The Hands-on Guide to Surgical Training
The Hands-on Guide to Surgical Training

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Preface

It is a most gratifying sign of the rapid progress of our time that our best textbooks become antiquated so quickly.

Theodor Billroth (one of the founding fathers of abdominal surgery, 1829–1894)

There has been a need for a coherent resource for surgical trainees along the whole pathway of training for many years now, to offer some career advice and practical advice. The problem with writing such a book is in striking the balance between generic advice and specific advice. The former can make the book too vague and unhelpful, the latter means that by the time of publication the book is already long out of date, and this is particularly true in these changeable times post-MMC. Hopefully this book has struck a reasonable balance, but necessarily a book like this can only be historical, future-proofing the contents is impossible.

There are also of course variations in terms of location – some things are done differently between the regions of the UK. Where it’s relevant, for instance in matters of recruitment, since the majority of trainees work in England this has generally been discussed primarily; however, where there are regional differences these have all been described.

Never more so is an author setting himself up for becoming out of date almost immediately than when publishing current prices. There would be an argument not to have included money talk at all, but the most recent figures have been included as a rough guide to give the reader an idea of the financial impact surgical training can have. It would be nice to see one set of these financial figures, our salary, become out of date as soon after publication of this book as possible; however, at the time of going to print, the government has frozen doctors’ salaries for two years so it’s likely, unfortunately, that these will be roughly accurate for longer than we would like.

This is a ‘mixed ability’ book. There will be bits that may seem irrelevant and too junior for you, or the other way around. Just ignore the bits that aren’t helpful to you. The aim of this book is to be useful to a whole range of surgical and would-be surgical trainees. If you’re a man, for instance, you probably won’t find the Women in Surgery section in Chapter 18 very helpful. There is also a need for overseas doctors coming to work in the UK to understand the system, which explains why sometimes the absolute basics are explored.

Finally, whichever career path you decide to follow, be it surgical or non-surgical, hepatopancreaticobiliary or otorhinolaryngology – I wish you the very best of luck.
Introduction

The life so short, the craft so long to learn.
Hippocrates (c. 460 BC–370 BC)

Surgical training has come a long way, for better or for worse. Until the mid-19th century you didn’t need to go to university to become a surgeon. If you had the inclination for cutting people open with little or no anaesthetic, you would attach yourself to an already established surgeon. Much like becoming a tradesman’s apprentice. Meanwhile our wealthier medical forebears would be living it up at university gaining a doctorate. They’d become ‘Dr So and So’, while we’d still be Mr (and no one’s changed that system since, in most of the UK). We would at least have had to take an examination at the end of our apprenticeship and in London this was conducted by the Surgeons’ Company, formed in 1745 as a break-away group from the Worshipful Company of Barbers. This illustriously named group was formed in 1308.

Back in those days a religious monk would be your GP, attending to all your medical and surgical needs. However, under papal decree they weren’t allowed to spill blood, and given that practically all treatments back then involved spilling blood, this was an obstacle to them doing a good day’s work. So they would work with the barbers who would not only give you a short back and sides and a wet shave, but chop off your leg, too.

Over the centuries surgery gradually became more advanced, hence the split in 1745 following power struggles between the barbers and the barber surgeons. In 1800, the Surgeons’ Company became the Royal College of Surgeons of England. The Royal College of Surgeons of Edinburgh, however, claims a longer independent history, being formed in 1505 but with a not that dissimilar background of barber origins, too.

What on earth has all this got to do with you getting an ST3 job? Well not much actually. The more recent history of surgical training, however, will have an impact (see Chapter 20). It must be basic human nature that every generation believes themselves to be in the middle of the greatest change in history, be it in 1745, 1800 or 2012. Nevertheless, it can’t be disputed that Modernising Medical Careers, the New Deal, the European Working Time Directive, public disclosure of outcome figures and even the fallout from Harold Shipman, have rocked our modern world of surgery. They have resulted in reduced working times, altered career progression and changes in how we prove our competence and probity. However, whatever changes politicians, managers or even senior doctors make, the core fundamentals of learning how to be a surgeon remain the same as they were during the time of the Worshipful Company of Barbers: study the theory of surgery and practise the art.
As a surgical trainee you’ll spend your working day between four specific clinical categories: theatre, wards, clinic and on call. So that’s how the clinical chapters have been arranged. The aim is not to repeat the basic science of surgery – that’s been covered extensively elsewhere – it’s to help with the practical aspects of working as a surgical trainee. For example, what are all those surgical instruments called? How do you effectively lead a surgical ward round? How long postop do you take out a T-tube and why? A complex discussion about aetiopathogenesis it is not. Furthermore, the clinical section is weighted towards general surgery. This is because general surgical jobs are far commoner than paediatric or cardiothoracic surgical attachments and to go into the minutiae of clinical management in each of the surgical disciplines would make this into a very different book.

The other main section of the book is related not to clinical work, but to all other non-clinical areas, much of it to assist in career guidance. There are three chapters relating to the three stages of training: foundation, core and specialty, which cover the generic aspects of those years. Each is divided into sections such as the aims of that stage, recruitment processes and competition, courses to attend and exams to take.

Following this there is a detailed look at each of the nine surgical specialties written by a senior trainee or consultant working in each of them, giving you an inside look at the specialty: how that specialty recruits, what it’s like at core training level, specialty training level and consultant level, along with recommended courses to attend.

Finally we look at the process of getting jobs, women in surgery, flexible training, research and clinical governance, political issues affecting surgery and the end game of training: consultancy.
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So you want to be a surgeon?

You must always be students, learning and unlearning till your life’s end, and if, gentlemen, you are not prepared to follow your profession in this spirit, I implore you to leave its ranks and betake yourself to some third-class trade.

Joseph Lister (British surgeon, 1827–1912)

Few careers could possibly offer as much opportunity for witnessing human suffering and being able to cure it, or for acquiring such a vast scientific knowledge and applying it to something so tangible. Not to mention the job security, the earning potential, the global portability and even the social status.

There are many great things about being a surgeon but there are also some drawbacks, some big drawbacks. Few careers could possibly offer as much opportunity for witnessing human suffering and making it even worse, or take so long and so much effort to acquire the vast scientific knowledge and experience required. Not to mention the unsociable hours, the career dead ends, the burdensome responsibility or the low pay compared with equivalent positions in the city.

Despite all this, surgical training remains highly competitive. It’s not worth bothering unless you’re sure that the pros outweigh the cons for you. The problem there is how could you possibly know until you’ve tried it? And not just as a foundation doctor or core trainee. Until you’ve felt the pain of an operation you’ve performed go badly wrong, or the gut wrenching ache of a major decision you’ve made lead to a serious adverse outcome, or had your finger up an nonagenarian’s backside at 3am on a Saturday night because you’re still doing nights well into your thirties, can you really see past the glamour of life as a surgeon.

In the not too distant past, trainees had, to all intents and purposes, as much time as they liked to try out different surgical jobs in the form of senior house officer posts – gaining experience, preparing for exams and confirming or refuting in their minds whether surgery was right for them. Modernising Medical Careers changed all that and you are now expected to commit at an earlier stage and choose a specialty much sooner. Neurosurgery, for instance, currently recruits nationally from FY2 to run-through training to consultant level. Because of the European Working Time Directive you’ll also have less time at work to get the experience you need to make up your mind.

All of that said, you need to decide carefully – very carefully – and after taking as much advice from people as you can, that surgery is right for you. Many people don’t, won’t or can’t see beyond the glossy side. If you’re in it, at worst for the money and social status or
at best because you like the idea of cutting things out of people and making them better, think again. There are other jobs that pay far better and for all the patients for whom you have the satisfaction of a clean, complication-free operation, there are many more you’ll have to treat for chronic conditions, non-operative conditions or conditions serious enough that they’re in ITU for months. Not everything in surgery will give you such quick gratification.

People often have misleading notions about who makes a good surgeon and you need to be cautious when interpreting their advice to you and establish why they think you’ll be a good surgeon. For instance, you will not be better suited to surgery just because you are:
(a) a rugby player; (b) dislike medicine; (c) like making snappy decisions; (d) have a type A personality; and (e) are male.

Forget the stereotype. Gregarious male rugby players who dislike the slower pace of medicine and like making snappy decisions do not make better surgeons than anyone else. Being a good surgeon requires a distinct skill set unrelated to sporting prowess.

1 You must be **intelligent**, at least as intelligent as a medic. You need to grasp in full detail, complex anatomy, physiological principles and the pathology that affects them.

2 You must be able to **make a decision**. Not a snappy one, you need a mind that can quickly and efficiently process information, weigh it, come to a conclusion and deliver your decision. And it must be with the acceptance that it might be wrong but you will learn from it. To be excessively scared of making difficult decisions quickly for fear of getting it wrong is a contraindication to surgery as a career.

3 You must be able to **cope under pressure** and retain your judgement.

4 You must be reasonably **dextrous**, with **good hand–eye coordination** and **spatial awareness**.

5 Whatever any moderniser says, you must accept a **work–life balance heavily weighted towards work**. Not only may you still be doing nights 10 years after qualifying when your family is at home, but to get the necessary experience you’ll have to accept coming in on days off and staying late where necessary.

6 You must be **tough skinned** enough to **cope with your own failure**, with suffering, with covert bullying, with not getting jobs and with the hours, but not so much that you don’t lose your humanity.

7 You must be **prepared to jump through hoops**: audit, exams, courses, interviews, publications, etc., and be patient enough to still be competing with others for career development and doing exams even though your contemporaries may have already reached the heights of their careers.

8 You must be a **good communicator**, like any other doctor.

9 You must like **working in a team**, taking both team participant and team leader roles readily.

10 You must like **problem solving**, although this is by no means specific to surgery.
Despite all the challenges and drawbacks of choosing to train in surgery you will be rewarded with some indescribably wonderful experiences in life if you do. It’s difficult to compare the satisfaction from saving life or limb, in a way that no other specialty does. Learning the craft of surgery – the feel of putting knife to skin, dissecting out a tumour, identifying and preserving structures that you become familiar with like old friends, fixing broken bones, decompressing suffocating neural tissue, taking out old worn-out and putting in new – brings a kind of pleasure to your work that’s impossible to explain to one who’s never experienced it. Once you’ve had a taste, you’ll know if it’s for you.

I’m a medical student, what should I do now?

So if you’ve given it the requisite thought and decided yes, I am going to ruin my life and become a surgeon, what should you do now to increase the chances of success. Actually there’s quite a lot, and it all relates to showing your early commitment to surgery.

1 Most importantly, start developing your portfolio (see Chapter 7). Obviously to begin with there won’t be much to put in it, but every little bit helps.

2 Join, or if there isn’t one already set up, a local surgical society at your medical school. The Royal College of Surgeons has information on its website to help form these. For bonus points you could sit on the Medical Student Liaison Committee (MSLC).

3 Take an elective with a surgical attachment.

4 Attend a free surgical careers afternoon at the Royal College of Surgeons (run twice a year) – you’ll get a free certificate to kick your portfolio off.

5 Become an affiliate member of the Royal College of Surgeons (£15 per annum).

6 Get involved in a surgical audit – best done during a surgical attachment – someone’s bound to be doing one, so get involved.

7 Do an intercalated BSc – it doesn’t have to be, but ideally would be surgically related. Whatever it is, work hard and aim to get a publication out of it. Even just one publication will stand you in good stead for years to come.

8 Unrelated to a BSc, ask around at your nearest surgical academic department and offer to do anything to get involved in research that might lead to a paper.

9 Work hard academically – winning prizes in medical school will provide more points on future application forms than you realise. There’s often a section for prizes and most people have to leave it empty.

10 Prizes prizes prizes. Apply for the Professor Harold Ellis Medical Student Prize for Surgery run through the RCS; the Hunterian Society offers a prize, as do many other local surgical societies – keep your ear to the ground.

11 Go on the Systematic Training in Acute Illness Recognition and Treatment for Surgery (START Surgery) course run by the Royal College of Surgeons for final year medical students and foundation doctors.