

# Curriculum

## Paediatric Specialty Postgraduate Training

### Version 3

Approved by the GMC for implementation from 1 August 2023

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

This is Version 3. 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	September 2021	Document reviewed and updated as part of the Shape of Training review.
3	August 2023	<p>RCPCH Progress updated to Progress+.</p> <p>Reference to future changes as a result of Shape of Training removed.</p> <p>Referencing to credentialing removed from the purpose statement</p> <p>Spin removed from the Training pathway Diagram and diagram updated June 2021</p> <p>Reference to Levels 1, 2 and 3 removed and updated to Core and Specialty.</p> <p>Addition of a flexibility statement between RCPCH and RCP regarding movement across specialties. This is also reflected in the Training pathway model.</p>

# Contents

<b>Introduction</b>	<b>4</b>
<b>Section 1: Purpose and Development</b>	<b>7</b>
Introduction to Paediatric training	8
The purpose of the curriculum	9
RCPCH Progress and Shape of Training	11
RCPCH Progress+ philosophy	15
Incorporation of GMC standards	17
Ensuring fairness and supporting diversity	18
Quality assurance and continual improvement	20
<b>Section 2: How to use this Curriculum</b>	<b>22</b>
How to use the RCPCH Progress+ curriculum	23
Requirements for curriculum delivery	25
How to assess against the RCPCH Progress+ curriculum	27
<b>Section 3: The RCPCH Progress+ Curriculum</b>	<b>28</b>
Components of the curriculum	29
Generic Learning Outcomes	31
Additional Sub-Specialty Learning Outcomes	35
General Paediatrics	36
Child Mental Health	37
Community Child Health	38
Neonatal Medicine	39
Paediatric Allergy, Immunology and Infectious Disease	40
Paediatric Clinical Pharmacology	42
Paediatric Diabetes and Endocrinology	43
Paediatric Emergency Medicine	44
Paediatric Gastroenterology, Hepatology and Nutrition	45
Paediatric Inherited Metabolic Medicine	47
Paediatric Intensive Care Medicine	48
Paediatric Nephrology	50
Paediatric Neurodisability	51
Paediatric Neurology	52
Paediatric Oncology	54
Paediatric Palliative Medicine	55
Paediatric Respiratory Medicine	57
Paediatric Rheumatology	58
<b>Appendix A: Integrated care case studies</b>	<b>59</b>
<b>Appendix B: Glossary</b>	<b>62</b>

# Introduction

## What is the RCPCH Progress+ curriculum?

RCPCH Progress+ is the redesign of the RCPCH Progress curriculum for use by doctors undertaking postgraduate paediatric training in line with the Shape of Training implementation. In response to the Shape of Training recommendations, the following formatted part of the review: a restructured training programme, the promotion of flexibility, the curriculum response, including increased content, for example integrated and primary care, public health and young people's mental health, as outlined in the '*Paediatrician of the future: Delivering really good training*' document, published by the RCPCH in October 2020.

## What does this curriculum document include?

- Section 1** outlines the purpose of the curriculum, how it was developed and how the RCPCH monitors, quality assures and reviews the curriculum.
- Section 2** provides detailed advice on how trainees and those supporting training and assessment should use the curriculum, syllabi and Assessment Strategy.
- Section 3** contains the Learning Outcomes and Key Capabilities for all trainees, the supplementary supporting statements and the specialty outcomes along with those belonging to General Paediatrics.

## How should trainees use the curriculum?

Paediatric trainees are required to demonstrate achievement of all 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 additional Learning Outcomes in either General Paediatrics or the sub-specialty to which the trainee is appointed.

This curriculum must be used with the syllabus for each level. The syllabus provides instructions and guidance on how each Learning Outcome can be achieved. For each Learning Outcome, there are a small number of Key Capabilities. These are mandatory capabilities which must be evidenced by the trainees in their ePortfolio to meet the Learning Outcome. The Learning Outcomes and Key Capabilities are mapped to the General Medical Council's (GMC) Generic Professional Capabilities (GPCs).

The syllabus also includes Illustrations for each Learning Outcome. 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 may be achieved. They are not intended to be exhaustive and excellent trainees may produce a broader portfolio or include evidence that demonstrates deeper learning. Within the Core and Specialty curriculum, the Illustrations have been further developed to provide real-life examples as to how learning can be achieved. It is not expected that the trainee would find exact replicas of these scenarios; they are just examples.

At the end of each syllabus document, an Assessment Grid indicates possible assessment methods for each Key Capability. The RCPCH Programme of Assessment provides further detail on the assessment instruments to be used throughout training.

The use of the term “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.

## How will the curriculum outcomes be achieved?

Learning will take place in a variety of settings, such as:

- Acute settings
- Community settings
- Handover
- Ward rounds
- Multi-disciplinary meetings
- Audits and research
- Simulation

Using a range of approaches, such as:

- eLearning
- Seminars
- Lectures
- Face to face meetings with trainers
- Reflective practice
- Self-directed learning

Most events in the workplace will contribute to the learning process. Trainees are encouraged to utilise all these opportunities, as well as managing their study leave, to work towards achieving the Learning Outcomes and meeting the needs within their Personal Development Plan.

The RCPCH Progress+ curriculum supports and encourages acting up as consultant posts in training in both formal and informal arrangements.

## Moving from RCPCH Progress to Progress+

In line with the Shape of Training implementation, trainees will be automatically moved to the RCPCH Progress+ curriculum. No evidence already recorded by the trainee in ePortfolio will be lost. More detailed guidance can be found on the RCPCH Progress+ page of the RCPCH website.

## How is the curriculum approved and reviewed?

The RCPCH Progress+ curriculum is approved by the GMC as the standard by which doctors will be judged in order to be awarded a CCT, allowing them to apply for a Consultant post. The GMC require all postgraduate medical curricula to comply with their *Excellence by design: standards for postgraduate curricula* (2017) and to enable a trainee to demonstrate their GPCs, supporting the flexibility and transferability of training.

Within the RCPCH, the Education and Training Executive (ETE) have responsibility for the curriculum. The committee will consider proposed amendments to the curriculum and syllabi through a formal review process, as outlined in more detail within the curriculum governance process.

## How can I find more information?

In addition to this curriculum document, trainees and all those supporting training must be familiar with the syllabus for their level of training. Specialty trainees must also use the General Paediatrics or a sub-specialty syllabus to achieve the additional Learning Outcomes relevant for their training pathway. The Assessment Strategy document provides detailed information on the Programme of Assessment.

Additional guidance and supporting resources for training and assessment are available on the RCPCH website.

For any further queries relating to local training, please contact your Training Programme Director and/or Head of School.

For any other queries related to:

- **Training and ePortfolio:** please email [training.services@rcpch.ac.uk](mailto:training.services@rcpch.ac.uk)
- **Curriculum or Syllabi:** please email [qualityandtrainingprojects@rcpch.ac.uk](mailto:qualityandtrainingprojects@rcpch.ac.uk)

# **Section 1:**

## Purpose and Development

# Introduction to Paediatric training

As a Paediatrician in training, the trainee will learn and develop the required skills primarily in the practice environment, be that in hospital or the community. With this in mind, high quality workplace-based formative assessment and supervision is vital.

At the start of their paediatric career, trainees will be closely supervised in their engagement with babies, children and young people and their families/carers but as their skills grow, they will work with increasing independence and less direct supervision. It is essential that they learn the skills of reflection and self-awareness to enable the optimisation of learning events and recognition of their own achievements and limitations.

Self-directed learning is also a key element to the training programme; this could include activities such as reading around a subject, preparing for a teaching session, preparing for formal assessment activity or undertaking a literature review. This more informal learning activity should still form part of the trainee's ePortfolio and will contribute towards their Personal Development Plan.

In addition to the activities outlined above, trainees will also participate in local Deanery training and learning events, such as workshops and seminars, lectures, case study presentations and trainee-led events.

Trainees should also be vigilant for opportunities to learn from health and social care professionals, for example General Practitioners (GPs), Nurses, Health Visitors, Social Workers, Therapists and others. Working with and learning from these groups will add a richness and diversity to the training programme that may not be achieved otherwise. Examples of this could include spending time with a GP, working with a Midwife in the antenatal clinic, with Health Visitors in a community clinic or alongside a Social Worker managing a complex family situation.

This curriculum will provide a strong foundation for lifelong learning as a Paediatrician, and it is recognised that learning does not stop with the gaining of a Paediatric Consultant post. It will also support the drive towards excellence in practice, enabling learners to achieve far above the expected Learning Outcomes.



# The purpose of the curriculum

This section addresses the requirements of the GMC *Excellence by design: standards for postgraduate curricula*, to include a clear statement addressing patient and service needs, and the scope of practice and level expected of those completing training.

## **The curriculum has a clear and stated purpose based on the scope of practice, service, and the patient and population needs.**

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

Trainees are exposed to a range of experiences throughout core training, helping inform their choice of training as a General Paediatrician or sub-specialist. The Learning Outcomes encourage holistic judgement as to the trainee's overall capability and support the move away from a 'disease-based' structure to incorporate a Whole Population Approach<sup>1</sup> that prioritises the needs and complexities of each individual patient.

## **The curriculum considers interdependencies across related specialties and disciplines. It demonstrates that it has addressed the expectations of the service and healthcare system.**

Within paediatrics there is a growing service need for integrated care to best meet the needs of babies, children and young people. The curriculum specifically develops Paediatricians to lead and work in multi-disciplinary teams (MDTs) and with colleagues from a wide range of professional groups in a variety of hospital settings, primary care and in the community, for example in social care, schools and the voluntary sector. The composition of these teams will vary according to the needs of the baby, child, young person and family/carer.

Throughout the update, the redesign of the curriculum has undergone review and consultation, including with colleagues in those specialties with the most interaction with paediatrics and paediatricians (such as the Royal College of General Practitioners), with Deans and Heads of Schools, trainees and crucially also with children, young people and their families/carers.

## **Flexibility between training programmes**

There are a number of RCP higher specialty training pathways that paediatric trainees can enter.

Common training routes include haematology, paediatric cardiology, clinical genetics and dermatology. Other RCP training pathways open to paediatric trainees include audiovestibular medicine, allergy, immunology, clinical neurophysiology, nuclear medicine and rehabilitation medicine.

Entry is via the national recruitment process.

<sup>1</sup>Klaber, R.E., Blair, M., Lemer, C., & Watson, M. (2007). Whole population integrated child health: moving beyond pathways. Archives of Disease in Childhood, 102, pp.5-7

**Criteria for entry have been agreed in discussion between JRCPTB and RCPCH:**

**Full MRCPCH**

**Sign off of ST3 capabilities at ARCP.**

This will normally be after an indicative 3 years core paediatric training, but this may be accelerated using capability based progression criteria depending on prior experience and rate of acquisition of capabilities.

At the point of application, a declaration from the head of school to indicate that the trainee is on track to meet the entry requirement will be required.

**The curriculum supports flexibility and the transferability of learning.**

By maintaining the GPCs explicitly within the curriculum design, ease of transfer between specialties is promoted. High level Learning Outcomes can be evidenced by experiences in a wide range of posts and environments, allowing flexibility to meet the needs of the service and the individual trainee.

Paediatricians are required to display a wide range of knowledge, skills, behaviours and attributes reflecting the broad nature of this specialty in practice. This is reflected in the depth and breadth of the curriculum content. By the point of attaining CCT, trainees will be skilled in assessing and managing babies, children and young people, and to the specific health issues, diseases and disorders related to the stages of growth and development.

They will have expertise in practical procedures related to the clinical care of babies, children and young people, and will be expert communicators with strong interpersonal skills, strong emotional awareness and adept at the management of emotionally complex family situations. These core areas ensure that doctors in training and beyond the CCT can provide safe care whilst working on a range of challenging and diverse rotas, balancing urgent and routine service provision, and encouraging trainees to experience a wide range of hospital and other environments.

Trainees using this curriculum will develop and apply innovative approaches to teaching in child health and to research. They will place at the heart of their practice the principle that all decisions should be made in the best interests of the baby, child or young person in collaboration with their families/carers, reflecting the feedback from children and young people as to what they most value in a Paediatrician. They will be committed to a policy of advocacy for a healthy lifestyle in children and young people, and for the protection of their rights.

Trainees using this curriculum will be required to ensure that they are up-to-date in their practice, and that they promote and implement research and evidence-based medicine for the benefit of babies, children and young people. They will be committed to the highest standards of care and of ethical and professional behaviour both within their specialty, and within the medical profession as a whole.

By achieving CCT, all Paediatricians regardless of their sub-specialty will have satisfactorily demonstrated the Learning Outcomes, by demonstrating the Key Capabilities that fully incorporate the GPCs, thus also demonstrating that trainees have met the GMC's requirements.



# RCPCH Progress and Shape of Training

Following the successful implementation of RCPCH Progress curriculum, this review set out to build on that good practice while at the same time responding to the requirements of the Shape of Training review. Progress+ introduces a two-level 'run through' training programme to meet the recommendations within the report. The two levels are Core Paediatrics and Specialty Paediatrics (see figure 1). Core Paediatric training can be achieved in an indicative time of four years, to include General Paediatrics and Neonatology, Integrated Care, Public Health, and Child and Adolescent Mental Health. There will also be the option for placements in paediatric specialties, including Community Child Health and tertiary Neonatology.

Specialty Paediatrics will be an indicative time of three years, during which time all trainees will need to maintain generic capabilities in the parent specialty of Paediatrics, therefore requiring continuing experience of acute unscheduled care with participation in rotas (for example, General Paediatrics, Paediatric Emergency Medicine, Paediatric Intensive Care and Neonatal Intensive Care).

Whilst the minimum length of training remains unchanged at four years, it is unlikely that many trainees would complete the programme in this timescale. It is anticipated that most trainees will require the indicative training time of seven years.

Implementation of the RCPCH Progress+ curriculum aims to meet the five key principles described in the UK Shape of Training review.

## 1. How to support better the needs of patients and service providers.

The RCPCH Progress+ curriculum was developed with extensive input and representation from stakeholders, including a national network of children, young people, families and carers, education providers and NHS employers.

The curriculum and training pathway will equip trainees with improved skills in liaising and coordinating patient care across the primary and secondary care interface, supporting the care of children at locations other than secondary care, ie closer to home. In addition, there will be an increased emphasis and training to equip trainees with skills to support children and young people with mental health needs, as it is known that there is a significant mental health component to many of the presentations to child health services.

## 2. Equipping doctors with the generic skills to participate in acute unscheduled care and to provide continuity of care thereafter.

All Paediatricians in training will be required to participate in acute unscheduled paediatric services during training. Currently, trainees may opt to specialise in their final level of training, subject to availability of specialty training provision. The RCPCH Progress+ curriculum has been structured such that all trainees are required to develop and evidence capabilities in Generic Paediatrics (Specialty Generic Curriculum), which includes those capabilities required to participate in acute unscheduled care, irrespective of whether they are also undertaking the General Paediatric or one of the sub-specialty curricula.

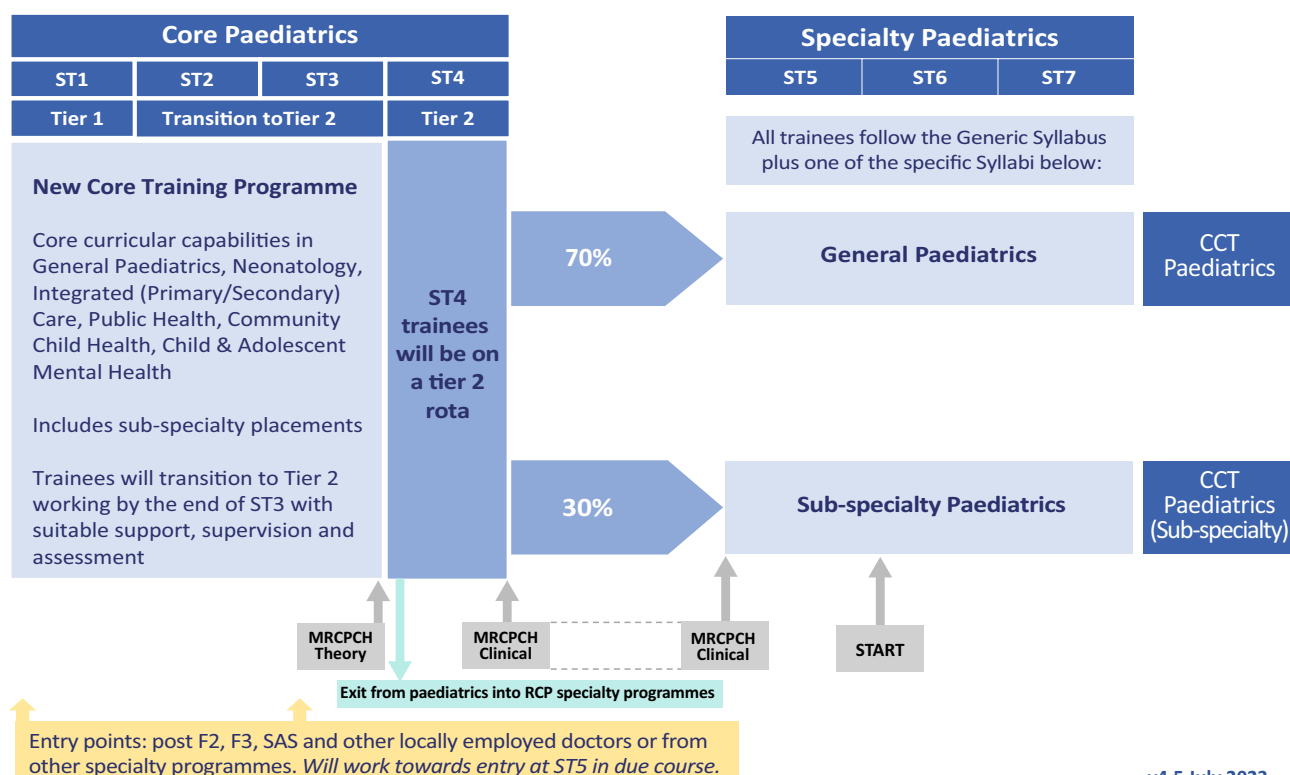
## 3. How to support better delivery of care in the community.

The RCPCH Progress+ curriculum specifies the capabilities that are necessary to liaise and coordinate patient care across the primary and secondary care interface, supporting the care of children at locations other than secondary care, either at home, in primary care or in community settings.

## 4. Supporting a more flexible approach to training.

The RCPCH Progress+ curriculum (and thus the Assessment Strategy) is capability-based and clearly describes the outcome required of a CCT-holder in paediatrics. Therefore, progression will depend upon capability, rather than time, facilitating the ability to complete training earlier. The Assessment Strategy has been designed to support trainees through the transition (critical progression) points and therefore, highlights the support required at a much earlier stage in training than previously. The requirement for all postgraduate medical curricula to be aligned to the GMCs GPC framework will, in time, facilitate transfer between training pathways with credit given to capabilities achieved in other training pathways.

**Figure 1: Paediatric Training Pathway**



## **Aims of the curriculum review**

### **Key groups and individuals**

Responsibility for the curriculum rests with the RCPCH's ETE. The committee instigated the creation of a Shape of Training Implementation Group alongside a Curriculum Core Group with delegated responsibility for setting the direction of the curriculum revisions, overseeing and approving the review work.

The group's terms of reference specified that the revised curriculum must be suitable for the immediate and longer-term health needs of babies, children and young people, and the training needs of those wishing to achieve the CCT in Paediatrics.

This included the review of the Assessment Strategy allowing it to meet the needs of Progress+ along with any additional educational policies required for training delivery. Group membership included the Vice President for Training and Assessment, the Officer for Training and Quality, the Lead Dean for Paediatrics and representatives from a wide range of stakeholder groups including trainees, tutors, Heads of Schools, the College Specialty Advisory Committees (CSACs), the Less Than Full Time Committee, and an expert in integrated care.

### **Design and redevelopment**

The College's CSACs completed a review of their existing curriculum Learning Outcomes and Key Capabilities to determine if any changes were required, using trainee and trainer feedback. The Heads of Schools Committee and Less Than Full Time Committee gave particular input to ensure that the new structure would be implementable at the local level, and for trainees not working full-time or undertaking an Out of Programme (OOP) experience. Additional clinicians with specific expertise in key areas, such as health promotion were also asked to review the content of the Core and Specialty paediatric curriculum. The RCPCH Trainees Committee is a diverse group representing trainees from across the UK. They have been active in supporting the review of the curriculum and syllabi, as well as ensuring the guidance and plan for implementing the curriculum is feasible and as efficient as possible for existing trainees.

The remaining content, defined as Illustrations, was designed to give additional guidance for trainees and their supervisors as to how the Learning Outcome may be demonstrated. With Progress these were very much aligned to existing competencies but for Progress+, a journey has begun to translate these into small scenarios that will better support the trainee's understanding and interpretation of the Learning Outcomes. These have been completely reframed within the generic syllabi and it is planned that future work will result in the move to this style within all sub-specialty syllabi.

Equality and diversity implications were considered throughout the review and captured in an impact assessment, noting any potential adverse effect on those with protected characteristics as defined by the Equality Act 2010. The Assessment Strategy was reviewed to ensure suitability for use with the revised curriculum and to identify future developments anticipated over the coming years.

The final Progress+ curriculum was signed off by the RCPCH's ETE prior to submission to the GMC. A full transition plan will be made available to support the trainees, trainers and schools.

## **Consultation**

Stakeholder consultation was a crucial aspect of the curriculum review process. Key groups influencing the development have included: children and young people, NHS managers and other Royal Colleges. In addition to regular consultation with Heads of Schools, College Tutors, Regional Advisors and CSAC Chairs at their scheduled Committee meetings, a formal consultation day was held in October 2019 that included representatives from all these groups.

### **Children, young people and parents or carers**

With support from the RCPCH &Us team, patients (children and young people) and their parents or carers were involved throughout the Shape of Training curriculum redesign. Workshops were held at ‘&Us’ roadshows, gathering feedback from patients and parents as to what they felt were the most important skills, behaviours and attributes for a Paediatrician to possess. A mixed methodology was employed, including online surveys, activity-based workshops and semi-structured interviews. Events took place across the four nations and with a range of children of a variety of ages, genders, ethnicities, health conditions and experiences of healthcare.

Feedback from this consultation was shared with the Curriculum Core Group and used to help focus content related to the issues they raised and ensure sufficient emphasis on those particular skills and behaviours.



# RCPCH Progress+ philosophy

Paediatricians support the health of the population and the health and well-being of individual children with their families. The curriculum has been designed to reflect this and uses a Whole Population Segmentation Approach development by Klaber et al<sup>2</sup>. Rather than divide the spectrum of child health by organ systems, as in traditional paediatric curricula. The RCPCH Progress+ considers group of conditions: the healthy child, the vulnerable child, the child with a single long term condition, the child with complex long term health issues and the acutely unwell child, both mild/moderate and moderate/severe.

This framework acknowledges that Paediatricians have a role in preventing illness and that children present with symptoms, not diagnoses and that an effective Paediatrician has a role in the full breadth of child health. An example of this may be the Paediatric Intensivist, who is managing a child with a serious infection, who will also ensure that the siblings are protected through immunisation, or the Paediatrician managing a service for children with diabetes, who will work closely with a Nurse Specialist to help these young people to be as effective as possible at self-management. It may also include the Paediatrician who runs educational workshops with Health Visitors to encourage healthy nutrition for young children. The Illustrations within the syllabi seek to capture some of these examples.

This approach, which puts the child and family at the centre, means that the Paediatrician will have the capability to provide care wherever it best suits the child and not necessarily just in hospital. It also reflects the need for future Paediatricians to work in a holistic way, more closely with GPs and the wider primary care team and to work in close partnership with the family. A focus on the 'complex disease' segment of the population supports the need for Paediatricians of the future to manage the increasing burden of complex chronic disease and understand the role of the wider multi-disciplinary and multi-professional team, encouraging inter-professional learning, along with. This is supported by the accompanying document *'The Paediatrician of the Future: Delivering really good training'*.

The Learning Outcome structure, built around curriculum domains that span the entire time in training, also serve to support another core philosophy of the RCPCH curriculum – to support trainees in recognising their progress and development through training, with active encouragement of opportunities for the promotion and recognition of excellence and maximization of learning opportunities. The development of the Learning Outcomes Grid clearly shows trainees how they have progressed through their time in training as Outcomes are achieved and how they must continue to progress as they complete their training. There is significant flexibility for trainees in how they demonstrate the Learning Outcomes, having taken a risk-based approach to the syllabi with minimal mandatory Key Capabilities and allowing trainees to reflect on what the achievement of the Learning Outcome looks like, including to think creatively about how it can be demonstrated.

<sup>2</sup> Klaber, R.E., Blair, M., Lemer, C., & Watson, M. (2017). Whole population integrated child health: moving beyond pathways. Archives of Disease in Childhood, 102, pp.5-7

Where trainees excel in a particular domain (eg in research) in Core training, they can be stretched, beginning to record evidence against the Specialty Learning Outcome as soon as they have achieved the Outcome at Core, even if not all the Learning Outcomes at that level are yet achieved. This acknowledges that all doctors will have areas of excellence and areas where more development is required and so the curriculum should support this rather than expecting them to progress through all areas at the same speed, forming artificial barriers to progression. This therefore maximises an individual personalised approach to training.





# Incorporation of GMC standards

The RCPCH Progress+ curriculum is designed to support and encourage training and clinical practice in line with Good Medical Practice. In 2017, the GMC published the GPCs, which provide the educational articulation of Good Medical Practice. These standards are a compulsory minimum regulatory requirement for all doctors in training, ensuring quality, consistency and flexibility across postgraduate medical training.

In line with the GMC's *Excellence by design: Standards for postgraduate curricula*, the RCPCH Progress curriculum is framed around the GPCs, which are explicitly reflected in the RCPCH Progress and Progress+ curriculum domains. Through achievement of the Learning Outcomes, trainees will demonstrate they meet the required standard in all GPC domains.

Those completing training for the award of a CCT or equivalent should demonstrate appropriate:

1. Professional values and behaviours
2. Professional skills:
  - Practical skills
  - Communication and interpersonal skills
  - Dealing with complexity and uncertainty
  - Clinical skills
  - History taking, diagnosis and medical management
  - Consent
  - Humane interventions
  - Prescribing medicines safely
  - Using medical devices safely
  - Infection control and communicable disease
3. Professional knowledge:
  - Professional requirements
  - National legislative requirements
  - The health service and healthcare system in the four countries
4. Capabilities in health promotion and illness prevention
5. Capabilities in leadership and team working
6. Capabilities in patient safety and quality improvement
7. Capabilities in safeguarding vulnerable groups
8. Capabilities in education and training
9. Capabilities in research and scholarship

# Ensuring fairness and supporting diversity



**As part of the review of the RCPCH Progress curriculum and the accompanying Assessment Strategy, the College updated the Equality and Diversity Impact Assessment, considering any actual or potential adverse effects of implementation on those with protected characteristics (as defined in the Equality Act, 2010). The Impact Assessment also included consideration of any likely effect on Less Than Full Time trainees, as these form a sizeable proportion of the paediatric trainee population.**

**The review considered evidence of the actual or potential impact on three distinct strands – curriculum and syllabus content, assessment, and implementation (including transition). The evidence considered came from the existing literature and guidance, existing data relating to the current assessments, review by users and review by lay experts.**

The RCPCH sought to address issues of equality, diversity and fairness during the development of the curriculum in a range of ways, including:

- Curriculum content was authored, implemented and reviewed by a diverse range of individuals, including at a formal stakeholder consultation event attended by participants with a range of protected and other characteristics. Equality and diversity data is gathered regularly for clinicians involved in the work of the Education and Training division.
- Undertaking careful consideration of the Learning Outcomes and Key Capabilities to ensure that there is a clear rationale for any mandatory content and thus there are no unnecessary barriers to access or achievement. Each CSAC has reviewed their syllabus from the point of view of the specified characteristics, confirming they do not believe any such barriers exist and/or ways in which these were being addressed. Beyond these mandatory requirements, the assessment tools can be deployed in a more flexible and tailored manner, meeting the requirements of the individual trainee.
- Oversight of the curriculum review was undertaken by the ETE. Overseeing the aspects of the curriculum quality, the committee is responsible for ensuring the curriculum meets the needs and addresses any existing concerns of the trainee population.
- Actions agreed based on the findings of the internal Equality and Diversity audit for the RCPCH Education and Training division have been implemented wherever possible.
- All curriculum documents will be published in font type and size that is appropriate for a wide range of audiences and optimised for readability. Information regarding the curriculum will be made available through a wide range of media, acknowledging differing learning styles.
- Similarly, the implementation plan has been designed based on the recommendations made in relevant literature, noting that best practice requires careful consideration of how to reach all sections of the intended audience.

The RCPCH is committed to the following actions to continue and enhance its existing work in relation to ensuring equality, diversity and fairness in the delivery and review of the curriculum:

- To continue to review the nominations and appointment process to College positions responsible for the curriculum, examinations and assessments, ensuring equality of opportunity and access.
- To implement a range of measures to improve the quality and quantity of the data set that the College holds related to protected characteristics for all those involved in training and assessment, enabling more comprehensive analysis and reporting. Outcomes will be monitored to identify any trends that may pose a concern with regards to equality, diversity or fairness.
- To develop improved training related to equality and diversity for all clinicians with a role in the examinations and assessments and improved resources for College Tutors supporting trainees with protected characteristics, particularly where that trainee is experiencing difficulty.
- To continue to gather regular feedback from trainees and trainers on their experience of the curriculum, identifying any areas of bias or discrimination.



# Quality assurance and continual improvement

## Ensuring quality in delivery

A robust quality assurance and improvement framework is required to support an effective curriculum and Assessment Strategy. The purpose of this is to promote the improving quality of the trainee experience and to ensure that the curriculum content, delivery, assessment and implementation is monitored and reviewed in a planned, systematic and appropriate manner.

The RCPCH quality infrastructure for training and assessment is based on the Plan, Do, Check, Act (PDCA) cycle, introduced by Deming. In the context of the Programme of Assessment, this means planning for effective assessment processes, executing those processes, review and evaluation, including data analysis and multi-source feedback, and finally implementing any required changes.

This quality framework is already in place, but continually evolves to meet changing standards and in response to the outcome of monitoring and review activity, ensuring resources are developed to the area of most need and/or risk.

The framework to support this curriculum will comprise a number of quality improvement tools and processes that impact on the overarching aspects of assessment. These will include:

- 1. Effective recruitment mechanisms.** It is important that the appropriate trainee is recruited into the right paediatric programme and that trainees are not set up to fail before they have begun.
- 2. Support for induction periods and review of induction.** The RCPCH provides guidance through face-to-face workshops and online resources to support College Tutors in planning and reviewing inductions. The College Tutor toolkit is periodically updated and sharing of best practice actively encouraged.
- 3. Monitoring of the curriculum and Supervised Learning Event (SLE) usage.** Reviewing ePortfolios will be key to this process, along with talking to and getting feedback from those managing this in practice.
- 4. Gathering and responding to trainee feedback.** Analysis of the National Training Survey and other surveys carried out directly by the College and/or its Committees will be key to identifying both concerns and good practice.
- 5. Data analysis.** This is a strong feature of RCPCH reporting, with a dedicated psychometric team performing regular analysis of all centrally administered examinations and assessments as well as other data as required, such as the National Training Survey results.
- 6. Quality assurance of examinations.** This takes a variety of forms during the development, delivery, standard setting and review stages.

- 7. Quality of assessors and supervisors.** This is supported by the RCPCH Educational Supervisor course, which receives strong feedback. Schools and Deaneries also play an essential role in ensuring supervisors are trained to a high standard.
- 8. Monitoring and support for Annual Review of Competency Progression (ARCP).** The externality process has been reviewed and strengthened annually and this is now managed by the Quality and Standards team at the RCPCH.
- 9. Self-assessment and review.** Annual evaluations are performed by Heads of School and sub-speciality Chairs with outcomes being reported to ETE and shared internally to support continual improvement.
- 10. Opportunity for syllabus review.** An annual window of opportunity for amendments to the syllabus is scheduled into the training year calendar. Proposals for review can be submitted by specialist interest groups and individuals during this predetermined period for consideration by the ETE.

## Curriculum governance

The RCPCH's ETE has overall responsibility for the RCPCH Progress+ curriculum. The ETE will monitor the performance of the curriculum directly and through the College committees with specific delegated responsibility from the ETE.

### Curriculum review and revision

The ETE manages the process which allows for regular review of the curriculum to ensure it remains fit for purpose, reflecting current training and service needs. On an annual basis, all stakeholders will be invited to submit proposed revisions to the syllabi. The ETE (or delegated committee) will review and either approve or reject the proposed changes. Updated syllabi will be issued prior to the start of the training year, making clear what amendments have been made on each occasion, using the version tracking table at the front of each document. Where this amendment relates to a Key (mandatory) Capability, the ETE (or delegated committee) will issue guidance for trainees currently at that level of training, noting any implications of the amendment. Amendments will only be made where a clear rationale exists for doing so and every effort will be made to minimise any negative impact on the trainee.

It is intended that by satisfying the GMC as to the robustness of its internal governance, the RCPCH will have the authority to update the Illustrations autonomously, retaining an audit trail of changes, with only changes to the mandatory content (Learning Outcomes and Key Capabilities) requiring a formal submission to the GMC.



# **Section 2:**

## How to use this Curriculum

# How to use the RCPCH Progress+ curriculum



The curriculum is a crucial document for ensuring the quality and consistency of training and assessment. It must be referred to throughout training, as the trainee records evidence in ePortfolio demonstrating their developing skills and knowledge, while progressing towards achievement of the Learning Outcomes. All trainees must achieve the Generic Learning Outcomes outlined below and either the specialist General Paediatric or the relevant sub-specialty Learning Outcomes.

The curriculum should be used to help design training programmes locally that ensure all trainees can develop the necessary skills and knowledge in a variety of settings and situations. The curriculum is designed to ensure it can be applied in a flexible manner, meeting service needs as well as supporting each trainee's own tailored Learning and Development Plan.

Trainees and trainers should refer to the syllabi for more guidance on what is required to achieve each Learning Outcome. Generic syllabi are provided for the Learning Outcomes for each level and for all General Paediatrics and sub-specialty Learning Outcomes. The syllabi list the mandatory minimum requirements (Key Capabilities) and provide a range of Illustrations of additional suggestions for demonstrating achievement of the Learning Outcome. The Illustrations are examples only, helping trainees consider what other evidence they may have that is naturally occurring, or other ways in which they can develop against each curriculum domain and as such they are not intended to be restrictive or prescriptive.

Trainees are encouraged to consider innovative ways of demonstrating how they have met the Learning Outcome. In line with the Whole Population Approach, trainees are particularly encouraged to utilise opportunities for working in an integrated fashion, as shown in the example case studies presented in Appendix A. Trainees will have different strengths and areas of interest and may demonstrate achievement of some Learning Outcomes at different rates. Where a trainee has already achieved the Learning Outcome for a curriculum domain at their level of training, they may record evidence against a higher-level Learning Outcome, if it is relevant and appropriate.

Trainees and trainers should also be familiar with the RCPCH Assessment Strategy and particularly the Programme of Assessment Blueprint, which outlines the minimum assessment requirements for trainees at all levels.

## **Preparation for the Annual Review of Competency Progression (ARCP)**

Trainees are strongly encouraged to record evidence on ePortfolio against the Learning Outcomes throughout the year, including engaging in active reflective practice to support their own development.

Prior to the ARCPs, trainees must ensure they have recorded relevant evidence against the Key Capabilities and any other evidence that demonstrates their progression towards or achievement of the Learning Outcomes.

The supervisor will review and comment on whether the trainee is on target to achieve or has achieved the Key Capabilities to determine the Learning Outcome(s) and will suggest specific areas of focus for the following year to ensure that the trainee achieves the Learning Outcome(s) by the end of the training programme level. The Illustrations may be a useful prompt for this.





# Requirements for curriculum delivery

The requirements for curriculum delivery have not changed as a result of this new curriculum.

All training must comply with the GMC requirements presented in *Promoting excellence: standards for medical education and training* (2017). This stipulates that all training must comply with the following ten standards:

## **Theme 1: Learning environment and culture**

- S1.1 The learning environment is safe for patients and supportive for learners and educators. The culture is caring, compassionate and provides a good standard of care and experience for patients, carers and families.
- S1.2 The learning environment and organisational culture value and support education and training, so that learners are able to demonstrate what is expected in Good Medical Practice and to achieve the learning outcomes required by their curriculum.

## **Theme 2: Educational governance and leadership**

- S2.1 The educational governance system continuously improves the quality and outcomes of education and training by measuring performance against the standards, demonstrating accountability and responding when standards are not being met.
- S2.2 The educational and clinical governance systems are integrated, allowing organisations to address concerns about patient safety, the standard of care, and the standard of education and training.
- S2.3 The educational governance system makes sure that education and training is fair and is based on the principles of equality and diversity.

## **Theme 3: Supporting learners**

- S3.1 Learners receive educational and pastoral support to be able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

## **Theme 4: Supporting educators**

- S4.1 Educators are selected, inducted, trained, and appraised to reflect their education and training responsibilities.
- S4.2 Educators receive the support, resources and time to meet their education and training responsibilities.

## **Theme 5: Developing and implementing curricula and assessments**

S5.1 Medical school curricula and assessments are developed and implemented so that medical students are able to achieve the learning outcomes required for graduates.

S5.2 Postgraduate curricula and assessments are implemented so that doctors in training are able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

It is the responsibility of each Deanery/Local Education Training Board (LETB) to ensure compliance with these standards for paediatric training and to notify the RCPCH if further support is required in achieving this. Training delivery must also comply with the requirements of the Conference of Postgraduate Medical Deans' (COPMeD), a reference guide for postgraduate specialty training in the UK (10th ed.).

Additional requirements for sub-specialty curriculum delivery are published on each of the sub-specialty training pages on the RCPCH website. This addresses any specific requirements; for example, the human or physical resource experiences the trainee will need to access in order for the curriculum to be delivered successfully.

High quality paediatric training will prepare doctors to understand and support the holistic needs of children and young people, families and populations. Paediatricians will have an improved understanding of mental and physical health; health promotion and the social determinants of health. To support the delivery, teaching and learning of all the requirements of the training programme, a supporting document 'Paediatrician of the Future, Delivering really good training' ( September 2020) should be used alongside this curriculum. This document forms the basis on which really good training programmes can be constructed and delivered to enable the very best learning experience for the trainee.



# How to assess against the RCPCH Progress+ curriculum

The RCPCH Progress+ Assessment Strategy lays out how trainees will be assessed against this curriculum and the tools available for formative and summative use. The Assessment Strategy reflects the evolution of previous strategies as opposed to revolution, reinforcing assessment practices which currently work effectively and ensuring these can continue to be deployed appropriately to support this curriculum.

A key aspect of the Assessment Strategy is the Assessment Blueprint. This is a grid indicating the assessment requirements at both, Core and Specialty level, assessments that must be completed satisfactorily at key waypoints.

The Assessment Strategy comprises a wide range of assessment instruments which must be used with the Blueprint to develop skills and assess capability. The assessments are a mix of formative and summative; centrally and locally set and administered; and knowledge, skills and capability-based assessments capturing a wide range of evidence which can be integrated to reach a judgement as to the trainee's suitability for progression. The assessments also provide trainees with the opportunity to obtain developmental feedback. Further information on all assessment instruments can be found within the RCPCH Progress+ Assessment Strategy.

Each syllabus document contains more detailed guidance on the assessments to be used to demonstrate the Key Capabilities which underpin the curriculum Learning Outcomes. The Assessment Grid at the back of each syllabus document lists all Key (mandatory) Capabilities, and indicates the assessment tools that the RCPCH either mandates or recommends as most suitable for assessing that particular Capability. Please note, not all assessments are mandated or their use prescribed, such that trainees may use other assessment types from the list within the Assessment Strategy, where they and their supervisors feel this is appropriate.

## **Section 3:** The RCPCH Progress+ Curriculum

# Components of the curriculum

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). Paediatric trainees are required to demonstrate achievement of generic and General Paediatric or sub-specialty 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.

The syllabi support the curriculum by providing further instructions and guidance on how the Learning Outcomes can be achieved and demonstrated. Each syllabus contains five interlinked elements, as outlined in Figure 2 (below) which illustrates how each element elaborates on the previous one.

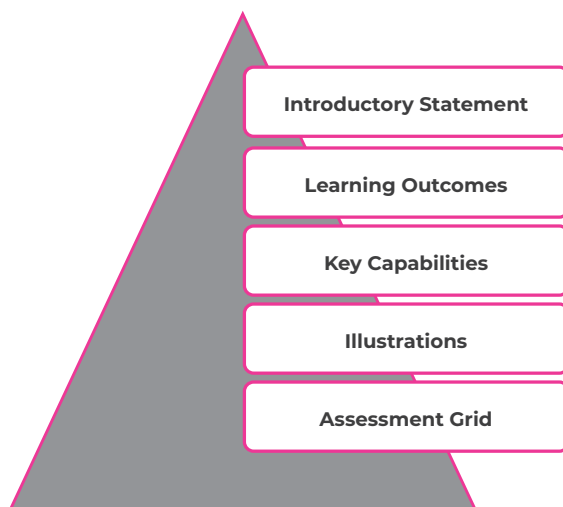


Figure 2: The five elements of the syllabus

## Elements of the Syllabus

The **Introductory Statement** sets the scene for what makes a Paediatrician and at Specialty level what defines a General Paediatrician or sub-specialist.

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 CCT in Paediatrics. Progress towards achievement of the Learning Outcomes is reviewed annually at the ARCP. Each Learning Outcome is mapped to the GMC's GPC framework. Each trainee must achieve all the GPCs 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 GPC 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. It is not expected that trainees provide ePortfolio evidence against every individual Illustration (or a set quota); the aim of assessment is to provide evidence against every Key Capability.

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.



# Generic Learning Outcomes

This table contains the generic Learning Outcomes required for all trainees working towards a CCT in Paediatrics. Within the curriculum and throughout the syllabi they are mapped to the GPCs.

Curriculum Domain	Core Training	Specialty Training
<b>1. Professional values and behaviours</b>	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.	Acts as a role model by taking a self-regulatory approach in ensuring professional values and behaviours, demonstrating the qualities required by a paediatrician, undertaking independent practice.
<b>2. Professional skills and knowledge: Communication</b>	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.	Applies communication skills in a range of contexts, for example, in multi-disciplinary teams (MDTs), with children, young people, families/carers, external agencies and other professionals, across a range of media, including legal and child protection reports.

Curriculum Domain	Core Training	Specialty Training
<b>3. Professional skills and knowledge: Clinical procedures</b>	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.	Capable in the full range of clinical skills relevant within <GENERAL PAEDIATRIC/SUB-SPECIALITY>, including appropriately co-ordinating the skills of other health professionals, when required.
<b>4. Professional skills and knowledge: Patient management</b>	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.	Considers the full range of differential diagnosis, treatment and management options available, including new and innovative therapies, relevant within <GENERAL PAEDIATRIC/SUB-SPECIALITY>; anticipating the need for transition from paediatric services and planning accordingly.
<b>5. Health promotion and illness prevention</b>	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.	Works with the wider healthcare community, promoting wellbeing, physical and mental health to improve the health of babies, children and young people.



Curriculum Domain	Core Training	Specialty Training
<b>6. Leadership and team working</b>	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.	Leads in multi-disciplinary teams (MDTs) promoting an open culture of learning and accountability by challenging and inspiring colleagues, supporting the development of leadership qualities and critical decision-making skills.
<b>7. Patient safety, including safe prescribing</b>	Recognises the importance of patient safety, including safe prescribing and exposure to risk/hazard.	Takes responsibility for investigating, reporting, resolving and evaluating risk/hazard incidents, within different paediatric healthcare settings, including communication with affected children or young people and their families/carers.
<b>8. Quality improvement</b>	Applies quality improvement (QI) methodology to clinical practice, thereby learning and reflecting to foster positive change.	Independently applies knowledge of quality improvement (QI) processes by initiating, planning and undertaking projects and audits to improve clinical effectiveness, patient safety and patient experience.

Curriculum Domain	Core Training	Specialty Training
<b>9. Safeguarding vulnerable children</b>	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.	Independently leads the process of safeguarding for babies, children and young people, including assessment, investigations and reporting.
<b>10. Education and training</b>	Plans and delivers teaching and learning activities to a wide range of audiences and provides appropriate feedback to others.	Demonstrates the required knowledge, skills and attitudes to provide appropriate teaching, learning opportunities, supervision, assessment and mentorship in the paediatric healthcare setting.
<b>11. Research and scholarship</b>	Adopts an evidence-based approach to baby, child, young people and family's/carers health practices, including critically appraising published research.	Demonstrates the independent development and revision of guidelines and policies, ensuring these are centred on current clinical research and evidence-based healthcare, to improve babies, children and young people's health and paediatrics service delivery.

# Additional Sub-Specialty Learning Outcomes



In addition to the generic Learning Outcomes, all Specialty trainees must fulfil the requirements of the Learning Outcomes for General Paediatrics or their chosen sub-specialty.

The following pages contain the purpose statements and Learning Outcomes for both General Paediatrics and each of the paediatric sub-specialties.

For more information on the requirements for these Learning Outcomes, please see the Specialty syllabus for General Paediatrics or the relevant sub-specialty.

# General Paediatrics

The purpose of the General Paediatrics curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a General Paediatrician.

A General 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. General Paediatricians are not bound by age, group or organ. They manage children from birth to late adolescence with clinical problems ranging from acute, life-threatening illnesses to chronic diseases and focus on health promotion from newborn to late adolescence.

General Paediatricians are experts in the investigation and diagnosis of babies, children and young people with both specific and nonspecific signs and symptoms. They initiate treatment which may be delivered and continued by themselves or by another person or team according to the needs of the baby, child and young person. General Paediatricians also collaborate with other professionals and agencies in order to deliver optimal care. They step in and oversee individual, tailored care whenever appropriate.

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

They may develop significant expertise in specialised paediatric areas, but they maintain their knowledge and skills across the full breadth of child health.

**In addition to the generic Learning Outcomes, by the end of their training a General Paediatrician must demonstrate that they have met the following General Paediatric Learning Outcomes:**

- Resuscitates, stabilises and treats extremely unwell babies, children and young people, liaising with specialist teams, as necessary.
- Co-ordinates and leads the in-patient care of babies, children and young people with a spectrum of common to complex conditions, liaising with primary care and other hospital and community specialist teams, as necessary.
- Recognises, investigates, initiates and continues the management of the full range of acute and chronic health problems presenting to paediatric outpatient clinics, drawing upon the expertise of other specialists, as necessary.
- Assumes the role of Acute Paediatric Team Leader, liaising with primary care services and other hospital and community specialist teams to effectively manage and coordinate patient flow, staffing, safety and quality in the paediatric acute assessment and inpatient units.
- Recognises, investigates and manages safeguarding issues, including providing advice to general practitioners, other healthcare professionals and social care providers.
- Effectively and sensitively supports and communicates with families and leads the team in the actions needed when a baby, child or young person is dying or has died.

# Child Mental Health

The purpose of the Child Mental Health sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Child Mental Health Paediatrician.

A Child Mental Health Paediatrician is a doctor who has expertise in promoting mental wellbeing, “parity of esteem” (the principle by which mental health must be given equal priority to physical health) and working with children, young people and families with mental health difficulties.

This includes children and young people with somatisation and complex presentations, behavioural challenges, neurodevelopmental disorders, eating disorders, mood disorders, anxiety and other mental health presentations.

Child Mental Health Paediatricians have a thorough knowledge of theoretical aspects of mental health, including psychological, social and neurobiological aspects and apply it in a clinical and advisory capacity. They can use the biopsychosocial model and know the range of psychotherapeutic approaches within the multidisciplinary team.

They are involved in developing formulations, managing complex cases and liaising with other mental health specialists, including Paediatricians, Paediatric sub-specialists and local teams in order to enhance holistic care. They have the ability to provide specialist regional advice in complex cases.

**In addition to the generic Learning Outcomes, by the end of their training a Child Mental Health Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates a thorough knowledge and application of theoretical frameworks in mental health.
- Demonstrates expertise in the diagnosis and management of children and young people with mental and psychological difficulties.
- Effectively promotes mental health and resilience among children, young people, families and communities.
- Provides specialist advice on complex clinical presentations with a mental health component, including the psychological impact on staff members and colleagues.
- Takes a leading role in advocacy for children and young people with mental health difficulties and promotes parity of esteem.

# Community Child Health



The purpose of the Community Child Health sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Community Child Health Paediatrician.

A Community Child Health Paediatrician is a doctor who has expertise in working with vulnerable groups of children, young people and their family. This includes children and young people with developmental disorders and disabilities, those with complex behavioural presentations and those who are at risk of abuse or are being abused. They also have a particular role with children and young people who are “looked after” or are in the process of being adopted.

They hold clinics in a variety of settings, including schools, with an emphasis on continuity of care and have strong skills working with multiple agencies, particularly with primary care, education and social care.

Community Paediatricians have a vital role in planning and implementing local strategies to improve the health of all children and young people in their area, including safeguarding policies and overseeing universal and targeted health promotion and protection programmes.

**In addition to the generic Learning Outcomes, by the end of their training a Community Child Health Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates proficiency in the assessment and management of vulnerable children and young people, including those with physical and psychological developmental disorders and disabilities, as well as counsels families and carers.
- Adopts a leading role with children and young people who are at risk of abuse or are being abused and for those who are “looked after”, including contributing to the process of adoption.
- Demonstrates strong skills in working with multiple agencies, particularly with education, primary care and social care.
- Actively participates in planning and implementing local strategies to improve the physical and mental health of all children and young people in their area, including safeguarding policy and overseeing universal and targeted health promotion and protection programmes.
- Contributes with other professionals to the management of physical and mental health of children and young people with life-limiting complex disability.

# Neonatal Medicine

The purpose of the Neonatal Medicine sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Consultant Neonatologist.

A Neonatologist is a doctor providing comprehensive care to a critically ill babies on the neonatal intensive care unit whilst ensuring the care of well term babies on the postnatal ward. The spectrum of clinical conditions and the care required is vast, from the term baby with feeding issues on the postnatal ward to the sick, fragile, extremely preterm baby with multiple problems.

Neonatologists often face difficult discussions with families in the antenatal and postnatal environment regarding counselling about care, management, prognostication and potentially, palliative care. Ethical and knowledge and its application are central to many of these discussions.

Whilst providing team leadership and clinical and skill training, the Neonatologist is also expected to be able to perform challenging technical procedures.

Long-term follow-up with developmental screening until two years of age is provided in this role and it is the combination of intensive care skills, ethical and emotional support, and clinic follow-up that make this a unique speciality.

**In addition to the generic Learning Outcomes, by the end of their training a Neonatologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Provides comprehensive care to the critically ill baby on the neonatal intensive care unit, whilst ensuring the care of well term babies on the postnatal ward.
- Communicates expertly with parents or carers and other staff in the antenatal and postnatal environment.
- Demonstrates effective and appropriate follow-up of babies following neonatal intensive care.

# Paediatric Allergy, Immunology and Infectious Disease



The purpose of the Allergy, Immunology and Infectious Disease curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as an Allergy, Immunology and Infectious Diseases Paediatrician.

A Paediatric Allergy, Immunology and Infectious Diseases (PAIID) specialist is a doctor who works across all paediatric age groups to investigate, diagnose and manage infectious, immunological and allergic disorders. They work in both inpatient and outpatient settings, with acute and chronic presentations of disease and provide specialist regional advice in a model of shared care with local hospitals. Most specialists will have one primary area of interest (allergy, immunology or infection), but will have core training in all three areas. PAIID paediatricians usually practice in multidisciplinary teams in centres with co-located specialty disciplines, including Paediatric Intensive Care Unit (PICU) and adult Allergy, Immunology and Infectious Disease (AIID) specialists, Paediatric Gastroenterology and with diagnostic laboratory services, eg immunology, microbiology and virology laboratories.

At the tertiary level, PAIID paediatricians sub-specialising in allergy have a strong understanding of the immune system as it relates to allergic disease and are able to undertake and interpret the complete range of investigations and interventions used for diagnosis and management, including disease modifying treatment strategies across all organ-systems. They understand the importance of the multi-disciplinary team in the long-term management of multi-system allergic disease and the de-labelling of allergic disease, where necessary. They are skilled in supporting other healthcare professionals in local and community teams to deliver efficient and well-informed allergy treatments and prevention.

PAIID paediatricians sub-specialising in immunology and infectious diseases have developed detailed knowledge of the developing immune system and its role in infection and immune-mediated disease in children and young people. They are able to investigate and manage rare or unusual infections, including infections in the returning traveller. Furthermore, they are knowledgeable about the interpretation of microbiological and immunological investigations and have had laboratory experience in a tertiary centre. They are involved in the treatment of primary and secondary immunodeficiency, including Human Immunodeficiency Virus (HIV) and infection in the immunocompromised host. They may be involved in the administration of immunotherapies, such as immunoglobulin replacement therapy and should understand the role of bone marrow transplantation, immunosuppression and immunomodulators in treatment. PAIID specialists are involved in infection prevention and control in hospital settings and the community and liaise with public health teams to manage outbreaks and pandemics.

The PAIID specialist will contribute to evidence-based guidelines for the investigation and management of paediatric infectious diseases, immunology and atopic disease, including through membership of the British Paediatric Allergy, Immunology and Infectious Diseases special interest group.



**In addition to the generic Learning Outcomes, by the end of their training an Allergy, Immunology and Infectious Diseases Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates ability to expertly investigate, diagnose and manage conditions within paediatric allergy, immunology and infectious diseases.
- Manages all aspects of paediatric infectious diseases (including the diagnosis and management of common, specific scenarios) and appropriately uses diagnostics, therapeutics, vaccines and infection-control measures.
- Manages all aspects of paediatric immunology (including the diagnosis of common and rare, primary and secondary immunodeficiencies) and understands the appropriate referral for, management of and complications associated with definitive treatments (including bone marrow transplant and gene therapy).
- Manages all aspects of paediatric allergies (including the diagnosis and management of common and rare allergic conditions) and applies diagnostic procedures and new or complex therapies to optimise clinical care.
- Ensures up-to-date knowledge and understanding of new developments in relevant sub-specialty strands and utilises this knowledge to develop and update specialised protocols and guidelines to inform clinical practice and develop initiatives nationally and internationally.

# Paediatric Clinical Pharmacology

The purpose of the Paediatric Clinical Pharmacology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Clinical Pharmacologist.

A Paediatric Clinical Pharmacologist is a doctor who has expertise in all aspects of the development of medicines and their safe, rational use. This includes research (from early phase clinical trials to translational), ethics, clinical practice, drug regulation and education.

In clinical practice, as well as managing in-patient and out-patient care, they provide advice and support locally and nationally regarding the introduction of new medicines, adverse drug reactions, poisoning and toxicity as well as prescribing policies. They contribute to the ethical review of research, plus the safe and effective conduct and delivery of drug trials. Additional research skills developed during training include those in drug development, medicine safety and the rational use of medicines in children and young people.

Clinical Pharmacologists play a vital role in many areas that complement the use of medicines in children and young people. Roles within drug regulation include developing local guidelines, advising on pharmacovigilance and serving on national committees. They contribute to the education of undergraduate and postgraduate health care professionals on drug metabolism, formulations and prescribing.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Clinical Pharmacologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Manages patients with adverse drug reactions (ADRs) and acute poisonings.
- Participates in the design, delivery and interpretation of paediatric clinical trials of medicines.
- Understands, advises and teaches on clinical pharmacology in children and young people.
- Advocates for the safe and effective evidence-based use of medicines in children and young people.
- Contributes to an acute paediatric service, with particular focus on the safe and effective use of medicines in the team and the trust. This will include managing emergency situations including: resuscitation, stabilisation and treatment of acutely unwell children and young people, delivering inpatient care and ensuring that systems are in place for the safe and effective use of medicines in acute care situations.
- Contributes to the management of children and young people with a range of chronic health problems, including direct patient management and ensuring systems are in place for the safe and effective use of medicines in chronic disease.

# Paediatric Diabetes and Endocrinology



The purpose of the Paediatric Diabetes and Endocrinology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Endocrinology consultant.

A Paediatric Endocrinologist is a doctor who has special expertise in looking after children and young people with hormone disorders. These can affect growth or pubertal development and have significant effects on a child and young person's physical and emotional well-being. The conditions managed can include normal variations in growth and puberty; over- or under-activity of the pituitary, thyroid and adrenal glands; endocrine-related obesity; more complex disorders of sex development; and metabolic bone disease.

Paediatric Endocrinologists link closely with other tertiary specialties, including surgeons, gynaecologists, geneticists and adult endocrinologists, to provide coordinated and comprehensive care. Many Paediatric Endocrinologists are actively involved in clinical research.

Paediatric Endocrinologists are also involved in managing children and young people with diabetes mellitus. This entails developing expertise in optimising blood glucose control to minimise future complications, intensive insulin regimes, continuous glucose monitoring systems (CGMS) and continuous subcutaneous insulin infusions (CSII).

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Endocrinologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Manages common endocrine conditions and demonstrates awareness of rare endocrine disorders.
- Manages all aspects of type 1 and type 2 diabetes mellitus and rare forms of diabetes.
- Provides expert advice at a regional level for the management of endocrine conditions and diabetes mellitus.
- Implements and maintains safe and effective practice related to endocrinology and diabetes mellitus.

# Paediatric Emergency Medicine

The purpose of the Paediatric Emergency Medicine sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as an Emergency Medicine Paediatrician. The curriculum is also used by trainees at the Royal College of Emergency Medicine, whose representative has participated in the group redeveloping this curriculum.

A Paediatric Emergency Physician is a doctor who specialises in the initial management of children and young people presenting with a wide range of undifferentiated conditions. They need to make pragmatic and rapid decisions using a wide breadth of knowledge across a vast range of paediatric presentations.

They need to be adaptable in order to be able to switch immediately from managing minor conditions to leading the resuscitation of children and young people. They are equally at home dealing with minor and major trauma, and minor and serious illness, as well as the worried well.

Paediatric Emergency Physicians must also acquire a wide range of non-clinical skills and abilities, both inward and outward looking. These may revolve around process management, either in the Emergency Department (ED), the hospital as a whole, or the wider community and interfaces of care. They must also learn to take care of themselves and the emergency team, developing skills to counteract the high-pressure nature of the workload through, for example, communication, debriefing and resilience training.

They gain their skills by working in Paediatric Emergency Departments (PEDs), Paediatric Intensive Care Units (PICUs) and alongside colleagues from other specialties including emergency medicine, paediatrics, general paediatric surgery and other surgical specialties, mastering both the diagnostic challenge and the practical skills required to treat this diverse population. As consultants, Paediatric Emergency Physicians may work in designated PEDs or alongside adult colleagues, taking on the care of children and young people in mixed EDs.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Emergency Physician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Recognises, assesses and manages the full range of paediatric emergency conditions.
- Assumes the role of paediatric emergency team leader and takes responsibility for this domain of service.
- Performs high-level clinical and technical skills and procedures in the paediatric emergency setting.
- Liaises effectively with pre-hospital, hospital and community specialist teams.
- Effectively manages and coordinates patient flow, staffing, safety and quality in a PED.
- Demonstrates the ability to make pragmatic and rapid decisions across a broad range of paediatric emergencies.

# Paediatric Gastroenterology, Hepatology and Nutrition

The purpose of the Paediatric Gastroenterology, Hepatology and Nutrition sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Gastroenterologist or Hepatologist.

A Paediatric Gastroenterologist is a doctor who provides tertiary services for the diagnosis and long-term management of rare disorders and complex cases of more common disorders that affect the gastrointestinal tract. Gastroenterologists provide nutritional support for patients, including those with temporary or permanent intestinal failure and manage services for home parenteral nutrition. Paediatric Hepatologists provide both tertiary and national hepatology services in designated centres. They diagnose and manage paediatric liver diseases, such as acute and chronic liver failure and are co-located with transplant services to provide care for liver and small bowel transplantation patients.

Paediatric Gastroenterologists and Hepatologists often provide specialist advice in a model of shared care. They are co-located in regional units with key services such as paediatric surgery and paediatric intensive care. They understand the indications, benefits and risks of procedures for diagnostic evaluation and possess specialised skills in performing and interpreting the results of tests, such as gastrointestinal endoscopy and liver biopsy.

All of the Key Capabilities in the curriculum should be covered, although the depth of knowledge required will be dependent of the specific area of focus and expertise, within Paediatric Gastroenterology, Hepatology and Nutrition.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Gastroenterologist or Hepatologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

## In Gastroenterology

- Diagnoses, assesses and coordinates the management of inflammatory bowel disease (IBD) in all aspects of its care as part of a multidisciplinary team (MDT).
- Diagnoses, assesses and manages both congenital and acquired conditions that may result in intestinal malabsorption and associated clinical disorders, as part of an MDT.
- Manages the assessment of gastrointestinal bleeding, its risk stratification and safe, effective management as part of both a gastroenterology network and an MDT.
- Demonstrates the confident management of a range of gastroenterology conditions, distinguishing functional gastrointestinal disorders from other gastrointestinal disease and providing safe and effective care.

- Performs high-level clinical and technical skills and procedures, while demonstrating understanding of the role of endoscopy (Gastroscopy and Colonoscopy), both diagnostic and therapeutic, in the management of children and young people with gastrointestinal disorders.

### **In Nutrition**

- Manages all aspects of reversible and irreversible intestinal failure in children and young people.
- Manages children and young people with complex nutritional needs requiring nutritional support.

### **In Hepatology**

- Manages children, young people and families throughout the transplantation process.
- Manages children and young people in the peri- and post-transplant periods.
- Manages children and young people with acute liver failure.
- Provides expert advice at a national level on the initial management for children and young people with acute liver failure.
- Manages children and young people with chronic and end-stage liver disease and the associated complications, alongside an MDT.
- Manages different conditions of infantile cholestasis and recognises the rare disorders associated with infantile cholestasis.
- Stabilises and safely manages children and young people with acute gastrointestinal bleeding secondary to bleeding varices and portal hypertension.
- Demonstrates the technical skills required for the diagnosis and management of children and young people with liver disease.

# Paediatric Inherited Metabolic Medicine

The purpose of the Paediatric Inherited Metabolic Medicine sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Metabolic Paediatrician.

A Metabolic Paediatrician is a doctor providing care for children, young people and families who have inherited disorders that affect the body's normal biochemical reactions. There are many rare metabolic disorders that can affect the function of any organ system and can present at any age.

They have detailed knowledge of normal human biochemistry and the impact of metabolic diseases and use this knowledge in the diagnostic process (including identifying novel disorders) and in planning management strategies. They strive to improve the early recognition and diagnosis of metabolic diseases, including through newborn screening.

Metabolic Paediatricians work closely with laboratory scientists, metabolic dietitians, pharmacist specialists and nursing teams. They are research-active and keep up to date with the rapid and innovative developments in therapeutics for metabolic disorders. They are advocates for their patients, actively engaging in developing and commissioning high-quality services and evolving therapies.

**In addition to the generic Learning Outcomes, by the end of their training a Metabolic Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Recognises, assesses and manages the full range of acute paediatric inherited metabolic emergencies.
- Demonstrates sound understanding of the full range of metabolic conditions and applies this knowledge to newly referred patients.
- Counsels families of a patient with the diagnosis of an inherited metabolic disorder (IMD) detected through the newborn screening programme.
- Explains the inheritance of IMD to families and applies this within a cultural context.
- Liaises effectively with hospital and community specialist teams for managing paediatric inherited metabolic conditions, particularly with specialists, such as dietitians, pharmacists, nurses and laboratory scientists.
- Effectively works with paediatricians in district general hospitals and specialist centres to coordinate patient care and maintains consistent quality in the context of a paediatric inherited metabolic medicine service.
- Contributes to multicentre collaborations and research.

# Paediatric Intensive Care Medicine

.....

The purpose of the Paediatric Intensive Care Medicine sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Intensive Care Physician (PICP).

The PICP is a doctor from a paediatric, intensive care or anaesthetic background who resuscitates, stabilises, transfers and treats critically ill and injured children and young people. They identify those children and young people who need intensive care support and are skilled at the procedures and techniques necessary to deliver that support. They are highly skilled at directing, leading and coordinating both medical and surgical resuscitation, prioritising and responding to new and urgent clinical situations.

The PICP treats children and young people with a wide range of life-threatening pathologies within the emergency, transfer and intensive care settings. They interact with, coordinate, educate and supervise all members of the multi-professional Intensive Care team, understanding the unique interaction of the Intensive Care Unit with every component of the hospital. They work in difficult and challenging environments within the emergency, transfer and intensive care settings. The PICP also coordinates and delivers appropriate care in the setting of a major incident.

## **PICM Specialty Recognition within Intensive Care Medicine**

Paediatric Intensive Care Medicine (PICM) has been approved by the GMC as a sub-specialty of Intensive Care Medicine. The Faculty of Intensive Care Medicine (FICM) sets the training requirements for adult Intensive Care Medicine (ICM). Trainees engaged in a Single or Dual CCT in ICM can undertake sub-specialty accreditation in PICM via the Training Programme.

Single ICM CCT trainees incorporate the PICM training into the exiting programme, which requires no extension of training time. Trainees undertaking Dual CCTs in ICM and a partner specialty (eg. Anaesthesia) may also wish to apply for the PICM sub-specialty programme. Undertaking Dual CCTs and sub-specialty recognition, however, will result in a significantly prolonged period of training with an additional 24 months required.

The full details of how PICM can be incorporated into the ICM training programme can be found within the FICM's ICM CCT curriculum.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Intensive Care Physician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Recognises, assesses and manages the full range of both medical and surgical paediatric conditions, including paediatric emergencies requiring intensive care support and the management of safeguarding issues within this environment.



- Assumes the role of Intensive Care Team Leader and liaises with hospital and community specialist teams, effectively managing and coordinating patient flow, staffing, safety and quality in the context of a busy Paediatric Intensive Care Unit (PICU).
- Resuscitates, stabilises, and transfers critically ill children and young people, performing the high-level clinical and technical skills and procedures necessary to carry this out in the paediatric intensive care, emergency and transport environments.
- Performs high-level technical skills and procedures using the appropriate medications necessary for managing critically ill children and young people, troubleshooting appropriately.
- Demonstrates expertise in the management of life-threatening and life-limiting conditions across the paediatric spectrum, from the unborn baby, neonate and infant, to the child and young person, providing support and communicates appropriately.
- Recognises the impact of managing stressful and often complex situations; including multiple bereavements and the risk of burnout specific to paediatric intensive care.

# Paediatric Nephrology

The purpose of the Nephrology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Nephrologist.

A Paediatric Nephrologist is a doctor who deals with the diagnosis, investigation and management of chronic and acute kidney disease, including the provision of dialysis and renal transplantation. Paediatric Nephrologists have a detailed knowledge of renal physiology, including fluid management and disturbances in electrolytes and acid-base balance. They are skilled in the management of acute kidney injury (AKI), which may be managed conservatively or with kidney replacement therapy (KRT), including peritoneal dialysis (PD), haemodialysis (HD) and continuous veno-venous haemodialysis (CVVHD) and continuous haemodiafiltration (CVVHF). They are also skilled in the management of chronic kidney disease (CKD), including the pre-dialysis phase, peritoneal dialysis, haemodialysis and transplantation.

Paediatric Nephrologists also develop expertise in the management of babies, children and young people with congenital anomalies of the renal tract, nephrotic syndrome, glomerulonephritis, vasculitis, inherited and acquired forms of tubulopathy, urinary tract infection (UTI) and vesicoureteric reflux (VUR), renal stone disease, hypertension, inborn errors of metabolism and inherited nephropathies. CKD is a life-long condition and Paediatric Nephrologists are frequently involved in the care of patients from birth all the way through to the successful transition into adult renal care.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Nephrologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates extensive knowledge of renal physiology, including fluid management and disturbances in electrolytes and acid-base balance.
- Manages the diagnosis, investigation and management of acute and chronic kidney disease.
- Demonstrates proficiency in the management of babies, children and young people requiring kidney replacement therapy (KRT), including acute and long-term dialysis as well as demonstrates competence in peritoneal dialysis, haemodialysis, continuous veno-venous haemodialysis and continuous veno-venous haemodiafiltration, managing all aspects of paediatric kidney transplantation.
- Manages babies, children and young people with congenital anomalies of the renal tract, nephrotic syndrome, glomerulonephritis, vasculitis, inherited and acquired forms of tubulopathy, urinary tract infection, vesicoureteric reflux, renal stone disease, hypertension, inborn errors of metabolism and inherited nephropathies.

# Paediatric Neurodisability

The purpose of the Neonatal Medicine sub-specialty curriculum is to support the trainee. The purpose of the Paediatric Neurodisability sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Neurodisability Paediatrician.

A Neurodisability Paediatrician is a doctor who has specialist expertise in the management of children and young people with disabilities resulting from congenital or acquired long-term conditions. These problems are generally due to impairment in the nervous or musculoskeletal systems and can be static or progressive in nature.

Although they are involved in the diagnosing, the Neurodisability Paediatrician's emphasis is in managing the complex comorbidities seen, targeting the patients' rehabilitation and enablement. While working closely with local teams in the hospital and community (such as Genetics, Neurology, Community Paediatrics, surgical specialties and Palliative Care, as well as NGOs and education and social services), they often provide specialist regional advice in a model of shared care.

At a tertiary level, Neurodisability Paediatricians have developed specialist skills within the neurosciences. This includes in the assessment of motor and neurobehavioural disorders (eg attention deficit hyperactivity disorder [ADHD] and autism) and neurorehabilitation and they often subspecialise in one or more of these areas.

**In addition to the generic Learning Outcomes, by the end of their training a Neurodisability Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates specialist expertise in the management of children and young people with disabilities resulting from congenital or acquired long-term conditions.
- Effectively manages comorbidities and focuses on rehabilitation and enablement.
- Demonstrates the ability to act as a resource across both, hospital and community teams to provide specialist regional advice in a model of shared care.
- Demonstrates development of specialist skills within the neurosciences in the assessment of motor and neurobehavioural disorders, including ADHD and autism, and in neurorehabilitation.

# Paediatric Neurology

The purpose of the Paediatric Neurology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Neurologist.

A Paediatric Neurologist is a doctor who has knowledge and understanding of disorders of the nervous system that affect babies, children and young people. They need to have expertise in conditions including; the epilepsies, movement disorders, cerebrovascular disease, neuromuscular disorders, neuro-genetic, inflammatory and demyelinating disorders, neonatal neurology; acquired brain injury and neuro-rehabilitation. There is an increasing range of neurological disorders that are amenable to more effective and innovative management and 'personalised medicine' approaches.

In addition, Paediatric Neurologists have generic expertise in neuroimaging, genetics (molecular) medicine and neurosurgical disorders. Some will sub-specialise and work largely or exclusively in a particular field. Paediatric Neurologists are usually based in a regional neuroscience centre providing tertiary and secondary level services working in out-patient and hospital settings.

In the acute setting they manage a wide spectrum of disorders and provide shared care management of patients on the Paediatric Intensive Care Units (PICU), Neonatal Intensive Care Units (NICU) and those undergoing neurosurgery. They provide specialist support advice to paediatric specialty colleagues. They advise on diagnosis and ongoing management of chronic and complex disease.

Paediatric Neurologists work particularly closely with Neurodisability paediatricians, Neurosurgeons, Neurophysiologists, Neuropsychiatrists, Neuroradiologists and Neurogeneticists.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Neurologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Recognises, assesses and manages the full range of paediatric neurological conditions, including acute neurological disorders with common and uncommon presentations, anticipating possible pitfalls and complications, while recognising and managing high-risk situations.
- Coordinates urgent and complex clinical management, including the provision of non- acute clinic services and ward-based neurogenetic, neuroradiological or neurophysiological multidisciplinary meetings; completes appropriate onward referrals and discharges; and communicates clearly with colleagues.
- Promotes the neurological and developmental health of a child with a neurological disorder.

- Assumes the role of paediatric neurological team leader and takes responsibility for this area of service.
- Practises safe child neurology, including when prescribing medication and initiates and completes a quality improvement project applicable to child neurology.
- Keeps up to date and engages in, supports and stimulates research in child neurology.

# Paediatric Oncology



The purpose of the Paediatric Oncology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Paediatric Oncologist.

A Paediatric Oncologist is a doctor with specialist expertise in managing babies, children and young people with cancer. The cancer may be in any location or system, including the blood (leukaemia), brain or body. They care for babies, children and young people and their families at all stages of treatment, from diagnosis to long-term follow-up or palliative care, often maintaining support for many years.

Paediatric Oncologists work closely with haematologists, surgeons, radiation oncologists, pathologists, radiologists, endocrinologists and other oncologists, nationally and internationally, to ensure therapies are appropriate and effective. They work locally with psychologists, social workers and teachers to support patients and their families, ensuring that the burden of treatment is contained with long-term effects of treatment minimised.

Evidence-based medicine is at its core and oncology is characterised by the expectation that patients will be treated according to clinical trials whenever possible.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Oncologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Recognises, assesses and manages the full range of paediatric oncology conditions.
- Assumes the role of oncology team leader and takes responsibility for this area of service, effectively managing and coordinating patient flow, staffing, safety and quality in the context of a paediatric oncology department.
- Builds robust relationships with parents or carers and patients that will be sustainable for both parties throughout the cancer journey.
- Understands the concepts of evidence-based medicine and clinical trials as well as the cornerstones that they maintain in the field of paediatric oncology.

# Paediatric Palliative Medicine

The purpose of the Paediatric Palliative Medicine sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Consultant in Paediatric Palliative Medicine (PPM).

A PPM doctor has expertise working with babies, children and young people with life-limiting conditions and life-threatening illness and their families. These conditions include malignancy; inherited disorders; cardiac, neurological and neuromuscular diseases; and a variety of rare progressive and irreversible conditions.

PPM doctors work alongside multidisciplinary teams across hospital, hospice and community settings, providing a total approach to care and focusing on quality of life. The approach embraces physical, emotional, social and spiritual elements. These consultants provide specialist symptom management (eg nausea, pain, breathlessness and agitation), guidance on advance care planning (eg the preferred place of care and ceilings of care) and end-of-life and bereavement care, as well as offering support with complex ethical decisions (eg feeding and hydration).

The PPM doctor also plays a vital role in supporting other healthcare professionals to care for babies, children and young people and their families/carers with life-limiting conditions.

**In addition to the generic Learning Outcomes, by the end of their training a PPM Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates specialist expertise in the management of life-threatening illness and life-limiting conditions across the paediatric spectrum, from the unborn baby, neonate and infant to the child and young person.
- Works as a specialist expert in paediatric palliative medicine across a range of settings and within the multidisciplinary team (MDT), by providing a holistic approach to care.
- Recognises, assesses, anticipates and manages the full range of symptoms experienced as disease and illness progress, considering their impact on physical, psychological and emotional health.
- Prescribes, reviews and monitors pharmacological treatment and non-pharmacological interventions necessary to manage patients with life-limiting illness and at the end of life; ensures non-pharmacological interventions are integrated into care at all stages of management.
- Works together with patients, families and professionals to facilitate decision-making regarding planning and provision of care towards the end of life.

- Undertakes complex decisions and supports others making complex ethical decisions within the recognised UK framework.
- Demonstrates expertise in the physiological process and practical requirements of death and dying in childhood.
- Recognises grief and the need for bereavement care, including support for all family members and those who require specialist input.
- Recognises the impact of managing stressful, sensitive and often complex situations; the impact of multiple bereavements and the risk of burnout specific to palliative medicine; and the vulnerabilities of practitioners and colleagues.
- Works as a leader to improve evidence for, access to and provision of paediatric palliative care.
- Possesses the procedural skills necessary to practise competently and effectively as a palliative care consultant, with the confidence to advise and support others.



# Paediatric Respiratory Medicine



trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Consultant in Paediatric Respiratory Medicine.

Respiratory Paediatricians are doctors who have detailed knowledge and understanding of the respiratory system in babies, children and young people. They are skilled in providing holistic care to manage respiratory health and ill-health in babies, children and young people. At a tertiary level, they have highly specialised skills to manage complex acute and chronic conditions, including difficult-to-treat asthma, cystic fibrosis and rare lung disease. They have expertise in technical skills, including flexible bronchoscopy and the care of technology-dependent children and young people.

Respiratory Paediatricians deal with challenging problems of diagnostic and therapeutic uncertainty in their field of medicine. In doing so, they interact with many medical and surgical specialties to improve outcomes in children and young people with lung disease in acute and chronic settings. They have a significant interest in patient responsibility and hold clinics in a variety of settings, including sharing care within clinical care networks. They advocate on public health issues at the individual, local and national level to promote lung health.

**In addition to the generic Learning Outcomes, by the end of their training a Respiratory Paediatrician must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Demonstrates proficiency in providing holistic care to manage respiratory health and ill-health in babies, children and young people, including the promotion of respiratory health.
- Demonstrates tertiary level specialist skills to manage complex acute and chronic conditions, including difficult-to-treat asthma, cystic fibrosis (CF) and rare lung disease.
- Demonstrates expertise in technical skills, including flexible bronchoscopy and the care of technology-dependent children and young people.

# Paediatric Rheumatology



The purpose of the Paediatric Rheumatology sub-specialty curriculum is to support the trainee Paediatrician in developing the skills and knowledge required to work safely and confidently as a Consultant in Paediatric Rheumatologist.

A Paediatric Rheumatologist is a doctor who cares for children and young people with a range of conditions, from mechanical pains and juvenile arthritis to complex multi-system inflammatory disorders. They rely on history-taking, examination and communication with other professionals, as the conditions they manage often do not have specific diagnostic tests. Central to their work is liaising with the multidisciplinary team (MDT) – particularly, specialist nurses, physiotherapists, occupational therapists and psychologists. They support collaborative work within clinical networks, are competent in practical skills, such as joint injections and have expert understanding of the drugs used to target the inflammatory pathway. Paediatric Rheumatologists belong to a rapidly developing sub-specialty that encourages a range of clinical and academic interests, including clinical, educational and basic science research. They are committed to contributing to collaborative research studies and clinical trials, with the aim of improving outcomes for children and young people with rheumatological conditions.

**In addition to the generic Learning Outcomes, by the end of their training a Paediatric Rheumatologist must demonstrate that they have met the following sub-specialty Learning Outcomes:**

- Performs the high-level clinical and technical skills required in paediatric rheumatology.
- Assumes a leadership role within the Paediatric Rheumatology team, including sharing responsibility for service delivery, research and education.
- Liaises effectively with hospital and community teams and networks to manage the spectrum of conditions that are encountered in paediatric rheumatology.
- Effectively manages and coordinates patient flow, staffing, safety and quality in the context of a Paediatric Rheumatology MDT/Network.

# Appendix A: Integrated care case studies

The following case studies have been produced as examples of how trainees can use examples of working in integrated care to demonstrate achievement against a variety of different aspects of the curriculum.

All examples below are mapped to Key Capabilities and Illustrations in the generic core syllabus.

## Patient experience and involvement

### CASE STUDY

A trainee organised the local paediatric training programme around case presentations. Of the four cases presented monthly, one is always presented by the patient or parent themselves. Hearing the story from the patient or parent is very powerful and provides rich learning for trainees. Patients report that they too benefit from the sessions.

### Core curriculum coverage:

#### *Professional values and behaviours*

- Identifies opportunities and shows commitment for child health advocacy in their daily practice, including examples of injustice, empathy and political influences.
- Succinctly and objectively communicate the wider needs of the child verbally and in writing, with clear recommendations and justifications.

#### *Professional skills and knowledge: communication*

- Demonstrates strong communication and interpersonal skills to enable effective collaboration with patients and their families, and colleagues in multi-professional and multi-disciplinary teams. This includes demonstrating courtesy and respect for different cultures and those with protected characteristics (eg age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, gender, sexual orientation).
- Demonstrates skills that empower children and young people to speak out.

#### *Education and training*

- Plans and delivers small group teaching sessions eg case presentation, journal club.

## Data influencing change

### CASE STUDY

A trainee notes that looked after children in one borough are taking far longer to receive their medicals than their counterparts in neighbouring boroughs. They compile this evidence to make a business case for getting a Clinical Nurse Specialist in that borough.

### Core curriculum coverage:

#### *Health promotion and illness prevention*

- Understands the factors which contribute to child health inequalities and the consequences of those inequalities in terms of disability, life expectancy and health economics.
- Understands the effects of the environmental, economic and cultural contexts of health and healthcare on illness prevention.

#### *Quality improvement*

- Undertakes a quality improvement project under guidance.
- Applies knowledge of the principles of evaluation, audit, research, development and standard-setting and their roles in quality improvement
- Applies knowledge of how national and local policy initiatives impact medical practice and social health and well-being

#### *Research and scholarship*

- Forms a research question, searches for an answer and demonstrates how findings could be applied in practice

## Working clinically in an integrated way

### CASE STUDY

The trainee sets up a 'WhatsApp' group for teenagers from the diabetes clinic encouraging them to provide peer support. They expect this will also improve communication with their patients by using a method with which they feel comfortable with.

### Core curriculum coverage:

#### *Professional skills and knowledge: communication*

- Demonstrates strong communication and interpersonal skills to enable effective collaboration with patients and their families, and colleagues in multi-professional and multi-disciplinary teams. This includes demonstrating courtesy and respect for different cultures and those with protected characteristics (eg age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, gender, sexual orientation).

*Demonstrates approachability and friendliness.*

- Uses information technology effectively in clinical practice and audit.
- Uses electronic communication media in both clinical practice and audit, taking into account the principles of confidentiality outlined in the Data Protection Act 1998 and the General Data Protection Regulations 2018).

*Professional skills and knowledge: patient management*

- Understands the elements of a young-people-friendly health service
- Health promotion and illness prevention
- Understand the effects of the environmental, economic and cultural contexts of health and healthcare on illness prevention.

## **Leading developmental of integrated services**

### **CASE STUDY**

A GP trainee contacts a paediatric trainee because she noticed that her referrals to community paediatrics were frequently rejected and wanted to understand why. She met the community paediatric team and learned that it is very different from adult services (eg those that offer community care for uncomplicated diabetes). The trainees collaborated to create a directory of community paediatrics to guide local GPs to make the correct referral decision. The directory was published on websites and on the GP electronic patient record. Evaluation of the number of referrals that need redirection since implementation is now underway.

### **Core curriculum coverage:**

*Leadership and team working*

- Collaborates, consults and promotes good team working.
- Works effectively with colleagues in MDTs to ensure consistency, continuity and a holistic approach to the treatment and care of children and young people.

*Quality improvement*

- Designs, implements, completes and evaluates a simple quality improvement project using improvement methodology as part of an MDT.

## Appendix B: Glossary

<b>A</b>	<b>ARCP</b>	<b>Annual Review of Competence Progression</b>	A trainee's annual review.
	<b>AKP</b>	<b>Applied Knowledge in Practice</b>	One of the MRCPCH theory exams.
		<b>Assessment</b>	An event where an evaluative judgement is made regarding a trainee's knowledge or skills. Assessment can be formative and can help to guide learning and prompt reflection. It can also be summative, where an overall judgement regarding competence, fitness to practice, or qualification for progression to higher levels of responsibility is made.
		<b>Assessor</b>	An assessor provides an assessment and is responsible for interpreting the learner's performance in that assessment.
<b>C</b>	<b>CCT</b>	<b>Certificate of Completion of Training</b>	Issued by the GMC upon successful completion of the specialty training programme.
	<b>CESR</b>	<b>Certificate of Eligibility for the Specialist Register</b>	An alternative certification for trainees who have not qualified for a CCT.
	<b>CSAC</b>	<b>College Specialty Advisory Committee</b>	The RCPCH committees responsible for developing the curriculum for their paediatric sub-specialty. They also monitor specialty trainees' progression through their sub-specialty training, advising and signing off sub-specialty CCTs.
	<b>CPD</b>	<b>Continuing Professional Development</b>	The process by which clinicians (and staff) capture and address their evolving development needs.
		<b>Core trainee</b>	A junior doctor at ST1-4. Commonly still known by the old term, SHO.
		<b>Critical progression points</b>	Key points during the curriculum where trainees will transition to a higher level of responsibility or enter a new area of practice. These points are frequently associated with increased risk and so robust assessment is required. For the RCPCH Progress+ curriculum, these points are at the end of Core training (transition to middle-grade rota) and the end of Specialty training, achieving a Certificate of Competence of Training (CCT).
		<b>Curriculum/curricula</b>	The framework that lays out the intended aims and objectives, content, experiences, Learning Outcomes and processes of a programme or course of learning.

	<b>Curriculum domain</b>	The 11 areas against which all trainees must demonstrate capability, through achievement of Learning Outcomes which develop and progress through the two levels of training.
	<b>CYP Children and Young People</b>	The terms child/children refers to children and young people under the age of 18 across the UK and may extend up to 25 depending on transition arrangements.
<b>E</b>	<b>ePortfolio</b>	The RCPCH online learning tool for trainees and their supervisors to log their activities and monitor progress through the curriculum.
<b>F</b>	<b>FOP Foundations of Practice</b>	One of the MRCPCH theory exams.
<b>G</b>	<b>General Paediatrics</b>	General Paediatricians have broad knowledge and skills, managing a wide range of health problems in babies, children and young people. They are not bound by age group or organ and manage children from birth to late adolescence with problems ranging from acute, life-threatening illnesses to chronic diseases as well as focusing on health promotion for all ages.  Trainees following the General Paediatric curriculum must also complete the generic Specialty Learning Outcomes.
	<b>Generic</b>	Applicable to all trainees regardless of level of training, eg generic Learning Outcomes.
	<b>GPC Generic Professional Capabilities</b>	A matrix of educational outcomes that describe educational and critical capabilities that underpin core professional practice in the United Kingdom. These are capabilities which all junior doctors must demonstrate during their training, mapped to the curriculum.
	<b>GMC General Medical Council</b>	The General Medical Council is the regulatory body which governs medical education within the United Kingdom. All curricula for postgraduate medical education must be approved for use by the GMC.
	<b>Gold Guide</b>	A guidance document published by COPMed, stipulating the requirements for post-graduate specialty training in the United Kingdom.
	<b>GMP Good Medical Practice</b>	The core ethical guidance that the GMC provides for doctors.
<b>H</b>	<b>HoS Head of School</b>	Manages paediatric training for their Deanery/ LETB.

I	Illustration	The Illustrations are examples of evidence and give the range of clinical context in which 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 the excellent trainee may produce a broader portfolio or include evidence that demonstrates deeper learning. It is not expected that trainees provide ePortfolio evidence against every individual Illustration (or a set quota); the aim of assessment is to provide evidence against every Key Capability.
	Introductory Statement	The Introductory Statement sets the scene for what makes a Paediatrician. There are also individual statements for each paediatric sub-specialty.
J	Junior Doctor	A doctor undertaking post-graduate medical training to become a consultant or GP.
K	Key Capability	These are mandatory capabilities which must be evidenced by the trainee, in their ePortfolio to meet the Learning Outcome. Key Capabilities are also mapped to the GMCs GPCs.
L	Learning Outcome	Learning Outcomes are statements that set out those essential aspects of learning that must be achieved. For the purpose of this document, these are the outcomes which the trainee must demonstrate they have met to be awarded their Certificate of Completion of Training (CCT) in Paediatrics.
LTFT	Less Than Full-time Training	Any trainee working part-time.
LETB	Local Education and Training Board	Organisations responsible for training delivery across a large region, eg Wales, East of England.
M	MRCPCH Membership of the Royal College of Paediatrics and Child Health	The qualification gained by passing AKP, FOP, TAS and the clinical exam. Required for progression to Level two training.
	Middle grade	Also known as ‘tier 2’. Doctors working at a level above an SHO, but below consultant eg a registrar.
MDT	Multi-disciplinary team	A team from across a range of clinical areas eg paediatrician, physio, occupational health, all focused on the same patient or issue.
O	OOP Out of Programme	Planned time out of training. Could be for additional training (OOPT), a career break (OOPC), research (OOPR) or another related experience (OOPE).



<b>P</b>	<b>PAIID</b>	<b>Paediatric Allergy, Immunology &amp; Infectious Diseases</b>	Paediatric sub-specialty. PAIID specialist is a doctor who works across all paediatric age groups to investigate, diagnose and manage infectious, immunological and allergic disorders.
	<b>PGHAN</b>	<b>Paediatric Gastroenterology, Hepatology &amp; Nutrition</b>	Paediatric sub-specialty. A doctor who provides tertiary services for the diagnosis and long-term management of rare disorders and complex cases of more common disorders that affect the gastrointestinal tract.
	<b>PICU</b>	<b>Paediatric Intensive Care Unit</b>	An area within a hospital specialising in the care of critically ill babies, children and young people.
		<b>Programme of Assessment</b>	The framework of assessments intended to be used with the curriculum. The programme of assessment demonstrates how all Learning Outcomes can (or must) be achieved, and specifies minimum levels of performance at Critical Profession Points.
	<b>PA</b>	<b>Programmed Activity</b>	Used for clinician job planning, 1PA = 4 hours (7am-7pm M-F, or 3 hours outside that time). Full time consultants work 10PA/week.
		<b>Progress+</b>	'RCPCH Progress+' is the curriculum used by all paediatric trainees in the United Kingdom. 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. This curriculum provides a framework for training, articulating the standard required at critical progression points and encourages the pursuit of excellence.
		<b>Protected characteristic</b>	As defined by the Equality Act (2010), groups who are protected by the Act. These are characteristics which may result in that individual suffering discrimination, harassment, victimisation, or some other inequality of opportunity. The protected characteristics are: age; disability; gender; gender reassignment; pregnancy and maternity; race; religion or belief; sexual orientation.
<b>Q</b>	<b>QA</b>	<b>Quality Assurance</b>	The oversight of education and training to ensure that it meets the required standards and that organisations are complying with their own and external policies, procedures and regulations.
	<b>QM</b>	<b>Quality Management</b>	The mechanisms by which Medical Schools and Deaneries/LETBs satisfy themselves that local training and assessment is meeting the required standards. This may include reporting and monitoring mechanisms.

<b>R</b>		<b>Regional Lead</b>	The ambassador and advocate for each RCPCH UK region.
		<b>Registrar</b>	A junior doctor in the latter half of training. In later years becomes a Senior Registrar. This term has formally been replaced and is now a 'specialist trainee', but Registrar is still widely used.
<b>S</b>	<b>SHO</b>	<b>Senior House Officer</b>	A junior doctor at ST1-4. This term has formally been replaced and is now a 'core trainee', but SHO is still widely used.
	<b>SoT</b>	<b>Shape of Training</b>	A major review of postgraduate medical training, commissioned by the GMC in 2013.
		<b>Specialty trainee</b>	A doctor at ST5-7.
	<b>START</b>	<b>Specialty Trainee Assessment of Readiness for Tenure</b>	An assessment undertaken by all trainees roughly a year before the end of training, assessing core skills required as a consultant, eg teaching.
		<b>Sub-specialty</b>	<p>The various areas within paediatrics that a trainee may opt to specialise in throughout their specialty training. The full list of approved paediatric sub-specialties can be found here. Entry to sub-specialty training is through a central recruitment process.</p> <p>Trainees following a sub-specialty curriculum must also complete the generic Specialty Learning Outcomes.</p>
		<b>Syllabus/syllabi</b>	Supporting documents to be used with the curriculum documents. The syllabus includes Learning Outcomes, Key Capabilities, Illustrations and an assessment grid, designed to guide trainees and trainers in what must be evidenced and suggestions of other evidence which may help the trainee demonstrate their achievement of the Learning Outcomes.
<b>T</b>	<b>TAS</b>	<b>Theory and Science</b>	One of the MRCPCH theory exams.
		<b>Trainee</b>	A doctor undertaking post-graduate medical training to become a consultant or GP, ie a Junior Doctor.
		<b>Training programme</b>	The combination of posts undertaken by the trainee in their specialty or sub-specialty, enabling them to fulfil the requirements of the curriculum.
	<b>TPD</b>	<b>Training Programme Director</b>	Supports the Head of Schools, responsible for specific training levels or sites.
		<b>Transition</b>	The process by which trainees will move to the revised RCPCH Progress+ curriculum. Detailed guidance provided to support this process and all existing evidence in ePortfolio will be retained.

