



Student Section Surgery Specialty Educational Booklet

June 2020



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Note from the Editors

We find ourselves in a funny state of suspense – for part of the world, time has slowed down. The peace and quiet resulting from less traffic, less gatherings, less activity is eerie.

Another proportion of the world, much closer to us, is faced by a truly unprecedented challenge (I hesitate to use this word, it loses more and more of its meaning everyday as the media floods my feeds with reports of unprecedentedness). NHS staff – past, present, and future – are bracing for the impact of Covid19, a pandemic which will put our resources under immense strain.

Several medical schools have already told final year medical students they have graduated “in absentia”, in a move which felt anti-climactic for some – the expected champagne celebration on the day of results transformed into a half-hearted pint, weighed down by the guilt of not “socially distancing” and the dread of having to face this disease, in addition to the usual challenges which come with starting work as an F1.

Our training will doubtless be impacted by these events, and it is heart-warming to see medical students everywhere stepping up to volunteer, organising help in their local communities, in a true display of their vocation. We are still on track to achieve everything we want to achieve, and hopefully Ms Barbara Jemec’s article on Global Surgery (p.7) will motivate us to carry on in an altruistic spirit throughout.

Home bound, the idea electives a distant memory of the past, we find escape through Alice Fort-Schaale, who recounts her experience in Cuba (p.8). This time could also be for us the opportunity to learn and reflect on different career choices, Ali Abdall-Razak entertaining us with his insight into ophthalmology (p.6), and Melissa Matthews hers into urology (p.10). Ms Rina George has given us her perspective on her life as a general surgeon (p.3).

If that feels like unproductive day-dreaming, we can make the most of this time to educate ourselves with Armita Azar’s excellent piece on skin grafts and flaps (p.4) or revise brain bleeds thanks to Emma Norton (p.11) – alternatively consider the ethics of our profession through Mercy Osayi’s piece (p.9)

As an aspiring surgeon myself, I have learnt so much whilst working on this edition. I hope that wannabe surgeons and medics alike will be inspired and informed, or at the very least distracted for a few minutes whilst reading this booklet!

On behalf of the RSM Student Section committee,

Mary Goble, University of Sheffield

Editor

A day in the life of a general surgeon: Ms Rina George

Mary Goble, 4th year medical student, University of Sheffield

Rina George is a consultant colorectal surgeon, who works at the Doncaster Royal Infirmary. She spoke with us about her training, motherhood and her day-to-day life.

Talk us through a typical week for you

My day starts at 5:50 – I keep in shape by doing 15min of HIIT on the bike 5 days a week. I leave at 7 as the nanny arrives, and Monday is my theatre day so I usually go straight to theatre admissions and see my patients. We need at least 4 staff to run a theatre list – the anaesthetist, the operating department practitioner, a scrub nurse and a “runner”, and a healthcare assistant – but we often run on less, which makes the day very tiring. You need a lot of physical and mental stamina for the job – my longest operation, a laparoscopic panproctocolectomy, lasts around 8 hours!

I run a breakfast club for students or junior doctors on a Tuesday morning, and the rest of the week is divided between meetings, some private work, endoscopy clinic, and occasionally another half-day operating list on Fridays. I do 1 in 7 weeks on call.

What was your training like?

I went to medical school in Nottingham, between 1993 and 1998. I'd always wanted to be a surgeon, but during my gastroenterology house officer job (F1 equivalent), in Blackpool, I did actually consider medicine. I loved that job – particularly in contrast to the job of a surgical house officer, where you can't take much initiative. However, by then, I'd already put in my application for general surgery.

I went on to do a 2-and-a-half-year rotation in Sheffield, with several posts including anatomy demonstrating – which was really fun and excellent at pinning down my anatomy knowledge! I also had an A&E job, which, I believe every doctor should do, for quick decision-making and prioritising skills.

There is a move today towards early specialising, which I feel is detrimental because you need a breadth of experience to be a holistic doctor in any subject. Overall, though, I'd say the length of training to become a surgeon is crucial to develop the necessary maturity to make good perioperative and intraoperative decisions, as well as making the hardest decisions of all...when not to operate.

What made you pick general surgery as a specialty?

I'd always wanted to do “big” surgery – I liked the medical side of gastrointestinal surgery, the operation won't go well if patients aren't medically fit. I very much enjoyed my general surgery rotation during my training, I got on well with the consultants and understood the anatomy and physiology well. I also wanted to be busy – general surgeons have a heavy operative workload and deal with a lot of admissions! There is also a mix of laparoscopic (keyhole) and open surgery. Furthermore, the majority of GI surgeons, like me, perform endoscopy – camera tests of the stomach or bowel. The variety and the skill set you need is unique and challenging.

I really love what I do, I would recommend it to anyone.

How is your current role and life different to what you might have expected a few years ago?

There were two things I underestimated. First of all, how tough it can be balancing personal and professional life when the crunch point of both happens at the same time. Just as I was hitting the latter half of my training, I took a break to have

children – who are just 18 months apart. This meant I only had 6 months surgical experience over 2 years. Getting back into training after that was hard, and relentless – early starts, work, revision. But it is easier nowadays; you can be a supernumerary when you restart after maternity leave, for a short period of time. There are also way more opportunities to be flexible with your training nowadays.

The second difference was that I thought I'd have more control over what I did as a consultant. You have to compromise every day due to lack of resources, facilities, relying on other members of staff – and teams change so often it's difficult to get to know people you work with.

Rina, you are married and have two children – how did you balance this with your trajectory to become a consultant?

I never did any of my training part time, which is quite rare for a female consultant, I suppose. Being able to have good, reliable, trustworthy person help look after my children was so important. I had to be able to focus on work when I was at work, and not be worried about who was looking after the children, or getting back at a specific time. There were times where it was a stretch to share my energy between work, children and my relationship – I honestly think what made me get through it, is that I'd gone too far in my training to go back! My personal experience, is that the younger women are when they have their children, the less likely they are to become surgical consultants. However, every person is different and makes choices depending on their own circumstances. When you do get to be a consultant, life is 100 times better! I can spend time with my family, and I think they will remember this in contrast to the early starts and late finishes when they were much younger. Having a job I love now also definitely helps – I am a much better wife and mum that way.

Any final words of wisdom for budding surgeons out there?

It has been very hard in the NHS, being so under-resourced for so long, and being asked to do more with less all the time. However, compared to other healthcare staff, we have the privilege of seeing the whole picture – including the end, when the patient is well, home, and disease free. Nothing is more boosting for my morale than the patient's outcome; that's the joy. I can see how, with other health care professionals, they don't see that end point, so it's difficult for them to understand how vital their role is and how they touch peoples' lives. As a surgeon, we have the full responsibility for our patient's journey and it is so rewarding. It also can be a heavy burden, and if patient loses their life, or has a complication that seriously affects their quality of life, that's on me too.

When complications happen to a patient, or things do not go so well, I tend to take things very personally, and on reflection, I think this is quite a female trait. I feel like my male colleagues can brush things off more easily! The important thing I try to remember is that I'm only human and occasionally I will make mistakes. Sometimes an operation just doesn't go well, even though I have put in my best effort and done the procedure to the very best of my ability. In those situations I make myself think about the vast majority of patients that I have helped, the cancers I've cured, the people who are alive today because of what I've done...it genuinely makes it all worthwhile.

I can honestly say a career in General Surgery is tough, but it's so, so good!



Plastic Surgery: Skin Grafts and Flaps

Armita Azar, 3rd year medical student, Barts and the London

Brief History of Reconstructive surgery: Skin Grafts and Flaps

Reconstructive surgery was extensively used in 19th century Ireland¹, where it was used to treat nasal amputation Irish tax evaders were forced to suffer as punishment – a practice that extends back to 16th century Rome. The first historical account of nasal mutilation is widely considered to have been in India, where in 1500 BC Prince Lakshmana amputated the nose of Lady Surpanakha as punishment, and the king ordered for it to be reconstructed². This being said, the first description of a pedicle flap is in 700BC India by Sushruta where tissue from the forehead was used to cover a nasal mutilation, and was not used in Britain until it was reported in the 1700s³.

Skin Grafts

Often, skin grafting is used to treat extensive wounding or trauma, burns, areas of extensive skin loss (due to infection) or in the context of other surgeries that may require skin grafts in order to help the healing process - the most common being removal of skin cancers. The purpose of grafting is that it reduces the time spent in hospital because the course of treatment is reduced; it also improves the function and appearance of the area of the body which receives the skin graft¹.

1. The Split-thickness skin graft

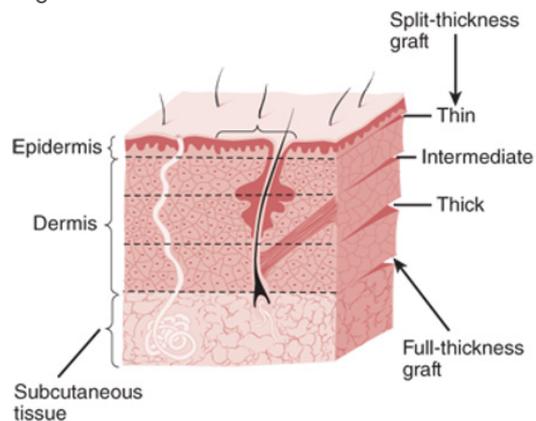
The split skin graft is most common, it involves choosing a healthy section of skin from another part of the body, i.e. the 'donor section', and inserting it where required

2. Full thickness skin graft

This type of graft involves all layers of the skin, which has the disadvantage that the new part of the body may be less likely to accept it

This being said, the scar left from this technique is often small, heals more quickly, and is less painful than a partial thickness graft^{1, 2}

Figure 1: Illustration of skin thickness



Source: Gerard M. Doherty: *Current Diagnosis & Treatment: Surgery*, 14th Edition
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Reproduced from Doherty GM, *Current diagnosis & treatment: Surgery*, 14th Edition. New York: McGraw-Hill; 2010.

Flap Surgery

Skin grafts differ from skin flaps in that the graft does not involve transfer of donor blood supply, whereas a flap does, which means flaps can transfer larger amounts of tissue to the recipient site, including muscle. The intact vascular supply that the flap is still attached to is known as the pedicle. Flap surgery is used in those with tissue loss over any area of the skin, often used to repair defects left behind after a traumatic surgery or mastectomy. It additionally has extended uses after repair of skin cancers, particularly in Mohs surgery where the cancer is removed in layers¹. They are classified according to their *proximity* to the original defect, and their *blood supply*. Regarding proximity, local flaps are immediately adjacent to the defect, regional flaps are near the primary defect, and free flaps are harvested from a distant site⁵.

Classification by proximity to primary defect

1. Local Flaps

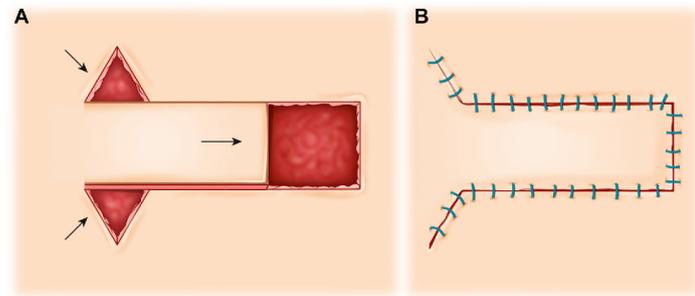
- The tissue is freed and rotated or moved from an adjacent area to the tissue damage to the site of the defect. This section of tissue, however, remains joined to the body at the base and has blood vessels that enter into the flap from the donor site.

- The local flaps can be further subdivided into four types:

A) Advancement flap

- The tissue moves directly forwards onto the damaged site, with no lateral movement

Figure 2: Illustration of unipedicle advancement flap



Reproduced from Shew, M et al. Flap Basics II: Advancement Flaps. *Facial plastic surgery clinics of North America*. 2017; 25(3):323-335.

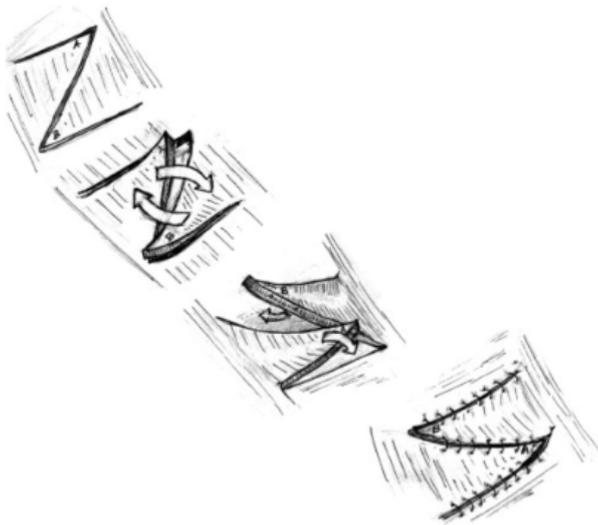
B) Transposition flap

- Moves laterally in relation to a pivot point, through an arc of rotation in the linear axis, to be positioned into an adjacent defect. The advantage of this type is that the donor scar is well camouflaged.

- Z-plasty is a double transposition flap that is often an appropriate option when trying to revise scars^{3,4}

Figure 3: Z-plasty technique, where a scar is being revised and the tissue is elongated⁴

Reproduced from Tschoi M, Hoy EA, Granick MS. Skin flaps.



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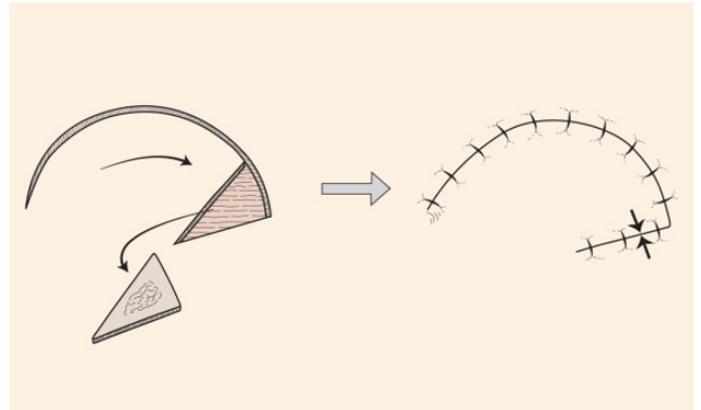
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C) Rotation flap

- The area of tissue rotates around a pivot point to be positioned into an adjacent flap⁶

Figure 4: Illustration of a standard rotation flap



Reproduced from Baker SR. Flap classification and design. In: Baker SR, ed. *Local Flaps in Facial Reconstruction*. 3rd ed. Philadelphia: Elsevier Saunders; 2014.

D) Interpolation flap

- This flap is unique in that it rotates around a pivot point (similar to the rotation flap) but instead of being inserted in an adjacent area, it is inserted in an area further away

2. Free Flap

- Tissue from another area of the body is detached completely and transplanted to the recipient site. The blood supply to the donor site is cut, and instead, the tissue is reconnected to the blood vessels in the recipient area, i.e. 'anastomosed'^{1,2}.

- Interestingly, the success rate for free flap reconstruction in the head and neck is around 94-99%, and when surgeons note the flap is being compromised, it can be salvaged. Accordingly, surgeons have adopted physical examination tests as well as other protocol to assess flaps early to recognise early flap compromise⁶.

Classification by blood supply

Regarding classification relative to the blood supply of flaps, axial flaps are supplied by a named artery, and random pattern flaps have unnamed musculocutaneous arteries or dermal plexus blood supplies⁶.

Flaps are generally used when simpler closure techniques such as skin grafts are either functionally or cosmetically non-viable. As such, by using adjacent tissues, flaps allow for excellent camouflage of scars with matching colour and tone^{6,7}. This being said, skin grafts are the ideal reconstructive tool for extensive burns, and prove to be useful in severe injuries or recovery from skin cancer, granted the issue of acceptance is resolved.

Ophthalmology: The Neglected Specialty

Ali Abdall-Razak, final year medical student, Imperial College London

How much do we really know about ophthalmology by the time we graduate? Most of us will spend an average of around 8 days in the specialty.¹ That's 8 days, out of 5 years of study. It plays a tiny part of our pre-clinical neurology teaching and most of us will graduate knowing little more than that a pituitary tumour can give you bitemporal hemianopia.

In fact, medical schools are no longer required to provide ophthalmic training even though eye examinations are often necessary to perform a complete medical examination.¹ This lack of ophthalmic teaching for medical students is not a new worry; it has raised concerns for over 10 years^{2,3}.

A recent study looked at the needs of junior ophthalmic trainees at the start of their training⁴: most of the trainees lacked any experience in several of the core clinical competencies that were being looked into. Of course, much of ophthalmology, like much of medicine, is expected to be learnt on the job – but how many of those going into cardiology will have not seen an echo; how many budding orthopods, not seen an X-RAY?

Naturally, ophthalmic training achieves its goal and enables doctors with no prior experience to excel in their chosen discipline. Students aren't put off by a lack of experience either; it's one of the most competitive surgical specialties out there, with over 3.7 applications per post in 2018.⁵ You could say there aren't that many posts to begin with, and that would be a fair comment. You might even describe ophthalmology as the 'dentistry of medicine.' Ophthalmologists are usually quite separate, called upon by other medical specialties when needed, and likely to even work in a specialised hospital. But competition is competition, and as medics we, unfortunately, see competition as appealing – so why is ophthalmology so appealing?

Well, first and foremost, I am yet to meet a person that would give up their sense of sight before anything else. We always talk about quality of life in medicine, and we implore ourselves to remember that our job is not to extend life, but to improve it. Everything you do in ophthalmology, does exactly that. There is so little that makes you think 'is this really worth it for the patient?' That constant ability to directly improve someone's life takes you back to your 18-year old self, dewy-eyed and hopeful, promising yourself you'll always do what you can to help your future patients. So much of what we experience in the world is through our eyes. Not just colour, not just beauty, but communication. Expressions, emotions, love, pain – simply close your eyes, and see how much of their vivacity disappears.

This is all without mentioning the utter beauty of ophthalmic surgery. To simply watch a surgeon, operate through a microscope, navigate their way through the smallest orifices the body can offer, and to suture with a needle that can't be seen with a naked eye demands admiration. One can only imagine what it must be like to actually perform it. Ophthalmologists are, truly, masters of dexterity.

You might not be the kind of person that chooses their specialty based on interest or pure love for it. So many of us can find anything in medicine interesting. Instead, you might be that person that, knowing they can find anything interesting, wouldn't mind a little comfort. I can't claim to know what it's like being a doctor – I'm still a year away from being able to even call myself one. But medical students aren't clueless; we see how miserable doctors are, we see what the consultants are doing, and we decide, there and then, in a rotation, if it's something we want to do.

Ophthalmology is one of those rare specialties where you'll find it hard to find one of them complaining. What makes a specialty difficult? Emergencies. The more of those there are, the more stressful it is. With so much of ophthalmology being elective, your theatre times are set, your clinics are scheduled, and you'll rarely find yourself sludging away at a ward round (and let's be honest – these are the bane of a medical student's life.)

Of course, we never really know where we will find ourselves. We'll suddenly wake up when we're 40 and find ourselves at the result of a long chain of decisions, which makes it even more important to be aware of our options as we make our paths. Give ophthalmology a thought; put the effort in to take it beyond the 8 allocated days in medical school, and see if it's the career for you. Be conscious of your 40-year-old self – or as I like to think, 'what would 40-year-old Ali thank me for?'

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Global Surgery, and how you can get involved

Ms Barbara Jemec



Ms Jemec is a consultant plastic surgeon specializing in hand surgery and skin cancer. She founded BFIRST, a charity which trains plastic surgeons in resource poor countries, was president of the Plastic Surgery section of the Royal Society of Medicine, and currently works with the British Medical Association, the British Association of Plastic Reconstructive and Aesthetic Surgeons and the Royal College of Surgeons.

Not everyone has timely access to safe surgery and ‘Global surgery’ is defined as the multidisciplinary effort to provide improved and equitable surgical care internationally¹.

The Lancet Commission’s report² in 2015 highlighted the contribution surgical conditions and their treatment made to Global health and the Commission continues to publish goals, economic impact measures, and government actions.

There are many ways in which you can contribute to Global Surgery, which does not necessarily need to be clinical. You need to consider how you would make the biggest impact, and where your expertise lies. You should also consider that the ways in which you can best contribute may vary at different time points throughout your career: you will continually be educating yourself to become the best surgeon you possibly can. If you think about it, you probably realise that you will be offering the best treatment to your international patients, when you are fully trained and have some experience. Some of the decisions you make will be difficult.

You can, however, prepare yourself on the way and certainly play a pivotal role in the delivery of Global surgery: you don’t have to cut to be a part of this.

There is data to be sought and analysed, lifelong friendships to be made, and information to be spread. Medical students have already formed a worldwide net, which has been used to disseminate vital and collect important information. You can become part of this now.

You can tailor your surgical education to become a useful Global surgeon by studying the diseases which are prevalent in the Low and Middle Income countries (LMIC) where the inequity in surgery is highest and where you could potentially make the biggest difference. Recto-vaginal fistulae are a difficult surgical problem in LMICs, not encountered often in High Income countries – think about becoming an expert by combining colorectal and gynaecological training. Burns are one of the most common surgical causes of death in under 5-year-olds in Sub-Saharan Africa, because the patients present late: your training should involve the management of late presenting

burns, preventative medicine and public health. In the Far East, the most common methods of transport are bicycles and mopeds, and with 75% road traffic accidents involving either, the prevalence of brachial plexus injuries is high and you need to be an expert nerve, brachial plexus and upper limb surgeon to be the best.

You need to think across specialties and take the best from each to become a great Global surgeon.

Global surgery can be divided into a service provision and an educational component, to help with the lack of access to surgery in two ways: to deliver actual surgery and to teach surgery, so that the local surgeons and their teams can provide the surgery. An educational degree or learning how to become a great teacher is therefore also an important asset.

Global surgery and LMIC doctors and nurses are busy working day in and day out in the clinical field, but just like we need to improve our knowledge and the way we do things for our patients, so do they; and how to do research, collect data and set up trials, is also important in LMICs. If you know how to, you will become a valuable asset as a Global surgeon.

Think about the countries you will visit: what is their culture, how can you fit in best as guest? It isn’t just surgery which is important! The friendships you make as a medical student with your counterparts in LMIC will be the basis for future international collaborations.

The British Foundation for International Reconstructive Surgery and Training (www.BFIRST.org.uk) is the official charity of the British Association for Plastic, Reconstructive and Aesthetic Surgeons, and we now work in around 10 countries. We are invited by the local doctors to send multidisciplinary teams training them, the nurses and therapists in the management of locally important reconstructive problems: brachial plexus in Cambodia, lower limb trauma in Nepal, electrical burns in Bangladesh.

BFIRST has a medical student arm, and you can get involved by contacting them at bfirstmsc@gmail.com.

Come and join us and be tomorrow’s Global surgeons.

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Tales from an Elective Experience: Plastic Surgery in Havana, Cuba

Alice Fort-Schaale, final year medical student, Hull York Medical School

Stepping out of the plane into the searing heat of the Cuban sun, the reality began to dawn upon me. I had travelled alone to this Caribbean island, where I would be spending the next 6 weeks, with little idea about what to expect.

Lesson 1: Send emails to every hospital you are interested in, expect to have a low rate of replies, yet be persistent if you are very keen on a certain location. Try to find a student who has done your placement of choice for advice & the hospital contact details.

Planning my elective had been a laborious process, I systematically emailed (in Spanish) all the hospitals providing plastic surgery in Central and South America that were listed on the electives network pages, in addition to others I found online. My priorities were to find a placement in plastic surgery – the career I hope to pursue, in a Spanish speaking country – in order to improve my language abilities. The Hospital Hermanos Ameijeiras (HHA) in Havana, Cuba, was among the first to reply, but their costs were fairly significant (£150/week) so I explored alternatives - including going to Asia with my friends. When my spreadsheet with all the hospital details I had collated became corrupted, I let fate decide and therefore confirmed my placement in plastics at HHA.

Lesson 2: Set your priorities for your elective placement; do not be afraid to travel alone if these do not correspond with those of your friends – but do review the safety & travel advice for your elective destination.

HHA is a public hospital, which also provides private services. HHA is commonly cited as Cuba's flagship hospital and provides most major specialties, except Obstetrics & Gynaecology. The staff were incredibly welcoming, even assisting me with the numerous admin hurdles that had to be completed on my first day, which necessitated me to walk around most of Havana to obtain official bank stamps, passport photos and approval of my documents.

Lesson 3: Application fees and weekly hospital charges are common, although they tend to be cheaper in South-East Asia. Look in to the numerous bursaries & awards available and make sure you apply to some.

I was fortunate to spend the majority of my time in theatre, where I was actively involved in the majority of operations I saw, occasionally led by internationally renowned surgeons. I also attended ward rounds, out-patient clinic and pre-operative sessions. The case-mix was novel (and unexpected) for me, given that the majority of operations were cosmetic and I was intrigued to learn that such procedures are provided under the free Cuban healthcare system. The operations spanned a substantial breadth of the cosmetic field, ranging from rhinoplasty, rhytidectomy and otoplasty to liposuction, Abdominoplasty and Breast procedures – in addition to occasional reconstructive procedures. My role in

Lesson 4: expect to spend your first day completing admin, ask the staff for advice/assistance about how to complete this if you are unsure.

Lesson 5: Be mindful of potential language barriers; I already spoke advanced Spanish, however I would have been lost with only a basic understanding. Check whether the doctors or locals will speak a language you can comfortably understand, and if not, decide how you plan to overcome this.

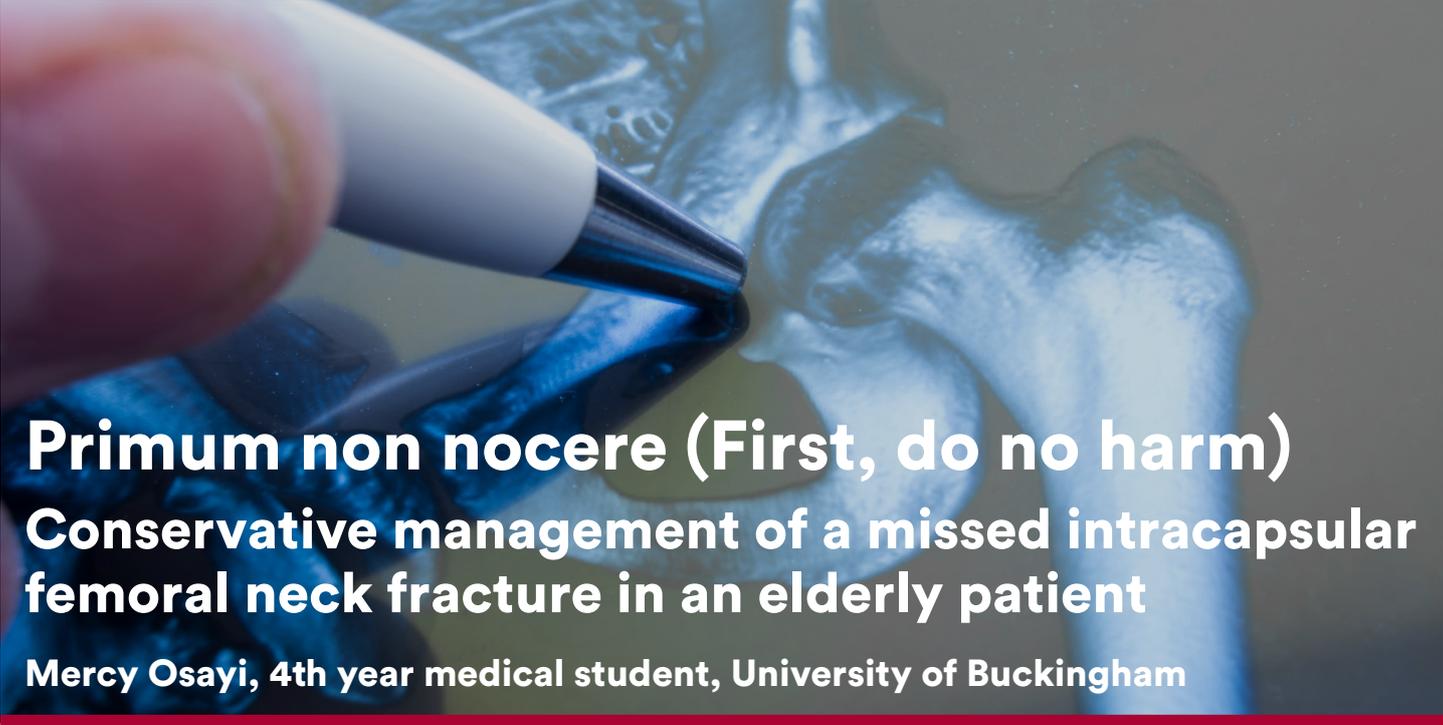
the operations usually included assisting and suturing, I also benefitted from the continual teaching - each procedure was thoroughly discussed during the operation, in addition to formal teaching sessions. The only drawback was the lack of research opportunities - I had wanted to conduct a project, however the hospital deemed 6 weeks too short.

Lesson 6: If you are keen to conduct a project during your elective, arrange this in advance. Check whether the doctors in your hospital are involved in research or have publications to determine the likelihood of accomplishing this.

My elective also afforded me a valuable insight into the differences and similarities between UK and foreign healthcare systems and the challenges that affect clinicians and the care they can provide. Cuba remains subject to the US embargo which significantly limits access to resources. In the hospital, this resulted in medicine and equipment shortages - which occasionally resulted in cancellation of non-urgent operations. The resourcefulness and resilience of the doctors was humbling to witness, coping seamlessly with occasional electricity-cuts and unsatisfactory equipment. Living in Cuba also improved my own resilience, as everything from finding internet and buying water to withdrawing money and booking buses became lengthy endeavours. Nonetheless, living in Havana was an incredible experience and during my weekends and the seventh week, I was able to explore this fascinating country and its wealth of cultural, historical and environmental offerings.

Lesson 7: Read up on your elective destination; inevitably, not everything will go to plan, but you can learn from every experience.





Primum non nocere (First, do no harm)

Conservative management of a missed intracapsular femoral neck fracture in an elderly patient

Mercy Osayi, 4th year medical student, University of Buckingham

Hip fractures are the most common and serious musculoskeletal injury affecting the elderly population¹ and about 50% are intracapsular². 98% of intracapsular hip fractures are managed surgically³ and as with any surgical intervention, there are associated complications of surgical repair, including but not limited to acute kidney injury, prosthesis failure and cerebrovascular accidents^{4,5}. With the high incidence of this fracture type in elderly patients, it is crucial to always consider whether the benefits of surgery outweigh the likely risks and have an understanding of the fine line between helping and harming patients through clinical interventions.

Case description

An 84-year-old woman presented to hospital with left hip pain of unclear duration. There was no report of recent trauma by her carers or family members. Her past medical history includes widespread osteoarthritis, parkinson's disease, dementia and atrial flutter. She lives in her own home and is supported by carers as she is non-ambulatory.

Her plain radiographs revealed a basicervical insufficiency fracture of the left femur, with the presence of callus formation suggesting that it was at least 4 weeks old. Her current episode of pain was likely caused by recent trauma, not her previous fracture. Her medical background and delayed presentation led to the clinical decision to manage the fracture conservatively.

Discussion

It is important for physicians to always consider the possibility of a hip fracture in this demographic as the risk of missed fractures is high. Although a high percentage of intracapsular neck of femur fractures are managed surgically³, a conservative approach in this group of patients would be more beneficial than surgical intervention.

Personalised care is a key aspect of patient assessment and management, we treat the individual, not the disease. Every patient that walks into hospital presents with a physical and physiological architecture that is unique to them. And while we have guidelines with suggestions to support clinical decision making, I have learnt that it is paramount that each patient is treated according to their specific medical needs and careful considerations are made to identify exceptions to management recommendations.

As medical students, the phrase 'first, do no harm' is one we have likely come across in ethics seminars or lectures. And while this is not as cut and dry as it seems, I believe it is a nudge to get us to first of all think and weigh our management decisions in order to identify where our interventions would, in fact, be more harmful to a patient than helpful.

In this case, the consultant surgeon explained that the extreme degree of proximal migration of the patient's femur suggested that the attached soft tissues, muscles and scar tissue would make surgical reduction of the fracture difficult and involve significant soft tissue trauma. In combination with the patient being elderly, with neurological and cardiovascular co-morbidities, this meant the risks associated with surgery were high and would far outweigh the benefits. This was carefully communicated to the patient's family.

Conclusion

The General Medical Council (GMC) has and continues to champion the significance of patient safety. As students, we learn to employ measures to improve patient safety through infection control measures, for example. I think this is a good time in our training to develop a mind-set of always looking out for the cases where we could be about to cause more harm to patients than good.

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Why I want to be a Urologist

Melissa Matthews, 2nd year medical student, Hull York Medical School

My first insight into urology was during my Biomedicine degree at St Georges, where I was fortunate enough to shadow Mr Rami Issa, national expert in the management of bladder and prostate cancers. I observed minimally invasive (robotic) surgeries, using the latest Da Vinci system, and witnessed the multidisciplinary approach to surgery during a laparoscopic prostatectomy, including physicians' associates, junior doctors and healthcare assistants. It was amazing to witness first hand, surgical procedures removing the cancerous prostate gland, knowing that this intervention would dramatically improve the life of the patient. Whether this was through relieving symptoms from the cancer itself, reducing the urgency to use the bathroom or an inability to urinate at all. Urology as a specialty seems to enable very visible and rewarding changes to a patient's quality of life. I sat in on multidisciplinary meetings and saw first-hand the triaging of urology patients for treatment in surgery and referral to clinical trials, allowing me to see how the heads of various teams within the hospital worked together to utilise resources from various departments: urology is not a specialty that is isolated and often works alongside various other sub-specialties such as oncology.

Urology is a major surgical specialty, with over 1100 consultant surgeons in the UK belonging to this specialty¹. It is expected that this figure will rise across the UK. It is therefore crucial for any foundation doctor to be aware of ward-based urological conditions such as bladder stones, urethra and prostate obstructions, infections and the skills required such as catheterisation to relieve symptoms that are common and may present in any specialty when beginning foundation year training.

Urology was the first branch of surgery to use endoscopic and key-hole techniques and has remained at the forefront of the developments in the use of robotic surgery for the removal of the prostate and various other urological procedures. As such, it is an incredibly versatile specialty with the opportunity to develop your techniques within robotic surgery, research and communications skills in clinics.

I attended the British Association of Urological Surgeons (BAUS) Conference in Glasgow from the 23 - 26th June with the British Urological Researchers in Surgical Training (BURST) Collaborative. Founded in 2015, the BURST Research Collaborative is a trainee-led UK research group comprising

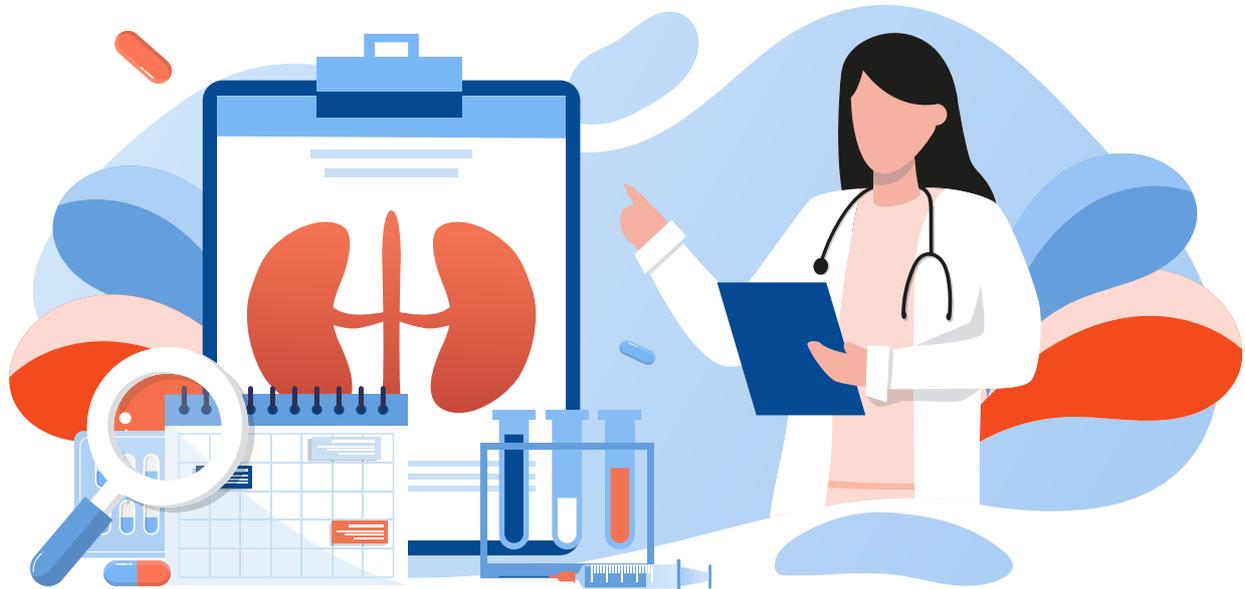
primarily of urological registrars and medical students, with a common aim to produce high impact multi-centre audits and clinical research that can improve patient care. This was a great opportunity to meet urologists in a social setting and hear about their work life balance from a first-hand perspective. It was an exciting few days, where I made lots of friends within and outside of the committee. I also tried lots of great food in Glasgow, visited new art galleries and museums. I would recommend urology as a specialty to all medical students and surgical trainees. I would especially recommend joining a university society with a committee position or research collaborative during your time at medical school. Members within these groups benefit from the opportunity meet new people with similar interests and gain a first-hand insight into the networks, partnerships and the skills required in the collaborative medical field.

I once read an article which stated that as a urologist you must possess 3 key "A" traits. Urologists are "affable", "available" and possess a unique "ability" in combining the skills required for surgery and beyond, to prepare for the best clinical outcomes for the patient. Urologists, in breaking down the barriers between themselves and the patient are able to discuss intimate details about a patient's genitourinary symptoms. They are available to support patients in unexpected times of need and take on the responsibility of not only treating the patient's physical body but their emotional and psychological challenges with relation to their urological disease².

The landscape for a career in urology is constantly changing with greater scope for considering the work life balance of a surgeon. Thanks to the amazing mentors that I have met throughout my medical school journey, their openness in sharing their personal challenges, I have been inspired to believe that urology is supportive and welcoming specialty that is accessible to all who have an interest and work ethic to bring relief to patients in need of high-quality care.

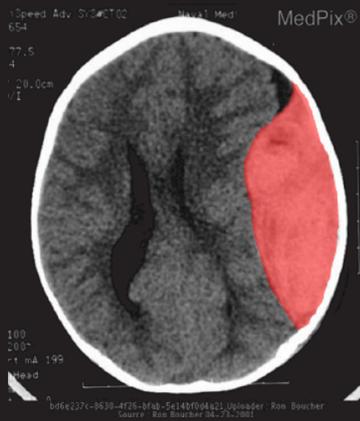
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Cranial bleeds: a pictorial guide

Emma Norton

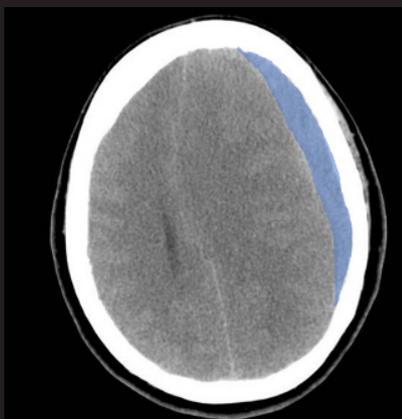


ACUTE EXTRADURAL HAEMATOMA

Causes: head trauma → **arterial** bleeding e.g. middle meningeal artery

Presentation: 'talk and die' (brief LOC followed by lucid period), headache, vomiting, confusion, seizures

CT scan: convex pool of white acute blood which does not cross the suture lines, can be substantial midline shift



ACUTE SUBDURAL HAEMATOMA

Causes: sheering of bridging veins e.g. falls, acceleration/ deceleration → **venous** bleeding

Presentation: progressive mental deterioration (drowsiness → coma), focal neurology, headache, vomiting

CT scan: semilunar, crescent-shaped white acute blood which can cross the suture lines, can cause midline shift



ACUTE SUBARACHNOID HAEMORRHAGE

Causes: trauma, aneurysm rupture, AVMs, vasculitis → **arterial** bleeding

Presentation: acute thunderclap headache, LOC, meningism, nausea, vomiting, seizures, focal neurology

CT scan: white acute blood in the subarachnoid space, sulci and cisterns, often hydrocephalus with blood in the ventricles



INTRACEREBRAL HAEMORRHAGE

Causes: hypertension, cerebral amyloid angiopathy, trauma → **arterial** bleeding

Presentation: focal neurology, impaired consciousness, headache, nausea, vomiting

CT scan: well demarcated, oddly shaped patches of white acute blood, can extend into the ventricles