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EXAM PREPARATION

Final FRCA

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Introduction

In anaesthetics at the present time, the Final part of the FRCA exam is the last examination that the majority of anaesthetists will ever sit. This thought alone is what keeps many trainees going during those long days of revision when everyone else is lying out in the sun or sailing off the south coast. So whilst the words 'Exit exam' hang over one's surgical colleagues like a personal anvil, final FRCA has the significant carrot of 'No more exams,' for the time being, anyway.

Eligibility

To quote the Royal College of Anaesthetists' published guidelines:

'The College very strongly recommends that candidates should only sit the Final FRCA examination when they have spent a minimum of six months in a SpR post. The SHO years should be used to obtain the training necessary to be successful in the Primary FRCA examination and to provide a broad clinical base from which to enter SpR training.'

As the minimum period as a SHO is two years, this ensures the fulfillment of the entrance criteria of having completed *thirty months of training in the specialty of anaesthesia* before sitting the exam. As for the Primary, this time may include up to three months of pure Intensive Care and up to one month per year of sick leave. In addition, twelve months of this may be completed overseas, although this may be difficult to justify to the Consultant Advisor! Clearly the Primary FRCA must have been passed before the final examination can be attempted.

Entering the exam

There are two sittings of the Final examination each year; May/June and October/December. The debate about when to sit the exam was discussed in the Primary article. Apart from the eligibility criteria, the other factor to consider is that a trainee will not be allowed to progress past SpR year 2 until they have succeeded in passing the Final FRCA.

The number of attempts at the examination is slightly increased compared to the Primary exam in that six goes are allowed, (with a 'guidance' interview after three).

Syllabus

The syllabus for both the Primary and the Final examinations is included in the same booklet from the College, however it does occasionally change slightly, so it is worth checking that one's copy is up to date. Essentially everything covered in the Primary examination is considered 'core knowledge' for the Final examination with the syllabus generally having a more clinical theme. It also contains some new topics. These include the more specialist areas of Anaesthesia:

- Cardiac
- Thoracic
- Neurosurgical
- Vascular
- Neonatal
- Transplant
- Anaesthesia for imaging (CT/MRI).

The anaesthetic implications of numerous medical conditions from areas such as: endocrinology, haematology, cardiology, and rheumatology must also be covered. Those who have come to anaesthesia via general medicine, (with or without MRCP), are at an advantage in this respect. This is undoubtedly a time to dig out a clinical medicine textbook from Medical School; Kumar & Clark is a very reasonable choice. The other large areas included are: intensive care medicine, pain management, (particularly chronic pain), and the statistical basis of clinical trial management. For those who struggle with statistics, finding an enlightening lecturer for this subject is invaluable. (One particular lecturer seems to do the rounds of most pre- Final courses).

Structure of the Exam

The structure of the Final examination is similar to the Primary in so much as there is a written paper held in five cities simultaneously around the United Kingdom followed by a week of vivas held in London approximately five weeks later. The difference is that the written paper is something more of an endurance event with 3 hours of solid writing in the morning followed by a 3 hour MCQ paper in the afternoon. This is only slightly compensated for by the absence of an OSCE when it comes to Viva day. Hence once again there are four parts of the examination to consider:

- MCQ paper
- Short Answer Question (SAQ) paper
- Viva 1 clinical anaesthesia
- Viva 2 clinical science

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MCQ

The basic structure is identical to the Primary; 90 questions, each with 5 parts, negative marking and 3 hours to complete it. The difference is in the breakdown of the question areas:

Medicine and Surgery	20 questions
Anaesthesia and pain management (including basic sciences)	40 questions
Intensive Care	20 questions
Clinical Measurement	10 questions

As for the Primary, there are numerous MCQ practice books on the market. Q Base (with CD-ROM), is again a good place to start; there is even a Q Base book with purely MCQ's in 'Medicine for the FRCA' available. The 'Pastest' Final FRCA Practice Papers book is also good and covers SAQ's and viva questions too. Final FRCA Multiple Choice Questions by Brunner, Robinson & Williams is also well worth doing. Borrowing these books from people who have recently passed the examination and have absolutely no interest in ever looking at them again is clearly the cheapest option for acquiring them. In addition there are plenty of practice papers floating around. Some of these are from Pre-Final courses (for example Southampton) and are of a very similar standard to the examination. Others are compilations of actual questions which trainees have remembered from their examination and written down afterwards. Edinburgh seems particularly good at doing this. Since there is a limited number of questions in the College question bank and some of the questions *have* to be repeated as 'marker' questions, it is certainly to one's advantage to have done these questions before, (after all, other people will have access to these papers too and there's no point in giving them a head start). Having said this, the College do add to the question bank each year and they have now started to release batches of MCQ questions to show the standard and type of questions which should be expected. There are now several sources of MCQ's to be found on the internet, including: www.FRCA.co.uk, www.4um.com/gas/ and www.dundee.ac.uk/anaesthesia/mcqintro.html.

Short Answer Question (SAQ) Paper

There are 12 questions to be completed in 3 hours. As the name suggests; these are not questions requiring an essay; the timing is far too tight for lengthy answers. Instead the idea is succinct and well structured answers with maximum use of categories and headings and the occasional well labelled diagram. There is a definite art to doing well in the SAQ paper. Doing as many practice papers as possible, with constructive feedback from someone who knows what is required, is the key to a good mark. A purely physical reason for doing plenty of SAQ practice is simply to get one's hand used to the idea of writing continuously for 3 hours. This can be as painful, and as alien, to most trainees as holding a face mask for more than 30 minutes in the world of LMA's. A few other points are worth noting.

All 12 questions must be answered. Leaving one out results in automatic failure. An ability to pace oneself (15 mins per question) is essential as is reading each question carefully and making a brief plan before starting. Writing must be neat and legible. It may be correct but illegible means no marks. There is no time for waffle and flowery introductions. It is vital to stick to the facts and to be concise.

'How would you manage' implies diagnosis, treatment and follow-up. *'How would you anaesthetise'* includes pre-operative assessment as well as intra-operative and post-operative care. It is important to high-light the problems, briefly discuss options and explain choices. It is essential to know College protocols, for example for malignant hyperthermia and anaphylaxis.

Certain drug doses should be known, (usually in mg/kg), but unknown doses should not be guessed. There are a limited number of anatomy/nerve block questions that can be asked and the structure of answer is similar for all; these are ideal questions to score well on.

SAQ Scoring

Each of the 12 questions is given a mark of either: 1, 1+, 2 or 2+ (where '+' = 0.5 point) The overall mark for the SAQ paper depends on the total score from all 12 questions:

18 or less	= 1
18.5-20.5	= 1+
21- 24.5	= 2
25 or more	= 2+

So to get a '2' overall, it is necessary only to pass (score '2') six of the questions and 'close' fail (1+) the other six. As long as one puts *something* down for a question a score of '1' will be awarded. These marks can then be made up on the other questions. Achieving a 2+ on one of the questions (for example anatomy) gives even more cushioning for the other questions.

SAQ Revision

When applying for the examination, candidates will be sent copies of all the SAQ papers from the last 4 or 5 years. This will give an idea of the type of question to expect in the examination and also the spread of topic areas each time. Some questions are repeated or are at least very similar. There are usually one or two 'topical' questions from review articles 6 to 18 months ago. People will have their own idea of what they think will come up; some of them will be right. It is

useful to ask around people who took the examination 6 months ago and find out what they thought would come up but didn't; topics often appear next time around. Practice should be directed towards answering questions in the 15 minute limit and learning not to overrun. An excellent practice book is 'Final FRCA Short Answer Questions' by Nickells, Hasan, Ramachandra & Robinson (published by BMJ books).

Vivas

Any candidates who score a '1' in either of the written papers or score '1+' in both, will be notified of their failure to proceed to the vivas. The remainder will receive notification of the date that they are to attend the College for Viva examination, (it is possible to indicate a preferred day when sitting the written paper). As for the Primary, these candidates do not know how they have scored in the written examination. They may already be living dangerously having scored a '1+' in one paper, leaving no room for a slightly below par performance in one of the vivas.

There are two structured vivas:

Viva 1: Clinical Anaesthesia (50 minutes).
10 minutes to view clinical material,
20 minutes of questions on the clinical material,
20 minutes of questions on clinical anaesthesia unrelated to the clinical material.

Viva 2: Clinical Science (30 minutes)
15 minutes with each examiner, usually two or three subject areas from each one.

The clinical material for the first viva usually includes a case scenario along with blood results, ECG, CXR and possibly other investigations. Questions will be asked about the interpretation of these with regards to the main anaesthetic concerns and any possible underlying problems that have not been diagnosed in the scenario. Further investigation/optimisation and the choice of anaesthetic will be discussed. The second examiner will then take the candidate through some other unrelated cases, usually three. These often recur from year to year and have fairly classical anaesthetic considerations, for example a child with Down's Syndrome for tooth extraction, the patient with renal failure for laparotomy, or a morbidly obese patient for laparotomy. Once again, there are lists of previously asked questions doing the rounds. These at least increase the chances of having thought about what one might do in these situations before being faced with the dilemma in the viva.

The Clinical Science viva is probably the one that most people are likely to be caught out on. Two examiners each ask questions for 15 minutes; usually 3 topic areas for 15 minutes each. Although the questions have a clinical theme it is very much an examination of basic science and anatomy. As the College points out, the Primary syllabus is assumed to be core knowledge for the Final exam. If it is a while since the Primary and one has based most of one's revision on more clinical topics, sketchy knowledge of detailed physiology and pharmacology is liable to be exposed. There is no way around it; it has to learned all over again and in similar depth.

Pass/Fail

Scoring is identical to the Primary examination in that a score of at least 2,2,2,1+ is required for a candidate to pass. Once again, at the end of each viva day, the candidate numbers of those who have been successful are put up on a board in the College at approximately 6pm. This time successful candidates are required to 'form up' in front of the examiners before taking it in turns to walk along the line, shaking each gratefully by the hand, a glass of white wine is then offered before the formalities of signing in the FRCA Register and confirming one's name and address (not to mention completing a direct debit form for College subscriptions) are completed.

Unfortunately, after all the hard work, the letters 'FRCA' cannot be used until a few months later when the Fellowship is confirmed at a meeting of the College Council. There is also only one graduation ceremony a year, so those who pass the exam in May/June will have to wait until May the next year before they can get dressed up in Cap and Gown. Wearing uniform at graduation is traditional for Military trainees and goes down very well, particularly with the more senior members of the College Council.

Prizes

The Macintosh Prize and Magill Prize are awarded for outstanding achievement in the spring and autumn sittings respectively. A candidate must be sitting the examination for the first time and must obtain a mark of 2+ in all sections of the examination.

Studying

As for the Primary, the average time for starting revision is probably about 6 months before the examination. Although it is an advantage to have practical experience of all the areas of anaesthesia covered, (Cardiac, neurosurgery etc.), this is *not* essential and may not be possible on every SpR rotation. It may be possible, however, to arrange a day here or there in some areas to improve one's understanding, having read about the subject beforehand. If one's experience *is* limited, extra time for revision should probably be added on to the schedule. This particularly applies to those who have only done the

minimum 3 months of intensive care since starting anaesthesia, as it forms a considerable part of the examination.

A Final examination course is an important part of an effective revision schedule. This will provide the necessary feedback on one's SAQ practice and should give a better idea of the level of knowledge required for the examination. All of the syllabus (including revision of Primary notes), should have been covered at least briefly, before the course, leaving time to refine and possibly redirect the remaining post course revision afterwards. The Southampton course is highly recommended; most candidates should feel fairly comfortable with SAQ's after 2 weeks of a mini-exam at the end of each day of lectures/tutorials. Formal viva practice the week before the vivas is also organised. The College runs a 3 week course in London which also allows some opportunity for exam practice. As courses and course directors may change over the years, it is always worth asking trainees who have attended a course recently for their opinion before committing oneself. It is also a good idea to try to take a few days of private study leave just before the written paper. During this time, the best approach is to do as many MCQ's and SAQ's as possible. It is also useful to get used to long periods of both writing and concentrating, so that it doesn't come as too much of a shock on the day.

Books

Apart from the textbooks already mentioned, all of the books that were used for Primary will be needed again, (unless one has exceptional revision notes) to cover the Anatomy, Physiology and Pharmacology. 'The A to Z of Anaesthesia and Intensive Care' by Yentis, Hirsch & Smith is an excellent quick reference book. The amount of information within never ceases to amaze. Most people already have Aitkenhead & Smith from Primary, and the chapters towards the end of the book offer a good grounding in all of the specialist anaesthetic areas. A good book for early on in the revision timetable is 'Key Topics in Anaesthesia' by Craft & Upton. This provides two or three well summarised pages on most of the topics covered in the Final examination. 'Clinical Notes for the FRCA' is a very concise book of notes on all clinical aspects of the examination. The second edition is up to date with many useful sections and also includes summaries of reports on confidential enquiries, (for example CEPOD), and Association of Anaesthetists' Guidelines. This could possibly be used as a central book to base one's revision around. 'Essays & MCQ's in Anaesthesia & Intensive Care' by Murphy provides more detailed information on some of the more major subject areas. Although essay questions do not apply to the examination anymore and the MCQ's can be quite difficult and obscure, the information contained in each chapter is very relevant and it is worth buying. 'Handbook of Clinical Anaesthesia' published by Churchill Livingstone covers practically every clinical area you can think of, however, it may be more useful for reference than for basic revision. Intensive Care is perhaps a difficult area to revise for. 'On the job' teaching and the tutorials on the Final course are probably the most useful source of information as it is a constantly evolving specialty. 'Intensive Care' by Hinds & Watson is a reasonable book, although it may be better to select specific chapters from a larger reference textbook when revising each topic.

Exam Statistics (Primary & Final)

These are the figures for the two Final papers and the three Primary papers in 2000:

Final 353/395 entered. Approximately 25% failed at the written stage. Of those who were invited for vivas, approximately 69% were successful. *Overall pass* rate around 52%.

Primary 244/326/232 entered. Approximately 20% failed the MCQ. Of those invited to vivas around 51% were successful. *Overall pass* rate around 41%

Exam Information

Up to date information can be obtained from:

Examinations Directorate
The Royal College of Anaesthetists
48-49 Russell Square
LONDON
WC1B 4JY

Examinations Direct line:
0207 9087 314/313/312
College Website: http://www.rcoa.ac.uk

Conclusion

As for the Primary, the syllabus for the Final exam appears quite daunting. It is important to remember that the fact that one has passed the Primary examination implies the ability to pass the Final examination. As ever, a good amount of hard work and dedication is required, however if this is really to be the *Final* examination, this should not be resented too much. There will of course be some who enjoy the whole experience so much that they will jump at the chance to attempt the Diploma in Intensive Care Medicine in due course, or find some other examination to aim for. However, currently the only postgraduate qualification required to become a Consultant in Anaesthesia remains the Final FRCA.