

# MRCPCH

## Assessment of Essential Paediatric Skills

A Guide for Newcomers

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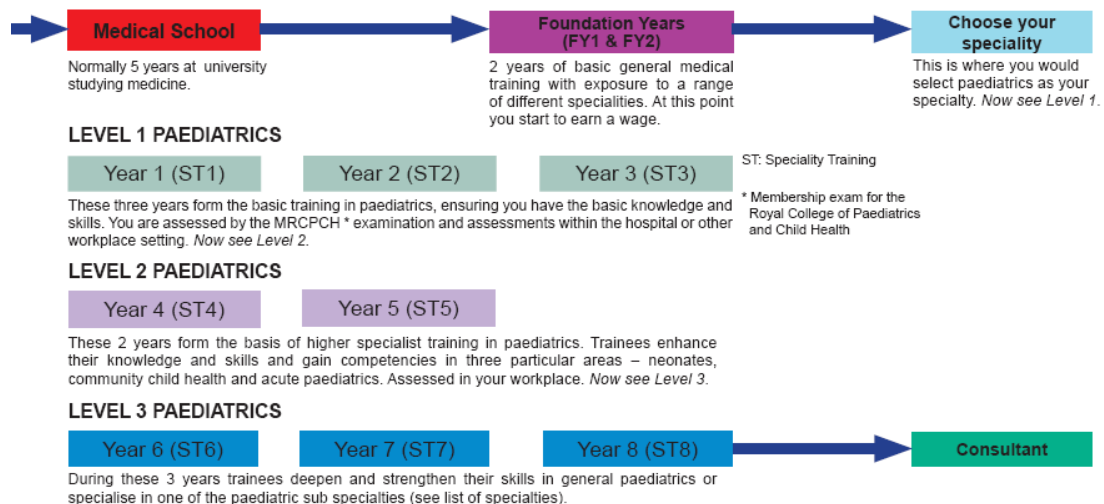
### Introduction

This guide aims to provide the context and to explain the role and importance of the MRCPCH. The examination is set in the context of paediatric training. The guide is prepared to help those who are not familiar with paediatric training or who need to achieve an understanding of this assessment from without paediatrics.

This is not a detailed account of the examination or the processes involved. There is a considerable body of information available on our website [www.rcpch.ac.uk](http://www.rcpch.ac.uk)

# Paediatric training

Much has been done to streamline and improve the quality of paediatric training in the UK. The structure is shown in the diagram.



The new medical graduate undergoes foundation year training for two years. This provides a broad basis for experience and choice of career direction. Some who have early intentions to pursue paediatrics, may undertake some child health training in the first two years. This is not, however, required for progression.

Trainees choosing to aim for a career as a consultant in paediatrics apply to the National Specialty Training scheme. This is an 8 year training programme. Each year is known as ST1, 2, etc. The 8 years are divided into 3 levels, 1, 2 and 3.

A majority of trainees will complete training (ST1 – 8) in one of the Deaneries (e.g., Yorkshire, London). Some trainees may move between Deaneries. Some may take time out of the structured training programme for research, international experience or for personal or family reasons. Part time training is available.

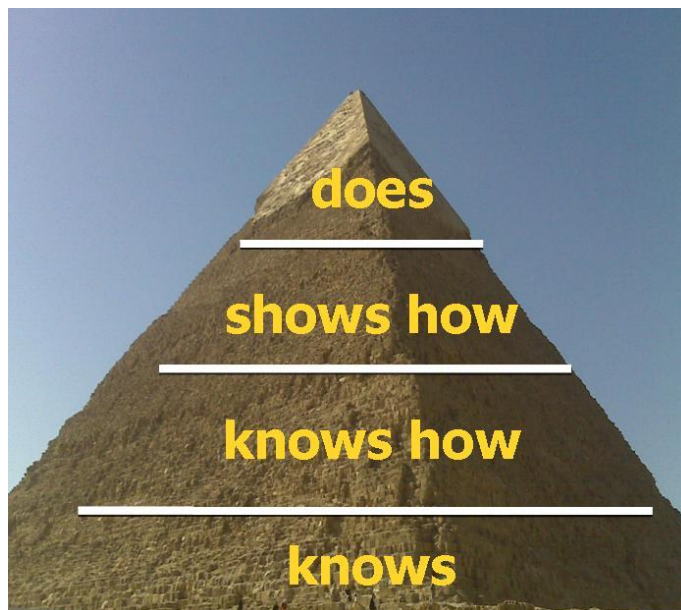
Throughout this period the trainee is working as a doctor in the hospital, community or other settings. They are key members of the clinical care teams. If, for example, a child arrives at hospital with a severe attack of asthma, the child is likely first to meet an ST1 - 3, who discovering that the child needs admission and full assessment may well seek help from a doctor of registrar standing, ST4 +. Naturally, if the child causes greater concern or becomes very unwell then an urgent consultant opinion is sought. All care provided by trainees is subject to supervision by a paediatric consultant.

Some paediatric trainees become sub-specialists (e.g., neonatal medicine, paediatric oncology). Sub-specialty training is concentrated towards the later years of the ST programme. In sub-specialities other than general paediatrics and community paediatrics, there is competitive entry into a National Grid training programme at level 3.

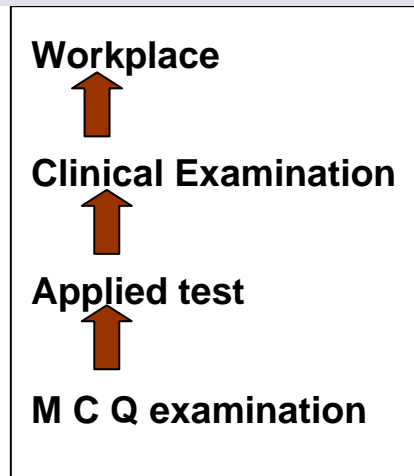
## Assessment

RCPCH has an assessment strategy. It seeks to provide a clear and transparent programme of assessment, tuned to the trainees level and progression. Methods range from day-to-day supervision of clinical care to written tests of knowledge. Built upon a foundation of knowledge, the trainee needs to learn the skills of the paediatrician ranging from practical techniques through to prescribing, consultation and clinical decision making. When skills have been acquired the trainee may be required to demonstrate their ability to perform. Finally, we wish to ensure that these skills are appropriately employed in the day-to-day care of children.

This concept is nicely demonstrated in Miller's pyramid which maps to different methods of assessment.



Miller describes how we move from knowledge to being able to perform a skill, to using that skill in practice. These levels can be assessed using different methods.



## Workplace based assessment

Workplace based assessment (WBA) is used throughout the training programme. This explores practical skills, clinical examination technique, structured assessment of clinical care provided by the trainee, and extends to obtaining feedback on a trainees performance from all who work with them and their ability to perform other tasks, such as write letters. Early in the programme WBA is designed to emphasise more practical skills, while later more complex tasks are assessed. This guide does not deal with WBA and again the reader is referred to the College website where there is considerable information.

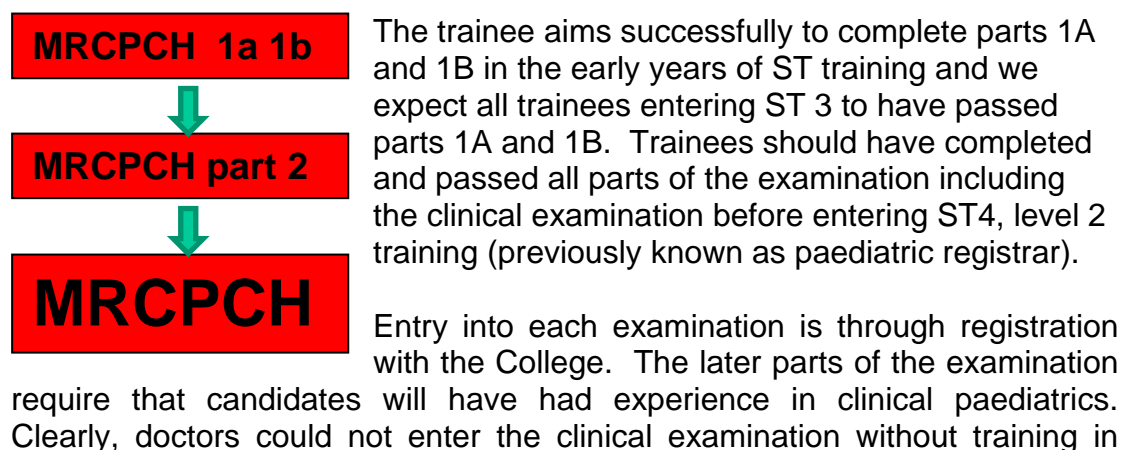
The trainee is able to employ ASSET, the Royal College based web facility for WBA. Each trainee has an e-portfolio which allows recording of progress in each clinical attachment by the clinic supervisor, recording of WBA and of examination progress.

## MRCPCH

Membership of the Royal College of Paediatric and Child Health is achieved by passing a series of examinations.

*a fair but rigorous test,  
maintaining high  
standards in Paediatrics  
and Child Health*

The diploma is only achieved once a candidate has completed all the examinations including the final MRCPCH clinical examination. Entry in parts 1A and 1B is open to any medical graduate but in reality is only taken by those who intend training in Paediatrics and Child Health. The candidate may only take part 2 having been successful in 1A and 1B. Success in part 2 allows entry into the clinical examination.



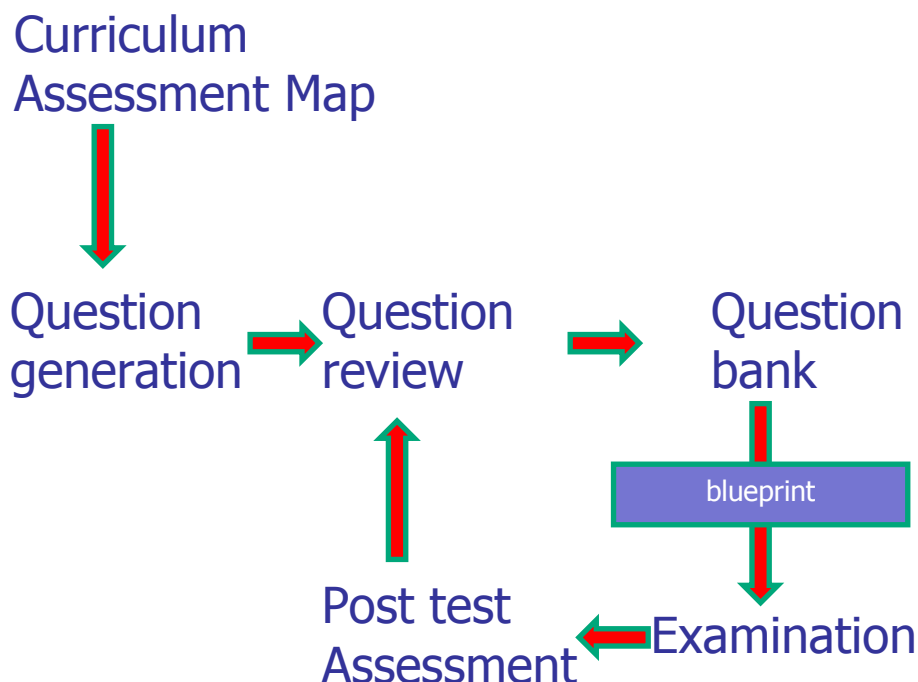
acute paediatrics, the broad spectrum of child health, community paediatrics, safeguarding children and neonatal medicine.

Each part of the examination attracts an entry fee which is paid to the Royal College. All candidates receive notification of their results together with structured feedback which aims to explain the examination performance and provide direction for future training.

### Examination content

RCPCH has a Framework of Competences, recognising progression from level 1 to level 3. MRCPCH maps to the competences of level 1 training. Some skills are ideally tested in the structured format of an examination, others are not. Employing a wide variety of assessment formats (Multiple choice questions (MCQ), extended matching questions (EMQ), best of list, clinical videos, role play consultations, clinical examination) it is possible to test knowledge, application of knowledge, decision making and clinical skills. Assessment of the skills and competences is divided between parts of the MRCPCH examination.

The framework of competences allows development of the syllabus and then a blueprint for each examination. Questions for each part of the examination are generated in regional groups across the UK. New questions are edited and modified by expert groups within the examinations and then stored in a question bank. Through an iterative process questions are generated, improved, up-dated and selected for the examination.



In the UK, the written papers are taken in a large number of centres. The written papers are available at three sittings in each year. They are taken under examination conditions in the presence of an invigilator.

The clinical examination in the UK is run in 6 - 10 centres on 3 occasions each year. Candidates do not take the clinical examination in their own centre.

## The individual parts of MRCPCH

### *Part 1A*

This is a single written paper which aims to test basic clinical knowledge in paediatrics. Trainees should be able to pass this paper having completed at least 4 months of clinical paediatrics and after engagement in self directed learning from any good, short paediatric textbook. This has a pass rate of 60 - 70% amongst UK trainees

[Part 1A is also taken in the UK by trainees wishing to complete the Diploma in Child Health. This assessment is aimed at those intending a career including the care of children but not where this is the main component of their daily work. It is principally taken by general practitioners.]

### *Part 1B*

This is a single written paper. It aims principally to test the understanding and science which underpins paediatric practice. This has a pass rate of 25 - 30% amongst UK trainees. Currently, this low pass rate is a matter of concern which is being specifically addressed.

### *Part 2*

This is an applied knowledge test. It comprises a single examination divided into two papers over a day. Most of the questions are based on clinical scenarios. A child is described, for example, who is admitted with certain symptoms. The findings on examination are given. This is often followed or accompanied by x-rays, investigations or laboratory results.

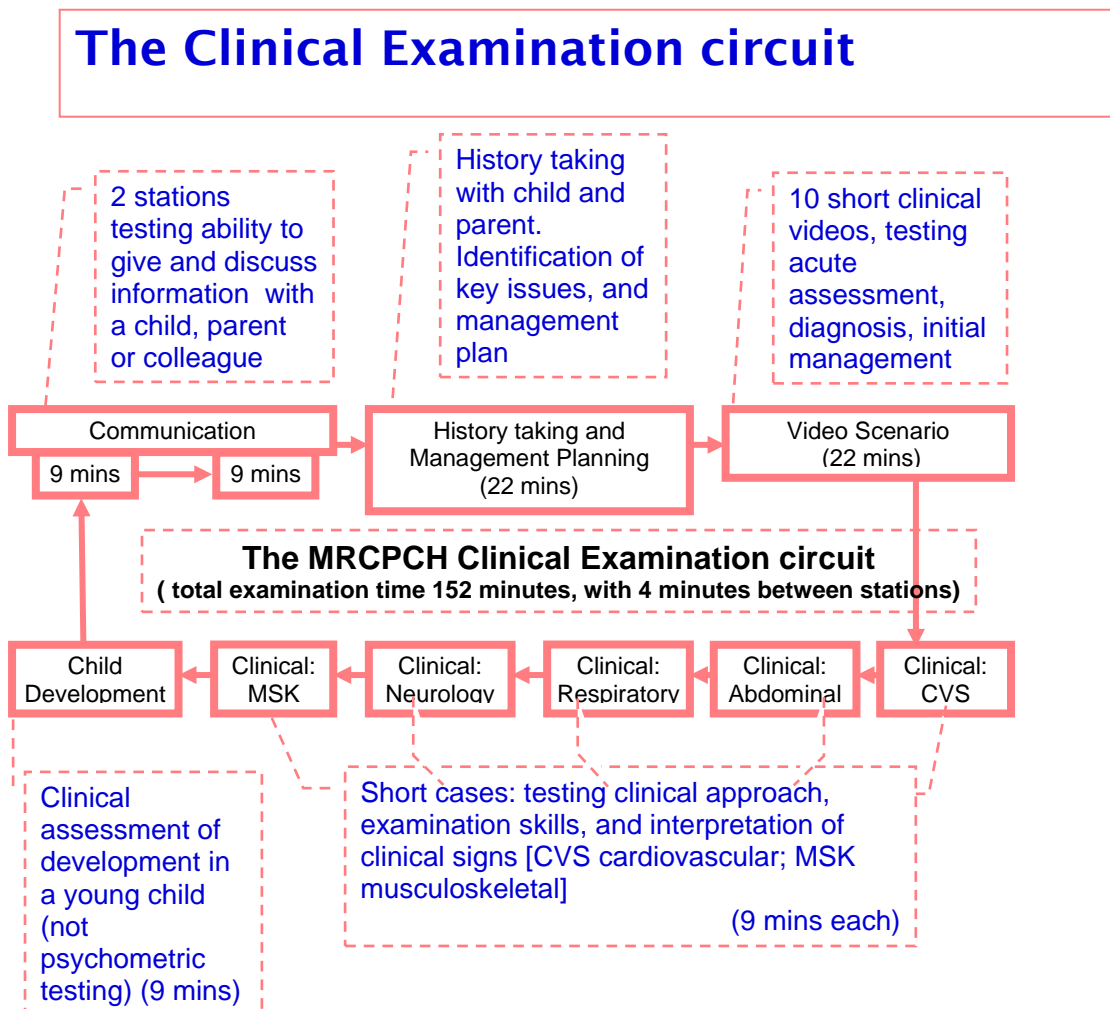
The candidate is asked to select the most likely diagnosis or the most important steps in management. Other questions may address therapeutics, follow-up or referral to colleagues. Success in this examination demands knowledge and clinical training with experience. This examination has a pass rate of 40 - 50% amongst UK trainees.

## MRCPCH Clinical Examination

We determined that this assessment should be based on observed skills in dealing with real children and their families. The challenge is considerable. It has been met with a structured clinical examination.

Examination is held in one of the hospitals. An outpatient department, for example, is closed for a day and an examination circuit installed. A local host examiner leads on the preparation for the exam. The host examiner is usually assisted by medical and nursing colleagues in the hospital.

We are dependent on the voluntary and generous help of children and their families. Children with a wide variety of conditions offer to attend the examination. This is entirely voluntary and has no impact on their paediatric care. They are provided with whatever assistance is necessary to attend the centre. Each child receives a small financial gift to thank them for coming. Naturally, food and refreshments are offered. We are proud of the achievements of this examination and most importantly the feedback we have sought and received from children and their families which has been almost universally positive - with the occasional complaint about the quality of the food or biscuits!



In the communication stations, the candidate is asked to provide factually correct information in understandable format, within the emotional context of the consultation. The scenarios are designed by a dedicated group. The station employs a role player who may act as a parent, a teenager or a colleague. The scenario may be based upon the giving of information, the conveying of bad news, discussion of a clinical problem, teaching, ethics or a critical incident.

In the history taking station the candidate meets a child with one of their parents and is asked to explore a specific area which is a current problem to the child. If for example the child has a chronic disorder which is complex, the focus of the station may be upon any recent problem. After time allowed for taking history (13 minutes) the child and parent leave the room. The candidate is then asked to explain the main points of their findings and to discuss the management of the child's problems with the examiner.

The video station allows assessment of children with acute illnesses and other problems which lend themselves to the creation of a short video clip. These video clips are of children attending with genuine problems. The station is taken on a laptop computer. Material for these questions is provided by a dedicated video station group who determine the content of the video, the questions and the marking system.

The clinical stations which form the bottom row of the diagram tests clinical skills of assessment in a child who has a problem in one of these areas. In each station different children appear.

Standard setting is important. Each child who is helping us with the examination is seen and examined by at least two examiners. These examiners will agree which signs of observation may be expected of the competent candidate. The examiners may for example determine that in order to pass a station a candidate must make the diagnosis. Alternatively, it may be decided that there are certain signs that the candidate should note.

The organisational logistics of the clinical examination are complex. For more details the reader is referred to the College website.

### The marking system

Each station has a dedicated marksheet. This provides an overall global assessment of a candidate's ability. On each station the examiner is asked to make this judgement:

*Is the candidate ready to be doctor at level 2 (registrar) training?*

An individual mark is produced for each station. These are added together. The mark grading system is designed so that candidates may compensate for minor errors on one station with a good performance on others. It is difficult for a candidate to overcome a clear fail mark on any station. The overall pass mark is 100, equivalent to an average pass on each station. The clinical examination is passed by around 40 - 50% of UK trainees.

In addition feedback marks are provided for the different skills on each station.

An Unacceptable grade is available to the examiner. This provides a mark of zero for the station. It is a mark given to a very small minority. This grade implies that the candidate's conduct was unacceptable, usually signifying roughness or an unprofessional approach to a child or their family. Alternatively this grade is given for woeful incompetence. All Unacceptable grades are discussed with the Senior Examiner in the Centre and at the Senior Examiner's Board.

Candidates receive their marks from the clinical examination by post. Candidates who are unsuccessful are automatically provided with photocopies of their mark sheets. These include all comments made by the examiner.

An appeals systems is available in the clinical examination. Around 10% of failing candidates appeal. This comes before a panel of experienced examiners. 5 - 10% of appeals are successful.

### Clinical examiners

Examiners in the MRCPCH are consultants in paediatrics and child health. Those who wish to perform this important task are asked to apply to the College with details of their interest in training and education or assessment. Those selected by the Examinations Executive goes forward into a programme of training before becoming independent clinical examiners. All examiners are required to attend up-date sessions.

The clinical examiner's performance is assessed and feedback is provided to all examiners.

## International MRCPCH

The College examination is recognised internationally. It is principally aimed at the requirements of the trainee wishing to enter registrar level to train in the UK. Its reputation and high standards, however, attract many applicants from overseas.

### Overseas Centres



Overseas centres provide either the written paper or the full series of assessments including the clinical examination. There are a number of centres in the Middle East and Egypt and the clinical examination is also taken in Hong Kong, Singapore, Malaysia and imminently in India.

Overseas centres and Overseas examiners play a key role in all areas of the examination process and are an invaluable part of the assessment structure.

## **Organisation and administration**

RCPCH has dedicated and dynamic assessment department. This is essential for the management of each individual part of the assessment and the process of marrying these together into an integrated system of examinations within the College assessment strategy. The College structure is led by the Head of Assessment and comprises staff with expertise within different areas.

Paediatric clinician involvement is led by an Officer for Examinations. There are clinical Chairs and Vice Chairs for each part of the examination.

Teams comprising examiners, college staff, trainees and other experts are brought together regularly to provide and maintain the examinations. Principal amongst these examinations is the thrice yearly examination boards where each of the written examinations and clinical examinations is formulated and finalised. On these occasions the examinations executive meeting takes place. It is also an opportunity for innovation, exploration of new forms of assessment, review, audit and research.

## **Psychometrics and research**

RCPCH is proud to have a dedicated psychometric team. This first provides analysis of candidate performance and examination marks. Clearly this process must be secure and reliable.

Our psychometric team is also able to provide analysis and constantly to review all processes of assessment basing them upon the best evidence in the field of medical education. The department has an active role in National and International medical education fora.

## Appendix: Candidate numbers in 2008

(each figure is total for 3 sittings of each part of the Examination).

		Distribution by place of training and graduation			
		UK trainees		OS working	
Part of Exam	Total	UK graduates	Overseas graduates	Overseas graduates	Information not available
Part 1a	2272	553 (32.9%)	374 (22.3%)	752 (44.8%)	593 (26% of total)
Part 1b	2732	524 (25.7%)	524 (25.7%)	988 (48.6%)	696 (26% of total)
Part 2	1419	345 (29.6%)	426 (36.6%)	394 (33.8%)	254 (18% of total)
Clinical Examination	1135	224 (19.7%)	627 (55.2%)	284 (25.1%)	0 (0% of total)
Totals: Distributions:	<b>7558</b>	<b>1646 (27.4%)</b>	<b>1951 (32.4%)</b>	<b>2418 (40.2%)</b>	
Total numbers refer to all candidates. Distribution data is based upon those for whom information was available about place of training and graduation. OS: overseas					