presentations

The patient presents with:	Knowledge and understanding	Skills
Anaemia	<p>know and understand the causes of anaemia</p> <p>understand the predisposing factors and consequences of iron deficiency anaemia</p> <p>understand the hereditary basis and clinical features of sickle cell anaemia and the thalassaemias</p> <p>understand the long-term implications for families</p> <p>know about the potential consequences of haemolytic anaemia</p>	<p>be able to investigate anaemia and recognise serious underlying pathology</p> <p>be able to manage iron deficiency anaemia</p> <p>know how to counsel parents about hereditary anaemias</p> <p>be able to explain screening for the thalassaemia or sickle cell trait</p> <p>be able to manage sickle cell crisis, including safe administration of fluid and analgesia</p>

Polycythaemia	<p>know the causes and treatment of polycythaemia in the new-born period</p> <p>understand why children with cyanotic congenital heart disease are vulnerable to polycythaemia</p>	<p>be able to undertake partial plasma exchange transfusion in a new-born infant</p>
Neutropaenia	<p>understand the significance of fever in a neutropaenic patient</p> <p>understand the differing risks of neutropaenia in different conditions and treatment regimens</p>	<p>be able to manage febrile neutropaenia, following local network guidelines and recognising when to liaise with specialist services</p>
Purpura and bruising	<p>know the causes of purpura and bruising</p> <p>understand immune mechanisms in vasculitis and in allo- and auto-immune thrombocytopenia</p>	<p>recognise features in the presentation which suggest serious pathology or child abuse</p> <p>be able to explain Henoch-Schonlein purpura to parents</p> <p>be able to explain idiopathic thrombocytopenic purpura (ITP) to parents including when precautions and treatment are necessary</p> <p>be able to manage acute bleeding in haemophilia and von Willibrands disease</p> <p>use genetic counselling services appropriately</p>
Other haemorrhage due to coagulopathy	<p>know the causes and presentations of haemorrhagic disease of the newborn</p> <p>understand the hereditary basis of haemophilia and other coagulation disorders</p>	<p>be able to discuss the need for prophylactic Vitamin K with parents</p> <p>be able to recognise and treat haemarthrosis in a patient with haemophilia and be aware of the need to treat urgently, with appropriate advice</p>

Leukaemia	<p>know the different types of leukaemia and their prognoses</p> <p>recognise and understand the clinical manifestations of leukaemia</p>	<p>be able to recognise and initiate investigations to diagnose leukaemia</p> <p>be able to recognise the immediate dangers of leukemia to the newly presenting child</p> <p>be able to follow local and national protocols in treating leukaemia and associated infections</p>
Lymphomas	<p>know the clinical features of Hodgkin's disease and non-Hodgkin's lymphoma</p> <p>know the features which suggest lymphadenopathy may be malignant and how it might be investigated</p>	<p>be aware of staging and protocols for treatment</p>
Other solid tumours	<p>know about the clinical presentation, treatment and prognosis of neuroblastoma and neuroblastoma</p> <p>be aware of the clinical features and investigation findings of other solid tumours</p>	<p>be aware of staging and protocols for treatment</p> <p>be able to recognise the presenting features of these tumours</p>
Transfusion	<p>understand the risks of administering blood products</p> <p>know the indications for irradiated blood products</p> <p>recognise the concerns of some groups in society in relation to blood products</p>	<p>follow transfusion procedures correctly</p> <p>explain the risks and benefits</p> <p>order blood products appropriately</p> <p>manage transfusion reaction</p>

Infection, Immunology and Allergy

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of patients presenting with infectious disease and allergic conditions
- know and understand host defence mechanisms and their pattern of development
- know the causes of vulnerability to infection
- know and understand the classification of infectious agents
- know the mechanisms of maternal to fetal transmission of infection and the clinical manifestations of these infections and how to prevent them
- know the epidemiology, pathology and natural history of common infections of the fetus, newborn, and children in Britain and important worldwide infections e.g. TB, HIV, hepatitis B, malaria, polio
- be able to follow agreed local or national guidelines on notification of infectious diseases
- understand the mechanisms of drug resistance
- understand the pathophysiology and the principles of treatment of allergic and auto-immune disorders
- understand the classification of immunodeficiencies
- know the clinical manifestations of the different types of immunodeficiencies
- know the conditions and treatments which result in secondary immuno-deficiencies

Change of wording from the BST document

- recognise indications for and be able to prescribe appropriate first line common anti-microbials
- be able to prescribe antimicrobial prophylaxis appropriately
- apply principles of infection control
- take responsibility for (*be aware of the policies for*) notifying communicable diseases

Substantial re-wording or new statements of competence for Core HST

- be able to use the antibiotic policies and understand the development of resistant organisms
- be able to assess and institute appropriate management of infection in an immuno-compromised child

Infection, Immunology and Allergy
Acute Presentations

The patient presents with	Knowledge and understanding	Skills
Septic shock	<p>understand the pathophysiology of septic shock and its complications</p> <p>know local and nationally agreed guidelines for the management of septic shock including meningococcal disease</p> <p>be aware of the differential diagnosis of septic shock</p>	<p>be able to initiate and lead immediate management of early and advanced features of septic shock</p> <p>be able to lead the team when initiating resuscitation and early treatment</p> <p>be able to liaise effectively with anaesthetic and PICU staff and manage patient until transfer team takes over</p>
Fever of unknown origin	<p>know the possible causes of fever of unknown origin</p> <p>understand aspects of social history that are relevant to explore</p>	<p>recognise features in the presentation which suggest serious or unusual pathology and be able to initiate investigations to establish cause</p>
Anaphylaxis	<p>know the management of anaphylaxis guidelines</p>	<p>be able to lead the team to provide advanced life support</p> <p>be able to liaise effectively with anaesthetic and PICU staff</p> <p>be able to advise on the future risk of anaphylaxis and facilitate an appropriate anaphylaxis management plan by liaising with community teams</p>

Infection, Immunology and Allergy Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Recurrent infections	understand why children suffer recurrent infections and know which conditions predispose to infection	recognise and investigate appropriately features in the presentation which suggest serious underlying pathology
Food or other allergies	<p>know the foods that can trigger IgE - mediated reactions</p> <p>understand the investigations that are available and their limitations</p> <p>know the features of cows' milk allergy and its management</p> <p>understand the mechanisms of IgE and non IgE food allergy, food intolerance due to pharmacological effects of food and food intolerance due to enzyme deficiencies</p>	<p>recognise the potential serious nature of food allergy</p> <p>advise on the appropriate use of adrenalin</p> <p>be able to distinguish allergy from intolerance and be able explain to parents</p>

Metabolic Medicine

Continuing development from the BST document

- know the appropriate screening investigations that should be performed when a metabolic disorder is suspected
- know further investigations that should be performed in order to establish a diagnosis of a metabolic disorder
- be able to interpret commonly used investigations and understand how these differentiate between metabolic disorders including those that result in cot death
- know about the common biochemical findings in an acutely ill newborn or child presenting with metabolic disease, including hypoglycaemia, hyperammonaemia or metabolic acidosis

- understand when it is appropriate to investigate, and which investigations to perform, in a neonate or child with visceromegaly
- know the causes of metabolic bone disease and investigations to differentiate between the causes
- know when it is appropriate to consider porphyria in a child presenting with abdominal pain
- understand the principles of dietary, vitamin and pharmacological treatment of metabolic disorders
- be aware of those metabolic disorders which are vitamin responsive or responsive to pharmacological treatment
- know about the metabolic disorders which may respond to enzyme therapy or bone marrow transplantation
- know the routine neonatal screening tests for metabolic disease and be able to explain them to parents
- know the inheritance patterns of common genetically determined metabolic disorders
- know about the educational and social implications of metabolic disorders and the importance of organising support in the community for special diets and other risks

Change of wording from the BST document

- recognize and be able to manage the clinical and biochemical features of electrolyte and acid base disturbances
- know the common clinical presentations and principles of management of metabolic disease including encephalopathy, neurodevelopmental regression, muscle weakness, visceromegaly and faltering growth (*failure to thrive*)
- be able to initiate (*know when it is appropriate to perform*) metabolic investigations in neonates and children and in urgent situations

Substantial re-wording or new statements of competence for Core HST

- know what samples must be taken in metabolic investigations at the time of presentation and the importance of liaison with laboratories to ensure use of the appropriate container, handling and storage
- know which metabolic disorders are associated with learning difficulties and arrange timely referral for those at risk

Musculo-skeletal Medicine

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of patients presenting with musculo-skeletal problems
- know the differential diagnosis of inflammatory, non-inflammatory and idiopathic cause of musculoskeletal symptoms
- take an appropriate history, musculoskeletal examination and assessment
- recognise when to request the opinion of paediatric rheumatologists or orthopaedic surgeons
- recognise features in the presentation which suggest serious pathology e.g. inflammation, malignancy, infection and vasculitis
- recognise features in the presentation or investigation of findings which suggest physical abuse, emotional abuse and neglect
- understand the role of other professionals involved in the care of children with musculo-skeletal conditions
- be aware of the complications of immunosuppressive treatment
- understand the disease associations of rheumatological conditions, in particular juvenile arthritis and eye disease

Change of wording from the BST document

- recognise the presentation of (*aware of the presentation of*) both chronic fatigue syndrome and generalised idiopathic pain syndromes
- be aware of the spectrum of conditions and treatments that can lead to musculo-skeletal problems, such as kyphosis or scoliosis or bone pain

Substantial re-wording or new statements of competence for Core HST

- be aware of rare congenital bone conditions and their possible presentations
- know when radiological appearances are abnormal
- understand investigations that are helpful in establishing a differential diagnosis

Musculo-skeletal Medicine
Acute Presentations

The patient presents with	Knowledge and understanding	Skills
Joint swelling	<p>know the causes of joint swelling</p> <p>be aware of indications for joint aspiration</p> <p>know how to initiate investigations</p>	<p>identify joint swelling on clinical examination</p>
Joint or bone pain	<p>know the causes of joint or bone pain</p> <p>know patterns of referred pain</p>	<p>be able to perform a systematic musculo-skeletal examination and recognise when referral to ophthalmologist, rheumatologist or orthopaedic surgeon is appropriate</p> <p>be able to distinguish between bone and joint pathology</p>
Limp	<p>know the differential diagnosis of a limp</p>	<p>begin to develop intuitive skills to recognise possible serious physical or psychological conditions</p>

Musculo-Skeletal Medicine
Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Limb pains	<p>know the differential diagnosis of limb pains</p> <p>know about unexplained illness behaviour and pain syndromes</p> <p>be aware of hypermobility and rickets</p>	<p>be able to distinguish between non-serious causes and serious pathology and manage each appropriately</p> <p>be able to assess joint laxity</p>

Back pain	<p>be aware of serious causes of back pain</p> <p>understand the investigations that may clarify the diagnosis</p>	<p>be able to assess clinically whether there is likely to be a serious underlying condition</p> <p>be able to initiate appropriate investigations and referral for a neuro-surgical or orthopaedic opinion</p>
Bow legs and knock knees	<p>know the range of normality at different ages</p> <p>be aware of pathological causes of these presentations</p> <p>know the aetiology, predisposing factors and presentation of rickets</p>	<p>know how to give appropriate advice about these conditions</p> <p>be able to recognise the radiological signs of rickets</p>
Torticollis	<p>know the common causes of torticollis</p> <p>know about serious causes including posterior fossa tumour, atlanto-axial instability and juvenile idiopathic arthritis</p>	<p>know when to refer simple torticollis in an infant to a physiotherapist</p>
Inequality of limb length	<p>be aware of the causes of unequal limb length and normal variation</p>	<p>know how to measure limb length</p>
Multi-system disease	<p>recognise the features which suggest systemic onset of juvenile idiopathic arthritis</p> <p>know the differential diagnosis of inflammatory or infective causes of multi-system disease</p>	

Neonatology

Continuing development from the BST document

- be able to examine the newborn baby appropriately and with sensitivity
- be able to perform an accurate assessment of the baby at birth
- know about the retinopathy of prematurity and its prevention and treatment

Change of wording from the BST document

- be able to recognise and manage (*outline the management of*) common disorders
- have the knowledge and skills to be able to assess and manage (*initiate management of*) babies presenting in the neonatal period with problems (in acute, postnatal ward and outpatient settings)
- know and be able to describe (*understand*) the effects of antenatal and perinatal events on outcome
- know and be able to describe (*understand*) the pathophysiology of the effects of prematurity
- be able to initiate diagnostic tests for common disorders and to interpret and explain results to parents
- understand the principles of and initiate mechanical ventilation
- be able to perform a reliable assessment of fluid status and adjust (*initiate appropriate*) fluid management as needed
- understand the principles of parenteral nutrition and be able to prescribe safely
- be skilled in practising and be able to teach (*have experience of*) basic practical procedures
- recognise (*understand*) the life-threatening nature of some of these situations and the need (*when*) to call for help or look for personal support
- understand the implications for families of babies with neonatal problems and begin to support them
- be able to (*begin to develop strategies to*) communicate sympathetically with parents and have experience of strategies for dealing with their distress or anger
- be able to describe (*understand*) the long-term sequelae of prematurity and (*begin to*) recognise those at risk
- be able to initiate and lead advanced (*appropriate*) resuscitation when required
- be able to prescribe safely (*understand the principles and risks of prescribing*) for newborn babies and breast-feeding mothers

Substantial re-wording or new statements of competence for Core HST

- have successfully completed a neonatal life support course
- usually be able to obtain appropriate arterial and venous access

- understand the principles and importance of nutrition in the neonatal period including assessment of nutritional status, the steps needed to establish breast-feeding, and nutritional supplementation
- be able to apply clinical reasoning when selecting tests and be able to understand the results sufficiently well to be able to explain them to parents and members of the multi-disciplinary team
- be able to decide on appropriate referrals for transfer to other units, communicate effectively with all involved and maintain care as safely as possible until transfer team takes over (*know when and how babies are transferred for specialist levels of intensive care*)
- know how to interpret radiological investigations including the basic features of cranial ultrasound and discuss basic findings with parents
- know how to refer appropriately to community services before discharge and begin to participate in the follow up of those at risk
- know about follow-up programmes for those at risk
- be able to describe the ethical issues relating to neo-natal intensive care

Neonatology

Acute Presentations

The patient presents with	Knowledge	Skills
Birth depression	<p>know the causes of possible outcomes</p> <p>know the statistics of the outcomes of birth depression</p> <p>understand the principles of resuscitation</p> <p>understand the physiology of resuscitation and the responses to it</p> <p>know the criteria necessary before perinatal asphyxia can be diagnosed</p> <p>understand the physiological effects of a hypoxic-ischaemic insult</p> <p>understand the long-term implications of hypoxic-ischaemic damage</p>	<p>be able to provide and lead basic and advanced resuscitation, including intubation</p> <p>be able to carry out resuscitation using bag and mask ventilation and cardiac compressions</p> <p>be able to intubate pre-term babies without direct supervision</p> <p>be able to recognise and initiate management to prevent secondary damage</p>

Neonatology
Acute Presentations cont.

<p>Respiratory distress (acute and chronic)</p>	<p>understand the common causes of respiratory distress</p> <p>know the relevant investigations</p> <p>understand the principles and complications of differing ventilation techniques</p> <p>know the guidelines for surfactant therapy</p> <p>understand the pathophysiology and management of chronic lung disease</p> <p>be aware of the indications for ECMO and nitric oxide therapies</p> <p>know the images needed and safe positions for arterial and venous lines</p> <p>have seen echocardiography where patent ductus arteriosus is diagnosed</p> <p>understand the contribution of patent ductus arteriosus (PDA) to respiratory compromise</p>	<p>be able to interpret chest radiographs and act on results</p> <p>be able to administer surfactant</p> <p>be able to initiate and continue to manage respiratory support on a ventilator</p> <p>be able to diagnose pneumothorax and know when chest drainage is indicated</p> <p>recognise when response to management is not optimal and request help from senior colleagues or other services</p> <p>obtain, interpret and react appropriately to blood gas and blood pressure results</p> <p>be able to teach and supervise the insertion of umbilical and peripheral, arterial and venous lines</p> <p>be able to identify signs suggestive of patent ductus arteriosus (PDA) and initiate management</p> <p>know the steps that need to be taken to discharge a baby on long term oxygen to the community</p>
<p>Cyanosis not of respiratory origin</p>	<p>understand the anatomy and implications of cyanotic congenital heart disease</p> <p>understand the pathophysiology of persistent pulmonary hypertension and know about treatment</p>	<p>be able to make a likely diagnosis and initiate appropriate investigations and treatment</p>

Hypotension	<p>understand the causes and effects</p> <p>understand the rationale for different treatment options</p>	<p>be able to interpret and act on blood pressure measurements</p>
<p>Intra-uterine growth restriction and other nutrition problems</p>	<p>understand the importance of nutrition in sick babies</p> <p>understand the importance of breast-milk feeds</p> <p>understand the principles of parenteral nutrition</p> <p>know the causes of intrauterine and postnatal growth failure</p> <p>know about, risk factors for necrotising enterocolitis</p> <p>know about the signs, symptoms and complications of necrotising enterocolitis</p>	<p>be able to keep and interpret accurate growth records</p> <p>be able to prescribe appropriate nutrition and supplements</p> <p>be able to insert a percutaneous long line</p> <p>be able to assess appropriate position of percutaneous long line from imaging</p> <p>be able to recognise and begin to address poor growth</p> <p>be able to recognise early signs of necrotising enterocolitis and initiate treatment</p>
<p>Need for fluid or blood product therapy</p>	<p>know the fluid requirements of pre-term, sick and growth-restricted babies</p> <p>know the causes of abnormal coagulation</p> <p>know when irradiated blood products are indicated</p> <p>know the indications for therapy with blood products</p>	<p>be able to assess fluid balance</p> <p>be able to act to correct fluid balance abnormalities</p> <p>be able to prescribe blood product transfusions</p> <p>be able to test for and recognise bleeding disorders</p> <p>be able to initiate treatment for bleeding disorders</p>
<p>Abnormal neurological status, including seizures</p>	<p>understand the aetiology and prognosis of abnormal neurological status</p> <p>know the stages of periventricular haemorrhage and leucomalacia</p>	<p>be able to perform a neurological assessment</p> <p>be able to recognise common abnormalities in cranial ultrasound scans</p>

Cont..	<p>know about the management of post-haemorrhagic hydrocephalus</p> <p>know the possible causes and effects of seizures</p> <p>know the possible causes of abnormal tone</p>	<p>have had some experience of performing cranial ultra- sound</p> <p>be able to make a likely diagnosis and initiate management of seizures</p> <p>have experience of how bad news is communicated to parents</p>
Serious congenital anomalies	<p>understand the underlying pathology</p> <p>understand the use of antenatal diagnosis and the role of fetal medicine</p> <p>understand the role of fetal medicine and interventions that are available</p> <p>be aware of surgical interventions</p> <p>understand the impact on parents of the birth of a baby with serious congenital abnormalities or potential disabilities and the ensuing grief due to loss of the expected normal child</p>	<p>be able to recognise serious abnormalities</p> <p>be able to diagnose common syndromes</p> <p>be able to initiate appropriate tests</p> <p>be able to respond to parents' immediate questions</p> <p>have participated in interviews where a consultant has given bad news to parents</p> <p>be able to refer appropriately to parent support groups and to community services before discharge</p>
Sepsis	<p>understand the importance of timely treatment, know the range of treatments and the likely pathogens</p> <p>know about nosocomial infection</p>	<p>anticipate early signs of sepsis and initiate appropriate anti-microbial therapy and supportive management</p> <p>practise effective infection control</p>
The dying baby	<p>understand the ethical principles involved</p> <p>understand the ethical principles in withdrawing or withholding care from an infant</p> <p>know about terminal care and bereavement counselling</p>	<p>be able to communicate sympathetically with parents</p> <p>be able to communicate sympathetically with staff</p> <p>be able to deal with personal stress and know when to look for support</p>

Postnatal Ward and Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Jaundice	<p>know the investigations that will diagnose the causes of conjugated and unconjugated hyperbilirubinaemia</p> <p>know the appropriate management</p> <p>know how and when to undertake an exchange transfusion</p>	<p>be able to diagnose haemolytic jaundice</p> <p>be able to manage haemolytic jaundice</p> <p>be able to prescribe phototherapy appropriately</p> <p>anticipate the need for an exchange transfusion appropriately</p> <p>be able to undertake a full exchange transfusion under supervision</p> <p>be able to investigate and manage prolonged neonatal jaundice appropriately</p> <p>recognise features which suggest serious pathology</p>
Feeding	<p>understand the importance of breast-feeding</p> <p>know the local policies on feeding</p> <p>know the causes of feeding problems</p>	<p>be able to support and advise breast-feeding mothers</p> <p>be able to make appropriate recommendations to address feeding problems and faltering growth (failure to thrive)</p>
Infants of diabetic mothers	<p>understand the physiology</p> <p>know the likely complications</p> <p>know when admission to a neonatal unit is indicated</p>	<p>be able to interpret blood glucose estimations</p> <p>be able to anticipate problems early and manage appropriately</p>
Congenital abnormalities	<p>know the common diagnoses and the likely prognosis of minor congenital abnormalities</p> <p>know about common presentations of congenital cardiac disease and which need urgent action</p>	<p>be able to advise parents appropriately</p> <p>be able to ensure that referral to an appropriate specialist or service occurs</p>

<p>Disordered development</p>	<p>know the causes and natural history of conditions causing disordered development</p> <p>understand current theories about the pathophysiology of cerebral palsy</p> <p>understand current theories about retinopathy of prematurity and sensori-neural hearing loss and how these conditions may be prevented</p> <p>understand the common complications of prematurity and how to access expert assessment and management</p>	<p>be able to perform a developmental assessment</p> <p>be able to perform a neurological assessment</p> <p>be able to make a timely and appropriate referral to the multidisciplinary team</p> <p>have seen examples of the effect of developmental difficulties on families</p>
<p>Screening</p>	<p>know the range of screening tests used</p> <p>know about the universal Newborn Hearing Screening Programme</p> <p>know about retinopathy and cataract screening</p> <p>understand the difference between a screening and a diagnostic test</p> <p>understand the investigations that will follow</p> <p>know about developmental dysplasia of the hip</p> <p>know the management of developmental dysplasia of the hip</p>	<p>be able to explain the implications of a screening test to parents</p> <p>order or perform such tests appropriately</p> <p>be able to examine the newborn effectively</p> <p>be able to perform clinical screening tests</p> <p>be able to explain the difference between a screening test and a diagnostic test to parents</p>

Nephro-urology

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of patients presenting with nephro-urology problems in acute and outpatient settings
- be able to perform a reliable and accurate assessment of fluid status and initiate appropriate initial fluid management

- have the knowledge and understanding of fluid and electrolyte imbalance and blood pressure in children with kidney problems
- have an understanding of the implications for families of children with chronic kidney problems
- understand the principles of prescribing in children with renal disease

Change of wording from the BST document

- understand the role of different renal imaging techniques including ultrasound, static and dynamic isotope scans in the investigation of urinary tract disorders **and recognise common abnormalities**

Nephro-urology
Acute Presentations

The patient presents with	Knowledge and understanding	Skills
Nephrotic syndrome	<p>understand the complications of the nephrotic state</p> <p>understand the principles of the pharmacological, dietary and fluid management</p> <p>understand the investigations including the indication for renal biopsy</p>	<p>be able to advise parents on long-term management and complications of treatment</p> <p>assess features in the presentation which suggest serious or significant pathology</p>
Acute nephritis	<p>know the aetiology, pathophysiology and immunological basis of glomerulonephritides and vasculitides</p> <p>understand the investigations that will differentiate between the causes</p> <p>know the features that are prognostically significant</p> <p>know the range of immunosuppressive therapies that may be used in these conditions</p>	<p>recognise features in the presentation which suggest serious or significant pathology</p>

Acute renal failure	<p>know the causes of acute renal failure</p> <p>understand the investigations that may differentiate between these causes</p> <p>know the features of haemolytic uraemic syndrome</p> <p>understand the methods to correct fluid and biochemical abnormalities seen in renal failure</p> <p>know the indications for dialysis</p>	<p>be able to assess and initiate management of life-threatening events eg hyperkalaemia</p>
Hypertension	<p>know the techniques of blood pressure measurement</p> <p>know the causes of hypertension and the principles of treatment</p>	<p>be able to interpret blood pressure measurements</p> <p>be able to identify complications</p> <p>be able to initiate management under supervision</p> <p>be able to liaise with specialists effectively</p>
Acute scrotal pain	<p>know the differential diagnosis of this symptom</p>	<p>be able to recognise the important causes of acute scrotal pain</p> <p>be able to identify children who require urgent surgical referral</p>
Neonate with history of abnormal antenatal ultrasound of the renal tract	<p>understand the causes and management of antenatal hydronephrosis</p> <p>know about the causes of echogenic or cystic kidneys</p> <p>know about the inheritance patterns of renal abnormalities detected in fetal life</p>	<p>be able to recognise when to refer to a nephrologist or urologist</p> <p>be able to give basic explanation of the problem, management and prognosis to parents ante- or post-natally</p>
Stones	<p>know the causes of stone formation</p>	<p>be able to recognise presenting features</p> <p>be able to initiate management under supervision</p>

Nephro-urology

Outpatient Presentations

The patient presents with	Knowledge and understanding	Skills
Voiding disorders including enuresis, dysuria, frequency and polyuria	<p>know both the physical and psychological causes of voiding disorders</p> <p>understand the principles of investigation of urinary tract infection, and the management of vesico-ureteric reflux.</p> <p>understand the principles of managing enuresis</p> <p>be aware of the association of genito-urinary symptoms with child sexual abuse</p>	<p>be able to take a detailed voiding history</p> <p>be able to interpret common urine microscopic and culture findings</p> <p>be able to identify relevant neurological problems</p> <p>be able to investigate and manage within guidelines</p> <p>recognise features in the presentation which suggest serious or significant pathology</p>
Haematuria and proteinuria	<p>know the causes of these signs</p> <p>understand the investigations that will differentiate between the causes</p> <p>know the indications for renal biopsy</p>	<p>recognise features in the presentation which suggest serious or significant pathology</p>
Urogenital abnormalities	<p>know when surgical referral is required for circumcision, impalpable testes, hypospadias or suspected urinary tract obstruction</p>	<p>be able to examine the genitalia appropriately and with sensitivity</p> <p>recognise inflammatory or traumatic lesions</p>
Chronic renal failure	<p>know the causes and natural history of conditions causing chronic renal failure</p> <p>understand the pathophysiology of bone disease, anaemia and growth failure</p> <p>know about dialysis and transplantation</p>	<p>appreciate the impact of chronic renal failure in childhood and later adult life</p> <p>identify growth and nutritional problems and use dietetic support effectively</p>
Tubular disorders	<p>know the range of presentations suggestive of an underlying renal tubular disorder</p> <p>know about the inheritance patterns of different tubular disorders</p>	<p>be able to recognise electrolyte abnormalities</p>

Neurology and Neurodisability

Continuing development from the BST document

- have knowledge and understanding of the pathophysiology of common disorders affecting the nervous system
- know and understand the common causes of disability
- understand concepts of disability and what this means for the child and family
- be able to take an accurate neurological and neuro-developmental history
- be able to examine the nervous system of a newborn baby, child and young person
- be able to perform a reliable assessment of neuro-developmental status at key stages, including the newborn period, the first year of life, nursery age, school entry and late primary education
- be able to recognise a disabled child
- have the knowledge and skills to be able to initiate management of children with neurological and neurodisabling conditions in acute settings and know when and whom to call for help
- understand the life-threatening nature of acute neurological deterioration and when to call for help
- be able to recognise, initiate diagnostic tests and outline the management of common disorders
- understand the principles and use of neuro-radiological imaging
- have a basic understanding and experience of neuro-physiological tests
- understand the principles of prescribing and monitoring therapy
- understand the implications for families of children with neurological and neurodisabling conditions
- understand the impact of developmental disorders on the life of child and family at different developmental stages
- be able to work with families and professionals in the care of disabled children
- develop a commitment to advocacy on behalf of disabled children and their families
- understand the importance of seeking the views of all children to inform decisions about their individual care and about planning services

Change of wording from the BST document

- have worked on specific cases (*experience of working*) with multi-disciplinary teams

- have experience of (*understand the need for*) a range of communication skills with disabled children, their families and other professionals
- be aware of local services and how to access them
- have experience of working with (*understand the need to work with*) other services outside neurology and neurodisability such as child protection, education, services for looked after children and adult services
- have experience of (*be aware of*) how agencies work together to address how children with health and medical needs are managed at school

Substantial re-wording or new statements of competence for Core HST

- have had experience of working in special schools
- be aware of the role of the Designated Medical Officer to the Local Education Authority (LEA)
- be aware of the statutory requirement to notify children who may have special educational needs to the LEA and to know how to do so
- have experience of the local Special Educational Needs (SEN) panel
- be able to write SEN medical reports on simple cases
- have experience of SEN annual reviews and transition planning
- be able to distinguish simple developmental delay from developmental disorders and to manage simple cases
- be able to recognise and come to a likely diagnosis of common developmental disorders such as cerebral palsy, dyspraxia, ADHD, specific learning difficulties and arrange timely and appropriate specialist assessment
- know how equipment can be used to lessen the effects of disability and how to refer
- know about and be prepared to find out about self-help and support groups for children and their families with conditions in their specialist area and be aware of the requirement to tell parents about these groups
- be able to write reports on medical or developmental conditions for parents and non-clinical staff in education and elsewhere that are easily understood by the lay person, and that explain the implications of the condition and how it may impact on the child and her or his carers in non-clinical settings

- know about what benefits may be payable to the disabled child and/or carers and how they may be accessed
- know about local respite facilities and how they may be accessed

Neurology and Neurodisability

Acute Presentations

The patient presents with	Knowledge and understanding	Skills
Seizures	<p>know the common causes of seizures in newborn babies and children</p> <p>know about common epileptic syndromes</p> <p>understand the links between epilepsy and behaviour problems</p> <p>understand the place and principles of the EEG and neuro-imaging in investigation</p> <p>know about the long term implications of epilepsy, including different epilepsy syndromes and the risk of learning difficulties, accident or sudden death</p>	<p>be able to initiate treatment for acute continuing seizures</p> <p>be able to refer to intensive care teams appropriately and maintain patient safety until that team takes over</p> <p>be able to form a differential diagnosis</p> <p>be able to decide initial and continuing anticonvulsant therapy in babies and children</p> <p>be able to advise parents about education and safety</p> <p>work effectively with the multidisciplinary team</p>
Faints and “funny turns”	<p>be able to formulate a differential diagnosis for faints and “funny turns”</p> <p>be able to initiate the investigations that may differentiate between these causes</p>	<p>be able to make a likely diagnosis</p> <p>be able to explain likely diagnoses to parents</p>
Acute focal neurological signs	<p>understand the implications of acute focal neurological signs</p> <p>understand the principles of investigation</p>	<p>be able to demonstrate the signs</p> <p>be able to interpret the signs</p> <p>have experience of interpretation of CT and MRI scans</p> <p>be able to initiate consultation to give diagnoses to parents</p>

Ataxia, clumsiness and abnormal movement patterns	<p>know the common possible causes of ataxia, clumsiness and abnormal movement patterns</p> <p>know the indications for investigations</p>	<p>be able to recognise the signs</p> <p>recognise which urgent investigations are needed</p>
Hypotonia, neuropathies and myopathies	<p>know about the common causes of hypotonia, neuropathies and myopathies</p> <p>know about the relevant neurophysiological and metabolic investigations</p>	<p>be able to demonstrate the signs</p> <p>be able to elicit and interpret the signs</p> <p>be able to form a likely differential diagnosis</p> <p>be able to initiate appropriate tests</p>
Meningism and altered consciousness	<p>know the likely causes or pathogens of meningism and altered consciousness</p> <p>understand the principles of treatment</p> <p>be aware that organic brain conditions can lead to psychotic symptoms</p> <p>know when it is safe to perform a lumbar puncture</p> <p>know the principles of establishing brain stem death</p>	<p>assess and manage early presentations of meningitis and encephalitis</p> <p>use a validated coma score</p> <p>ensure prophylactic therapy for contacts of meningitis</p> <p>assess and initiate management of raised intra-cranial pressure</p> <p>initiate therapy appropriately</p> <p>call for help promptly</p> <p>recognise the need for urgent referral to audiology specialists after bacterial meningitis</p>
Neural tube defects and other congenital anomalies	<p>know about antenatal diagnosis of neural tube defects and other congenital anomalies and their prevention</p> <p>know about the ethical principles involved in management decisions</p>	<p>be able to recognise syndromes</p> <p>be able to recognise the signs and symptoms of blocked shunts</p> <p>be able to communicate sympathetically with parents</p>

<p>Trauma to central and peripheral nervous systems</p>	<p>be aware of the implications of severe head injury and the possibilities for rehabilitation</p> <p>know about other neurological trauma such as brachial plexus injury</p>	<p>be able to lead initial acute management and transfer appropriately</p> <p>work effectively with the multidisciplinary team to manage the medium and longer term implications and rehabilitation</p>
<p>Fever or illness in a child with complex disabilities</p>	<p>be aware of the range of diagnostic possibilities, including chest infection, aspiration, gastro-oesophageal reflux, oesophagitis, constipation, hip and joint problems, and dental problems</p> <p>know when and where to get help</p>	<p>be able to assess child with complex disabilities who is unwell</p> <p>be able to recognise important indicators of specific conditions</p>

Community and Outpatient Presentations

<p>The patient presents with</p>	<p>Knowledge and understanding</p>	<p>Skills</p>
<p>Neuro-developmental regression</p>	<p>be familiar with the main investigations that will differentiate between the causes of neuro-developmental regression and how to access further expert help</p> <p>understand the implications</p>	<p>be able to assess development</p> <p>be able to recognise regression of developmental skills and refer appropriately for investigation</p>
<p>Disordered development</p>	<p>understand the common causes of disability, disordered development, and learning difficulties</p> <p>know about the current theories on the pathophysiology of cerebral palsy</p> <p>know about common secondary disabilities and co-morbidities</p>	<p>have experience of working with the child development team or centre</p> <p>recognise common causes of disordered development, manage simple problems and refer complex difficulties appropriately for specialist investigation and assessment</p>

<p>Speech and language delay, including hearing disorders</p>	<p>know the common causes of speech and language delay and disorders</p> <p>know about multi-disciplinary investigation and therapy for those with more complex disorders</p> <p>know the risk factors for sensorineural hearing impairment know the principles of hearing testing at various ages</p> <p>know the support available for hearing impaired children</p> <p>know how to communicate with a hearing impaired child or language disordered child including the child with autism</p> <p>understand the importance of hearing assessment in children with speech and language problems and autistic spectrum disorders</p>	<p>be able to distinguish simple phonological delay from more significant disorders</p> <p>be able to recognise abnormal speech and language patterns</p> <p>recognise when referral to an appropriate specialist is needed</p> <p>recognise the need for referral of sudden hearing impairment</p> <p>recognise the need for referral to audiology specialists or to an ENT surgeon</p> <p>recognise autistic features in disordered developmental assessments and know how to refer appropriately</p>
<p>Conductive hearing loss</p>	<p>know about the common causes of conductive hearing loss</p> <p>know the principles of hearing testing at various ages and of management of hearing impairment</p>	<p>have experience of hearing tests at various ages</p> <p>be able to recognise when further assessment is required and how to access it</p>
<p>Sensorineural hearing loss</p>	<p>know about the risk factors and common causes of sensorineural hearing loss</p> <p>be able to recognise when further assessment is required and how to access it, including investigations that may be appropriate</p> <p>be aware of the principles of management, including cochlear implantation, and educational approaches to sensorineural hearing loss</p>	<p>be able to recognise syndromes and situations where sensorineural hearing loss is likely to occur</p> <p>be aware of the assessment of sensorineural hearing loss</p> <p>be able to communicate with the child with sensorineural hearing loss</p>
<p>Weakness</p>	<p>know the possible causes of weakness and patterns of presentation</p>	<p>be able to take a relevant history</p> <p>be able to elicit and interpret appropriate signs</p>

<p>Abnormal head size and shape</p>	<p>know how to recognise abnormal head shapes and to differentiate between serious and non-serious causes</p> <p>know the common causes of hydrocephalus, macrocephaly and microcephaly</p>	<p>be able to plot and interpret a head growth chart</p> <p>be able to reach a likely diagnosis and initiate investigations for abnormal head growth</p> <p>know about the insertion and ongoing management of ventricular-peritoneal shunts</p>
<p>Headache</p>	<p>know the possible biological, psychological and social factors that can contribute to headache</p>	<p>be able to recognise when headache may indicate serious illness and arrange prompt investigations</p> <p>be able to initiate appropriate investigations and treatment</p>
<p>Problems of language, vision and hearing</p>	<p>understand the common causes of sensory impairment, the various tests available and when they are appropriate</p> <p>know about the principles of testing</p>	<p>be able to identify infants and children at risk of language, hearing or visual impairment</p> <p>be able to recognise when sensory impairment may contribute to developmental difficulties and to refer appropriately for further assessment</p>
<p>Specific learning difficulties</p>	<p>understand how specific learning difficulties present at school</p>	<p>be able to identify when specific learning difficulties might be present and how to refer appropriately for further assessment</p>

Ophthalmology

Continuing development from the BST document

- be able to examine the eye and recognise those abnormalities which require urgent referral or treatment
- be able to take a relevant history for a child with suspected visual impairment
- be able to use an ophthalmoscope to recognize an abnormal fundus and lens opacity

- be able to test for colour vision
- understand the microbiology and treatments for common eye infections including orbital cellulitis
- know about the eye manifestations of common genetic and systemic diseases
- recognize and interpret abnormal eye movements
- know about support at school and other resources for children with visual impairments

Change of wording from the BST document

- be able to undertake (*know the principles of*) visual acuity testing at various ages

Ophthalmology Acute Presentations

The patient presents with:	Knowledge and understanding	Skills
A red eye	know the common causes of red eye	be able to identify children who need referral be able to initiate investigations and manage appropriately
A possible squint	know the causes of acute onset and the congenital causes of a squint	be able to recognise abnormal alignment of the eyes and examine corneal reflexes know how to refer appropriately
Ptosis	know the congenital and acquired causes of ptosis know how to undertake the Tensilon test	
Proptosis	know the common causes of proptosis	be able to initiate appropriate investigations be able to examine for signs of relevant systemic disease
Abnormal movement	know the ocular and neurological causes of benign abnormal eye movements	be able to interpret clinical findings correctly be able to undertake a full neurological examination where appropriate

Abnormal fundus	<p>know the normal appearance of the retina</p> <p>know the value of fundal examination in suspected child abuse cases and certain developmental syndromes</p>	<p>be able to identify papilloedema, abnormal vessels and pigmentation</p> <p>be able to identify haemorrhage</p>
Visual impairment	<p>know the common and preventable causes of visual impairment</p> <p>know about the investigations that might be used to find a cause</p> <p>know about the specific developmental patterns that occur in the child with visual impairment</p> <p>know about educational approaches to the child with visual impairment</p>	<p>be able to recognise congenital cataract and refer urgently for further management</p> <p>have experience of assessment of the child with suspected visual impairment</p>

Palliative Care

Continuing development from the BST document

- be familiar with national and local guidelines on withdrawing and withholding treatment
- be aware of legal and ethical issues relating to withdrawing life support
- recognise factors which determine when care of a patient becomes palliative
- know the importance of seeking advice when treatment may not be in the best interests of a child
- know about appropriate therapeutic intervention in symptom control
- be aware of the ethical issues in therapeutic intervention in children with life-limiting conditions
- know about local opportunities for respite care, including hospice availability

- know the tests for brain stem death
- recognise loss and grief and their effects on the health and well-being of children, families and professionals
- be aware of local bereavement support services
- recognise the skills and experience of other professionals
- acknowledge personal needs for support and the needs of other professionals involved in the care of the dying child for support networks
- understand the need for respect of the wishes of the child or young person particularly when these are different from those of the family and health professionals

Change of wording from the BST document

- know about (*be familiar with*) guidelines on the management of sudden infant death, including the RCPCH Kennedy report

Substantial re-wording or new statements of competence for Core HST

- know about the broad definition of palliative care in childhood
- recognise factors which determine when care of a patient becomes palliative

Respiratory Medicine, with Ear, Nose and Throat

Continuing development from the BST document

- have the knowledge and skills to be able to assess and initiate management of patients presenting with respiratory problems in acute and outpatient settings
- have the knowledge and understanding of factors relating to long-term management of chronic respiratory problems
- understand the life-threatening nature of some of these conditions and when to call for help

**Respiratory Medicine with Ear, Nose and Throat
Acute Presentations**

The patient presents with	Knowledge and understanding	Skills
Sore throat and / or mouth	<p>know the causes of these complaints</p> <p>know appropriate therapies</p>	<p>be able to manage these conditions</p> <p>recognise features in the presentation which suggest serious pathology</p>
Nose bleeds	<p>know the common causes of nose bleeds</p>	<p>recognise those with underlying pathology</p>
Snoring and obstructive sleep apnoea	<p>know the causes of snoring</p> <p>be aware of complications of this presentation</p> <p>understand the indications for sleep studies</p>	<p>be able to refer appropriately to an ENT surgeon</p>
Earache	<p>know the common causes and complications</p> <p>know the risk factors for otitis media with effusion</p> <p>understand the vulnerability of children with cleft palate, Down's syndrome and other cranio-facial conditions</p>	<p>recognise an abnormal ear drum</p> <p>be able to manage this condition</p> <p>be able to treat with antibiotics where appropriate</p> <p>recognise when to refer to audiology specialists or an ENT surgeon</p>
Acute stridor	<p>understand the potentially life-threatening nature of this condition</p> <p>know about allergic and infective causes eg epiglottitis, laryngotracheitis, retropharyngeal abscess, and foreign body</p>	<p>be able to manage this condition</p> <p>recognise when to request help from a senior colleague, anaesthetist or ENT specialist</p> <p>recognise children with existing chronic upper airway problems</p>

Acute severe asthma	know and be able to apply the British Thoracic Society guidelines for management	be able to assess the severity of an asthma attack be able to institute appropriate emergency treatment be able to lead treatment of severe asthma and review ongoing treatment before discharge recognise when more senior help is needed
Lower respiratory tract infection, including pneumonia and bronchiolitis	know the causes of respiratory tract infections know appropriate therapies know indicators of severity	be able to manage these infections be able to recognise patients requiring intensive care be able to recognise complications, for example, empyema and manage appropriately
Respiratory failure	know the indications for ventilation be aware of the agreed resuscitation plans for individual patients	initiate urgent assessment and treatment including assisted ventilation liaise with more senior paediatricians, anaesthetists and intensivists when appropriate

Respiratory Medicine with Ear, Nose and Throat Outpatient Presentations

The patient presents with:	Knowledge and understanding	Skills
Cervical Lymphadenopathy	know the causes of cervical lymphadenopathy	recognise when investigation and surgical intervention is needed
Chronic stridor	know the causes of chronic stridor	recognise when and how to investigate
Asthma	be familiar with the British Thoracic Society guidelines for management of asthma know about patterns of asthma and exacerbating factors	institute age-appropriate individualised management plan for asthma be able to modify an asthma management plan appropriately

<p>Asthma cont..</p>	<p>know the complications of long-term use of medications for asthma</p>	<p>teach children how to use a peak flow meter and diary</p> <p>teach and assess inhaler technique</p> <p>be aware of what needs to be done to ensure the child has access to emergency treatment at school and other settings</p>
<p>Recurrent or chronic chestiness</p>	<p>know the respiratory and non-respiratory causes, including aspiration, of recurrent or chronic chestiness</p> <p>know about predisposing conditions such as neuromuscular and skeletal disorders, and immunodeficiency</p>	<p>recognise features in the presentation which suggest serious or unusual pathology eg atypical presentations of cystic fibrosis</p> <p>know about the role of bronchoscopy, pH studies and video-fluoroscopy</p> <p>know how to perform and interpret basic lung function tests</p>
<p>Cystic fibrosis</p>	<p>know and understand the pathophysiology and natural history of cystic fibrosis</p> <p>understand the principles of treatment</p> <p>understand the diagnostic tests available</p>	<p>work with a multi-disciplinary team, particularly physiotherapy and dieticians</p>

5. Practical Procedures and Investigations

By the end of Core Higher Specialist Training, trainees will:

Continuing development from the BST document

- 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

Change of wording from the BST document

- know about (*be aware of*) the role of complex investigations eg CT and MRI scans and their diagnostic potential and complications

Substantial re-wording or new statements of competence for Core HST

- 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 identify with patients requiring emergency prophylaxis
- 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 Core Higher Specialist 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 Core Higher Specialist 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

They may need supervision for:

- intubation of extremely immature babies or those with congenital malformation of head and neck
- draining a pneumothorax in babies and older children
- neonatal chest drain insertion
- exchange transfusion (full and partial)
- cranial ultrasound scanning
- cerebral ventricular tap
- abdominal paracentesis

Pharmacology and Therapeutics

Continuing development from the BST document

- know and understand the pharmacological basis for treatments
- know the approved indications and justification for prescribing drugs in common paediatric problems
- know how to report adverse side effects
- 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 licensing of medicines for paediatric patients and unlicensed and off-label use
- 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)

Change of wording from the BST document:

- be able (*know how*) to prescribe safely for the newborn, and for children of all ages
- be able (*know how*) to find out information necessary for safe prescribing through use of paediatric formularies and pharmacy liaison
- know about (*be aware of*) drug interactions of commonly used drugs (*where more than one drug prescribed*)
- know about (*be aware of*) procedures for obtaining consent in children and young people for the administration of drugs
- be able to use (*know*) 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

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