

Paediatric training for excellence

Core Syllabus for Paediatric Training

Version 2

Approved by the GMC for implementation from 1 August 2023



This document outlines the syllabus to be used by doctors completing Core Paediatrics training in the United Kingdom (UK). It accompanies the RCPCH Progress+ curriculum and Assessment Strategy.

This is Version 2. As the document is updated, version numbers will be changed and content changes noted in the table below.

Version number	Date issued	Summary of changes
2	October 2024	LO2 – a new illustration covering eco-distress. LO5 – a new illustration covering the link between climate change and health inequalities. LO10 – a new illustration covering upskilling colleagues around climate change.

Introduction

This syllabus supports the completion of the RCPCH Progress+ curriculum and should be used with the curriculum document and Assessment Strategy.

The purpose of the curriculum is to train doctors to acquire a detailed knowledge and understanding of health and illness in babies, children and young people. The curriculum provides a framework for training, articulating the standard required to work at Consultant level, through key progression points during their training, as well as encouraging the pursuit of excellence in all aspects of clinical and wider practice.

The curriculum comprises Learning Outcomes specifying the standard trainees must demonstrate to progress in training and attain a Certificate of Completion of Training (CCT). The syllabi support the curriculum by providing further instructions and guidance on how the Learning Outcomes can be achieved and demonstrated.

In the context of clinical training and service "babies, children and young people" is a common term used by those working in paediatric and child health areas to mean any of those instances in context with clinical training or service. Therefore, in relation to the assessment, the trainee needs to achieve the capabilities for either a baby, child or young person.

Using the Syllabus

Paediatric trainees are required to demonstrate achievement of generic and sub-specialty or General Paediatric Learning Outcomes throughout their training period.

For core trainees (ST1 – 4), there are 11 generic paediatric Learning Outcomes. For specialty training (ST5 – 7), there are a further 11 generic paediatric Learning Outcomes and several additional Learning Outcomes in either General Paediatrics or the sub-specialty to which the trainee has been appointed.

This syllabus contains five interlinked elements, as outlined in Figure 1, which illustrates how each element elaborates on the previous one.

Elements of the Syllabus

The **Introductory Statement** sets the scene for what makes a Paediatrician.

The **Learning Outcomes** are stated at the beginning of each section. These are the outcomes which the trainee must demonstrate they have met to be awarded their Certificate of Completion of Training (CCT) in Paediatrics. Progress towards achievement of the Learning Outcomes is reviewed annually at the Annual Review of Competence Progression (ARCP).

Each Learning Outcome is mapped to the General Medical Council (GMC) Generic Professional Capabilities framework. Each trainee must achieve all the Generic Professional Capabilities to meet the minimum regulatory standards for satisfactory completion of training.

The **Key Capabilities** are mandatory capabilities which must be evidenced by the trainee, in their ePortfolio, to meet the Learning Outcome. Key Capabilities are therefore also mapped to the GMC Generic Professional Capabilities framework.

The **Illustrations** are examples of evidence and give the range of clinical contexts that the trainee may use to support their achievement of the Key Capabilities. These are intended to provide a prompt to the trainee and trainer as to how the overall outcomes might be achieved. They are not intended to be exhaustive and excellent trainees may produce a broader portfolio or include evidence that demonstrates deeper learning.

The **Assessment Grid** indicates suggested assessment methods, which may be used to demonstrate the Key Capabilities. Trainees may use differing assessment methods to demonstrate each capability (as indicated in each Assessment Grid), but there must be evidence of the trainee having achieved all Key Capabilities.

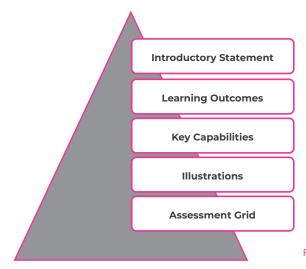


Figure 1: The five elements of the syllabus

Using the Syllabus with ePortfolio

The ePortfolio is used to demonstrate a trainee's progression using assessments, development logs and reflections. Events should be linked to the Progress+ curriculum specifically against the Key Capabilities at the appropriate level.

Further guidance on using the ePortfolio is available on our website: https://www.rcpch.ac.uk/resources/rcpch-eportfolio-guidance-doctors

Paediatrics Introductory Statement

A Paediatrician is a doctor with the knowledge and skills to manage a wide range of health problems and concerns in babies, children and young people. Paediatricians are not bound by age group or organ. They manage patients with all kinds of problems, from acute, lifethreatening illness to chronic disease and health promotion in ages from the newborn to the late adolescent.

The Paediatrician is particularly expert in the investigation and diagnosis of babies, children and young people with undifferentiated symptoms and signs. They initiate treatment that may be delivered and continued by themselves or by another person or team, according to the needs of the patient.

Paediatricians are also experts in providing an interface between other professionals and agencies to co-ordinate the delivery of optimal care. They are able to step in to lead and oversee individual, tailored care whenever appropriate.

As a result, Paediatricians develop a wide variety of skills allowing them to provide holistic child-centred care across the full range of paediatric specialties.

They may develop significant expertise in specialised paediatric areas but will always maintain their knowledge and skills across the full breadth of child health. This allows care for the majority of sick and unwell babies, children and young people to be supervised by a single doctor.

	Core Learning Outcomes	GMC Generic Professional Capabilities
1.	In addition to the professional values and behaviours required of all doctors (Good Medical Practice), a paediatric trainee must adhere to legal frameworks relating to babies, children, young people and families/carers, including relevant safeguarding legislation related to the four nations.	GPC 1,2
2.	Develops effective professional relationships with babies, children, young people and their families/carers as well as colleagues, enabling active participation in planning and implementation of care plans – this will include demonstrating listening skills, cultural awareness and sensitivity; communicating effectively in the written form by means of clear, legible and accurate written and digital records.	GPC 1,2
3.	Undertakes key paediatric clinical procedures both elective and emergency, including responding to and leading emergency situations and performing advanced life support, recognising when and how to escalate and adapting clinical assessments to meet the needs of babies, children, young people and families/carers.	GPC 1,2,3
4.	Conducts a clinical assessment of babies, children and young people, formulating an appropriate differential diagnosis; plans appropriate investigations and initiates a treatment plan in accordance with national and local guidelines, tailoring the management plan to meet the needs of the individual.	GPC 2,3
5.	Promotes healthy behaviour in conversations with children, young people and their families/carers, from early years through to adulthood; taking into account the potential impact of cultural, social, religious and economic factors on the physical and mental health of children and families.	GPC 2,4
6.	Develops personal leadership skills and demonstrates their own leadership qualities, adjusting their approach, where necessary; utilising these skills to work constructively within multi-disciplinary teams (MDTs), valuing the contributions of others.	GPC 2,5
7.	Recognises the importance of patient safety, including safe prescribing and exposure to risk/hazard.	GPC 2,6,7

8.	Applies quality improvement (QI) methodology to clinical practice, thereby learning and reflecting to foster positive change.	GPC 6
9.	Understands the professional responsibility of safeguarding babies, children and young people; accurately documents and raises concerns in a proficient manner to appropriate staff and agencies.	GPC 1,3,5,7
10.	Plans and delivers teaching and learning activities to a wide range of audiences and provides appropriate feedback to others.	GPC 2,8
11.	Adopts an evidence-based approach to baby, child, young people and family's/carers health practices, including critically appraising published research.	GPC 2,5,6,9



The best doctor is someone who can change your feelings of health and can help you on the worst day possible.



Professional Values and Behaviours

This domain sets out the requirements of the trainee in relation to professional values and behaviours. This encapsulates duty of care, legal and ethical frameworks, advocacy, accountability and responsibility.

In addition to the professional values and behaviours required of all doctors (Good Medical Practice), a paediatric trainee must maintain confidentiality, understanding that disclosure may be required in relation to safeguarding.

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Doctors should treat children with a big smile.





In addition to the professional values and behaviours required of all doctors (Good Medical Practice), a paediatric trainee must adhere to legal frameworks relating to babies, children, young people and families/carers, including relevant safeguarding legislation related to the four nations.

GPC 1,2

Key Capabilities

Demonstrates the professional values, behaviours and attitudes required of doctors (outlined in Good Medical Practice) within the scope of their knowledge, skills and performance.	GPC1
Demonstrates compassion, empathy and respect for children, young people and their families.	GPC 1,2
Demonstrates self-awareness and insight, recognising their limits of capability and demonstrating commitment to continuing professional development (CPD).	GPC1
Assesses the capacity of children and young people to make informed decisions about their medical care.	GPC1
Follows the principles of the law with regard to consent, the right to refuse treatment, confidentiality and the death of a baby, child or young person.	GPC1

Illustrations

be approached?

A 10-year-old boy presents with testicular pain with his stepfather. His mother is currently 200 miles away looking after her father who has recently had a stroke. A testicular torsion is diagnosed by the surgical team and the trainee is requested to "sort out consent". What issues does the trainee need to consider and what practical steps should be taken?
 A 14-year-old girl is seen in the Emergency Department with significant self-harm (cutting on her thighs). The trainee is called to assess whether she requires admission to hospital. What does the trainee need to consider and how should this

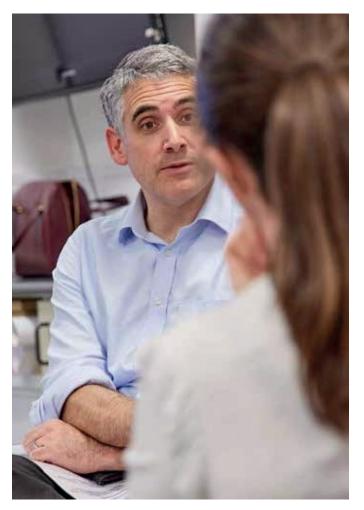
- An 11-year-old child has been diagnosed with an inoperable brain tumour and lives in accommodation that is overcrowded and unsuitable for the medical equipment needed, such as a hoist. The trainee demonstrates appropriate responses and empathy for the child and family whilst offering practical support.
- A 13-year-old boy from overseas is brought to the Emergency Department with a dental abscess. The person bringing them is not a parent but reports that they are a friend of the family. The triage nurse informs the doctor he is not registered with a GP, his immunisations are not up-to-date and he is also not in school. The trainee recognises the potential risks to the child and understand social care, education and health systems and makes appropriate referrals. The trainee recognises more complex areas of child protection eg possibility of child exploitation, modern slavery.
- Examples and scenarios whereby the trainee recognises and deals competently with potential sources of difficulty (including over-involvement, personal identification, negative feelings, personality clashes and unreasonable demands) and maintains appropriate limits and boundaries between work and personal life.
- The trainee develops a level of self-awareness recognising the limitations of their own ability to evaluate and intervene by identifying opportunities for continuous professional development, life-long learning, reflective practice and effective teaching.

Professional Skills and Knowledge: Communication

Trainees need to develop high levels of communication skills in order to respond to the complexities of paediatric medical practice. Key consultation techniques will be required along with communication skills that enable partnership development and the ability to manage difficult and challenging situations.

They must also learn to communicate effectively with the wider health and social care teams. Trainees must have effective communication in the written form by means of clear, legible and accurate written and digital records. Whilst communicating effectively they must also demonstrate respect, cultural awareness and professionalism.

By the end of core training, the trainee will manage more complex discussions and produce acceptable written reports (which, in the case of legal reports etc., may still require some supervision).



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I would like doctors to explain everything to me and use words I understand.



Develops effective professional relationships with babies, children, young people and their families/carers as well as colleagues, enabling active participation in planning and implementation of care plans – this will include demonstrating listening skills, cultural awareness and sensitivity; communicating effectively in the written form by means of clear, legible and accurate written and digital records.

GPC 1,2

Key Capabilities

Understands the principles of participation in decision making for children, young people and their parents in the process of improving their health.	GPC 1,2
Demonstrates excellent communication skills, both spoken and written (including electronic notes) with children, young people, families and colleagues.	GPC 2
Demonstrates excellent communication and interpersonal skills to enable effective collaboration with children, young people and their families, including colleagues in multi-disciplinary teams (MDTs).	GPC 2
Demonstrates courtesy and respect for different cultures and those with protected characteristics.	GPC 2
Responds appropriately and empathises with children, young people and their families in dealing with conflict and/or those who are experiencing difficulty, anxiety or distress.	GPC 2
Manages the communication of a range of differential diagnoses and where the management plan will be uncertain.	GPC 2



Illustrations

- A 10-year-old child is brought to the clinic with bruising, pallor and lethargy. The trainee suspects a significant underlying illness that requires further investigation. How should the concerns be explained to the child/parents and parental questions answered? The trainee plans for what happens next.
- Parents of an 11-month-old baby have been referred because they are refusing the MMR immunisation for their child. How would the trainee elicit their concerns and respond to this?
- A four-day-old baby presents with reduced feeding and fever and requires investigation and treatment for possible sepsis. The parents have recently moved to the UK. Whilst they speak some English it becomes clear that they are struggling to understand all of the information being provided to them. The trainee uses a translation service to ensure that the parents are fully informed, can consent to the investigations and ask any questions that they have.
- A four-year-old boy is brought to the Emergency Department by his father after he felt a mass in his abdomen whilst washing him in the bath. Having examined the patient and found a large, firm mass in the abdomen, the trainee explains to the family the plan going forward and the current uncertainties around a diagnosis, whilst also honestly answering their questions about whether this could be a form of cancer.
- The trainee conducts a follow up clinic appointment for a young person with type 1 diabetes via a telephone clinic, ensuring that they speak both to the young person and the parent during the consultation.
- A trainee notes that their hospital has excellent patient information leaflets which parents and carers find very helpful. However, they are only in English and there is a large proportion of the patient population they serve who cannot read English. The trainee undertakes a project to get the leaflets translated into some of the most common languages spoken within their patient demographic to ensure these families have access to the same information leaflets.

- A seven-year-old boy with a background of non-verbal autism is brought to the Emergency Department by his foster carer as he appears to have injured his foot. He is very worked up and anxious and becomes more and more agitated, refusing examination. The trainee finds out from the foster carer what he likes and what tends to help him relax and then uses play strategies to help calm him down so that he can be examined with as little distress as possible.
- A family waiting to be seen in PAU have told the nurse that they won't leave without antibiotics. Following taking a history and examination the paediatric trainee determines an appropriate management plan. She discusses this with the family, who are unhappy that it is mostly self-care and no antibiotics are prescribed. The trainee explains why the suggested management plan is appropriate and also explains what signs would suggest a need for a different management plan. The trainee secures an agreement with the family that self-care strategies are most appropriate currently, but they know what concerning features to look out for and seek reassessment for. The family are happy with this management plan and feel reassured that they know when to seek reassessment.
- Having determined a differential diagnosis for a child, a trainee explains to the family that some additional tests are required to help determine the possible diagnoses for the child. Once the tests are carried out and the results are back, the trainee interprets the results and then explains what they mean to the child and parents.
- The trainee undertakes a HEEADSSS assessment of an adolescent and asks open questions about the young person's name, pronouns and gender identity, accurately using these details later when referring to the child.
- A fourteen-year-old girl presents to ED with shortness of breath and chest tightness, on a background of usually well-controlled asthma. On examination, although she feels symptomatic, she is not wheezy, and bronchodilators do not seem to help her "tightness". She says she has been feeling panicked over the last few months, with similar feelings that are not helped by her salbutamol inhaler. The trainee performs a HEADSS assessment, recognising there may be some overlay of anxiety exacerbating her symptoms. When asking about her mood, she offers up that she is feeling extremely anxious about the state of climate change and panicked that there is not enough time to make a difference. The trainee acknowledges her concerns with compassion and listen to them in more depth. They signpost her to the RcPsych Eco distress resource for children and young people & the RCPCH&Us climate changers page for resources made by other young people feeling similarly.

The trainee recognises their limitations in offering formal psychological support and discuss with a senior colleague who advises not to refer to CAMHS as eco-distress is a normal response to an outside threat but provides information about a local self-referral counselling service. The trainee completes a CBD/CEX to reflect on the case.

Professional Skills and Knowledge: Clinical Procedures

At all levels of training, doctors are required to be confident and expert in many clinical skills and procedures, including examination skills. The learning of these skills needs to be set in the context of respecting and preserving the dignity of the baby, child or young person. The trainee should adapt clinical examinations to meet the needs of the baby, child, young person and family/carers.

The trainee is required to undertake basic paediatric clinical procedures and to recognise emergency situations, knowing when and how to initiate basic life support, escalate appropriately and carry out advanced life support with guidance.

At the end of core training, the trainee will be an expert at a number of required skills and will take a role in supporting junior staff to learn those skills while also maintaining their own proficiency.

I would like to know exactly what is going to happen before any procedure.





Undertakes key paediatric clinical procedures both elective and emergency, including responding to and leading emergency situations and performing advanced life support, recognising when and how to escalate and adapting clinical assessments to meet the needs of babies, children, young people and families/carers.

GPC 1,2,3

Key Capabilities

Performs appropriate clinical assessments of a baby, child and young person.	GPC 2,3
Demonstrates achievement of both basic and advanced life support skills.	GPC 1,2,3
Undertakes key procedures, including the following: • Peripheral venous cannula • Neonatal umbilical venous catheterisation (UVC) • Lumbar puncture • Intraosseous needle insertion for emergency venous access*	GPC 2,3
Confirms the correct placement of arterial and venous lines.*	GPC 2,3
Performs advanced paediatric airway support, including airway opening manoeuvres and the use of airway adjuncts to the point of intubation.*	GPC 2,3
Demonstrates neonatal Airway maintenance: Airway opening manoeuvres and the use of airway adjuncts (including supraglottic airway) to maintain the airway of a term or preterm baby to the point of intubation.*	GPC 2,3

^{*} With the exception of IO and airway manoeuvres, mandatory DOPs must be completed using non simulated environments.

The key capabilities relating to neonatal and paediatric airway can be evidenced by mini cex or DOP which can also be in a simulated environment.

Illustrations

Whilst working on the postnatal ward, the trainee performs a thorough physical examination of a newborn infant and detects a heart murmur, arranging appropriate follow-up and referral for the baby.

- The trainee attends a blue call for a status epilepticus and manages the patient as per the APLS algorithm, demonstrating advanced life support skills, including using airway adjuncts, gaining IV access and performing a thorough A to E assessment.
- A seven-year-old attends the Emergency Department with a three-day history of diarrhoea and vomiting. They are clinically dehydrated and require IV fluids. The trainee cannulates the child successfully in order to deliver this treatment.
- A six-day-old baby presents with fever and reduced feeding. They require a full septic screen and treatment with antibiotics. The trainee performs a lumbar puncture to obtain CSF samples for culture and biochemistry.
- The trainee attends the delivery of a 28-week baby on the labour ward. The baby is born in a reasonably good condition and is transferred to NICU for ongoing respiratory support and management. The trainee successfully places venous and arterial umbilical lines and uses imaging to confirm the correct placement of the lines.
- The trainee attends an emergency c-section for a term baby on labour ward. The baby is born in poor condition with no respiratory effort, poor tone and a low heart rate. The trainee performs initial resuscitation, including airway opening manoeuvres, suction and inflation breaths, resulting in spontaneous respiratory effort and heart rate and tone normalising.
- In a community clinic, the trainee performs a developmental assessment using the schedule of growing skills for a three-year-old referred with dysmorphic features and concerns around his communication and social skills. The trainee takes blood for a developmental delay screen, including organising genetic testing as per the National test directory, recognising how this is organised through the Genomic Laboratory Hubs (GLH).
- A one-year-old presents with signs of sepsis and a history of recurrent UTIs. A full septic screen is commenced, but a urine sample has not yet been obtained. The trainee performs an "in-out" catheterisation to obtain a urine sample for culture and starts empirical antibiotics.
- A trainee on the neonatal unit is asked to see a baby who the nurse reports as floppy and not feeding well. The baby has no evidence of sepsis, has a normal blood sugar and is otherwise well. The trainee performs an assessment, recognises the possibility of genetic disorders within the differential and discusses this with their team. The trainee understands the different genetic testing options available via the National Test Directory and the importance of requesting the correct test(s), as many of the more common genetic causes of the 'floppy baby' would not be identified through whole genome sequencing (congenital myotonic dystrophy, Prader Will syndrome, spinal muscular atrophy (SMA).

Professional Skills and Knowledge: Patient Management

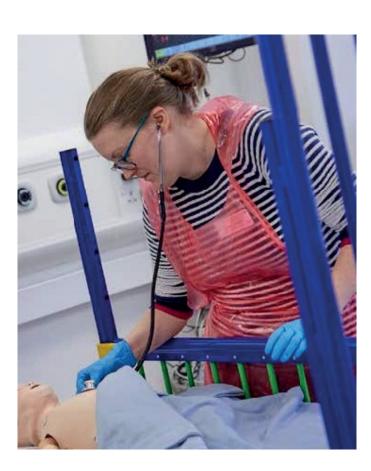
The treatment and management of babies, children and young people across a range of health scenarios are at the heart of what Paediatricians do.

By the end of core training, the trainee is managing the care of babies, children and young people mostly unsupervised. There is an ability to perceive situations as a whole and the trainee can apply holistic decision-making processes. They draw on the experience and learn from this.



I want you to fix me.





Conducts a clinical assessment of babies, children and young people, formulating an appropriate differential diagnosis; plans appropriate investigations and initiates a treatment plan in accordance with national and local guidelines, tailoring the management plan to meet the needs of the individual.

GPC 2, 3

Key Capabilities

Performs an assessment of a baby, child or young person's physical, mental and developmental status, incorporating biological, physiological and social factors across multiple clinical contexts.	GPC 2,3
Recognises the potential life-threatening events in babies, children and young people and leads resuscitation and emergency situations.	GPC 2,3
Recognises and manages a range of common childhood presentations.	GPC 2,3
Engages in multi-professional management of a range of common general paediatric physical and mental health presentations, both short and long term.	GPC 2,3
Recognises and manages the acute presentations and after-care of anaphylaxis, prescribing and training the family to use adrenaline autoinjectors, including documenting events and producing an emergency action plan with appropriate onward referrals.	GPC 2,3
Seeks appropriate advice and support from other teams in a timely and collaborative manner, including working effectively with colleagues in primary care.	GPC 2,3
Takes into consideration the individual needs of the baby, child or young person.	GPC 2,3



Illustrations

- A 10-day-old afebrile breastfed homebirth baby is admitted jaundiced and has not yet regained his birth weight. How would the trainee assess dehydration and feeding? What is important to note on physical examination?
- A 13-year-old girl presents with recurrent headaches. Neurological examination is normal. What would the trainee include in a comprehensive history that may help explain the headaches? The young person mentions they are being bullied at school and online. How would the trainee explain the headaches to her parents? What might be included in her care plan?
- A 17-year-old is found alone without identification semiconscious on the street and is brought in by ambulance. He smells of alcohol and has bruises on his face, ribs and right forearm. How would the trainee assess his clinical condition? What differential diagnoses needs to be considered? Alongside medical conditions, the important vulnerabilities and safeguarding concerns should be considered.
- A 14-year-old with Down Syndrome is seen in the clinic with concerns regarding poor growth. Communication is limited and he looks underweight. His height has fallen from the 25th to just below the third centile over three years. His parents are concerned about his educational progress at the local special school. The trainee describes their assessment and management plan.

- A young person with multiple comorbidities presents with an acute onset worsening of their symptoms. They are referred for review in the Paediatric Assessment Unit. The trainee that clerks them takes a history accurately and sensitively that includes ascertaining the relevant biological, physiological, educational and social factors from the young person and their family or carers. Following taking this history, the trainee demonstrates an accurate assessment of signs and symptoms by carrying out an examination and combines the history and examination findings to formulate a differential diagnosis.
- During a nightshift a trainee is called to review some patients with raised early warning scores. The trainee appropriately interprets the raised warning scores.
- A trainee is reviewing a young person in clinic who has a chronic condition. The trainee takes the time to understand the young person's thoughts about their care plan, including consultation time without their parents/carers present. The trainee discusses with the young person how they can be enabled to take a more active role in managing their own care.
- A trainee in a community paediatric clinic reviews a young person. They complain about tiredness and non-specific aches and pains, but their parents/carers say they stay up late on their phone. The trainee knows about common somatic symptoms in adolescence and undertakes an appropriate review and explains whether these are normal or abnormal symptoms.
- A 12-month-old baby is brought to hospital by their parents following a four-day history of profuse diarrhoea and vomiting. Their older sibling had a recent suspected bout of gastroenteritis, which had been going round their school class, but the one-year-old seems much worse than their sibling to the parents. The trainee puts in place an appropriate management plan for fluid and electrolyte replacement.
- One of the foundation doctors is reviewing some routine inpatient blood test results. They ask one of the paediatric trainees if they should be worried about a patient who has a mildly elevated result in their 'Liver Function test' results. The trainee discerns that the result is not part of an obvious pattern of liver dysfunction and does not correlate clinically, but can be monitored with routine repeat blood tests. The trainee advises on additional tests that can be requested and used to rule out concerns of liver dysfunction.

- Parents take their 18-month-old daughter to the Emergency Department as she has a bloated tummy and seems really tired and not her usual self. The parents are also concerned because she has lost her appetite. The trainee is concerned by the history and thinks the abdominal examination is suggestive of a mass. They are worried that the child looks very cachectic and lethargic. The trainee orders appropriate initial investigations and start initial supportive therapies. They seek advice and input from a senior colleague into the care of the child and recognises there may be a need to involve tertiary specialists.
- A child with multiple chronic conditions is noted to be losing weight at a follow-up appointment. The trainee recognises undernutrition and involves other healthcare professionals in instituting an appropriate management plan to ensure appropriate intake and enable weight gain. The trainee recognises to look for any coexisting nutritional deficiencies and correct these, as required.
- The trainee reviews a patient in clinic referred by the GP with a history of chronic constipation, resistant to dietary changes and treatment prescribed in primary care. The trainee takes an appropriate history and examines the child. They recognise when further investigations might be warranted depending on the findings they make.

They advise the parents and provide a new treatment plan.

- A two-week-old baby boy arrives in the Emergency Department with a history of being sleepy, feeding poorly and vomiting. Examination shows the baby to be tachycardic with prolonged capillary refill and testes not palpable. Blood gas shows metabolic acidosis, low sodium and raised potassium. The trainee recognises a life—threatening situation and initiates resuscitation. The trainee considers differential diagnosis, recognises features of congenital adrenal hyperplasia and understands they may need to seek advice from specialist teams.
- A 15-year-old patient with type 1 diabetes attends the Emergency Department with vomiting and difficulty breathing. His recent blood sugar control has been poor. The trainee recognises the patient's risk of diabetic ketoacidosis and orders appropriate investigations. The trainee initiated resuscitation and management based on local or national diabetic ketoacidosis guidelines. They realise the patient is confused and difficult to rouse. The trainee recognises cerebral oedema for the life-threatening situation it is, changes their management plan accordingly and seeks support from senior colleagues.

- The trainee is called to see a neonate who is six hours old because of low blood sugars. The mother was a gestational diabetic and the baby is large for dates. Despite feeding, their blood sugar is low. The trainee assesses the baby and formulates a differential diagnosis. The trainee understands initial investigations and management of hypoglycaemia in the neonatal period with reference to local guidelines. They acknowledge the mother's preferred method of feeding and incorporates that into their plan.
- A five-year-old boy is seen in the clinic with leg pain on activity associated with frequent falls. The trainee recognises potential MSK and neurological causes of leg pain. They carry out a focused history, including developmental milestones and performs a careful MSK and neurological examination, including strength testing which reveals hypermobility with no evidence of inflammatory joint disease. The trainee refers the patient to the hospital physiotherapy service.
- A six-year-old girls is referred to the paediatric clinic. She is short, has a characteristic facial appearance with broad neck and is struggling to keep up at school. She has just seen a cardiologist, who diagnosed pulmonary stenosis and wondered whether she might have Noonan syndrome. The trainee recognises the importance of confirming this diagnosis with genetic testing as Noonan syndrome is a multi-organ disorder that requires paediatric follow-up and investigations at different ages, as well as potentially having implications for other family members.
- An 8-year-old is brought to clinic with a mother who has four young children. The mother thinks that she has got ADHD. You are given a Connor's rating scale which shows that the mother rates the child as 3 for every single question asked. How would this be managed?

Capabilities in Health Promotion and Illness Prevention

This domain includes all aspects of health promotion, be that with individuals, groups or populations. Global health and sustainable medicine are at the forefront of Paediatrics.

The trainee must become increasingly proficient in considering the baby, child and young person as a whole, taking into account those wider aspects of cultural, economic, social and educational perspectives, optimising opportunities to promote healthy lifestyle education.

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Learn about all issues relevant to the children and young people's life – school, work, university, physical, mental health, friends and family.





Promotes healthy behaviour in conversations with children, young people and their families/carers, from early years through to adulthood; taking into account the potential impact of cultural, social, religious and economic factors on the physical and mental health of children and families.

GPC 2,4

Key Capabilities

Recognises the potential impact but also limitations of health promotion advice.	GPC 4
Applies knowledge of the factors which contribute to child health inequalities and the consequences of those inequalities in terms of disability, life expectancy and health economics.	GPC 4
Anticipates contextual factors (socioeconomic, cultural, psychological) which constrain the ability to make "healthy choices".	GPC 4
Interprets the impact of environmental, economic, global and cultural contexts on health promotion and physical and mental health illness prevention.	GPC 4
Interacts effectively with children, young people and their families from a broad range of socioeconomic and cultural backgrounds, appropriately using translated materials and interpreters, if required.	GPC 2,4

Illustrations

- A two-year-old presents with anaemia. Investigations reveal dietary deficiency. The child lives with an older sister and mother who works as a part-time cleaner. The trainee takes dietary history, sensitive to social and financial context and signposts to benefits and housing and dietary advice.
- A four-year-old is admitted with croup. Examination reveals dental caries. The trainee explores reasons for poor dental hygiene and helps the family to access dental services.

- A child is admitted with pneumonia. On history taking the child has had no immunisations. The trainee explores reasons for non-immunisation, provides accurate information and facilitate further discussion, if necessary.
- An underweight seven-year-old who recently arrived as a refugee from Afghanistan is referred for investigation. The trainee explores the child's experience and health using a biopsychosocial model. impact of journey/ environment from country of origin, possible abuse and experiences are considered using a trauma-informed model of communication.
- A seven-year-old boy is referred for investigation of ADHD. His BMI is 29. The trainee explores in a sensitive and non-judgmental way the family's difficulties in controlling the child's behaviour and eating.
- A 13-year-old girl is seen in the Emergency Department who is self-harming by cutting her upper thighs. Talking to her reveals she is being bullied, both online and in person. The trainee explores the impact of bullying, provides practical advice regarding online safety and signposts for further support.
- The newly appointed CEO for an acute NHS Trust is keen to establish the reputation of the Trust as a health-promoting organisation within the local community. The CEO has asked the Medical Director to liaise with the Clinical Leads for the Directorates to establish what is currently being done and for practical sustainable development examples to take forward in the future. In the first instance, the Clinical Directorates should submit a 1-2 page evidence-based outline of how they might carry this forward. The Clinical Director has asked for volunteers to take forward this piece of work. The trainee has a long-standing interest in this area and can see that volunteering would be of benefit (meeting the health promotion capabilities) as well as for the Paediatric Department.
- A young person discloses to a trainee that they are sexually active with a peer in their year group. The trainee explores sensitively whether the young person has considered any contraceptive or sexual health issues and does so in an open manner, making no assumptions about the young person's sexuality. The trainee advises the young person on where they can get further advice. There is also consideration of perceptions of sexual activity, whether the young person is actively consenting to sexual activity and understands healthy relationships.
- At a follow-up clinic appointment, a young person's parents ask for advice about healthy eating as they are concerned that their son is already overweight and could become obese. The trainee offers advice about an appropriate diet and how to encourage healthy eating.
- A 13 year old presents with daytime sleepiness and difficulty getting to sleep at night. The trainee explores the young person's evening and bedtime behaviours and discusses with the young person how these could be optimised to improve sleep

11.

A six-year-old girl attends a difficult asthma clinic, where a trainee is an observer. She has had recurrent exacerbations, and a recent admission to HDU. Her symptom control is poor despite maximal medical therapy. The trainee witnesses the consultant take an in-depth social history, uncovering that the family live in temporary accommodation due to financial hardship. They live in an area with one of the worst air pollution levels locally, and she walks to school via main roads. Inside the house there is black mould despite best efforts to open windows and dry washing outside.

The consultant talks to the family about concerns that indoor and outdoor air quality may be worsening their daughter's asthma control, recognising this is a factor which is difficult for them to control. They show the family a checklist of ways to reduce outdoor air pollution exposure such as taking an alternative route to school which may avoid the densest area of exhaust fumes and traffic. They also offer to write a letter to the housing authority, to support a move to housing that would not endanger their health.

After the consultation, the trainee does a CBD with your consultant about how air pollution and climate change exacerbate health inequalities, where those who are victims of poverty are disproportionately impacted.

Capabilities in Leadership and Team Working

Leading and working effectively in teams is to be achieved in all stages of training and should be considered essential skills within the trainee toolkit from the very early stages.

Working across a range of teams within both primary and secondary care (including social care), the trainee must apply leadership and team-working skills in this variety of settings to promote the well-being of the baby, child and young person.

Core training allows the trainee to develop autonomous leadership qualities. Being able to effectively participate in MDT meetings and wider inter-professional teams to optimise the well-being of the baby, child and young person.

"

Know about support mechanisms available. You don't have to do it all on your own.





Develops personal leadership skills and demonstrates their own leadership qualities, adjusting their approach, where necessary; utilising these skills to work constructively within multi-disciplinary teams (MDTs), valuing the contributions of others.

GPC 2,5

Key Capabilities

Participates effectively and constructively in the multi-disciplinary (MDT) and inter-professional teams, engaging with children, young people and families, facilitating shared decision making.	GPC 2,5
Develops leadership and team-working skills and relevant problem- solving strategies in clinical management contexts, such as where there is limitation of resources.	GPC 2,5
Supports appropriate decisions made within a team and communicates these effectively.	GPC 2,5

Illustrations

1.	The trainee prepares parents for a multi-disciplinary meeting, clarifies their agenda and questions.
2.	The trainee organises a hospital discharge planning meeting.
3.	The trainee works with CAMHS on cases, such as eating disorders, drug overdose in the context of family psychosocial dysfunction and challenging behaviour.
4.	Consultants regularly share details of their leadership responsibilities with trainees and encourage them to take a leadership role in each post, eg running junior doctor teaching programme, acting as a junior doctor forum representative or trainee representative on the medicines committee.

5. The trainee actively uses opportunities on ward rounds, at handover and in other settings to seek and offer help and suggestions regarding patient management. The trainee helps to foster an inclusive atmosphere at work, for example, by supporting quieter members of the team in coming forward with suggestions. 6. Following the admission of an eight-year-old boy in DKA, the trainee approaches the diabetes team to help further their own learning and development, ensuring the diabetic team are fully updated with patient care, as necessary. 7. As the transition to middle grade approaches, the trainee looks for opportunities to develop leadership skills, including shadowing the on-call registrar, taking the registrar bleep (under supervision), attending clinic and seeing more challenging cases. The trainee may also complete a course on leadership development, for example, a transition to registrar course or similar. 8. Due to sickness absence, the trainee is afforded the opportunity to work in a paediatric satellite clinic, helping to develop independent decision-making, time management and communication skills.

Capabilities in Patient Safety, including Safe Prescribing

Doctors at every stage in their career must demonstrate that they can prioritise, promote and encourage patient safety.

Trainees must understand the importance of safe prescribing and show that they can prescribe medications in a safe manner. The trainee must identify risk autonomously and promote patient safety at all times.

"

We would like more explanation on medication and tablets and what they do and what we should know about them, how they will help, when they will help and what to do if it doesn't help.





Recognises the importance of patient safety, including safe prescribing and exposure to risk/hazard.

GPC 2,6,7

Key Capabilities

Understands the relationship between hazards, risks of exposure and likelihood of harm.	GPC 6
Recognises when a baby, child or young person has been exposed to a risk/hazard and escalates in accordance with local and national procedures.	GPC 2,6
Applies safety procedures to prescribing practice, demonstrating an understanding of pharmacogenomics, following local and national processes in instances of patient harm or medication error.	GPC 6
Applies safety procedures when ordering blood, with adherence to local and national policies.	GPC 2,6
Applies safety and reporting procedures to clinical care situations, responding to identified risks/hazards.	GPC 2,6
Applies the Duty of Candour principles to practice.	GPC 6
Recognises when the behaviours of a child or young person puts themselves or others at risk of harm.	GPC 6,7

Illustrations

After a reported medication error administered to a patient, the trainee undertakes a root cause analysis, under the supervision of the Consultant on call at the time of the error. They determine factors that led to the error occurring and feed this information back to key local departments. The trainee formulates an action plan alongside their Consultant to reduce the chances of this risk happening again in the future.

- An eight-year-old child has been prescribed paracetamol post-operatively on the surgical ward. Upon reviewing the prescription chart the following day, the trainee recognises that the dose has been calculated incorrectly and the child has received an overdose over the preceding 24 hours. The trainee stops the paracetamol, prescribing a suitable alternative in the meantime. They then check Toxbase to determine whether they need to investigate harm to the patient any further. Once they've determined that the dose was not toxic and they are happy that the child is not at risk from further harm, they explain the error to the child's parents. They signpost the parents to appropriate materials for raising concerns and explain that they will also fill in an incident report to formally report the medication error. They also explain the error to their senior colleagues in order to take appropriate steps to address the error with the original prescriber.
- After realising they have prescribed amoxicillin to treat a lower respiratory chest infection in a penicillin-allergic inpatient, the trainee stops the nurses from administering the first dose. They explain the error to the nurses and parents and change the prescription to a more suitable antibiotic. The trainee reflects on this near-miss event in their portfolio and completes a near-miss event on their local health incident reporting system.
- A newborn on the neonatal unit is currently on high flow for respiratory distress syndrome. Over the course of the night shift, the baby has accidentally been given expressed breast milk from the wrong parent. Upon their arrival, the trainee sits down with the parents of the baby to explain the mistake that has been made. They address the parent's questions and signposts them to appropriate materials that explain the process of raising concerns. They also ensure they feed this back to the team in order for appropriate procedures to be undertaken to determine the cause of the error and to minimise this from happening again in the future.
- A trainee is asked to review a young person who on admission to the adolescent ward has been found to have alcohol, tobacco and marijuana in their bag as well as a sheet of diazepam tablets. The trainee discusses what was found with the young person in an effective manner and recognises a history of substance misuse.
- A one-year-old boy attends the children's assessment unit with their second episode of a prologued seizure. They have a history of epilepsy that has not responded to first or second line antiepileptic treatment. Having read about the importance of precision medicine, the trainee discusses with their Consultant whether genetic testing could be initiated prior to the patients next paediatric clinic appointment, in case the results could help direct the choice of treatment regime.

Capabilities in Quality Improvement

Doctors in all stages of their career must promote and encourage all aspects of quality improvement, striving for improved experiences and patient outcomes.

Improving the quality of care and service provision is a key aspect of all doctors' duties. Core training will allow trainees to increase their confidence in using quality improvement tools and participating in improvement projects.

We want our voices and choice to make a difference.





Applies quality improvement (QI) methodology to clinical practice, thereby learning and reflecting to foster positive change.

GPC 6

Key Capabilities

Proactively identifies opportunities for quality improvement.	GPC 6
Undertakes projects and audits to improve clinical effectiveness, patient safety and patient experience.	GPC 6
Participates in local clinical governance processes.	GPC 6

Illustrations

- Delayed discharges were a problem for the paediatric ward, therefore, the trainee undertakes a MDT QI project with the nursing and pharmacy staff to ensure that children were discharged before lunchtime. This project was then presented at the hospital wide grand round and submitted to RCPCH QI Central.
- Night shifts are often busy and it was identified that clinicians were averaging 4.9 routine blood tests, per night. A QI project was undertaken with the phlebotomy service and subsequently reduces this to 0.7 blood tests, per night, utilising skill set and time more effectively. This was presented locally at the clinical governance meeting.
- It was noted within the neonatal unit that polystyrene cups were being used which can contribute to high levels of waste. A QI project was therefore undertaken which led to the removal of the use of polystyrene cups within the unit, saving approximately £5,000 per year and preventing approximately 960,000 polystyrene cups going into a landfill. This project was submitted to the RCPCH Conference.

- A parent complained that when their child was admitted onto the ward, she was not allowed to stay with her. The trainee decided to audit the family's experience of having a child admitted onto the ward. The trainee spoke to her Educational Supervisor and they made a plan as to how the audit could be conducted and the results reviewed.
- A trainee starts working at a new hospital and recognises that the families are often waiting in the Emergency Department for a very long time before being seen. She talks with her Educational Supervisor about this and they decide to audit the waiting times. On review of the waiting times, they recognise that they are too long. They put in place a system of one doctor being designated to cover acute admissions. After the new system has been in place for a few months they review the waiting times to see how they have been impacted by the change.
- A trainee is called to the bedside to review a child. The bedside nurse had been removing a dressing and nicked the child's skin. The trainee makes sure the child is fine and attends to the wound and asks the nurse to complete a Datix form as well as contacting the registrar to inform them. They agree that the trainee and bedside nurse will speak to the parents and explain what has happened. The paediatric team then reviews the Datix in their morbidity meeting and discuss whether there is anything they could do to ensure this does not happen again.
- A trainee asks their unit lead and their Chief Nurse if they can spend a day shadowing them so they can understand some of the processes that occur 'behind the scenes'.

Capabilities in Safeguarding Vulnerable Groups

This domain requires the trainee to consider safeguarding as an essential element of all aspects of paediatric healthcare practice. The safety of all babies, children and young people is paramount.

Core trainees must complete accurate documentation and raise concerns to senior staff in a professional manner. By the end of core training, they will role model excellent safeguarding practice to junior staff and consider environmental aspects that impact safeguarding (eg addictions and social deprivation).

Empower young people to speak up.

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Curriculum Learning Outcome 9

Understands the professional responsibility of safeguarding babies, children and young people; accurately documents and raises concerns in a proficient manner to appropriate staff and agencies.

GPC 1,3,5,7

Key Capabilities

Recognises and acts upon safeguarding concerns, taking into account risk factors.	GPC 7
Conducts an assessment for possible maltreatment, including sexual abuse which incorporates attention to the broader family function and the baby's, child's or young person's developmental, physical and mental health status.	GPC 5,7
Applies knowledge of the indications for a skeletal survey and relevant blood tests in safeguarding.	GPC 7
Documents clearly and accurately, using body charts, to record the examination results of a baby, child or young person within a safeguarding context.	GPC 2,7
With supervision, provides oral or written reports for: • strategy meetings and case conferences • police or social services.	GPC 2,7
Recognises the long-term impact of physical and mental adverse childhood experiences, including maltreatment and when a baby, child or young person and families are vulnerable, distressed and in need of early support and intervention.	GPC 7
Applies an understanding of consent and parental responsibility in relation to safeguarding procedures of "looked after" children.	GPC 1,7
Applies knowledge regarding forensic assessment in relation to child abuse and establishes the importance of the chain of evidence.	GPC 3,7
Follows the local system of referral for assessment and arranges follow-up for babies, children or young people who may have been sexually abused.	GPC 7

Illustrations

- A pregnant mother books at 28 weeks' gestation and discloses cannabis use and a history of domestic abuse with her current partner. The trainee recognises and outlines the management and risk factors of children in need, including children at risk of maltreatment, including the unborn child.
- A seven-year-old with cerebral palsy is found to have a femoral fracture that his mother reports occurred when she was turning him in bed. History reveals they live in a one bedroomed flat with no lift or specialist equipment such as a hoist. The trainee demonstrates knowledge of the different categories of abuse and recognises that they commonly occur together (eg physical, emotional, sexual, neglect and falsification of an illness by a child or young person) and recognises the risk factors which contribute to vulnerability, including disability in children. The trainee initiates a social services inquiry or referral under supervision.
- A 10-year-old boy with asthma presents with an acute severe exacerbation. History reveals his inhaler had ran out the day before and he has had eight previous attendances this year. He was not brought to his last asthma outpatient appointment. The trainee recognises that frequent emergency department attendances may be a presentation of child abuse and/or neglect.
- 4. A two-week-old baby is referred by the health visitor for an assessment of 'bruising' to the thighs and sacrum as his mother reports the skin appearance was not present at birth. The trainee recognises the diversity of physical signs and symptoms that might indicate or mimic child abuse, including skin injury and genital warts.
- A two-year-old boy is brought into the Emergency Department after falling off a first-floor balcony and sustaining a radius and ulna fracture. Past medical history reveals an accidental ingestion of his mother's fluoxetine and a previous scald. A strategy meeting is held before discharge with the police and social care. The trainee recognises when families are vulnerable, distressed and in need of early support and intervention and applies knowledge of the principles and practice of common legal processes and legislation relating to safeguarding children and the vulnerable.
- A seven-year-old is brought for a child protection medical after he told his teacher he was hit with a cane at home for answering his father back. The father reports he was physically chastised as a child and it is common in his culture and finds the investigation process intrusive and upsetting. The trainee applies knowledge of the ways in which personal beliefs, experiences and attitudes might influence professional involvement in safeguarding work and recognises the potential emotional impacts of abuse and neglect on the child, families and professionals.

- A 15-year-old boy with a stab wound to his thigh is brought in by the police. The officers report he was found with a large quantity of drugs and does not live locally. History reveals he has spent time in and out of foster care as his mother has had a number of admissions for mental health issues. The trainee recognises the risk factors of adverse childhood experiences. Trainee also considers wider safeguarding concerns eg county lines, child exploitation.
- A six-year-old girl presents with recurrent urinary tract infections and recent episodes of urinary incontinence. She is very withdrawn during the consultation. The school have had recent concerns about her behavioural outbursts. The trainee recognises child abuse has to be considered as part of the urogenital history and examination as behaviour changes, including soiling and/or bed wetting, can be a presentation of sexual abuse, emotional abuse or neglect.
- A three-year-old boy is brought to a child protection medical by a social worker as the nursery made a referral for bruising to his right ear and chest. His mother is currently being interviewed by the police. The trainee assesses, with supervision, injuries in relation to history, developmental stage and ability of the child and obtains valid consent for examination in the case of suspected abuse, including a child who is subject to court orders or who attends without an adult with parental responsibility.
- A four-year-old boy is brought by his mother with linear bruises to his back and buttocks. Concerns are raised about physical abuse and a referral to social care is made. A strategy meeting is held with police and social care and all professionals agree that the case meets the threshold for section 47 investigation. The social worker asks if a medical report can be compiled for presentation at court as they will be applying for an interim care order. The trainee:
 - a. assesses and supports the needs of children in families where there are safeguarding issues;
 - b. demonstrates knowledge of how to produce a medical report under supervision;
 - c. contributes to court hearings, under supervision;
 - d. understands the difference between professional and expert witnesses;
 - e. understands the difference between civil and criminal proceedings in relation to safeguarding.
- The trainees take part in a shadowing opportunity to see non-acute safeguarding cases, eg shadowing a social worker, nurse or health visitor undertaking safeguarding work.
- The trainee is called to the Emergency Department where a person thought to be a child has been brought in by the police with significant injuries following a drugs raid on a house. What are the important issues to assess when the trainee see this young person?

- Your health visitor calls at a local family home to find 2 young children 'home alone'. The baby is screaming in his cot, feeling cold and looking 'rather scrawny'. His 4 year old sister, who answered the door, has some bruises on her face and legs and what looks like a bite mark on her left arm. The health visitor phones you for advice.
- A 15 year old boy presents to A&E with an ongoing history of headaches. He is with his foster carer, having been in that placement for a week after recently arriving in the UK as an unaccompanied minor from Eritrea. The trainee addresses the acute complaint, but also thinks about the young persons' wider health needs following the RCPCH guidance on refugee and unaccompanied asylum seeking children and young people. They liaise with the young person's social worker to ensure that he is having a looked after child medical arranged, and they ask for the social worker to follow up on getting him registered with a GP in the new area.

Capabilities in Education and Training

This domain requires trainees to develop skills that enable them to teach patients, families, carers and other health and social care professionals.

Trainees are required to develop skills that enable them to provide safe supervision and training activities for those in junior positions and for other health and social care professionals. This is achieved through the creation of effective learning opportunities.

"

Young people like technology. Use it more.

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Curriculum Learning Outcome 10

Plans and delivers teaching and learning activities to a wide range of audiences and provides appropriate feedback to others.

GPC 2,8

Key Capabilities

Demonstrates the ability to plan and deliver teaching in a range of clinical and non-clinical contexts.	GPC 2,8
Shows the ability to adapt their teaching methods to the different learning needs of individual team members.	GPC 2,8
Provides evidence of obtaining feedback on teaching delivered by them; reflects on and learns from this feedback.	GPC 8
Provides appropriate feedback to others.	GPC 2,8

Illustrations

1. The trainee is interested in a career in acute paediatrics. To build their CV and experiences, they speak to a Consultant in their department who helps explore their career aspirations and signposts objectives to work towards. 2. A trainee delivers a seminar to medical students and receives their teaching evaluations from the medical school. They use these comments to revise and plan their next seminar. 3. The trainee attends a regional study day on a sub-specialty topic and find one of the speakers to be particularly engaging. The trainee writes down the things they liked about this speaker and the methods they used to involve learners in their talk. The trainee then uses these to share the same session in their local department. 4. A neonate is being investigated for a fever. The trainee asked a Foundation Year 2 doctor, working with them to help with cannulation and a lumbar puncture. The trainee supervises the FY2 in cannulation and then teaches them how to perform a lumbar puncture using aseptic non-touch technique.

- Departmental teaching is delivered by a ST6 trainee who asks for feedback. When talking to their colleague afterwards the trainee shares that they learned a lot because it was illustrated with cases and was interactive. They also share that it would have been even better if they had been signposted to where they could look up more information and discussed some of the underlying basic science to help the trainees taking their MRCPCH exams.
- The trainee discussed their Multi-Source Feedback results with their Educational Supervisor and agrees a new Personal Development Plan based on some of the improvements that were suggested by respondents. The trainee then discusses this with a peer to ask how they might achieve their plan.
- A one-month-old child is brought to the Emergency Department overnight because they are always crying after 9pm and the parent is worried they are in pain. The trainee listens to the parent's concerns, examines the child and shares information about sleep in babies. They signpost the parent to some online resources about babies who cry a lot and safety net with some key things for the parent to look out for.
- A 14-year-old is admitted with an exacerbation of asthma. The trainee makes time to talk to the young person about their inhalers, which one to take and when. They show the young person a peak flow diary and demonstrate effective peak flow technique. The trainee draws what is happening in the lungs of people with asthma to illustrate why it is important to take preventative medication regularly.
- A paediatric trainee has become increasingly aware of the impact of climate change on child health. To improve their knowledge, they have read the RCPCH health inequalities and climate change toolkit and the UNICEF report. They want to share their learning with colleagues.

The trainee prepares a PowerPoint presentation for their local departmental teaching on the impact of climate change on child health. The audience includes GP trainees, medical students, paediatric trainees and nurses. They are surprised to learn that the climate crisis is a public health crisis. The trainee collects feedback that shows they have improved their knowledge about climate change, and that some of them are going to make changes to their practice such as choosing active travel to commute to work.

The trainee reflects on their teaching experience in a Development log-Teaching. It makes them think that this was a valuable session and an example of peer-to-peer advocacy. They offer to run another session at the regional population health teaching day to widen the range of paediatric trainees they can educate, and to make connections with other interested colleagues.

Capabilities in Research and Scholarship

Doctors at all levels are required to demonstrate that they can apply an evidence-based approach to their practice.

To enable them to achieve this, a level of research understanding is expected. In core training, the trainee will build on those research skills gained during foundation level and apply these to the discipline of paediatrics, becoming increasingly confident at making evidenced-based decisions to enhance the care they provide to babies, children, young people and their families/carers.

"

When you don't know, find somebody who does.

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Curriculum Learning Outcome 11

Adopts an evidence-based approach to baby, child, young people and family's/carers health practices, including critically appraising published research.

GPC 2,5,6,9

Key Capabilities

Carries out a systematic literature review, evaluating evidence and identifies strengths and weaknesses in all evidence sources.	GPC 9
Interprets research results and explains the findings to children, young people, families and the multi-disciplinary team (MDT).	GPC 2,9
Participates in research-related activity (eg national projects, journal clubs, publications and presentations).	GPC 5,9
Implements an evidence-based approach to practice to inform decision making and enhance patient care and patient outcomes.	GPC 6,9
Constructively analyses patient management and formulates questions for the literature.	GPC 9
Maintains Good Clinical Practice (GCP) throughout training.	GPC 9

Illustrations

1.

A trainee overhears someone recommending a new piece of research they have just seen in print. The person speaking is walking away from them so they do not quite hear the title, but they hear the topic and journal. They use appropriate scientific databases and perform a key word search to find the article. When reading the article, they use critical appraisal techniques to assess for themselves whether this is high quality research.

2. A trainee recognises that different research questions will be answered using different types of research and they are comfortable to critique both qualitative and quantitative research, as appropriate to answer their research questions. 3. A trainee wants to carry out a research project and recognises the need to put in place appropriate safeguards to ensure they maintain ethically sound practice. They seek ethical approval from the relevant ethics board. 4. A trainee is asked to prepare a presentation for departmental teaching. They ensure that they present the evidence to back up the topic they are talking on. 5. A groundbreaking research paper has been published that suggests a new treatment for a particular condition is superior to the existing gold standard. A trainee is aware of the governance processes that need to be followed before there are changes to practice at the level of their department. 6. A trainee is familiar with the GMC's 'Good Medical Practice' guidance and keeps up to date with the Generic Professional Capabilities that need to be applied in good study design. They keep this in mind when putting together a protocol for a potential research project. 7. A trainee is writing a reflection of a particularly memorable experience. This highlights areas where they want to learn more and they look to see what the evidence in that area suggests. 8. A trainee is preparing for a teaching presentation and wants to get an overview of contemporary knowledge on this topic, so they seek out a narrative review. They want to probe certain areas further and look for systematic reviews on relevant research questions. The systematic review they find uses meta-analysis and they have the skills to interpret the meta-analysis findings. 9. A trainee assesses the evidence to help with medication choice for a patient and considers issues of tolerability, including compliance, to create a care plan that integrates evidence and patient preference. 10. A trainee is reading a paper about a randomised controlled trial and infers whether the p-values and confidence intervals denote statistical significance of the results or not.

Assessment grid

This table suggests assessment tools which may be used to assess the Key Capabilities for these Learning Outcomes.

This is not an exhaustive list, and trainees are permitted to use other methods within the RCPCH Assessment Strategy to demonstrate achievement of the Learning Outcome, where they can demonstrate these are suitable.

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ıg Eve	nt sug	gestic	ns		
	Pae (Mii	Pae	Dire	Acute	Dis	Clir	Har		MRC	РСН		Pae	Pae (Pa	Other
	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	ite Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	er
Learning Outcome 1 – Key Ca	pabilit	ies						_					_	
Demonstrates the professional values, behaviours and attitudes required of doctors (outlined in Good Medical Practice) within the scope of their knowledge, skills and performance.	✓	√				✓					√	√		
Demonstrates compassion, empathy and respect for children, young people and their families.	✓	✓	√								✓	√		
Demonstrates self-awareness and insight, recognising their limits of capability and demonstrating commitment to continuing professional development (CPD).	√	√				✓					√	✓		
Assesses the capacity of children and young people to make informed decisions about their medical care.		✓	✓					✓				✓		
Follows the principles of the law with regard to consent, the right to refuse treatment, confidentiality and the death of a baby, child or young person.	✓	√	✓			√		√	√	√	√	√		

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ng Eve	nt sug	gestic	ns		
	(R) Pa	Pa	P _e Di	Ac	<u>D</u> .	<u>Ω</u>	I		MRC	PCH		Pa	(Pa	Other
	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	her
Learning Outcome 2 – Key Ca	apabili	ties				_	_							
Understands the principles of participation in decision making for children, young people and their parents in the process of improving their health.	✓	✓						✓	✓	√		✓		
Demonstrates excellent communication skills, both spoken and written (including electronic notes) with children, young people, families and colleagues.	√		√	✓	✓	✓	√					✓		
Demonstrates excellent communication and interpersonal skills to enable effective collaboration with children, young people and their families, including colleagues in multi-disciplinary teams (MDTs).	✓	√	✓	✓	✓	✓						✓		
Demonstrates courtesy and respect for different cultures and those with protected characteristics.	✓		√			✓						✓		
Responds appropriately and empathises with children, young people and their families in dealing with conflict and/ or those who are experiencing difficulty, anxiety or distress.	√	√	√									✓	√	
Manages the communication of a range of differential diagnoses and where the management plan will be uncertain.	✓	✓												
Learning Outcome 3 – Key Ca	apabili	ties												
Performs appropriate clinical assessments of a baby, child and young person.	✓	✓	✓									✓	✓	

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ng Eve	nt sug	gestic	ns		
	(X Pa	Pa	Pe Di	Ac	D.	<u>⊆</u>	Нa		MRC	:PCH		Pa	Pa (Pa	Other
	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	her
Demonstrates achievement of both basic and advanced life support skills.		✓	✓									√		
Undertakes key procedures, including the following: Peripheral venous cannula Neonatal umbilical venous catheterisation Lumbar puncture Intraosseous needle insertion for emergency venous access			√											
Confirms the correct placement of arterial and venous lines.			✓											
Performs advanced airway support, including airway opening manoeuvres and the use of airway adjuncts to the point of intubation.		✓	✓									√		
Neonatal Airway maintenance: Airway opening manoeuvres and the use of airway adjuncts (including supraglottic airway) to maintain the airway of a term or preterm baby to the point of intubation. (can be covered by NLS certification gained after 2021)	✓		✓											
Learning Outcome 4 – Key C	apabili	ties												
Performs an assessment of a baby, child or young person's physical, mental and developmental status, incorporating biological, physiological and social factors across multiple clinical contexts.	~	√		√						√	✓			
Recognises the potential life- threatening events in babies, children and young people and leads resuscitation and emergency situations.	✓	√	✓	√				✓	✓	√	✓			

Key Capabilities			As	sessm	ent / s	Superv	/ised L	_earnir	ng Eve	nt sug	gestic	ons		
	(X Pa	Pa	Pe Di	Ac	D.	<u>Ω</u>	Ha		MRC	PCH		Pa	Pa (Pa	Other
	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	her
Recognises and manages a range of common childhood presentations.	✓	✓		✓				✓	✓	✓	✓			
Engages in multi-professional management of a range of common general paediatric physical and mental health presentations, both short and long term.	√	√						√	√	✓	√	√		
Recognises and manages the acute presentations and aftercare of anaphylaxis, prescribing and training the family to use adrenaline autoinjectors, including documenting events and producing an emergency action plan with appropriate onward referrals.	✓	✓						~	√	√	√	√		
Seeks appropriate advice and support from other teams in a timely and collaborative manner, including working effectively with colleagues in primary care.	√	√				√		√	√	√	√	√		
Takes into consideration the individual needs of the baby, child or young person.	√	✓	✓								✓	√		
Learning Outcome 5 – Key Ca	apabili	ties												
Recognises the potential impact but also limitations of health promotion advice.	✓	✓			✓						✓	✓		
Applies knowledge of the factors which contribute to child health inequalities and the consequences of those inequalities in terms of disability, life expectancy and health economics.	√	✓									√			

Key Capabilities			As	sessm	ent / s	Superv	vised L	.earnir	ng Eve	nt sug	gestic	ns		
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	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Anticipates contextual factors (socioeconomic, cultural, psychological) which constrain the ability to make "healthy choices".	√	√									1			
Interprets the impact of environmental, economic, global and cultural contexts on health promotion and physical and mental health illness prevention.	√	√				√								
Interacts effectively with children, young people and their families from a broad range of socioeconomic and cultural backgrounds, appropriately using translated materials and interpreters, if required.	√	✓									√			
Learning Outcome 6 – Key Ca	apabili	ties												
Participates effectively and constructively in the multidisciplinary (MDT) and interprofessional teams, engaging with children, young people and families, facilitating shared decision making.	√	√				✓								
Develops leadership and team- working skills and relevant problem-solving strategies in clinical management contexts, such as where there is limitation of resources.	√	√				√					√			
Supports appropriate decisions made within a team and communicates these effectively.	✓	✓				✓					✓	✓		

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ng Eve	nt sug	gestic	ns		
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	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Learning Outcome 7 – Key C	apabil	ities												
Understands the relationship between hazards, risks of exposure and likelihood of harm.	✓	✓				✓					✓			
Recognises when a baby, child or young person has been exposed to a risk/hazard and escalates in accordance with local and national procedures.	√	√		√		√		√	√	√	√			
Applies safety procedures to prescribing practice, demonstrating an understanding of pharmacogenomics, following local and national processes in instances of patient harm or medication error.	✓	√				✓		✓	✓	✓	~			
Applies safety procedures when ordering blood, with adherence to local and national policies.	√	√						√		√	√			
Applies safety and reporting procedures to clinical care situations, responding to identified risks/hazards.	~	✓						√		√	✓			
Applies the Duty of Candour principles to practice.	✓	✓						✓		✓	~			
Recognises when the behaviours of a child or young person puts themselves or others at risk of harm.	√	√						√	√	√	√	√		

Key Capabilities			As	sessm	ent / s	Superv	/ised L	earnir.	ng Eve	nt sug	gestic	ns		
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	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Learning Outcome 8 – Key Ca	apabili	ties												
Proactively identifies opportunities for quality improvement.	√	✓										✓		
Undertakes projects and audits to improve clinical effectiveness, patient safety and patient experience.	√	✓				✓						√		
Participates in local clinical governance processes.	✓	✓				~						√		
Learning Outcome 9 – Key Ca	apabili	ties												
Recognises and acts upon safeguarding concerns, taking into account risk factors.	✓	✓		✓		✓		✓	✓	✓	✓	✓		
Conducts an assessment for possible maltreatment, including sexual abuse which incorporates attention to the broader family function and the baby's, child's or young person's developmental, physical and mental health status.	✓	√		✓		~						√		
Applies knowledge of the indications for a skeletal survey and relevant blood tests in safeguarding.	✓	✓						√	√	√	1			
Documents clearly and accurately, using body charts, to record the examination results of a baby, child or young person within a safeguarding context.	√	√												

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ng Eve	nt sug	gestic	ns		
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	Paediatric Mini Clinical Evaluation (Mini-CEX)	Paediatric Case-based Discussion (CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	FOP (Foundations of Practice exam)	TAS (Theory of Science exam)	AKP (Applied Knowledge and Practice exam)	CLINICAL (Exam practical)	Paediatric Multi Source Feedback (MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
With supervision, provides oral or written reports for: - strategy meetings and case conferences - police or social services.	✓	✓			√									
Recognises the long-term impact of physical and mental adverse childhood experiences, including maltreatment and when a baby, child or young person and families are vulnerable, distressed and in need of early support and intervention.	✓	√				✓		√	✓	√		✓		
Applies an understanding of consent and parental responsibility in relation to safeguarding procedures of "looked after" children.	√	✓				✓		✓		√	√			
Applies knowledge regarding forensic assessment in relation to child abuse and establishes the importance of the chain of evidence.	√	√												
Follows the local system of referral for assessment arranges and follow-up for babies, children or young people who may have been sexually abused.	√	✓		√										
Learning Outcome 10 – Key C	Capabil	ities												
Demonstrates the ability to plan and deliver teaching in a range of clinical and non-clinical contexts.	√	√										✓		

Key Capabilities			As	sessm	nent / s	Superv	/ised L	.earnir	ng Eve	nt sug	gestic	ons		
	(R Pa	Pa	Pe Pe	Ac	D.	<u>⊆</u>	H _a		MRC	PCH		Pa	(Pa	Q
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Shows the ability to adapt their teaching methods to the different learning needs of individual team members.	✓					✓						√		
Provides evidence of obtaining feedback on teaching delivered by them; reflects on and learns from this feedback.	✓	√				✓						√		
Provides appropriate feedback to others.	✓	✓										✓		
Learning Outcome 11 – Key C	apabili	ties												
Carries out a systematic literature review, evaluating evidence and identifies strengths and weaknesses in all evidence sources.		✓				√								
Interprets research results and explains the findings to children, young people, families and the multi-disciplinary team (MDT).		✓				✓		✓						
Participates in research-related activity (eg national projects, journal clubs, publications and presentations).		✓				✓								
Implements an evidence-based approach to practice to inform decision making and enhance patient care and patient outcomes.		√				√								
Constructively analyses patient management and formulates questions for the literature.		✓				✓								
Maintains Good Clinical Practice (GCP) throughout training.		✓				✓								