Theory exams structure and syllabus

Examinations team
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The MRCPCH (membership) exam has three theory exams, which are computer-based and taken in an exam centre. They are Foundation of Practice (FOP), Theory and Science (TAS) and Applied Knowledge in Practice (AKP); they can be taken in any order. The Diploma of Child Health includes FOP only. Find out about the question types in each exam, and download the full syllabus below.

Last modified
27 May 2020

Post date
1 January 2018

Table of contents

Syllabus

Our syllabus for theory exams is for both candidates and their teachers. It outlines the core knowledge requirements for each section of the exam. These are:

- adolescent health/medicine
- behavioural medicine/psychiatry
- cardiology
- dermatology
- emergency medicine (including accidents and poisoning)
- endocrinology and growth
- ethics and law

- gastroenterology and hepatology
- genetics and dysmorphology
- haematology and oncology
- infection, immunology and allergy
- metabolism and metabolic medicine
- musculoskeletal
- neonataology
- nephro-urology
- neurodevelopment and neurodisability
- neurology
- nutrition
- opthalmology
- palliative care and pain medicine
- patient safety and clinical governance
- pharmacology
- respiratory medicine with ear, nose and throat (ENT)
- safeguarding
- science of practice.

We strive to ensure that all our exams are valid and reliable, through consistency in the way that exams are created and with a detailed standard setting process once the exam has been sat. The blueprints in our syllabus allow specific mapping of questions to the syllabus, and ensuring adequate selection across the entire syllabus, with consistency of subject content, depth and difficulty over time.

You can download the syllabus below. Please read it in combination with our curriculum for paediatrics.

Rationale for questions types used in MRCPCH theory exams

In the MRCPCH theory exams we use several different question types. The commonest in all three parts are Single Best Answer types (SBAs).

For candidates who have recently graduated from UK medical schools, these questions will be familiar as they are now widely used in medical school examinations. However, they are somewhat different from historical exam questions, and the differences are important to understand when attempting to answer them. We have dispensed with multiple true/false questions as they have been shown to be less reliable due to the inherent 'guessability' of questions[1].

SBAs are much harder to write and require very careful thought and review before these are included in the overall mark generated for any diet of our exam.

In SBAs a single question is posed with typically five alternate answers, from which the candidate must choose the **best** answer. This method avoids the problems of past examinations of a similar form described as Single Correct Answer. The older form can produce confusion where more than one of the possible answers has some validity. The newer form makes it explicit that more than one answer may have elements that are correct, but that one answer will be superior. Indeed, the very best SBAs have five options that are all

partially correct, but where one answer is superior. This requires the candidate to understand the topic area in considerable depth. Sometimes, candidates can dismiss two or three obviously incorrect stems but are left uncertain about which of the remainder is the best response. If this happening frequently in the examination this suggests that you have gained some knowledge, but need to add some more depth to your revision.

When writing questions, we require the question to be carefully referenced. The sources for these can include widely used textbooks (especially those published or recommended by the RCPCH), RCPCH endorsed guidelines and research published in peer reviewed journals. Candidates are strongly recommended to use all of these resources when revising for the theory exams.

There is one best answer from a given list. Although all the answer options given may be reasonable, one will be the best answer. Marks will only be awarded for choosing the correct answer.

How to approach questions with images

Many candidates find image questions difficult. You may find these hints useful.

Use an ordered approach:

1. Very carefully read the question stem before looking at the image
2. Then look at the image and see if you can answer the question without reading the answer stems
3. Finally, read the answer stems

This approach reduces the confirmation bias that you might otherwise experience by knowing what options are available and applies to all questions in the examination[2].

It is helpful to know that each image has been very carefully reviewed several times by many theory examiners before each exam. They have all been able to identify the correct answer and see the abnormality without adjusting screen resolution or zooming. If you are having to do this you are probably missing a key aspect in the history or question stem.

This is in stark contrast to clinical situations where higher quality images might identify unexpected findings. Please do not be put off by this.

Put simply, the images will be of sufficient quality to allow candidates to answer the question posed and whilst they may vary in the level of detail that can be appreciated they will be suitable for the question asked. If you think you need much more detail or higher image quality than that which is provided, you are probably thinking along the wrong lines and go back to the question stem again and check it carefully.

If a question has inadvertently been placed in the exam which, for technical reasons fails on the day, we will identify this during the Angoff process (post-examination question review) and it will be excluded from the overall mark for all candidates.

Images: photographic material

Photographs used for the exams may be prepared from clinical and retinal photographs,

radiographs, illustrations of investigation results and occasionally from pathological material. Candidates are asked to identify abnormalities, or provide a diagnosis, to recommend investigation or treatment or a combination of these.

Other question types used in exams

Best of five

Best of five questions are used to test judgment and experience. A simple statement or short clinical scenario leads into five options. All could be possible but only one is completely correct, or more correct than the others from a given list. Marks will only be awarded for choosing the correct answer.

They should only cover one aspect of the topic. So stems might be:

- what is the most likely diagnosis?
- which investigation is most likely to lead to a diagnosis?
- what is the best next step?
- what is the best advice to give to parents?
- what is the most likely pathogenesis of this condition?
- what is the most common cause of this?

Case histories

Each question will be a case history with results of physical examination and investigations. They are designed to test ability in diagnosis and in the planning of investigations and management.

These questions also include photographic material.

Data interpretation

These questions will consist of laboratory data or graphical data, for example electrocardiograms introduced by a short statement of the clinical setting. Candidates are asked for specific points of interpretation.

Please note that drugs will almost invariably be referred to by their UK-approved names rather than their trade names. Biochemical and other measurements will be expressed in SI units.

Extended Matching Questions (EMQs)

These are used in much the same way as best of five questions. In this case, a list of 10 possible answers is offered with three statements or clinical scenarios. The candidate chooses the best option from the introductory list. Again, all could be possible but only one is completely correct or more correct than the others.

Extended matching questions are often accompanied by laboratory results that are similar but with differences.

Foundation of Practice (FOP)

FOP assesses a candidate's knowledge, understanding and clinical decision making abilities. It aims to ensure you have reached the standard of someone entering core specialist training. It is part of both the MRCPCH and Diploma of Child Health (DCH) exams.

It lasts 2 hours 30 minutes,

It used to be called MRCPCH Part 1A.

The questions are typically a combination of:

- SBAs - 79 questions
- EMQs - 6 questions

Questions cover one aspect of the topic. For example:

- choose the most likely diagnosis from the following
- choose the best treatment for each of these children
- choose the organism which matches most closely each of the following case scenarios.

Theory and Science (TAS)

TAS tests basic scientific, physiological and pharmacological principles of clinical practice, and of evidence-based practice. It is part of the MRCPCH exams.

It lasts 2 hours 30 minutes. Candidates can apply to take FOP and TAS on the same day; FOP is always in the morning, and TAS in the afternoon.

It used to be called MRCPCH Part 1B.

The questions are typically a combination of:

- SBAs - 70 questions
- EMQs - 10 questions

Questions cover one aspect of the topic. For example:

- choose the most likely diagnosis from the following
- choose the best treatment for each of these children
- choose the organism which matches most closely each of the following case scenarios.

Applied Knowledge in Practice (AKP)

AKP tests a candidate's knowledge, understanding and clinical decision making abilities based on a standard of someone entering their core specialist training and is part of the MRCPCH exam.

It comprises two exams, each of which is 2 hours 30 minutes and taken on the same day.

It used to be called MRCPCH Part 2.

Each question of the AKP carries its own weighting. You will see how many marks each question is worth in the test. The maximum score per question will be based on the number of correct responses required. Incorrect responses will gain a score of zero.

N of many

This is similar to a SBA, except here two or three answers are required from a longer list. It is only used in the AKP exam.

Sometimes you would like to ask for more than one answer to a scenario since there may be two equally important investigations that should be done, or three abnormalities on an x-ray. N from many questions allow for this by asking for 2 or (maximum) 3 answers from a longer list of possible options.

Further resources

We have produced textbooks to support trainees preparing for each of our theory exams and the full MRCPCH. See our publications listing to find out more and purchase online.

We also run regular exam preparation courses. See our course listing for upcoming dates and to book your place.

Depending on your background, you may find other resources useful. The RCPCH takes no responsibility for the accuracy, reliability and correctness of any information included in the resources listed above. It is the learner's responsibility and decision about the information retrieved from these resources. Providing this list does not imply any endorsement, non-endorsement, support or commercial gain by the RCPCH.

- British National Formulary for Children - on PCO UK
- Grays Anatomy
- Ganong's Review of Medical Physiology
- Forfar and Arneil's Textbook of Pediatrics
- Up to date
- Rennie and Robertson Textbook of Neonatology
- Paediatrics and Child Health journal
- Nelson Texbook of Pediatrics
- e-medicine

- 1. Tan, LT; McAleer, JJ (2008). "The introduction of single best answer questions as a test of knowledge in the final examination for the fellowship of the Royal College of Radiologists in Clinical Oncology". Clin Oncol (R Coll Radiol). 20: 571–6. doi:10.1016/j.clon.2008.05.010. PMID 18585017.
- 2. For brief advice and references, see intranet.birmingham.ac.uk/as/libraryservices/library/skills/asc/documents/public/Short-Guide-Multiple-Choice.pdf

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