

Final Examination for the Fellowship in Clinical Radiology (Part B)

Guidance Notes for Candidates

1 Examination Structure

The Final FRCR (Part B) examination comprises three components: a reporting session, a rapid reporting session and an oral examination. All components are examined by an image viewing session delivered on individual workstations. All three elements are held in London during a single examination period twice a year: normally in March/April and October. Joint examinations with partner organisations are also held in Singapore (Spring sitting) and Hong Kong (Autumn sitting).

From Spring 2015 no candidate will automatically be permitted more than six attempts at any FRCR examination or examination module. In order to attempt an examination or examination module for a seventh, or further, time candidates will have to demonstrate additional educational experience. Any examination or examination module a candidate has previously taken counts towards his or her six attempts i.e. the rule is backdated to include previous attempts.

2 Entry Requirements

Candidates who have passed all six modules of the Final FRCR (Part A) Examination are permitted to enter the Part B examination once 34 months of clinical radiology training have been completed. It is not essential for candidates training in the UK to pass the Part B examination before the transition to higher training.

Candidates undergoing specialty training in the UK require approval of their Training Programme Director (TPD) prior to submitting an application.

No exemption is granted from the Final FRCR (Part B) Examination on the basis of success in any other examination.

3 Reporting and Rapid Reporting Components

3a Reporting

The reporting session comprises six cases, each of which require a written report, and it runs for 60 minutes. Each case may comprise multiple modalities including CT, ultrasound, radionuclide and MR scans. Cross-sectional imaging may comprise up to four sequences, which can be scrolled through.

Candidates are provided with an answer book in which to write their reports. The answer book contains brief case histories and other relevant clinical data for each case, and space for answers is laid out in a standard format as follows:

Observations: This section is for recording observations on the films from all the imaging studies available, including relevant positive and negative findings.

Interpretation: This section is for stating interpretations of the observed findings; for example, describing whether the mass or process observed is benign, malignant or infective rather than neoplastic, giving reasons.

Main or Principal Diagnosis: This single diagnosis should be based on the interpretations provided above. If a single diagnosis is not possible, then the most likely diagnosis should be stated with a list of other possibilities, in order of likelihood, supplied in the differential diagnosis section below.

Any Differential Diagnoses: For some cases there will be no differential diagnoses; in others a few may merit inclusion. These should be limited in number and brief, and the report should indicate why these were less likely than the main or principal diagnosis above.

Any Relevant Further Investigations or Management: This section is for indicating any further appropriate investigations or clinical management. For example, if a patient with a subdural collection is diagnosed then urgent referral is needed if there is evidence of brain compression. Similarly, if an abscess or tumour is diagnosed indicate if a drainage or biopsy is appropriate.

The cases vary in complexity and difficulty; some require more time for analysis and reporting than others. Candidates should ensure sufficient time is allocated to report each case adequately.

Example reports from two cases are available to give candidates the opportunity to familiarise themselves with case styles and examination materials in advance of the examination.

3b Rapid Reporting

The rapid reporting session comprises 30 cases and it runs for 35 minutes. It requires candidates to identify those cases that show normal appearances and those that show an abnormality. Many cases are similar to those encountered in the reporting of A&E and GP-referred cases; the images are primarily plain radiographs.

Where an abnormality is present, candidates are expected to briefly identify this or give a diagnosis. Each abnormal case shows one significant diagnosable abnormality. Abnormalities in the Rapid Reporting component are not complex and therefore differential diagnoses should not be given. Anatomical variants should be recorded as "normal". Some cases may show minor age-related changes only and these should be recorded as "normal".

Each case is displayed on a single screen, with some cases showing a montage of different views, or a single view only.

Candidates are provided with an answer sheet on which to record their answers. An example answersheet is available to give candidates the opportunity to familiarise themselves with case types and examination materials in advance of the examination.

3c Reporting and Rapid Reporting Equipment and Software

Cases are presented digitally using computer workstations. Each workstation comprises an Apple Mac Mini with a 19" standard aspect ratio monitor and a mouse (right click disabled) but not a keyboard.

Images are viewed using Osirix software which can be [downloaded for free](#) for use on Apple computers. The Osirix software will not run on a PC, however PC users can [download Philips PMSDview software](#), which has similar functionality and can display DICOM images.

The Osirix software provides a simple image viewing window, with the ability to view images sequentially. Candidates will also be able to move between the cases/images either sequentially or individually via a complete case list. The software provides the standard image manipulation found on a PACS workstation, such as zoom, pan and windowing.

Candidates will be given instructions on the use of the software in a short tutorial immediately prior to the beginning of the examination. Two practice images are provided and candidates are permitted some time prior to the start of the examination for familiarisation with the software and to practice moving between cases/images.

Following the two practice images is the start screen. Candidates must not proceed beyond this screen until instructed to do so by the invigilators – candidates viewing the first examination image prior to the commencement of the examination risk being disqualified.

During the course of the examination, all screen activity on computer workstations will be monitored and recorded centrally. If suspicious activity is identified on an individual workstation, it will be “locked” remotely and in order that the College can investigate further.

In the unlikely event of computer hardware or software failure during the examination, candidates should alert an invigilator by raising their hand – spare workstations are available if necessary.

Writing equipment is provided. Candidates are not required to bring, and will not be permitted to use their own pens/pencils in either component.

3d Further information

Written further instructions, and an oral briefing, are provided on the day at examination venues.

4 Oral Component

The oral examination lasts for 60 minutes in total, during which time the candidate spends 30 minutes with each of two pairs of examiners (and so will be assessed by four radiologists in 15 minute blocks). The oral examination allows for four independent judgments of candidate performance.

Images are presented digitally on high resolution, portrait orientation monitors and a sample image is provided as an example of the type of image that may be shown. The examiners will select, display and move through individual images. The menu bar for candidate screens will be restricted to zoom, window, pan, scroll, and reset and candidates can use the mouse pointer to indicate areas being discussed.

A wide range of material of varying complexity will be shown. A higher level of performance will be expected in the interpretation of common and routine examinations than will be the case with highly specialised investigations. Examiners will endeavour to ensure that candidates are shown examples from most of the major clinical radiology sub-specialties and candidates are given the opportunity to demonstrate their powers of observation and deduction. A logical and informed approach to image interpretation, as well as a clear ability to debate the merits, relevance and role of techniques that might assist in further investigation of diagnostic problems, will be expected. Examiners may ask supplementary questions to further assess a candidate's understanding of the problem.

In reaching a conclusion, candidates should place their diagnoses in order of probability. In some cases, it will be possible to make the correct diagnosis as soon as the signs are elicited. In others, further views or investigations will be helpful and it is important that candidates clearly state their reasons for wanting these.

Candidates should listen carefully to any information provided and ask for clarification if anything the examiner asks or says is unclear. The amount of discussion that takes place on each case, and the amount of cases shown, will vary and is at the discretion of the individual examiner.

5 Personal Belongings and Items on Desks

Candidates must follow invigilators' instructions at examination venues regarding where to leave personal belongings. No personal belongings are permitted in the examination room. Neither the Royal College of Radiologists nor any examination venue is able to accept responsibility for the safety of any items of personal belongings. Apart from the equipment described above and official examination documentation, no other articles or documents may be brought to desks or workstations.

Candidates must not bring any electronic equipment, eg laptop or palmtop computers, to the examination. All mobile telephones must be turned off for the duration of the examination and left in bags or coats. Candidates must turn off any alarm set on mobile telephones as these can operate even when the device is turned off; any timing device that emits an audible "beep" must have this facility disabled for the duration of the examination.

Candidates are not permitted to bring drinks, or other refreshments or food items, into the examination room to safeguard the electronic equipment from accidental damage. Candidates with special medical needs requiring them to eat throughout the examination should advise the College of this when submitting their application via a covering note.

6 Candidate Identification

Candidates are required to bring their candidate timetable (which shows their candidate number and details of when/where they are sitting the examination) to the examination, together with a form of identification that bears the candidate's photograph, full name and signature. Candidates that are not registered with the General Medical Council must bring their passport. Details on identification documents must match those supplied at application.

The oral examiners identify candidates using their candidate number and photograph only. The examiners may introduce themselves by name; however candidates should not give their name, or any other personal details, in reply.

7 Anonymity of Patients

During the examination, information about patients will become available. Candidates are reminded that patients' confidentiality must be respected at all times. Examination cases must not be discussed with anyone other than the examiners.

Patient and hospital identification names and numbers have been removed from the material used in the examination. The examiners advise candidates of any relevant personal details about the oral images under consideration so candidates need not spend time looking for these on the films shown.

8 Marking and Results Awarding

Each of the examinations three components are conducted and independently marked by two examiners. The three sets of marks are considered as a whole to generate a pass or fail - there is no concept of passing one part (e.g. orals) only. The scoring system provided gives more information on how results are determined.

9 Examination Results

The list of successful candidates showing candidate number only will be published on the College website. Results will not be available by telephone. All candidates will be sent a letter confirming examination results (by first class or air mail) as soon as possible after the results have been published.

Pass list publication dates can be found on the website - this information will also be included on individual candidate timetables that are sent out as soon as possible after the application closing date.

All candidates will receive details of scores achieved in each of the three components, plus their overall score and the pass mark. Candidates undertaking specialty training in the UK will have their results copied to the relevant TPD and Regional Specialty Adviser (RSA) for information.

10 Information Provided to Unsuccessful Candidates

Candidates undertaking specialty training in the UK who are unsuccessful at the examination on two occasions will receive written feedback from the Examining Board Chair. This will include a review and summary of performance over the sittings and will also be copied to the TPD and RSA. It is hoped that this will be of assistance when preparing for a further attempt at the examination.

11 Candidate Conduct

Candidates are expected to behave in a reasonable and respectful manner throughout all College examinations. Candidates must comply with the instructions and requirements of the examination invigilators, College staff and examiners at all times. Please note the following:

- Candidates attempting to make a copy of, or transmit, any examination materials will be disqualified. This includes writing details of the cases shown.
- Candidates found with any electronic device during the examination will be disqualified.
- Candidates refusing to stop writing on or amending their answer sheets after the examination has ended will be disqualified.

12 Further Information

Queries arising from this document should be addressed to the College's Examinations Office, either by email to examinations@rcr.ac.uk or by telephone on 020 7406 5905.

Queries at the time of the examination should be raised with the invigilators or College staff present. Comments, feedback or complaints following the examination should be brought to the attention of the Examinations Manager, either by email to laura_mcgarry@rcr.ac.uk or by telephone on 020 7406 5947.