



THE HIGHS AND LOWS OF AN EXPEDITION MEDIC

FLYING DOCTOR

ALSO INSIDE

05 PRESENTATIONS
TOP 10 TIPS

10 SMARTPHONES
KNOW THE RISKS

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Welcome to your FYi

MOST doctors in training likely won't remember working without access to a smartphone. These invaluable tools have brought enormous benefits for medical practitioners - but have you stopped to think about the potential risks? My article on [page 10](#) offers practical advice on areas such as the use of WhatsApp chat groups, photographing wounds and the storage of sensitive patient data.

Trainees are responsible for two-thirds of all hospital prescribing, but the quality of education in this area has been criticised as "variable" by the Royal College of Physicians. Our article on [page 4](#) highlights practical new guidance to help reduce errors.

Research looking at how and why professional wrongdoing occurs amongst doctors highlighted the importance of a healthy work environment. On [page 6](#), Dr Greg Dollman reflects

on how doctors under investigation are not simply "bad apples". It's been 60 years since the landmark Bolam case established a legal precedent for medical negligence. Jim Killgore looks back on this historic ruling on [page 7](#).

You can learn how to impress and engage with your audience in Dr Allan Gaw's article on [page 5](#) which counts down the top 10 tips for presentations. And on [page 8](#), find out how a career in public health offers the chance to positively influence the health of large numbers of patients.

On [page 12](#), expedition medic and aviation fanatic Dr Matt Wilkes talks about a passion for adventure that has taken him around the world. And on [page 14](#) our case study focuses on an allegation of delayed diagnosis of a hip fracture.

• **Dr Naeem Nazem**
Editor

COVER PHOTOGRAPH: MATT WILKES

REPORT MEDICINE SIDE EFFECTS, CAMPAIGN URGES

DOCTORS are being urged to report side effects from over-the-counter medicines in a new social media campaign from the Medicines Healthcare products Regulatory Agency (MHRA).

The agency hopes to encourage more clinicians to use the online Yellow Card Scheme as part of an EU-wide awareness week.

MHRA say they rely on reports of suspected side effects to make sure medicines are safe but, like all systems, it has suffered from "under-reporting".

While medicines are generally safe and effective, MHRA say side effects can happen, even with over-the-counter medicines. They are using the campaign to highlight how important it is that risks associated with all medicines are understood and communicated to health professionals and patients.

Potential side effects can range from specific complaints, such as a headache or sore stomach, to more general issues including flu-like symptoms or just 'feeling a bit off' and reporting these can help regulators monitor medicines on the market and take action as appropriate.

Find out more at yellowcard.mhra.gov.uk

ACTION NEEDED ON JUNIOR DOCTOR FATIGUE

MORE than one fifth of junior doctors in Scotland said their working patterns left them feeling short of sleep at work on a daily or weekly basis.

The General Medical Council's annual *National Training Survey* also shows just one third of juniors feel they always get enough sleep.

Chair of BMA Scotland's Junior Doctors Committee Dr Adam Collins called for more action to reduce fatigue.

He said: "Fatigue can pose significant risks both to patients and to doctors themselves and it is essential that we do more to address this issue. Relatively simple changes would make a significant impact, improving both safety and the working lives of junior doctors."

"Scheduling shift patterns in a way that gives junior doctors a 46-hour recovery period when they are adjusting from night shifts to day shifts, ensuring there are rest facilities for doctors who are unsafe to drive, and access to hot food around the clock would make a big difference to junior doctors' working lives."



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BURSARIES OF UP TO £16,000 FOR NEW GRADUATE MEDICINE COURSE

A BURSARY of £4,000 per year will be made available to students on Scotland's new graduate entry medical course.

The optional grant - worth up to £16,000 over the four-year course - will be payable to those who agree to work in Scotland's NHS. For each £4,000 claimed, there will be a commitment to one year of service, beginning from the start of foundation training.

The ScotGEM course will be hosted by the universities of Dundee and St Andrews with support from the University of the Highlands and Islands, and will have a particular focus on general practice and rural working.

In addition to the return-of-service bursary, the Scottish Government will pay the tuition fees for eligible students. Currently, eligible students are those assessed as "home funded" for fee purposes (Scottish domiciled/EU students).

Find out more at tinyurl.com/y8f9q7u8

CAMPAIGN TO RENAME "JUNIOR" DOCTORS

REFERRING to doctors as "junior" or "trainees" is discriminatory and belittling, according to a new campaign launched by the Oxford Health Alliance.

It's gained the backing of Chief Medical Officer (CMO) Dame Sally Davies who said doctors needed job titles that give them "the respect they deserve".

The campaign is calling for the return of the titles senior house officer and registrar, which are still used informally.

Professor David Matthews, a professor of diabetes at Oxford, said the name change would be an easy way to make doctors feel valued. He told the *Times*: "It's crazy that we've adopted this terminology.

It's unjust, progressively inaccurate and detrimental to self-esteem. The labels are widely misunderstood by the public."

Some doctors referred to as "juniors" have more than 10 years' experience but their title means they can be mistaken for students by patients. A survey of 400 juniors found more than half felt the title was bad for morale.

Health Education England has agreed to look at the issue but said the final decision would have to be taken by ministers.



INCREASE IN NUMBER OF FEMALE TRAINEES

THE number of female doctors in training increased again last year, although overall growth is slowing down, new figures show.

The proportion of female trainees has risen by just over six per cent in the past five years, from 33,000 in 2012 to 35,000 in 2017. Women now make up 58 per cent of all doctors in training, up from 57 per cent in 2015.

But there is evidence this trend is slowing down, with a nine per cent overall reduction in the number of female trainees under 30 between 2012 and 2017. One possible explanation is that more female doctors are taking career breaks and are taking longer to complete their training.

The figures were revealed in the General Medical Council's report *The state of medical education and practice in the UK: 2017*.

It also noted that, over the same five-year period, the number of male doctors in training fell by almost four per cent from 26,758 to 25,762.

Elsewhere, there was an increase in the proportion of women in surgical training between 2012 and 2017, from 24 per cent to 32 per cent. But it remains the training programme with the lowest proportion of females.

Women continue to dominate obstetrics and gynaecology (81 per cent), paediatrics and child health (77 per cent) and public health (73 per cent). In sexual and reproductive health - one of the smallest specialties - 27 of the 29 trainees are women.

In terms of trainee numbers, intensive care medicine saw the biggest five-year rise, from 60 to 192 (220 per cent), while emergency medicine also jumped from 664 to 1,438 (117 per cent). The biggest drop was in core training numbers which fell eight per cent from 8,805 to 8,089.

GMC SLASH FEES FOR NEW DOCTORS

NEWLY qualified doctors will benefit from a new fixed term discount on their General Medical Council fees which could save them up to £1,000.

The reductions will apply to doctors' fees for up to six years on the register, depending on how they join.

All 7,000 doctors who apply for provisional registration from April 1, 2018 will benefit from the full package of discounts, saving them over £1,000. An additional 41,000 doctors who have been registered for less than six years will also enjoy some savings.

All doctors who have held full registration for more than five years will receive a fee reduction of £35 - meaning they will pay £390 for their annual retention fee instead of £425.

The cuts are a result of operational savings made

by the regulator over the past two years. These include the relocation of more than 130 jobs from London to Manchester and reforms to streamline the GMC's fitness to practise procedures.

GMC Chair Professor Terence Stephenson said the decision was a mark of the organisation's drive to alleviate pressure on doctors new to medical practice and the wider medical profession where possible.

Following feedback from registrants, the GMC will also remove transaction charges from April 1 for those paying the annual retention fee via monthly or quarterly instalments.

From 2019, the GMC has pledged to limit any fee increases in line with inflation, to avoid large one-off increases in future years.





SAFE PRESCRIBING

New guidance urges more practical advice for trainees in this vital area of clinical practice

TRAINEE doctors are responsible for two-thirds of all hospital prescribing – but just how much time have you spent being taught how to do it safely?

The Royal College of Physicians (RCP) have branded the quality of education in this area as “variable” and believe junior doctors need more practical advice as well as encouragement to learn from their mistakes.

They have criticised a “lack of a concerted effort to address the safety culture around safe prescribing” and said junior doctors are often unaware of their mistakes and do not always receive the necessary feedback to help them learn and improve.

The College have published *Supporting junior doctors in safe prescribing* which sets out a number of key recommendations, including greater support from hospital trusts to create safer working environments for junior doctors to prescribe.

The recommendations are:

- Prescribing induction should be practically focused and should cover key safety principles.
- Postgraduate medical education leads must work collaboratively with medication safety officers to identify opportunities to promote safer prescribing within the wider curriculum.
- Junior doctors should be provided with regular feedback on prescribing errors; this should be done in a structured and supportive manner.
- Incident reports and other routinely collected data on prescribing errors should be used to identify areas for improvement and should feed into both quality improvement initiatives and postgraduate education and training.

- Active efforts need to be made by trusts to create safer working environments to support safe prescribing.
- Implementation of these recommendations within trusts should be supported by a board level director with responsibility for quality and safety.

Risk factors

The report cites the EQUIP (Errors – questioning undergraduate impact on prescribing) study which showed average prescribing error rates are highest for FY2 doctors at 10.3 per cent, compared to 8.4 per cent amongst FY1s and 5.9 per cent amongst consultants. EQUIP found almost 30 per cent of prescribing errors by junior doctors related to omission on admission and just over six per cent to omission on discharge.

The RCP report also reveals the classes of drugs most commonly involved in prescribing errors are analgesics, antimicrobials, bronchodilators, antianginals, corticosteroids and controlled drugs. Prescribing for elderly patients and those with renal or hepatic impairment are highlighted as other areas of difficulty for FY1 prescribers.

The causes of errors are described by the RCP as “complex and multifactorial”, suggesting that “multiple interventions” targeting different parts of the prescribing process are needed to support trainees to prescribe safely.

They pick out key risk factors in the hospital environment, including inadequate staffing, high pressure and time constraints. Individual risk factors include lack of knowledge/experience; feeling tired, hungry, stressed or unwell; and a perception that prescribing tasks are routine or not of high importance. In a broader context, risk is increased due to poor systems which may lack standardisation and where staff may be unfamiliar with drug charts or e-prescribing.

Safe practice

The RCP list a number of key safety principles for prescribing. These are:

- Taking an accurate drug history
- Checking for and acting on allergies and sensitivities, drug-drug and drug-disease interactions
- Involving patients in prescribing decisions, where possible
- Identifying and using reliable and validated sources of information when prescribing
- Only prescribing within one’s own scope of practice, and seeking help where necessary
- Taking responsibility for one’s own prescribing
- Being receptive to feedback on prescribing errors
- Employing timely and effective communication around prescribing, particularly on hospital discharge.

Prescribing induction training for new doctors, the RCP advise, should also familiarise them with local prescribing systems, e.g. the drug chart or electronic prescribing system. It should include interactive, practical prescribing exercises and highlight locally available tools and resources to support safe prescribing. New doctors should be encouraged to build relationships with pharmacists.

Trainees are encouraged to make use of resources such as the BNF, which is also accessible via a smartphone app.

MDDUS medical adviser and FYi editor Dr Naeem Nazem has taken many calls from doctors in training about safe prescribing.

He says: “Prescribing the right drug, in the right dose, to the right patient, is one of the most important responsibilities of any doctor.” He encourages doctors to write legibly, check dosage and frequency, confirm the route of administration for the drug and consider drug interactions.

He adds: “Above all, don’t be afraid to seek help if you are unsure. As well as the national and local formularies, you should take advantage of the knowledge of those around you. The ward pharmacist will be able to provide valuable advice on dosing regimens and possible drug interactions. You should also ask senior colleagues to clarify any drugs they ask you to prescribe which are unfamiliar.”


Link:

- Read the RCP report on their website at tinyurl.com/y9uxnzjc

Joanne Curran is managing editor of FYi

Top 10 tips for presentations

Dr Allan Gaw explains how to impress and engage your audience



GIVING a 'talk' is a key skill for most professionals. Whatever stage you're at, being able to give a clear, effective and informative presentation is something that needs to be worked at. Few of us are naturals – even those we think of as born speakers have had to hone and develop their skills through a lot of practice. Here are the top 10 things you should consider.

1. Keep it simple

Some speakers think simplicity will betray them, leading an audience to conclude that their work itself is simple and therefore lightweight. In fact, simplicity is appreciated by audiences the world over. Clear, concise messages unadorned by the complexity that's possible through modern technologies and delivered in a simple unassuming style will win the day.

2. Prepare well

Presentations should not be boring, perfunctory or delivered as an afterthought. Audiences shouldn't have to struggle to understand what is being said or strain to see what is being shown. Presenters should do the necessary preparation to ensure the quality of their talk.

3. Be an expert

To give an effective presentation on any topic you must first have command of that topic. Occasionally, you may find yourself in charge of a lecture in front of an unfamiliar group with someone else's slides and a very dry throat. In most instances, however, you will know your subject, but again, because your audience deserves your best, you should ensure your knowledge is up to scratch.

4. Begin well

Follow the advice of Mary Poppins – 'Best begun is half done.' At the start of any presentation, you have the chance to introduce yourself and your topic, engage positively with your audience and show the roadmap you plan to follow. Don't squander these opportunities because of your nerves or by being ill-prepared.

5. Show your enthusiasm

If you're not enthusiastic about your talk how can you expect anyone in the audience to be? Put a spring in your step and a smile on your face, and let the audience see that you think your subject is not just interesting, but fascinating. Any topic, even

if it is superficially dry, can be moisturised by an enthusiastic approach.

6. Explain

The contents of your presentation can't simply be factual. Your job is more complex and subtle than that – you also have to explain. This will involve mixing your factual discourse with pauses and asides to clarify and, if necessary, to elaborate. The form of your explanations will vary, but will often consist of alternative rephrasing of new ideas. "In other words..." you may begin, thus signposting that an explanation is coming.

7. Make it concrete

Many of the things in your presentation will be new and abstract and may not be obvious to anyone coming to the subject for the first time. In order to bring the theoretical and the abstract back to reality, use concrete examples, like specific case studies, to illustrate your points.

8. Add emphasis

There will always be key points you'll need to convey. You're the expert and know what's most important in your subject, but your audience may not. When preparing your presentation, be conscious of the take-home messages – indeed they should be the first on your plan. But remember, whatever the length of your talk you'll be able to cover less ground than you might think. In a 10-minute talk have one to two key points, in a 30 minute talk three to four, and in a 50 minute presentation around five. You'll be tempted to put in more, but your presentation will be clearer, less cluttered and much more effective if you don't.

9. Make it entertaining

Education without an element of entertainment is a dry exercise. You don't have to don a clown suit or hone a stand-up comedy routine, but you should think up ways to make your presentations enjoyable. It might be humour, but not everyone can tell a joke and of course some topics are far from funny. It might be engaging stories and anecdotes that tease an audience to the edges of their seats. It might even be carefully chosen visuals that delight, soften or rouse an audience. However, if, as a presenter, you adopt these strategies purely for dramatic effect, they may fall flat. Of course, if you choose them carefully and use them only to carry along your narrative or to emphasise points and exemplify your arguments, they can work well.

10. Think about the audience

Ask yourself: "Who are the audience? What do they already know and understand? What do they need?" So many clearly fail to do this and the consequences are poorly constructed, inappropriately complex or over-simplified, and sometimes even patronising presentations. Imagine what it's like to be one of your audience sitting in the back row and this will help you design and deliver a more effective presentation.

Dr Allan Gaw is a writer and educator in Glasgow

MORE THAN JUST 'BAD APPLES'

RECENT research looking at how and why professional wrongdoing occurs among healthcare providers concluded that not all doctors under investigation are simply "bad apples". While this in itself is not particularly revolutionary, the researchers also considered the impact of social learning as well as the accumulated stresses and strains of working in a healthcare setting in producing and perpetuating misconduct.

What they found provides interesting food for thought and highlights the importance of a healthy, well-functioning work environment.

In 2017, Coventry University researchers examined more than 6,700 fitness to practise rulings relating to conduct (as opposed to capability or health concerns) issued between 2014 and 2016 by three regulators, including the General Medical Council (GMC).

The Professional Standards Authority (which oversees the nine regulators of health and social care in the UK, and funded the study) said the findings highlighted the "complex and subtle interplay between individual professionals, teams, workplaces, gender and culture."

The study describes three different types of perpetrator: the self-serving "bad apple", the individual who is corrupted by the falling standards of their workplace (a "bad barrel"), and the "depleted perpetrator" struggling to cope with the pressures of life.

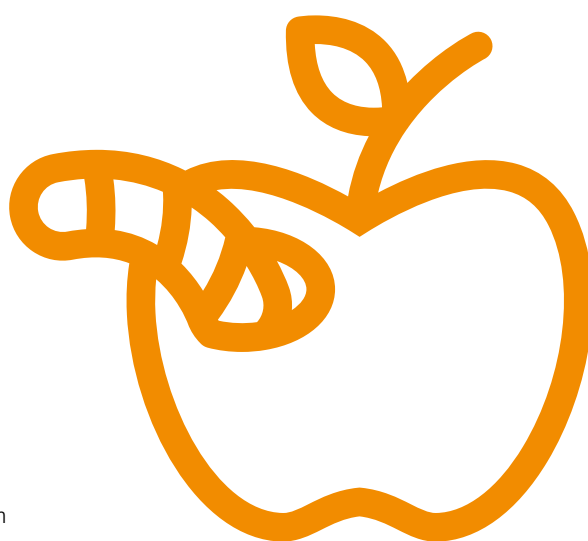
The aim of the research was to consider the underlying cause of these wrongdoings and offer recommendations to assist employers and regulators to improve detection. With a focus on sexual boundary violations and dishonesty, the importance of this research is self-evident.

It is a well-known fact that the GMC will investigate thoroughly any concerns about a doctor's personal conduct in relation to these two issues. The regulator provides specific advice to doctors about maintaining a professional boundary with patients as well as the importance of probity. More about this later.

Nature vs nurture

The researchers state that personal conduct may be affected by various factors, including the individual's personality ('bad apples'), social learning ('corrupting barrels'), accumulated stresses and strains ('depleting barrels') and environmental factors ('bad cellars').

A well-functioning work environment is key to reducing doctors' risk of getting into professional difficulty



Firstly, 'bad apples' are outliers whose actions are not the norm, often motivated by personal gain. They operate alone and are characterised by premeditated and strategic wrongdoing. Careful vetting should prevent these individuals from entering the profession, while disciplinary action will remove those unable to remedy their behaviour.

The second contributory factor, influenced by social learning theory, holds that "social norms change following exposure to others' unethical behaviour" resulting in the "normalisation of misconduct". So-called bad barrels arise in poor workplace environments, which includes inappropriate sexual talk/behaviour within an informal organisational climate, or collectives which support, for example, faking qualifications and references for staff members.

"Depleting barrels" arise when repeated stress and strain (such as ongoing exposure to trauma or lack of sleep through shift work) deplete an individual's resources. This may result in a "diminished capacity to self-manage", with subsequent misconduct a result of omission and error.

Finally, the researchers note the impact of the wider environment, including the influence of the culture and gender of doctors under investigation.

Interestingly, the study found that concerns about dishonesty and theft were the main reason for a fitness to practise hearing in relation to conduct, while of all healthcare professionals doctors were most likely to be investigated for sexual misconduct.

The report concludes with some recommendations, including more induction training for new doctors regarding employers' expenses policies and more "acculturation training... for non-UK trained staff to make UK cultural norms clearer." It also recommends greater efforts to weed out so-called "devious individuals", for example by systematic checking of qualifications and references, as well as suggesting employers assess the "moral values" of potential employees.

Guidance

No doctor wants to get in trouble with the GMC and maintaining high standards of probity is one way to minimise risk. Being honest and trustworthy, and acting with integrity are the foundations of professionalism, and the GMC expands on these principles in its *Good medical practice* guidance.

The GMC states that doctors must not use their professional position to pursue a sexual or improper emotional relationship with a patient or someone close to them. In addition, doctors have a duty to act if they have concerns that a colleague's actions are contrary to the principles set out by the regulator. Doctors must always act in the best interests of patients, putting aside any professional or personal loyalties. Indeed, while a doctor is also obliged to assist a colleague who is experiencing difficulty, patient safety remains paramount.

Doctors who have concerns that patient safety, dignity or comfort is at risk should read the GMC's guidance *Raising and acting on concerns about patient safety*. This explains that doctors will be able to justify raising a concern if they do so honestly, on the basis of reasonable belief and through appropriate channels, even if they are mistaken.

The GMC reminds doctors of the importance of being medically fit to undertake clinical work. If you believe that circumstances or conditions in your workplace are affecting your health, you have an obligation to seek appropriate support, whether from your GP or occupational health or from one of the various local and national services aimed at doctors.

Dr Greg Dollman is a medical adviser at MDDUS

NOT THE MAN ON THE CLAPHAM OMNIBUS

Sixty years on from the landmark Bolam case which established a legal precedent for medical negligence

JOHN Bolam was not an exceptional man – though he did survive two world wars and this no doubt contributed to the circumstances that led to his admission to the Friern psychiatric hospital in 1954.

The car salesman suffered from recurrent debilitating depression and had previously attempted suicide. Other treatments not proving efficacious, he agreed to electroconvulsive therapy (ECT). Common practice at the Friern was not to use muscle relaxants or physical restraints during ECT, although nurses were positioned on both sides of the treatment couch to prevent the patient falling off. In the first treatment Bolam suffered no serious complications but in the second induced seizure he sustained bilateral fractures of the pelvis.

Bolam later filed a suit against the Friern Hospital Management Committee claiming negligence for allowing the treating physician – Dr Allfrey – to carry out the procedure without administering relaxants, using manual restraints or warning him of the risks involved in ECT. It was this case heard in 1957 that would establish a landmark legal precedent in determining what is considered “reasonable” care among professional clinicians.

A claim for clinical negligence can be established when a medical practitioner is found to have breached a duty of care to a patient who in turn suffers injury as a result of that breach. Demonstrating that a doctor has breached the duty of care is the first major

hurdle in any negligence case but this is not always clear cut. There is certainly scope for genuine differences of opinion when it comes to diagnosis and treatment.

In the case of *Bolam v Friern Hospital Management Committee* a number of expert witnesses testified that significant medical opinion was opposed to the use of muscle relaxants and restraints in patients undergoing ECT. Indeed, it was generally believed that restraints could in some cases increase the chance of fracture.

In his advice to the jury (which would not be present in civil cases now) Mr Justice McNair stated: “Where some special skill is exercised, the test for negligence is not the test of the man on the Clapham omnibus, because he has not got this special skill. The test is the standard of the ordinary skilled man exercising or professing to have that special skill.”

The jury in the case determined that Dr Allfrey was not negligent and ruled in favour of the hospital. The ruling has since become known as the “Bolam test”, which in McNair’s own words holds that: “A doctor is not guilty of negligence if he has acted in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art. Putting it the other way round, a doctor is not negligent if he is acting in accordance with such a practice, merely because there is a body of opinion that takes a contrary view.”

John Bolam was left sadly uncompensated for his severe injuries even though Justice McNair himself appeared moved by the plaintiff’s “tragic story” and the “hopeless condition he was in” when called to the witness box.

The Bolam test has over the years been modified by a number of legal cases – perhaps most notably by that of *Bolitho v City and*

Hackney Health Authority (1997). The case involved two-year old Patrick Bolitho who was admitted to St Barts Hospital with croup. On the ward the child had two episodes in which he went pale and had trouble breathing. A senior registrar (SR) was notified on both occasions but did not attend. Shortly after the second episode the boy stopped breathing and suffered cardiac arrest leading to severe brain damage and later death.

Patrick’s mother later sued the health authority for clinical negligence claiming that had her son been intubated after the second episode he would have survived. The health authority admitted breach of duty in the SR’s failure to attend the child, but it disputed the claim that this breach led to Patrick’s death as the SR would not have intubated the boy. It was claimed that this decision would have been consistent with a respectable body of medical opinion and thus supported by the Bolam test.

In the case, five medical experts stated that any competent doctor would have intubated and three held the opposite view but the judge was most impressed by the view of one of the dissenting experts who suggested there was only a small risk of total respiratory failure and this did not justify the invasive procedure of intubation. In the end the House of Lords ruled that: “The court should not accept a defence argument as being ‘reasonable’, ‘respectable’ or ‘responsible’ without first assessing whether such opinion is susceptible to logical analysis.” In other words, merely being a minority view of accepted medical practice does not necessarily mean an opinion is “illogical” or “irrational” and the final judgement as to whether there has been professional negligence must lie with the court and not the medical profession.

Jim Killgore is an associate editor of FYI



PROTECTING the PUBLIC

Promoting healthy lifestyles and protecting people's wellbeing are at the heart of a career in public health

AS A DOCTOR you are used to caring for patients on an individual basis – but what about a specialty that lets you make an even bigger impact by protecting the health of entire populations?

Public health offers the chance to positively influence the health of large numbers of patients by doing everything from promoting healthy behaviours to tackling the health effects of climate change across the country.

An estimated 40,000 people work in core public health roles across the UK, but this number rockets to as high as 20 million when taking into account the wider workforce such as dental teams, pharmacists, midwives,

district nurses and beyond.

It is a formidable number, yet there are still considerable health challenges to be tackled. There are many opportunities for those seeking a career as a public health specialist or consultant.

Entry and training

Doctors interested in a career in public health normally apply for specialty training after completion of their two-year foundation training. This is a competitive process with an average of 500-600 eligible applicants annually for 70-80 places.

NHS Health Careers offers tips for getting into training which include joining the Faculty of Public Health (FPH), seeking work experience at a local public health organisation and attending conferences on public health. Trainee doctors are also encouraged to undertake a rotation in public health or to use study leave to undertake a taster programme.

Specialty training normally lasts five years, culminating in the award of a certificate of completion of training (CCT) in public health medicine. The pathway is divided into two

phases. In phase 1, trainees gain public health knowledge and core skills and obtain the part A and part B exams. In phase 2, trainees have the option to select special interests and take on increasing levels of responsibility. It is also at this point when trainees can apply for time to undertake a PhD, two years of which may count towards a CCT. Movement between phases is dependent both on exam success and achievement of learning outcomes.

The FPH sets out the three key domains of public health practice which relate to:

- health improvement – e.g. inequalities, education, housing and behaviours
- improving services – e.g. audit and evaluation, service planning and clinical governance
- health protection – e.g. infectious diseases, emergency response and environmental health hazards.

In addition, they detail nine key areas which are covered in training. These include:



Q&A

Dr Rachael Hornigold,
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registrar, Extreme
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England

able to show an understanding of public health concepts and inequalities. They should also have a political awareness and understanding of the impact of national policy on health, and have a basic understanding of research methodology.

The job

The FPH defines the field as: "The science and art of promoting and protecting health and wellbeing, preventing ill-health and prolonging life through the organised efforts of society."

Public health specialists and consultants are described by NHS Health Careers as "strategists or senior managers or senior scientists", working across all three domains of public health. They will usually be employed primarily within local authorities or national agencies such as Public Health England. There are also opportunities within the NHS, the prison service, Defence Medical Services, think tanks, voluntary organisations and even bodies such as the National Institute for Health and Care Excellence (NICE). The private sector also hires specialists within companies, organisations, and consultancy firms.

The job as a specialist/consultant is varied and includes responsibilities such as working with senior colleagues on the planning and delivery of policies and programmes to influence the health of groups of people at local, regional and national levels. They will also provide professional, evidence-based advice on the commissioning of services to improve health and wellbeing and reduce health inequalities across primary, secondary and social care. One potential role is that of consultant epidemiologist, providing strategic leadership in the surveillance of infectious diseases and environmental hazards.

Public health academics usually work in universities or further education, in the UK or abroad, across all three domains. NHS Health Careers describes how they typically set up research investigations to address specific public health issues. They may also teach about public health theories and practice. Their day-to-day work is likely to consist of: teaching; assessing and examining students' work; researching public health issues; and sharing the results of their work. Roles include research assistant, academic clinical fellow, research fellow or clinical lecturer.

Sources:

- NHS health careers - www.healthcareers.nhs.uk/explore-roles/public-health
- Faculty of Public Health - www.fph.org.uk
- HEE specialty training - tinyurl.com/ybwdufu4

What first attracted you to public health?

I initially trained in ENT surgery, and was a long way through my higher surgical training when I became interested in public health. I had had very limited exposure to public health at medical school or in my initial training placements but became aware of the training scheme when I worked with public health consultants on a service redesign. I absolutely loved the experience and after some shadowing placements decided to apply for public health training.

What do you enjoy most about the job?

I really enjoy the multi-disciplinary nature and the chance to get involved in vastly different projects well outside the usual medical sphere. In the last year I've directed a video for healthy eating with nursery children, attended cross-departmental meetings on climate change in Whitehall, worked with the Met Office on cold weather alerts and dealt with infectious disease outbreaks. I also enjoy the ability to manage my own workload in the way that works best for me.

What do you find most challenging?

The breadth of public health is massive - so it is a challenge to stay up-to-date with developments in the field. The membership exams are challenging, but you are offered lots of support, including the opportunity to undertake a master's degree in public health.

Has anything surprised you about the specialty?

Public health specialist training is the only training scheme that accepts applicants at ST level who are non-medics. So you may find yourself training with dentists, vets, nurses and people with a complete lack of medical training, such as those with a background in politics, policy and health promotion. This leads to a very diverse and interesting group of colleagues, with their own individual strengths and knowledge base.

What do you consider the most important attributes of a good public health specialist?

The ability to quickly become a subject area specialist at short notice, the ability to be flexible in your role and to be a team player, appreciating all of your colleagues' skills and experience.

Is there any advice you could give to a final year or FY trainee considering public health?

There is limited clinical work in public health so you need to be very sure this suits you. It may be useful to undertake additional clinical placements before applying. Contact your local authority team and your local health protection team to speak to registrars and consultants about what they do day-to-day and potentially organise some shadowing. The FPH website is a great source of information.

- surveillance and assessment of the population's health and wellbeing
- assessing the evidence of effectiveness of health and healthcare interventions, programmes and services
- policy and strategy development and implementation
- strategic leadership and collaborative working for health
- health improvement
- health protection
- health and social service quality
- public health intelligence
- academic public health.

According to Health Education England's specialty training site, applicants should be

Many doctors use their smartphones at work but are you aware of the potential risks? **Dr Naeem Nazem** offers some practical advice

IT IS hard to imagine life before the smartphone. Whether it's browsing social media, shopping online or checking emails, most of us look at our phones several times per day if not per hour.

These devices have also brought about big changes for medical professionals. Gone are the days of the junior doctor weighed down with copies of the latest *BNF* handbook and local formularies. You can now access this information and so much more, by downloading helpful apps provided by the likes of the General Medical Council (GMC), NICE and SIGN.

Unfortunately, the smartphone era inevitably brings risks which have resulted in new types of complaints and claims against doctors. The good news is there are some simple steps you can take to protect yourself.

Messaging groups

WhatsApp and other messaging groups can be an invaluable way to get quick advice or discuss difficult administrative issues with colleagues. Although most messaging platforms pride themselves on their security and confidentiality (WhatsApp provides users with end-to-end encryption), doctors must nevertheless be mindful of their duty of patient confidentiality.

The GMC has extensive advice on this in their *Confidentiality* guidance, but doctors also have a statutory obligation under the Data Protection Act 1998 (DPA) (as well as the General Data Protection Regulation (GDPR) which comes into force in May 2018) to ensure they keep patient information private.

One case MDDUS recently handled involved

a small number of FY1 hospital doctors who created a Whatsapp group chat to share information on teaching opportunities. However, the group gradually evolved into a platform to air grievances about "unreasonable" colleagues and "nightmare" patients.

Some months later, performance concerns were raised at the annual review of one of the FY1 doctors and in response he mentioned using the messaging group as a source of peer support. Concerned that patient confidentiality may have been breached, the Trust legitimately sought and obtained a copy of all the WhatsApp group's messages. Although they found no specific patient names had been mentioned in the messages, sufficient information had been shared to identify individuals. As the DPA makes clear, this is enough to constitute a breach of patient confidentiality.

Reflecting on this case, there were some easy ways in which the doctors could have protected themselves from criticism. Whether it's jotting down something important on the back of your hand or sending a message in WhatsApp, always consider whether what you are recording could identify a patient either directly or indirectly. If it does, you may need the patient's consent to proceed. Generally, you do not need consent if you are acting as part of a healthcare team to deliver medical care. (This does not apply to the use of WhatsApp and other messaging apps which should not be used as part of direct patient care.) However, if you are communicating information to any other party, including doctors who are not

directly involved in their care, you may need the patient's consent.

Photo diagnosis

Another popular use of smartphones is for taking and sending pictures. Again, this can be very useful for doctors but there are risks. Consider the following scenario:



BE PH

An FY2 doctor is asked to see a patient on the ward with a new onset swelling next to the site of an earlier operation. The rest of her team is still in theatre so she takes a picture of it on her personal phone and sends it to her registrar for advice. The registrar replies to suggest she start the patient on intravenous antibiotics. The FY2 administers the medication and notes it on the patient's prescription chart.

Some may feel the FY2 acted appropriately in the circumstances – she sought senior advice and commenced appropriate treatment, ensuring the patient was managed promptly and did not come to further harm. However, her actions in this case leave her vulnerable to criticism.

Firstly, most trusts/health boards prohibit the use of personal phones to take pictures of patients. Although in this case the picture did not show the patient's face or other identifying features, it was still an image of a patient who had the right to confidentiality and whose consent had not been sought. If you do want to

"Remember you do not need to mention a patient by name or show their face [in a photo] for the information to constitute a breach"



ONE SMART

take an image of a patient, be sure to follow your local organisation's own policy. This will inevitably include obtaining the informed consent of the patient.

Another significant vulnerability in this case was the complete absence of appropriate documentation in the medical records. A third party reviewing the patient's records or drug chart would have no idea of the presence/nature of the swelling or the rationale for commencing intravenous antibiotics.

The doctor in this case could have protected herself from criticism by considering the alternative resources available to her. She could have asked another colleague to carry out an urgent review. And if she felt a picture of the swelling was essential, she should have followed her Trust's policy on the taking of images, which would have ensured patient consent was obtained and confidentiality was not compromised.

Data storage

Another aspect to consider when using your smartphone is the storage of sensitive information on the device. The GMC's guidance *Making and using visual and audio recordings of patients* is a useful reference here. It highlights the need to make appropriate secure arrangements for storing visual/audio recordings. If you use your smartphone for personal messages/emails, take extra care to ensure any patient-related correspondence is kept separate.

Again, check your local organisation's policy here as it is likely to forbid the storage of sensitive patient data of any kind on personal and possibly also NHS mobile devices. This includes text messages, photos, videos, emails or other files/documents. The policy may allow for limited use of personal devices but it is likely to demand devices are not directly connected to the organisation's network and are compatible with NHS mail security standards.

It is also advisable to activate your phone's passcode lock with a limit set on the number of failed

attempts allowed. These precautions are particularly invaluable should your smartphone be lost or stolen.

Stay smart

Life as an FY doctor is busy and messaging platforms and apps remain a valuable resource. But before sending or receiving any message/photo relating to your clinical practice, take a step back and ensure you are not compromising patient confidentiality. Remember you do not need to mention a patient by name or show their face for the information to constitute a breach.

If you are seeking general advice from a colleague or reviewing the latest clinical or professional guidance, then there is no reason why your smartphone can't act as a useful aid. But do remember to note any relevant information in the patient's medical records. And above all, always comply with GMC guidance and your local organisation's policies.

Dr Naeem Nazem is a medical adviser at MDDUS and editor of FYI

Expedition medic Dr Matt Wilkes talks about a passion for adventure that has taken him around the world



FLYING

PARAGLIDER and aviation fanatic Dr Matt Wilkes really is flying high. Not only do his own adventurous pursuits take him skyward but his career does too, having worked as a flying doctor treating patients across Africa and jetted to far-flung countries for his remote medical missions.

It was whilst studying at medical school 15 years ago that Matt, then aged 21, enjoyed a life-changing research trip to Bolivia. It was there he realised he could combine his zest for adventure with his professional ambitions by pursuing a career in remote medicine.

Just days after returning from a three-month stint in Nepal, the registrar from Edinburgh tells *FYi*: "I was delighted you could mix medicine with adventure and science, so through university, and ever since, I have made that my focus."

Privilege

Now in year five of seven of his anaesthesia training, the doctor - who has taken two career breaks - has been to New Zealand, Africa, Bolivia, India, Colombia and Nepal.

During one memorable trip, he helped to evacuate peacekeeping troops from Somalia while working as a flight physician with East Africa's AMREF Flying Doctors. Matt describes it as a "dream job" and recalls flying in three different types of aircraft to 13 countries, including to Mogadishu and the Kenya-Somalia border. "I was able to see an aspect of medicine that I would not have seen otherwise, not being a military doctor," he says.

The tough conditions are a far cry from his work in NHS hospitals and, Matt says, serve as a "constant reminder of how privileged we are." The experience also hones his skills as a doctor. "Practising in different



DOCTOR

places helps clarify what works and what we do simply according to tradition," he says. "Working in different contexts highlights the elements of practice that are universal and effective."

Worthwhile work

While in Nepal as a volunteer doctor with the International Porter Protection Group (IPPG) his main remit, along with that of his GP wife Ellie, was to treat trekking porters in the Everest region. The group was set up in a bid to improve the working conditions of porters, who are often poorly equipped and paid a minimal wage.

The common theme of his work there was high altitude illness - and everything from coughs, colds and travellers' diarrhoea, to treating local children.

Matt says: "The porters carry up to 30kg but most are lowlanders rather than Sherpa, so are no more adapted to altitude than you or I. They can get really sick, so it felt like worthwhile work."

During one dramatic night, he had to care for an 18-year-old porter who was brought unconscious to the room where Matt and his wife were sleeping at 3am.

Matt says: "He had fluid on his brain, causing it to swell and increasing the pressure within his skull. Left untreated it could have been fatal. My wife and I gave him medicines and oxygen and about 90 minutes later, he was talking again. We were then able to evacuate him further down the mountain."

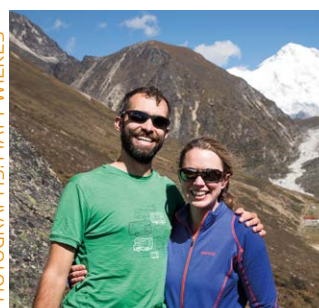
Unpredictable

"Extremely fortunate" is how Matt feels when he reflects on the direction medicine has taken him. However, his expeditions are not always without personal difficulties. At the end of his Nepalese adventure, he



"I was able to see an aspect of medicine that I would not have seen otherwise"

PHOTOGRAPHS: MATT WILKES



FROM FAR LEFT: Matt Wilkes with AMREF flying doctors, East Africa; paragliding over the Alps; and with GP wife Ellie.

was struck down with such severe diarrhoea and vomiting that he ended up in hospital. Playing down the experience, he says: "I got excellent care in Kathmandu and it didn't last very long."

Though he has found himself in risky situations, Matt says he has never felt directly in danger, because he always makes sure he is with "people who are also interested in their own self-preservation."

An interest in self-preservation may not have been particularly obvious when Matt applied to join the medical team on an ambitious charity trip that was to see 110 paraglider pilots and almost 700 porters climb Mount Kilimanjaro, camp on the summit and then paraglide off the top to a nearby town. The 2014 *Wings of Kilimanjaro* project raised \$1,000,000 and presented Matt with an enormous logistical challenge.

He was tasked with assembling a medical team and drawing up an expedition plan for tackling altitude illness, infectious diarrhoea, logistical problems and trauma. Medically the trip was a success, but bad weather ultimately forced the cancellation of the paragliding.

Despite the disappointing outcome, Matt describes it as "a huge learning experience" that did much to set him and his colleagues up in the world of expedition medicine. It also underlined the motto of one of Matt's fellow adventurers who told him: "It's not an adventure if you know how it is going to turn out."

Time out

When he is not adventuring, Matt is a registrar in anaesthesia and critical care in Edinburgh. His pathway to becoming a consultant has been delayed by his expedition work, but the 36-year-old has no regrets.

He says: "I left training at ST5 as I couldn't fit my interests in remote medicine around NHS training. Had I not done all the adventurous stuff, I would have finished three years ago."

"I am delighted with my decision – my mum isn't!" he laughs. "I think some colleagues take pity on me because I have not achieved the traditional career milestones, but most have been really supportive."

Regularly asked for career advice, Matt and Ellie launched the website and online magazine, *Adventure Medic*, to showcase the wide range of opportunities for healthcare professionals. From a first-person piece by a doctor who cycled across six continents to looking after veteran broadcaster Sir Richard Attenborough on a hot air balloon trip to the Swiss Alps, the features are as diverse as the couple's own careers.

For those inspired to take their medical career in a different direction, Matt says: "Have an honest think about what you would genuinely like to do. There is so much expectation from other people, it is often hard to tease out what you really want out of your life and career."

"I think we suffer from 'CV-itis' in medicine, we do so many things because we think it will be good for the CV, but are you actually going to enjoy the process? And will it be good for you? Speak to as many people as possible – they will almost always be more approachable than you think."

In the short-term Matt is working on a PhD in altitude physiology (part of the Free Flight Physiology Project), while Ellie is planning a trip to Africa to work in women's health. Longer term, he will return to finish his specialty training.

"I am living my life in a way that I believe to be fulfilling and worthwhile and I would hugely recommend taking time out of training to anyone with similar goals – just don't expect to become a consultant any time soon!"

Kristin Ballantyne is a freelance writer based in Glasgow

Day 1

A 64-year-old businessman – Mr H – slips on pavement ice walking home from work and injures his right hip. He spends an uncomfortable night, and the next morning – a Saturday – he attends a walk-in primary care centre. He is seen by a triage nurse and is found able to weight bear but with pain. Examination reveals a good range of movement in both the right knee and hip. Later he is examined by Dr J and a diagnosis of “soft tissue injury” is recorded. Mr H is advised to take ibuprofen and restrict activities to gentle exercise/walking. He is further advised to contact his own GP if symptoms do not resolve.



Week 3

Mr H attends his GP surgery and is seen by Dr T. The clinical record shows a history of a slip on ice three weeks previous and now the patient is suffering with a limp and persistent hip pain. Examination reveals hip flexion to 30 degrees and then pain which is eased by knee flexion until 60 degrees. There is tenderness over the greater trochanter and in the groin. He refers Mr H for physiotherapy and prescribes naproxen.



Week 7

Mr H is seen by the physiotherapist who, on examination, records symptoms of restricted movement and ache in the right hip. She recommends a number of exercises and the patient is seen again twice over the next month. Little improvement is noted and she advises Mr H to continue with his exercises and refers him for an X-ray.



Week 15

The patient undergoes a hip X-ray and the local radiology department reports sclerotic change and an irregular trabeculae pattern which is suggestive of an old, impacted sub-capital fracture of the right femur. Mr H is referred to the fracture clinic and the diagnosis is confirmed as an old Garden Grade I fracture with endosteal and periosteal callus formation. It is decided to give the fracture time to heal and assess in three months' time.



Three months later

Mr H is reviewed by the orthopaedics department which reports that the fracture is well healed with no obvious avascular necrosis. The hip pain is noted to be subsiding though with some residual stiffness and weakness. Mr H had complained of numbness in the right foot but a neurological assessment finds no evidence of peripheral neuropathy or sciatic nerve injury.

SLIP ON THE ICE

A CLAIM for damages arising out of clinical negligence is received by both Dr J and Dr T in regard to their treatment of Mr H. It is alleged that both doctors failed to carry out an adequate examination, consider a diagnosis of hip fracture and offer an orthopaedic referral, despite key indicators including considerable hip pain, altered gait and restricted joint movement. This meant the patient was denied prompt treatment for the fracture and left to suffer pain and ongoing neurological complications.

MDDUS, acting for Dr T takes advice in regard to the claim of breach of duty and also the ongoing consequences of the missed diagnosis (causation). An expert reviews the patient notes and finds the history and examination as recorded by Dr T was adequate. Mr H was observed to be weight-bearing and hip flexion was considered. All symptoms were recorded. But it is accepted that Dr T failed to diagnose the patient's hip fracture, although it is noted that the possibility of a fracture had already been considered by the triage nurse and Dr J and thought not to warrant further investigation.

Mr H also alleges that had the referral been made earlier by either doctor he would have received prompt treatment for his fracture and not suffered ongoing pain and “neurological complications”. MDDUS commissions an expert report from an orthopaedic surgeon in regard to the impact of these consequences (causation).

The expert notes that the patient's fracture was a minimally displaced Garden Grade 1 fracture. Had Mr H been referred in the few weeks after his fall the X-ray would have been similar to later findings, as the fracture did not displace further. Earlier treatment would not have led to significant changes in the outcome.

The expert also finds no evidence of serious ongoing complications, such as avascular necrosis, and there is no evidence of arthritis, nor is this expected to develop later as the hip joint is undamaged. The fracture healed well and subsequent nerve conduction studies were normal.

On this basis causation is denied and MDDUS sends a letter of response contesting the claim. Solicitors acting for Mr H later reply stating that the claim has been discontinued.

Key points

- Findings of clinical negligence require proof of both breach of duty and causation.
- Consider referral when confronted with persistent key indicators of injury.
- Do not necessarily rely on previous diagnoses.

OUT THERE

SAFE HANDS A study by Canadian researchers suggests patients operated on by female surgeons are less likely to die, be readmitted or suffer complications within 30 days compared to those operated on by men. One respondent to the *BMJ*-published study suggested women surgeons are more careful while another questioned its methodology and “political subtext”.

THERE WILL BE BLOOD Historical treatments for menstruating women included barber surgeons bleeding them from the ankle to encourage smooth flow. Chinese medics suggested drinking yellow rice wine to harmonise the blood, while a special tonic wine laced with cocaine was encouraged circa 1916 for “sickness, so common to ladies”. A hi-tech battery-operated “electropathic belt” circa 1893 promised “new life and vigour”. Source: Wellcome Collection.

ROCK ON Rock is the top music choice for surgeons with 49 per cent listening to it in the operating theatre, closely followed by pop (48 per cent) and classical (43 per cent). The survey by Spotify and Figure 1 found a massive 90 per cent of the 700 respondents listened to music at work, with most preferring a personalised playlist over an album. Doctors said music calms them and helps improve mood and focus.



WHAT ARE WE LOOKING AT?

Stumped? The answer is at the bottom of the page

PHOTO: TED KINSWAN/SCIENCE PHOTO LIBRARY



Pick: DVD – Trust me

Directed by John Alexander and Amy Neil. Starring Jodie Whittaker, Blake Harrison, Emun Elliott.

BEFORE beginning life as the new Doctor Who, Jodie Whittaker puts in an impressive turn in this psychological thriller about a nurse who assumes the identity of a hospital doctor after being sacked for whistleblowing. When her best friend emigrates to New Zealand, nurse Ally (Whittaker) becomes Dr Cath Hardacre who, with the help of a stolen CV, leaves Sheffield with her daughter for a job at

an Edinburgh A&E unit. The gravity of her situation quickly becomes apparent when she is called on to make diagnoses and carry out treatments way beyond her competence. The threat of discovery or serious patient harm plus Whittaker's steely-eyed yet vulnerable performance make this four-parter a tense affair. The story pushes the limits of plausibility at times but, added credence is given by the fact it was written by qualified doctor Dan Sefton, who once worked at a hospital where a bogus doctor was discovered.

Book Review: Admissions: a life in brain surgery

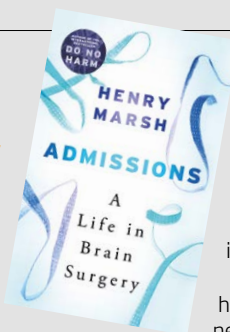
By Henry Marsh, *St Martin's Press*, £16.99, hardcover, 2017

Review by Dr Greg Dollman

THE bestselling author of *Do No Harm* returns. Three years on, Henry Marsh has now retired as an NHS surgeon and, in between operating in Nepal and Ukraine and single-handedly renovating a tumbledown lock-keeper's cottage, he shares more insights into his life as a brain surgeon.

Marsh is again brutally honest about his personal life, the difficult clinical decisions doctors must make every day, the outcomes of his interventions as a surgeon and the daily struggles of working in the NHS.

After battling with mental health problems while a student at Oxford (he abandoned his initial degree), Marsh took up the role of a hospital porter. It was in the theatre that Marsh found a “sense of purpose and meaning”. He fills the pages of *Admissions* with the highs (“wonderful triumphs”) and lows (“the triumphs wouldn't be triumphant if there weren't disasters”) of his life as a surgeon.



Marsh tells us that his career in the NHS ended “ignominiously”, first after a decision to resign “in a fit of anger” in the summer of 2014, then followed by an altercation with a member of staff over what Marsh describes as unnecessary ‘tick-box’ exercises overcomplicating clinical care in the modern NHS. He shares his thoughts on the “sad decline of medicine”, and rues the seemingly inevitable collapse of the NHS.

Ever insightful, Marsh reflects on the frustration, anxiety, humiliation, anger, elation and privilege he has experienced as a neurosurgeon. He shares stories of life and death, both in his personal and professional life. He considers the issues affecting the practice of medicine in the modern world (in both developed and developing countries), from the inherent tension between caring for patients and making money, to treatment at the end of life, with Marsh sharing his thoughts on euthanasia.

The cottage by the canal will be Marsh's woodworking workshop (this, he says, will help him cope with retirement). There he will swap patients for timber, paying as much detail to the grain of wood and type of join as he did to the sulci and gyri of the brain.

A few have questioned the need for a further memoir from Marsh. The reactions from across the world, however, have silenced the critics. Marsh describes neurosurgery as the “all-consuming love of [his] life”, and his writing reflects this. It is a joy to read.

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*The yearbook offer applies to all medical schools in Scotland.



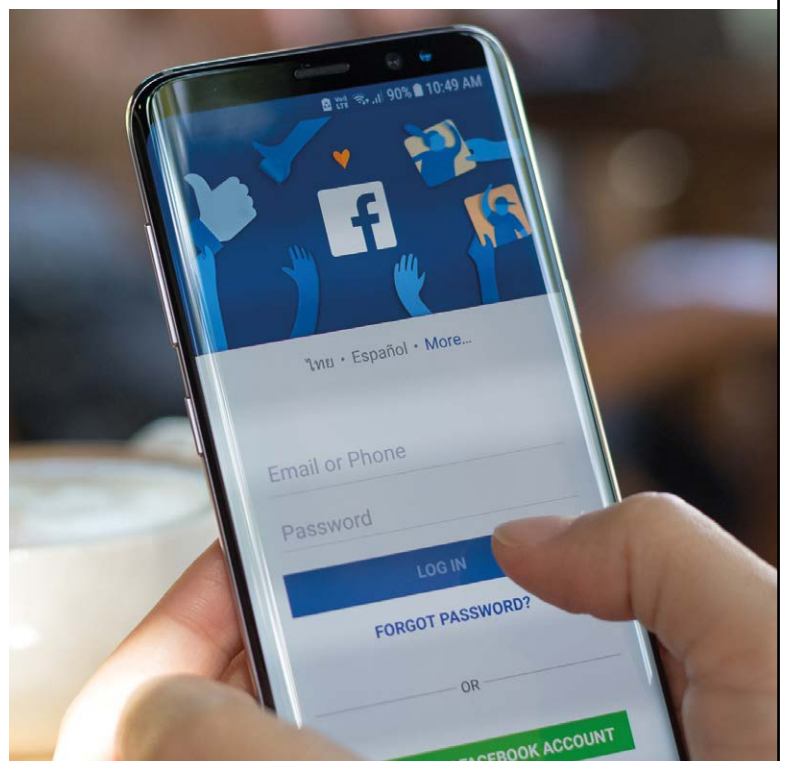
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