

Tips for the final FRCA examination

The final Fellowship of the Royal College of Anaesthetists is a demanding written and oral examination requiring 6 months of dedicated preparation. The syllabus is large, and few candidates can hope to learn everything. The key to success is to practice as many written and viva questions as possible, focusing revision on areas of weakness identified in the process.

The final Fellowship of the Royal College of Anaesthetists (FRCA) examination is a demanding test of applied knowledge of anaesthesia, intensive care and pain medicine which trainees must pass to enter higher specialist training (SpR3 or ST5) and gain the FRCA. Many educational resources are available to the candidate preparing for the examination. A previous survey of post-Fellowship trainees rated available books and journals according to their usefulness (Bailey and de Mello, 1995). Since then, established textbooks have been updated, and new revision guides, periodicals, courses and internet resources have become available. The authors decided to update this material through an electronic survey of post-Fellowship trainees in the north-west deanery. It is hoped that this information, together with the advice outlined below, will be of use to trainees approaching the final FRCA examination.

Post-Fellowship trainee survey

An internet questionnaire was designed with a simple layout (Kelley et al, 2003), and piloted on a sample of trainees to ensure compatibility and user-friendliness. It was then circulated by e-mail link using the north-west deanery specialist registrar mailing list. Through a series of drop-down menus, respondents were invited to rate books, courses and other resources using a five-point Likert scale from 1 (of little use) to 5 (indispensable). Of 120 post-Fellowship specialist registrars eligible to complete the survey, 63 did so, a response rate of 53%. This total is an approximate number, as there is no figure

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for the proportion of year 2 specialist registrars who were post-Fellowship. In addition, a small proportion of year 3–5 specialist registrars had passed the Irish FFARCSI examination, and were thus not eligible to complete this questionnaire. In the following text, each resource quoted is followed by a score in brackets for popularity (percentage of respondents using it) and mean usefulness rating (1–5). While this article concentrates on revision-orientated resources, a more comprehensive listing of reference textbooks rated in this survey is available from the authors.

Overview of the FRCA final examination

The examination is held twice per year, and costs £660. At present, the final can only be attempted after 30 months of anaesthetic training, 18 months of which must be in the UK or Republic of Ireland. Up-to-date information including the examinations calendar, syllabus and application form, can be found on the Royal College of Anaesthetists website (www.rcoa.ac.uk).

The examination consists of a multiple choice question (MCQ) paper, a structured answer questions (SAQ) paper, and two viva voce examinations testing applied basic science and clinical knowledge. Each of the four components is graded 1, 1+, 2 or 2+. A mark of 1 in any component is a bad fail, and incurs failure in the exam as a whole. 1+ signifies a borderline fail, 2 a pass, and 2+ a good pass. A minimum of 2, 2, 2, 1+ is required to pass overall. The overall pass rate was 49% in 2005–6, with 29% of candidates failing to reach the viva stage (Royal College of Anaesthetists, 2006).

The MCQ

This 3-hour paper consists of 90 questions each with five stems requiring a true/false answer, with negative marking applied. In recent years the pass mark has ranged from 45% to 56%, so to be safe you should aim to score 60%, or an average of 3 out of 5

for every question. As there is plenty of practice material around, you will be able to make a reasonable estimate of your level of performance and how you are likely to score on exam day. In this respect, the MCQ is the most predictable of the four components of the final, and it is worth putting in enough effort to ensure a 2, thereby keeping your single permitted 1+ in reserve.

Candidates learn at different rates, but as a general rule 6 months of dedicated preparation is required, including evenings and weekends. For the first 3 months, concentrate mainly on MCQ practice, reading around areas where you score poorly to improve your knowledge. In the 3 months leading up to the written papers, you will also need to practice your SAQ technique. Passing the MCQ is a simple game of numbers; the more questions practiced the better your chances, and you should aim to cover at least 1000 questions in the course of your revision. Of course, this does not mean 1000 different topics; you will quickly identify recurrent themes and improve your scores accordingly (Table 1).

MCQ practice books are the cornerstone of preparation, and there are many to choose from. The most popular in this survey included the *Royal College of Anaesthetists' Guide to the FRCA Examination: The Final* (Mortimer, 2003) (used by 67% of respondents; mean rating

Table 1. Spread of questions in the multiple choice questions examination

No. of questions	Topic
40	Clinical anaesthesia and pain management
20	Intensive care
20	Medicine and surgery
10	Clinical measurement and physics

4.3) and the QBase series (Hammond and McIndoe, 1997, 2005) (63%; 3.2). The Royal College of Anaesthetists' guide was the highest rated, which may reflect the fact that a number of the questions in this book are generally repeated in the examination. Knowing the answers to these inside out will boost your mark on the day. The website www.anaesthesiauk.com has extensive question banks, and was rated highly by those trainees who made use of it (23%; 4.1).

Set yourself a manageable target; initially, ten questions a night may be enough, given that you will have to do extensive reading around the subject. Later, as your level of knowledge and MCQ skills improve, you will be able to cover ground more quickly. As the big day draws near, learn to be ruthless when revising. Remember a score of 3 per question (after negative marking) is more than sufficient provided you answer all questions, so use your revision time efficiently. If you scored less than 3, read around the subject, but if you got 3 or better, move on straightaway. Texts with succinct summaries as part of the answer are time saving, and most MCQ books follow this format. The *Anaesthesia & Intensive Care A-Z* (Yentis et al, 2004) is very useful for this purpose (78%; 4.4), as it contains authoritative concise information.

While revising, try and determine if you are a good guesser or not. In theory, random guessing will not affect your score either way, while educated guessing should gain a few extra marks. In practice, however, some people are bad guessers and will lose marks with this approach. During practice, identify questions you are unsure of and keep track of how you are scoring on these. The Qbase books mentioned above include an interactive CD-ROM which allows you to do this, which is a useful option. If you find you are a bad guesser, resist the temptation to do so on the day. Remember from your primary fellowship experience to pay attention to the wording of the question. Beware of double negatives and remember that absolutes ('always' and 'never') are rarely true.

The SAQ

This 3-hour paper requires short answers on 12 questions covering all aspects of the syllabus including anatomy, applied basic

sciences, regional, general and subspecialty anaesthesia, as well as pain management and intensive care medicine. Questions range from those that might be considered core knowledge ('Describe anaesthesia for a child with a penetrating eye injury') to those requiring more lateral thinking ('A patient is quadriplegic following a C4–5 discectomy. Discuss the likelihood of this being a consequence of your anaesthetic'). Each question is marked out of 2.5, with 2 being a pass and 1.5 a borderline fail. A total of 21 marks is required, equivalent to a mark of 2 for six questions, and 1.5 for the rest. There is therefore some margin for error, but bear in mind when apportioning your time that it is easier to improve a 1 to a 1.5 than a 2 to a 2.5. Fifteen minutes per question is little time, and answers must be kept short and to the point. In the last sitting, 67% of candidates passed, with a further 30% scoring 1+.

Besides knowledge the SAQ also tests problem solving, and the ability to write clearly and concisely under pressure. Key texts for preparation include *Short Answer Questions in Anaesthesia* (Bricker, 2002) (80%, 4.8) as well as the Royal College of Anaesthetists' guide (see above). *Clinical Notes for the FRCA* (Deakin, 2000) is also a useful concise reference text (42%, 3.3) which has a short notes format in keeping with the SAQ style. Past papers (but not marking schemes) are available on the Royal College of Anaesthetists' website (www.rcoa.ac.uk/docs/past-papers.pdf).

Topical questions are fair game, and review articles and editorials from the last 6 months of the *British Journal of Anaesthesia* (67%, 3.5) and *Anaesthesia* (53%, 3.2) should be part of your wider reading. It may be helpful to spend 10 minutes writing a short summary of any article that could potentially be covered in an SAQ. The *British Journal of Anaesthesia* supplement *Continuing Education in Anaesthesia, Critical Care & Pain* was highly regarded in this survey, presenting up-to-date reviews of highly examinable topics in a readable format. Keep up to date with new guidelines – the Association of Anaesthetists of Great Britain and Ireland (2007) malignant hyperthermia guidelines formed the basis of a question in a recent SAQ examination. It is likely that many of the authors of these publications are the same Royal

College luminaries responsible for setting exam questions, and it is certain that those setting questions will be aware of recent hot topics in the anaesthetic literature.

As with the MCQ, practice makes perfect. Do so under strict time conditions, and compare your answers to the marks scheme if available. Although you may be lucky and come across questions in the exam which you have already rehearsed, the main point of practice is to improve your technique. Spend 2–3 of your allocated minutes planning the answer in rough before writing. Legibility is crucial; the examiners have hundreds of scripts to mark, and cannot be expected to spend too long decoding your scrawl to find the wisdom within. Bullet points are permitted, as are diagrams if relevant, but resist the temptation to fill pages with quantity rather than quality. You may prefer to spend the first 30 minutes of the exam preparing answers in rough for each of the twelve questions while you are fresh, then the remaining time fleshing these out. Others prefer to finish one question completely then move to the next. Whatever strategy you adopt, be ruthless; even if you have not finished move on when your allocated time is up.

Practicing in small groups is valuable, since you can compare styles with other candidates and adopt the better points of their technique. It is also instructive to have your work marked by someone who is unfamiliar with your handwriting or what you 'meant to say'. Courses provide the opportunity for practice under exam conditions with expert feedback. The north-west exam practice course, where sample SAQs are set and marked, was well attended and highly rated by post-Fellowship trainees (63%, 4.2). The neighbouring Mersey deanery 'Booker' course also received praise. Such courses allow you to compare your performance with others under more testing conditions, and a poor performance may prompt you to sacrifice that week-long pre-exam break on the beach you had been planning.

On exam day be sure to follow all instructions regarding which questions go in which of the six answer booklets, and arrive early at the examination hall – while time is plentiful in the MCQ, every minute is precious in the SAQ and a late start will be hard to recover from.

The viva

The two oral examinations test factual knowledge and also how those facts can be applied to solve problems. The clinical viva lasts 50 minutes, and begins with a long case followed by three short cases. For the long case, you will be given 10 minutes to study a history, examination findings and investigation results (for example a chest X-ray, electrocardiogram or pulmonary function tests). This is followed by a 20-minute discussion of the case, plus a further 20 minutes on three unrelated clinical topics. The clinical science viva lasts 30 minutes, with four questions covering applied anatomy, physiology, pharmacology and physics. Often there is no right answer to the question posed, but you should be able to describe a safe approach to a clinical scenario covering the pros and cons of the various choices. You should not fail just because an examiner disagrees with your answer as long as it is sensible, safe and you have demonstrated broad familiarity with the subject.

Use the 6-week period between the written exam and the oral to obtain as much viva practice as possible. If you have done enough to pass the written component, your basic knowledge should be sufficient, so concentrate on technique rather than amassing more factual knowledge. The exception to this is anatomy; if you are unable to describe the anatomy of the diaphragm, it is difficult to fudge an answer, so be prepared.

Viva guides are available with questions from previous examinations accompanied by model answers. *The Clinical Anaesthesia Viva Book* (Mills et al, 2001) (78%, 4.8) and *The Anaesthesia Science Viva Book* (Bricker, 2004) (52%, 4.5) were both highly rated. *The Anaesthesia Viva 1* (Urquhart et al, 2002) (53%, 3.9) and *The Anaesthesia Viva 2* (Blunt et al, 2002) (35%, 4) books from the primary examination are also useful for the clinical science viva.

There are a finite number of testing but relevant questions that an examiner can ask, and there is a high chance of material covered in these texts being replicated in the viva. You should develop a system for answering any question. For a clinical anaesthesia topic, you might divide your answer into preoperative assessment, intraoperative management and postoperative

care. This will ensure that your answer appears structured and logical, and helps avoid awkward pauses while you try and think of something to say. While sticking to an 'A, B, C' format may have got you through the primary viva, here the examiners will be looking for more evidence of a considered approach.

Viva practice should not be a solitary activity. Performing in front of an examiner must be simulated whenever possible. Form a study group with fellow candidates, and take turns to ask and answer questions. Arrange regular viva practice with consultants or senior specialist registrars in your department, preferably somewhere quiet when neither party will be disturbed. It may be helpful to create a timetable and encourage your seniors to sign up for a session; ask around among the post-Fellowship trainees and you will quickly find out who is 'good value' in terms of asking suitably testing questions and providing useful feedback on your performance. Replicate exam conditions as far as possible during these sessions, and learn from your errors.

Courses provide an excellent opportunity for practice. The north-west deanery viva practice day was well attended and highly rated (63%, 4.2), and many deaneries run similar courses. Constructive criticism can be useful; you may not be aware that you are fidgeting, avoiding eye contact or speaking too fast, but hopefully this will be pointed out to you. While you may be afraid of looking stupid in front of the people you work with, it is better to make mistakes now than in the examination. Remember that the examiners are interested not just in your knowledge, but also in your reasoning and ability to come to a sensible conclusion. A candidate who appears confident, speaks clearly and appears to have judgment and common sense will outperform a walking encyclopaedia.

Finally

On the big day, arrive in good time. Dress smartly, be polite, and behave in a confident and professional manner. The question the examiners will be asking is 'would I trust this candidate to anaesthetize me or a member of my family?' If you can convince them that they would, you will have done enough to pass and be awarded the Fellowship. **BJHM**

Conflict of interest: Two of the authors of *The Clinical Anaesthesia Viva Book* work in the same department as Dr WF deMello.

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KEY POINTS

- Practising a large number of questions is the key to success in the multiple choice paper.
- Legibility and organization are as important as factual knowledge in the short answer question paper.
- There is no substitute for high quality viva practice when preparing for the oral examination.
- The viva examiners are looking for a safe and sensible anaesthetist; a professional demeanour as well as sound knowledge is required.