



- This is the first part of the FRCA examination and you need to complete it in order to progress in your anaesthetic training.
- Made of 3 components:
  - *MCQs (Multiple Choice Questions)*
  - *OSCE (Objective Structural Clinical Examination)*
  - *SOE (Structured Oral Examination)*
- It aims to test you on content corresponding to your core level curriculum.
- This first section will cover the MCQs, which you need to pass before going on to do the OSCE/SOE sections.

- In this section we will simply give you some general advice on preparing for the exam from our own experiences of preparing for and sitting it- so it is our **personal advice** on how to approach it.
- There is lots of formal advice and information on the college website, however we were lucky enough to pass so hopefully a basic idea on the structure of the approach we took is a useful starting point!

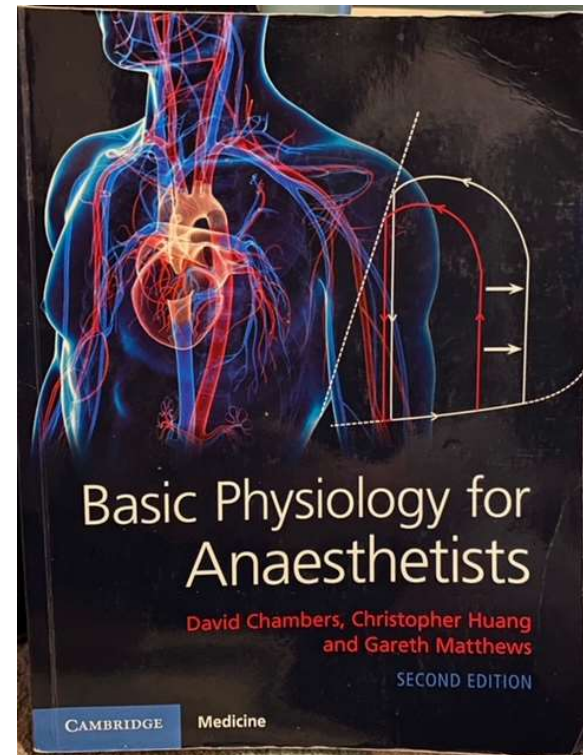
- Currently consists of **90 MCQ questions in total in 3 hours.**
- **45 of these are Multiple True False (MTFs):** for each question there is a question stem followed by 5 options, and you must choose if each option is true or false. The MTFs are broadly split into:
  - *15 questions on pharmacology*
  - *15 questions on physiology (with related biochemistry and anatomy)*
  - *15 questions on physics/clinical measurement/statistical methods/data interpretation*
- **Remaining 45 questions are Single Best Answer (SBA) questions:** each of these has a stem and a posed question followed by 5 plausible options, from which you select *one* option, the one you believe to be the correct or best answer. It broadly covers the same areas listed above.

- Go to [www.e-lfh.org.uk](http://www.e-lfh.org.uk) and create an account if you don't already have one.
- This gives you access to **Anaesthesia (e-LA)** (the e-learning series from the Royal College of Anaesthetists).
- Select the “*Core Training- Exam Preparation*” section. This is a key resource when preparing for the exam.
- The tutorials are nicely categorised in terms of physiology, pharmacology, physics and equipment and statistics- start your revision by going through each of these sessions and making notes on them to form revision notes.
- The Royal College Sets the exam and also produces this resource, so it is clearly a very good place to start!
- *NOTE: there is also a ‘Basic Sciences’ section in the Anaesthesia e-LA resource. If you feel you want to know more detail about a certain topic then you will certainly find it here. However, it is not essential to go through all of this. It covers topics in huge detail that is often unnecessary, and you will find that it takes a very long time to cover only a small section of the curriculum.*

- Although in many areas the ‘Exam Preparation’ section on e-LfH is a main focus, there are some useful textbooks to supplement knowledge.

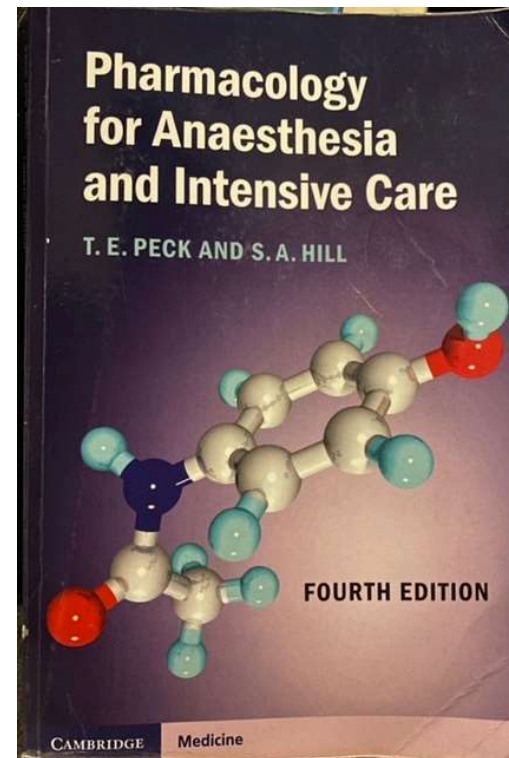
# *Basic Physiology for Anaesthetists*

- A useful reference if you feel more detail is required on a topic.
- Easy to read and format is specific questions followed by answers which is helpful.
- The e-learning generally covers physiology well, but unsurprisingly there is a lot of focus of cardiology and respiratory- this book is good for areas which are less prominent in the exam but may comprise one or two questions eg GI tract, thyroid gland.



# *Pharmacology for Anaesthesia and Intensive Care*

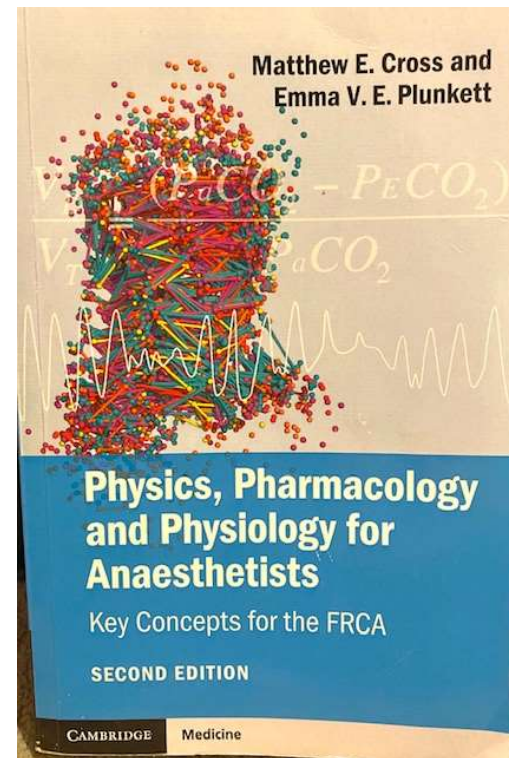
- Although e-learning is generally very important, it appears that this book is somewhat a bible for the exam!
- Unfortunately this is a book that should be read cover to cover- it may be that you use this as the basis of your notes and add to it and annotate it, as some questions require knowledge of eg. Specific figures relating to the pharmacokinetic properties of a drug.
- Ensure you have a good understanding of drugs you use day to day in theatre.
- *Good news:* if you have a good grasp of this book, you have the knowledge required to pass the pharmacology section of the exam.





# *Physics, Pharmacology and Physiology for Anaesthetists*

- After doing the 'physics and equipment' section of e-learning, this is a great book to fill in the gaps of any areas that seem to be covered in less detail- the 'physical principles' and 'principles of special equipment' sections in particular fill those gaps in enough detail for the MCQs.
- The MCQs will contain (unfortunately) contain a couple of questions on mathematical principles and statistical methods. This book covers these areas nicely.
- Once you are further into your revision, this book also has physiology and pharmacology sections which provide excellent 2-3 page summaries on a topic.



- Almost goes without saying, but doing as many practice questions as you can is ultimately key in preparing for the MCQs.
- Again, the key resource is the **Anaesthesia e-LA** on the e-Learning for Health website as it contains a large bank of MCQs from the college (some of them re-appear word for word in the exam itself).
- At the start of your exam prep, you should spend most of it making notes and learning the material, interspersing this with a few practice questions. As you get closer to the exam, try to spend more and more of your revision time doing questions.
- Another key book to get is '**Guide to the FRCA Examination. The Primary**'. This book is written by the college and contains more practice MCQs.

- Question banks:
  - *There are of course various question banks that you can pay for to practice for the exam. Some people like them, some people choose to still to the practice questions from the Royal College.*
  - *We used 'BMJ OnExamination' and did feel it was quite useful, as the questions generally seemed to line up quite nicely with the practice questions from the college themselves and with the questions in the exam itself. Each question is also followed by nice summaries and explanations on the topic.*
  - *Useful as generally also available as apps so good to access during a spare 10 minutes in theatre coffee room!*

- Revision Courses:

- *Lots of revision courses out there and various ones will be recommended to you.*
- *From experience we can recommend FRCA Primary MCQ revision course run by the college itself. It is reasonably priced compared to others and consists of a series of revision tutorials covering all the main areas of the exam. Again, **the college runs the course and the college sets the exam**, so it seems like a sensible course to do!*

- Dr Podcast series:
  - *This is a series of podcasts covering Primary FRCA material in a question and answer format- therefore also very useful for the viva.*
  - *Lots of us spend a lot of time in our cars driving to and from the hospital in rush hour, so having these available to listen to allows you to be productive in that time and supplement your revision, re-iterating key concepts.*

1. Give yourself ample time to prepare:

- *Some of the key concepts in the exam (such as the physics, anaesthetic equipment, principles of clinical measurement) are likely to be brand new to you and you are learning them for the first time. So unfortunately this isn't really one of those exams you can successfully cram for at the last minute (we've all been there and managed it in med school).*
- *Start (slowly) around 5-6 months before hand just by doing the odd hour or two where you can to give you an idea of what needs to be covered, and gradually build this up as you get closer to the exam.*

## 2. Don't overwhelm yourself with resources:

- *Lots of people will recommend lots of different books and resources to you (as we have here) and it can feel overwhelming, and you can agonize over missing out on something fundamental because you went with one physiology text book over another.*
- *Don't worry about this. Pick one text book for each key area (physiology, pharmacology, physics) and stick with it if it suits you.*
- *Any of the recommended books will cover the key concepts you need.*

### 3. Practice Questions:

- *prioritise the questions from the college (on e-LfH)*
- *Make sure you have been through all of these questions and are familiar with them*
- *Some of the questions come up word for word again in the exam so it is worth your time.*



#### 4. Keep an eye on the next stage of the exam:

- Preparing for the MCQs can feel like a bit of a slog and you may start to see from practice questions that some questions can seem unreasonably detailed.
- However, the work you put in at this stage puts you in a good position for the OSCE/SOE parts of the exam, where you won't need to recall as much detail but will find it much easier to demonstrate an understanding of basic principles if you have learnt it well first time around.
- Although much of what you find learning may feel frustratingly irrelevant, you will notice that as you start to prepare and keep working in theatre that many aspects are very relevant. Unlike at medical school, you are not now forcing yourself to revise areas of medicine you know you don't ultimately want to go in to. You are going to be an Anaesthetist for a long time, so it makes it easier to get stuck in to revision when you remember will be key as a basis to your day to day practice for years to come.

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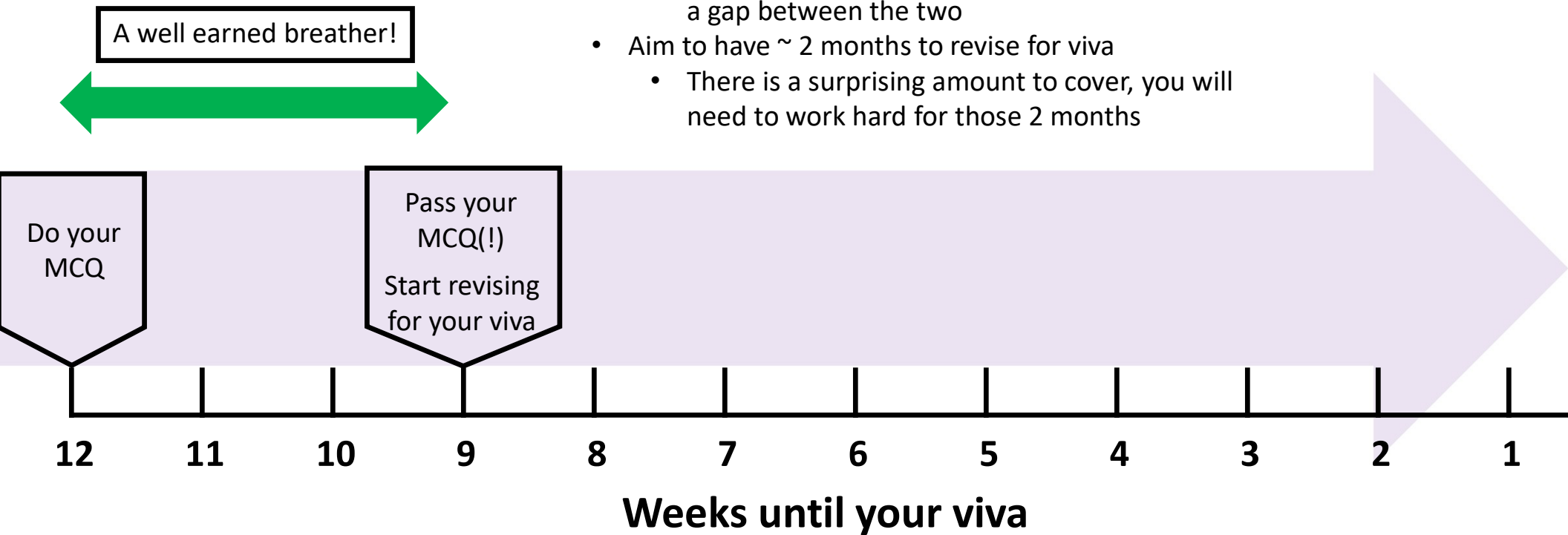
- Big achievement – you are pitching your knowledge at the right level
- A lot (but not all) of random facts/numbers can be forgotten
- One more step to go and you have your full primary
- A lot of the work for the MCQ is transferrable to the viva

- Structured oral examination (SOE)
  - 4 stations asking questions on
    - Pharmacology
    - Physiology
    - Physics and equipment
    - Clinical
  - Each station 15 mins consisting of questions on 3 areas within each domain
  - The “traditional” viva experience
- The Observed Structured Clinical Examination (OSCE)
  - 14 stations
  - More of a mix
    - Anaesthetic equipment
    - Clinical scenarios
    - X-ray/ECG interpretation
    - Clinical communication
    - Anaesthetic history taking
    - Anatomy
    - Clinical examination\*

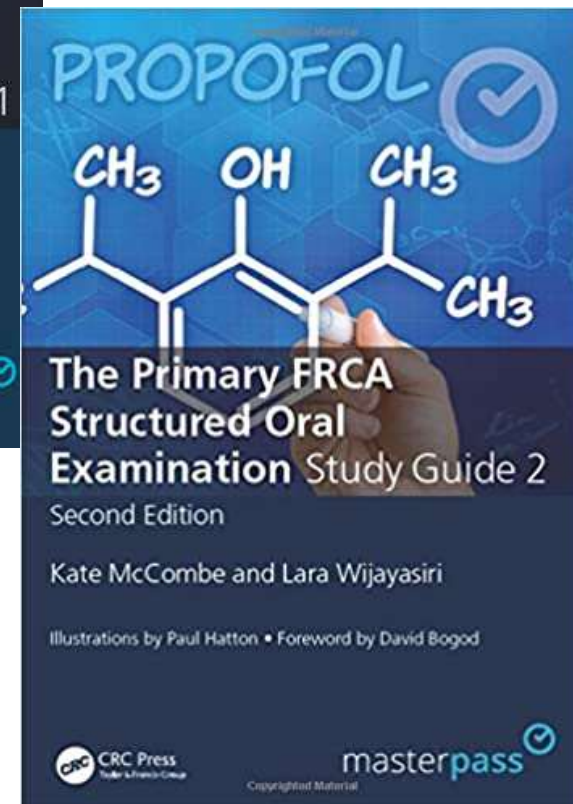
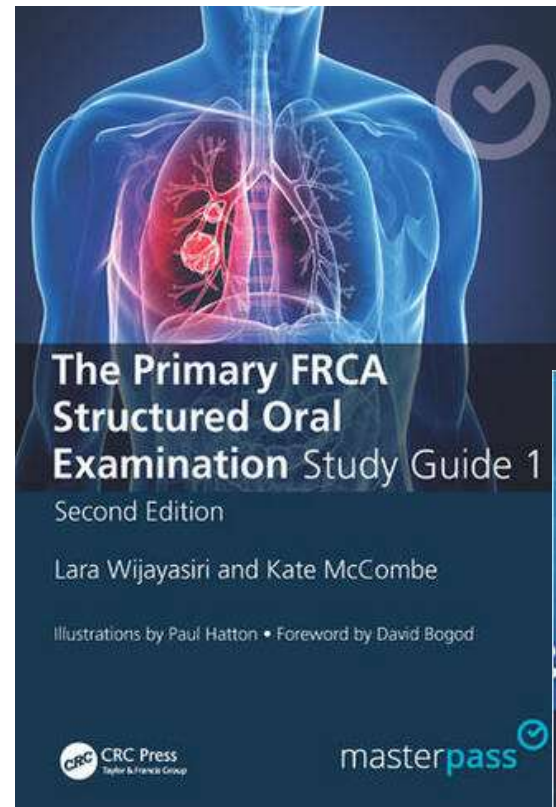
\*Not currently done in COVID remote examinations

Key points:

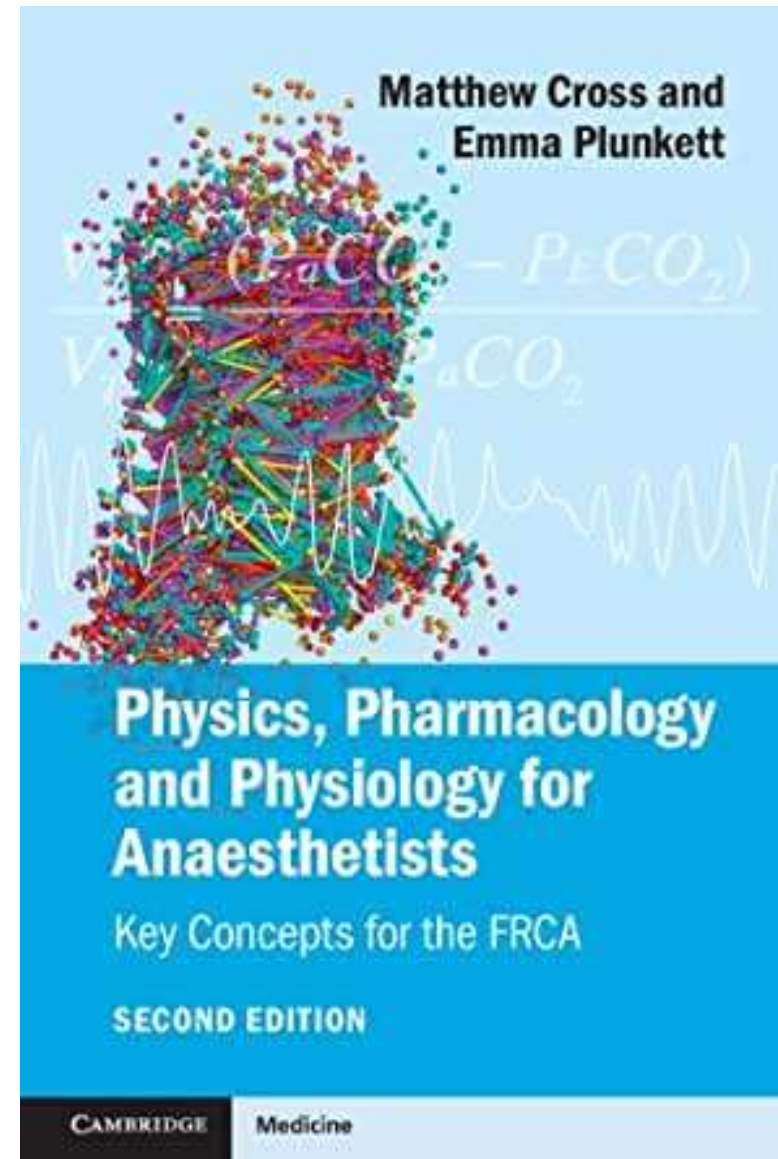
- 3 week gap between doing and passing your MCQ – take a well earned break!
- You should try and piggy back MCQ and viva, saves you having to relearn content
  - However very doable if life events mean you need a gap between the two
- Aim to have ~ 2 months to revise for viva
  - There is a surprising amount to cover, you will need to work hard for those 2 months



- I can't recommend masterpass books enough
- Gives you "model answer" for almost all questions I could think of
- Go through all the questions and make sure the answer you can give resembles the ones theirs
- Note:
  - There are some minor factual errors in this book
  - But still would recommend it for structuring your answer
  - Just be aware – if a fact sounds fishy, go look it up



- Graphs, graphs, graphs
  - In the current virtual format – we are not expected to draw graphs
  - But we may need to identify graphs and label their axis
  - Therefore I would recommend being familiar with the graphs that could come up
  - Plunket and Cross is the best book for this







- An older resource, and very detailed
  - Don't expect to be required to give an answer in as much depth as their examples
  - Especially as the format of the SOE is moving away from long, presentation style answers to more targeted questions and answers
- However a good resource if you have a commute to work – make use of the time!



**Primary FRCA  
pharmacology**



**Primary FRCA  
physiology**



**Primary FRC  
physics**

- Face to face (or webcam to webcam) practice
  - Very important to do – exposes gaps in knowledge and makes sure you can clearly explain concepts
- I would recommend doing it in the last 4-6 weeks before your exams
  - This allows you to get a good amount of background knowledge in first
- Use consultants, trainees (especially if they have recently done their exam) and each other
- Look for hard questions
  - You need to be prepared to work your way through a question that you haven't prepared for/know little about
- Ask for and give frank feedback
  - Feedback on things you could improve on is more useful than the positive feedback

- Almost everyone, myself included neglects the OSCE at their peril
- You spend most of your viva revision time preparing for the SOE as:
  - It's the part of the viva that's most talked about amongst trainees
  - It's an extension of the MCQ – something you will feel more comfortable revising
  - You don't want to start revising anatomy
  - You may falsely feel revising SOE topics will cover you for the OSCE
- However it is a tricky exam that has new topics that you will need to cover
  - And it has tripped candidates up in the past
- The OSCE is marked with a strict mark sheet – if you don't say what's on it, you won't get the points, no matter how good you sound
  - Be succinct
  - Don't ramble off topic, especially if you don't know. Have a guess (no negative marking), say you don't know and move on to the other questions – time is tight!

- Aim to split your time between SOE and OSCE early on in your revision
  - Roughly 70% on the SOE, 30% on the OSCE
  - This will ensure you have been laying down constant work for the OSCE and its not a last minute cram
- Make notes on the extra areas you will need to know for the OSCE (see next slides)
- Work through a couple of OSCE books (see resources)
- You can save the final anatomy fact cram for the last few weeks before the exam – just make sure you have all the notes/resources needed and ready

- With a degree of reasonable justification the OSCE mantra for anatomy is “if you stick a needle or a tube near it, you should know it”
- This means that there is a list of anatomical areas we need to know about
- Know the basics
  - Be able to label diagrams
  - Know innervations and blood supply
  - Don’t get too bogged down – see my notes (onenote link later on) as a rough guide of what I learned

- List of areas to cover
  - Cranial nerves, base of skull
  - Triangles of neck, jugular vein
  - Brachial plexus, the 1<sup>st</sup> rib
  - Laryngeal anatomy
  - Cardiac anatomy
  - Spine, vertebra and ribs
  - Base of diaphragm
  - Dural/epidural anatomy
  - Upper limb – nerves, antecubital fossa
  - Nerves to the foot and ankle block
  - Sonoanatomy (this seems to be new)
    - I took this as be able to identify structures we see on our US screen when we any blocks/vascular access
    - I would recommend the ANSO app for this – costs ~£7 but useful for this and in general

- This one definitely caught me out in my OSCE
- You should know how the equipment we use day to day works and be able to label key components of them
- This could become quite an exhaustive list of equipment so be practical and rationalise
- Anaesthetic equipment books are intimidatingly detailed, use as a guide and know the basics
- Examples of key equipment (not an exhaustive list)
  - Breathing systems, bag/valve masks
  - Entonox demand valves
  - Different types of gas cylinders
  - Scavenging systems
  - HME
  - Infusion pumps, giving sets, non-reflux valves
  - Airway devices and laryngoscopes

- Anaesthetic history taking

- This will be a standard history but will have an area that the examiners will want you to hone in on
  - Eg patient due hysterectomy for heavy menstrual bleeding describing symptoms of anaemia
  - The actors will readily offer this to you
- Remember you don't have a lot of time (5 mins) to get the info you need
  - So be targeted and politely cut off any rambling
  - If you uncover an area that potentially needs more focus (eg patient states had period of awareness during last anaesthetic) say you will come back to that – wizz off all the other questions you need to ask, then address it at the end with the time you have left
- You need to cover all areas of the anaesthetic history to get the points, don't forget random points like
  - Any family history of issues with GAs
  - Why do they need this surgery (may have relevance to your conduct of anaesthesia)
  - Any recent hospital admissions
  - A brief systems review (chest pain/SoB/syncope/weight loss/syncope)
  - Any smoking/alcohol/recreational drug use
  - Okay with NSAIDs? Are you on the OCP?
  - Any issues/problems with teeth/jaw/neck?

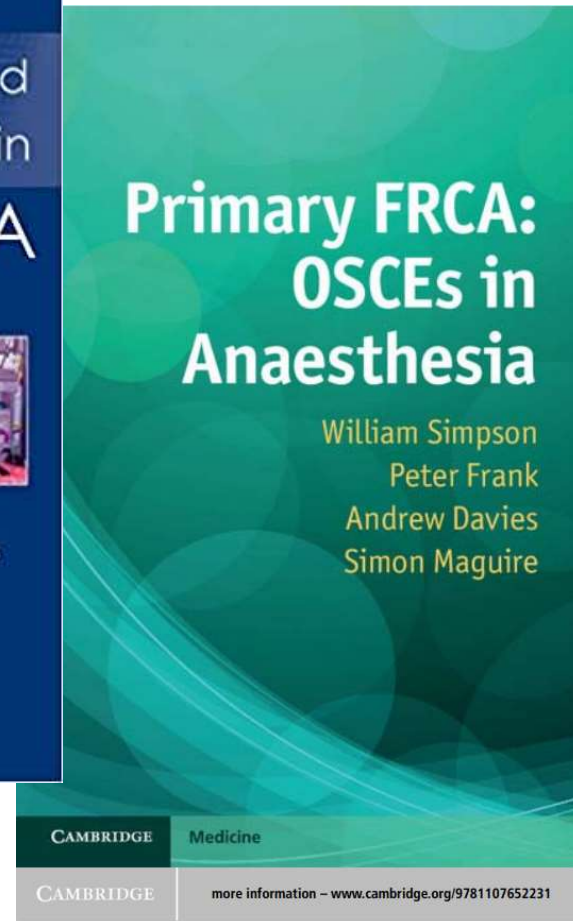
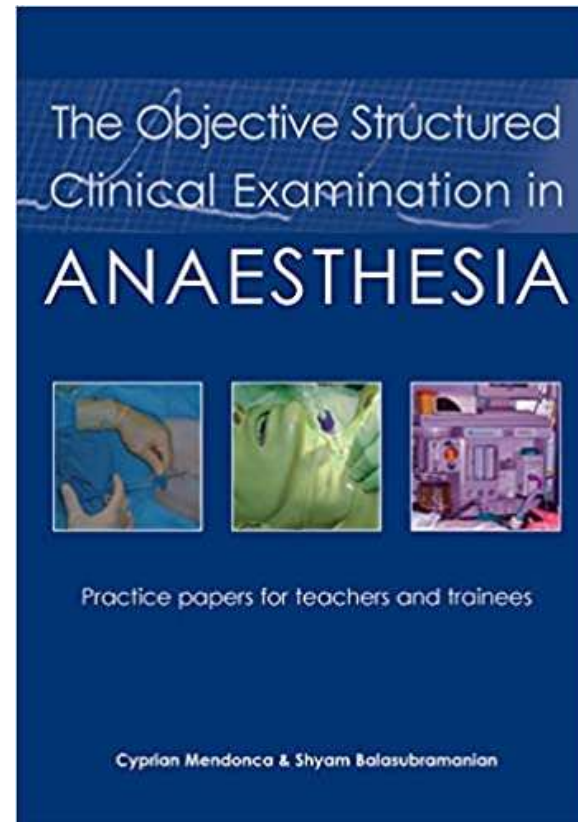


- Something gone wrong communication
  - This can be a broad range of things but includes
    - Cancelled operation
    - Dental damage
    - Awareness
    - Needlestick injury
    - Suxamethonium apnoea
  - Hard skill to teach, main advice
    - Be empathetic, use their name a lot
    - Ensure comfort
    - Explore nature of the incident
    - Steps that were taken to minimise mistake
    - Steps from now going forward
      - Includes – debrief, discussion with consultant, PALS, write to GP

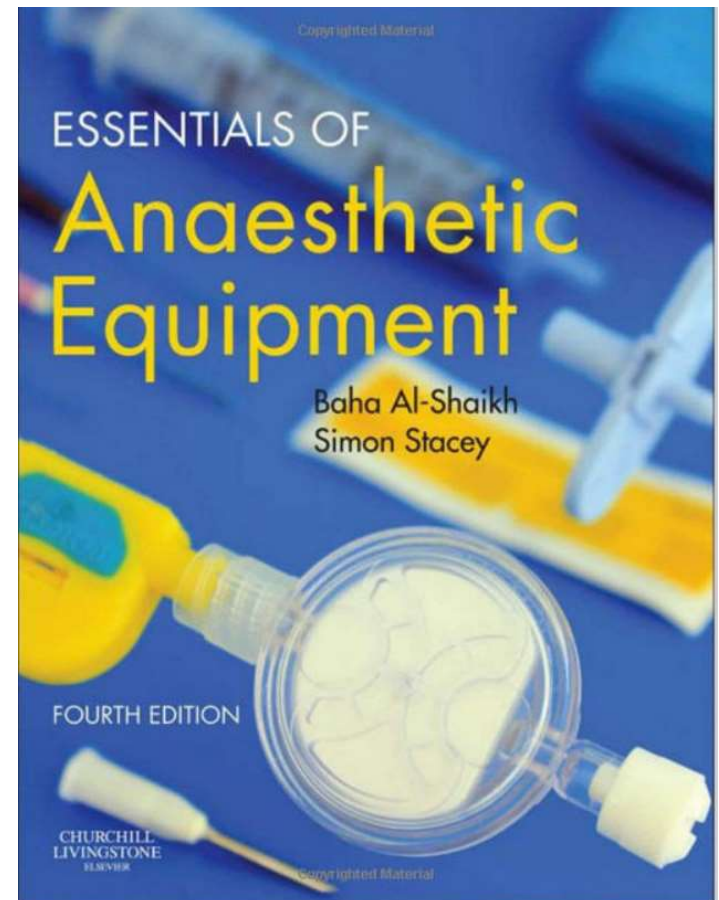
- You will be given a bit of history and then be shown an X-ray, ECG or a slice of a CT
  - CT interpretation sounds scary but is usually basic – eg epidural/subdural haematoma, obvious PE etc
- An area that we rely on our skill from foundation years to carry us through
- Usually enough with a bit of brushing up
  - Useful online resources
    - Life in the fast lane for ECGs
    - Radiology masterclass for CXRs

- This is a clinical scenario when you will be presented a patient and their observations
  - You have to figure out whats going on (usually pretty obvious)
  - State your management
- General advice
  - State you would inform senior, check for danger, wear appropriate PPE and then approach patient
  - ABC approach and briefly state your assessment/management for each area
    - Move through this quick as 5 minutes will go quick in this station
- Examples of clinical scenarios to learn
  - ALS algorithms for tachycardia/bradycardia, adult and paediatric cardiac arrest
    - Special considerations for drowned/hypothermic patients has come up!
  - Malignant hyperthermia
  - Laryngospasm
  - Anaphylaxis
  - Major haemorrhage
  - Obstetric emergencies
    - You may not have come across this beforehand if you haven't done your obs block so consider either taster days/teaching from obstetric anaesthetists
  - Tracheostomy emergencies

- These are OSCE question books – often written by ex-examiners so useful
- Have mark schemes so you can test yourself
- Older text books, some things seem out of date
  - Eg landmark blocks
- However I would recommend going through them and making sure you have notes on the relevant areas they cover



- As said before – very detailed, use as a guide/reference
  - Don't need to know the whole book



- Made using Microsoft onenote
- Made throughout revision period – for MCQ and viva
- A bit haphazard as I have been continually adding to them
- Hopefully will be helpful!
- Link:
  - [https://1drv.ms/u/s!ApK5\\_-Gpk1BJ0Qn4F46iYV7H-o2D](https://1drv.ms/u/s!ApK5_-Gpk1BJ0Qn4F46iYV7H-o2D)

- 6 weeks of intensive work – a long slog but the end is in sight
- Use masterpass for the SOE
- Get good baseline knowledge then practice with peers
- Don't neglect the OSCE – lots of extra things to learn
- The exam is undoubtedly a massive drag but it's an unavoidable hoop you have to jump through to progress in a great specialty – so its definitely worth it!
- Good luck!