

Anatomy for the FRCA





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Preface

This book has evolved from our own experience of revising for the FRCA: anatomy questions occur at all parts of the Primary or Final exams. College exam reports often cite anatomy as an area of weakness, concluding that candidates do not spend enough time preparing for this component.

The syllabus is vast and could be summarised as: anatomy [human]. Undergraduate teaching has diminished to the point of disappearing in many medical schools and, to further compound the problem, the standard of FRCA anatomy revision material can vary considerably. The mythical *greater* auricular and *posterior* tibial nerves deserve particular mention as examples of inaccurate information that have crept into the FRCA lexicon. Consequently, candidates face the laborious task of either cross-checking information from several sources or revise from a comprehensive (for which some might read 'impenetrable') non-anaesthesia anatomy text. As a result, it appears that candidates are not only unsure about anatomy, but they are also unsure where to go to learn it.

In that case, what is the best approach? Well, you could take a high-investment and low-risk strategy by learning everything. For this, you would need a more substantial and comprehensive anatomy text (we recommend *Last's Anatomy: Regional and Applied*). However, this approach is not possible for most as there is so much other material to cover. Many have previously adopted the low-investment and high-risk strategy of hoping to 'wing it'. This approach is easier during the revision stage, and it has worked for some, but you must accept the chance that a stressful, difficult and unsuccessful experience is magnified.

To respect the enormous, time-pressured challenge of the FRCA exams, we would recommend a middle road: minimise your risk whilst maximising the use of your limited time and energy investment. Targeting revision around procedures and practices that you undertake makes the anatomy relevant and will provide context, aid retention of information and assist learning for other subjects in the exam. We have therefore written this book specifically as a high-quality, reliable and accurate anatomy-specific FRCA revision aid. It covers almost all of the anatomy curriculum through a whole exam paper for each type of question in the FRCA, each focused on the anatomy and centred around clinical practice. There are 12 SAQs, 18 OSCE stations, 3 anatomy-based 4-question Final science SOEs (not just one - you lucky things!) and 60 MCQs. Candidates can focus on the particular question type most relevant to them or focus on an anatomical area by using the contents page and index. Also, remember that the anatomy content is the same regardless of how it is presented in a given type of question. For example, using the SAQ section is pretty much just as useful when studying for the Primary as for the Final, even though the Primary does not include SAQs. Also, note that human anatomy is evolving very slowly - so if you learn it well for your Primary it will still be the same for your Final! And, if you learn it well for your Final, it will stand you in good stead for your future practice/ other exams (unless you take so long over your training that it has changed through

The figures have been prepared by expert anatomy illustrators/photographers to demonstrate points in the text and aid understanding, whilst maintaining anatomical accuracy



Preface

and an appropriate level of detail. The questions have been prepared from our own knowledge as well as using several excellent publications for inspiration and reference. Whilst we have not included this information verbatim (and so have not specifically referenced them), we have cited the main sources in a 'References and Further Reading' section. We would encourage you to read these in your revision too. Particular mention should be made of the 'SLIMRAG' acronym, used throughout the book as a standard approach for answering procedural questions. This was taken from Shorthouse, Barker and Waldmann's 'SAQs for the Final FRCA', which the authors themselves found an excellent resource for their exam revision.

Do note that the book is a work in progress. Many of the questions have been tested by being part of our annual 'Anatomy for the FRCA' course, which is held each Spring at the School of Medicine, University of St Andrews, whilst some are new. We have striven to eradicate oversights and erroneous information, but if you feel you have spotted any (or areas of omission), we would be delighted to hear from you.

Finally, it is worth noting that the answers in this book would score highly in the FRCA. Do not be put off by the detail, embrace it instead! Solid preparation will allow you to go to London *expecting* to pass.

Study well!

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Abbreviations

ACA anterior cerebal artery

ARDS acute respiratory distress syndrome

ASD atrial septal defect

ASIS anterior superior iliac spine

AV atrioventricular BP blood pressure CN cranial nerve

CPP cerebral perfusion pressure

CV cardiovascular CSF cerebrospinal fluid CVP central venous pressure

CXR chest X-ray

DRG dorsal root ganglion
DVT deep vein thrombosis
EAM external auditory meatus

EO external oblique

 $\begin{array}{ll} {\rm FDL} & {\rm flexor\ digitorum\ longus} \\ {\rm FHL} & {\rm flexor\ hallucis\ longus} \\ {\rm FiO}_2 & {\rm fraction\ of\ inspired\ oxygen} \end{array}$

GA general anaesthetic
GCS Glasgow coma scale
GSV great saphenous vein
IAM internal auditory meatus
ICP intracerebral pressure
ICS intercostal space
IJV internal jugular vein

ILMA intubating laryngeal mask airway

IO internal oblique ITUintensive care unit **IVC** inferior vena cava JVP jugular venous pulse **LCA** left coronary artery LMA laryngeal mask airway MAP mean arterial pressure MCA middle cerebral artery ΜI myocardial infarction MIP midinguinal point

MPIL midpoint of the inguinal ligament

MS multiple sclerosis

MTPJ metatarsophalangeal joint

NG nasogastric

OSA obstructive sleep apnoea



Abbreviations

PCA posterior cerebral artery PE pulmonary embolus PNAS paranasal air sinuses

PSIS posterior superior iliac spine

RCA right coronary artery RLN recurrent laryngeal nerve

RV right ventricle SA sinoatrial

SAD supraglottic airway device SVC superior vena cava TA transversus abdominis TAP transversus abdominis plane TCI target-controlled infusion

TIPSS transjugular intrahepatic portosystemic shunt

TLF thoracolumbar fascia VSD ventricular septal defect

