



# RENAL MEDICINE

Caring for patients over the long-term



## ALSO INSIDE

**04** CHOOSING  
THE RIGHT SPECIALTY

**10** CONSENT  
GET IT RIGHT

AN MDDUS  
PUBLICATION





## Welcome to your FYi

NEW year, new you, or so the saying goes. And as 2015 is now well underway, perhaps now is a good time to think about the future? Have you decided which specialty is right for you, or are you just not sure which path to follow? My article on [page 4](#) looks at the various options available and offers some advice on making that all-important decision, with links to psychometric testing and the Royal Colleges.

While we try to decide on a specialty, our career feature on [page 8](#) focuses on the varied field of renal medicine, where doctors can enjoy lifelong patient care relationships. On [page 5](#) doctor-turned-writer Allan Gaw takes a different track by examining the motives of some famous names who left behind a career in medicine to pursue other interests.

Consent is a crucial part of medical practice but is not

always straightforward. MDDUS medical adviser Dr Naeem Nazem highlights some key risk areas and offers practical advice on getting it right on [page 10](#). Ethics features in most of the decisions doctors make, but it can generate uncertainty. Dr John Dudgeon offers a quick, practical guide on [page 12](#).

All F1 doctors have to tackle core procedures and on [page 6](#), Dr Sophie Ludlum offers tips on performing IV infusion of blood and blood products, injection of local anaesthetic and subcutaneous injections. On [page 7](#), Dr Caroline Millar highlights the importance of good communication in ensuring out-of-hours test results are not lost in the system, while on [page 14](#) we explore allegations of negligence and lack of consent in our case study.

• **Dr Anne Parfitt-Rogers**  
**Editor**

## BIG RISE IN DOCTORS SEEKING SOCIAL MEDIA ADVICE

**THE** number of doctors seeking advice on the use of social media has jumped 74 per cent in the past year, MDDUS has revealed.

The UK-wide medical defence organisation reported a large increase in advice calls between 2013 and 2014. While a small part of the rise could be attributed to a growth in membership, MDDUS said it now receives four times as many social media-related calls compared to 2011.

Medical adviser Dr Naeem Nazem urged caution when interacting with patients on sites like Facebook and Twitter. "Social media offers a platform for doctors to network effectively and develop their own knowledge and expertise," he said.

"However, the rise of social media has created some serious ethical challenges for doctors and their relationship with patients. We have handled a number of cases where doctors have sought advice from us regarding social media issues.

"Doctors must keep their relationship with patients professional at all times. Accepting a Facebook friend request from a patient or commenting on a post risks blurring the boundaries between a professional and personal relationship. As a consequence, doctors may find that their ability to make objective judgements in clinical situation is affected."

Dr Nazem warned doctors that they are "never off duty" and their status in the public eye "demands a high standard of conduct at all times.

"By interacting with patients online, doctors are exposing themselves to be scrutinised from their own homes," he said.

Patient confidentiality can also be at risk when doctors use social media. Doctors are urged to never share patient information online, especially where it might identify an individual. Even with appropriate privacy settings in place, Dr Nazem warned that anything posted online may end up being distributed further than intended.

The General Medical Council offers guidance on the use of social media in *Maintaining a professional boundary between you and your patient*, which states: "you must consider the potential risks involved in using social media and the impact that inappropriate use could have on your patients' trust in you and society's trust in the medical profession. Social media can blur the boundaries between a doctor's personal and professional lives and may change the nature of the relationship between a doctor and a patient."



**EDITOR:**  
 Dr Anne Parfitt-Rogers

**ASSOCIATE EDITOR:**  
 Joanne Curran

**DESIGN:**  
 CMYK Design  
[www.cmyk-design.co.uk](http://www.cmyk-design.co.uk)

**PRINT:**  
 J. Thomson Colour Printers  
[www.jtcp.co.uk](http://www.jtcp.co.uk)

**CORRESPONDENCE:**  
 FYi Editor  
 MDDUS  
 Mackintosh House  
 120 Blythswood Street  
 Glasgow G2 4EA

**t:** 0845 270 2034  
**e:** [jcurran@mddus.com](mailto:jcurran@mddus.com)  
**w:** [www.mddus.com](http://www.mddus.com)

COVER PHOTO: SCIENCE PHOTO LIBRARY





## NEW TIME LIMIT ON PROVISIONAL REGISTRATION

**TRAINEE** doctors will be able to hold provisional registration with the General Medical Council for a maximum of three years and 30 days under new rules that come into effect on April 1, 2015. Doctors who hold this status for longer than the 1,125 day period will see their registration expire.

The rule change is designed to end indefinite provisional registration in a bid to minimise the risk of doctors working outside the scope of their registration.

The regulator said it will ensure doctors are "appropriately supported and supervised in roles that are within the limits of their registration."

Most doctors complete their first year of postgraduate training (F1) within 12 months and move to full registration. However, some remain provisionally registered for longer if they fail to meet the competencies required to complete F1 or if they have taken time out due to ill health, maternity leave or to work abroad.

Problems arise when provisionally registered doctors work in a post that's not part of the foundation programme, which falls outside the scope of their registration.

The GMC said the new time limit is unlikely to affect current F1 doctors, but added: "If, for whatever reason, a doctor needs more time to complete their training, this new time limit still gives them enough time to repeat their F1 year, if they need to."

Extra time will be allowed for doctors in less than full time training to ensure they are not disadvantaged. But they will be expected to meet "strict criteria" including agreement from their training provider that they can be given more time to complete their training programme.

Letters are being sent out to all current provisionally registered doctors to inform them of the new rules and how they could be affected by them. On 1 April, they will be automatically allocated 1,125 days to complete their F1 training but requests can be made to extend this.

## DUTY OF CANDOUR BECOMES LAW

**NEW** laws have come into force in England placing a legal duty on hospital, community and mental health trusts to inform and apologise to patients if there have been mistakes in their care that have led to significant harm.

The Department of Health said: "The introduction of the Duty of Candour is an important step in ensuring a more honest and open culture in the NHS, particularly when things go wrong. It is a major milestone in the government's response to the Francis report into Mid Staffordshire, which called for a more open culture in the NHS. It forms part of a wider package of measures designed to support this."

The Care Quality Commission (CQC) has published guidance for NHS organisations to help them meet the requirements of the new regulations.

## HIGH DEMAND FOR £160K PRIVATE MEDICAL DEGREE

**MORE** than 500 people have applied for just 70 places on the UK's first private university medical degree, at a cost of £36,000 a year.

The University of Buckingham Medical School opened in early January 2015 and says it has been "absolutely staggered" by the level of interest in its four-and-a-half-year £162,000 degree course.

The school's MB ChB is said to be designed to appeal to a "global market" with no cap on international student numbers. However, the current intake of 70 students is said to be 60 per cent UK-based and 40 per cent from overseas countries including India, Iraq, Zambia and Norway.

Professor John Clapham, chief operating officer at the University of Buckingham Medical School, said applications for the 2016 course were already twice as high as this year.



## CASH INCENTIVE FOR NEW GPs

**NEW** doctors will be offered cash rewards if they choose to become GPs as part of a £10 million campaign to boost numbers in the specialty. NHS England is implementing a range of measures to make general practice a more attractive career move.

Under the plan, the *Guardian* reports, medical graduates who agree to work for three years as a trainee GP in areas in need of family doctors will receive "additional financial support". They will also be offered an extra year's training in another specialty of their choosing, or help with business skills.

The campaign follows reports in October 2014 that a large number of GP training posts in England remained unfilled. Health Education

England (HEE) confirmed an overall vacancy rate of 12.4 per cent, with that figure reaching 30 per cent in some of the worst affected areas.

The RCGP is also taking part in the campaign. Chair Dr Maureen Baker wrote a letter to 20,000 trainee doctors urging them to consider an "exciting" career in general practice, saying the specialty offers "a great deal of flexibility" and its future is "looking bright."

The College also released a three-minute promotional video in which GPs talk about how they find the specialty exciting and varied.



# DECISION TIME

How do you know which specialty is right for you? And what if you change your mind? FYi editor **Dr Anne Parfitt-Rogers** investigates

**B**Y the time you reach the end of medical school, you may have already set your heart on cardiology or be busy boning up on orthopaedics. But if you haven't yet decided which path to follow, don't worry. You will be able to look at each specialty with an open mind – and there are practical ways of exploring which one is right for you.

A good first step is to join a society – this may confirm what you've always felt or help you realise that particular field is not for you. If there are no existing societies in your preferred field, why not start one? Invite local speakers to inspire your members and enhance your CV in the process. Thinking outside the box, you are also likely to have the opportunity to gain experience in less obviously medical clubs such as the Red Cross or Amnesty International.

Clinical options projects, electives and special study modules are also useful ways of gaining experience over and above clinical rotations. You may also get a poster presentation or paper out of the time spent. Attend careers fairs, read interviews based around a particular specialty and see what fires you up with passion. Even if you don't know what you want to do, start thinking about your five or 10-year vision, including your work and home aspirations.

Don't forget to think practically. While you may have dreamt of being a radiologist after seeing the expertise of those with 'X-ray vision', it may not be the specialty for you if you appreciate patient contact and are not keen on dark rooms.

Make a list of your positive attributes and dislikes, and see what matches up with that. You may find psychometric testing such as Sci59 useful, however bear in mind that the people working in each specialty will have varied personalities and the results should only be used as a guide. Using a SWOT analysis (compiling a list of strengths, weaknesses, opportunities and threats) may also be a good model.

Selecting a path is a huge consideration and a recent *BMJ* article "Are trainees being rushed into choosing a specialty?" wonders whether trainees are being forced to make career choices too early.

The article cites a National Institute for Career Education and Counselling (NICEC) questionnaire which was sent to 930 doctors. Forty-seven per cent of respondents felt they had been "forced" into a particular specialty, two-thirds knew "little" about many specialties, and 55 per cent wanted more "in-depth" career information.

One way of accessing more in-depth information is to get involved in taster weeks which let you sample one or more specialties, often ones not covered in your foundation jobs. These can provide invaluable experience without the pressure of ward round tasks and endless discharge documents. Research suggests doctors are more likely to choose a specialty they had worked in themselves.

Senior colleagues are another useful source of advice and can often influence decisions, with doctors perhaps being drawn towards a

particular consultant or registrar. They can help you gain inside information and separate your feelings about a person from the truth of the specialty.

## Successful applications

Adding value to your CV is helpful to increase your chances of success during the application time. Audits look good, particularly if presented as a poster or in a journal, while some journals (such as *InnovAiT*) offer trainees the chance to participate in digital projects such as creating podcasts. Writing book reviews can also help you get published without requiring a research project.

Make sure you're aware of the requirements and dates for specialty applications and request study leave in plenty of time. If competition ratios are particularly stiff, consider less desirable locations or applying to more than one specialty.

## Changing your mind

Even after you have been accepted into a specialty, it's not too late to change your mind. Some people find after their first year, things are not as they expected. They can then re-apply for a concurrent programme; in the course of a career, one year is not a long time. Even after this time, it is not unheard of for doctors to change from, for instance, surgery to general practice for career or lifestyle reasons.

Flexible working is also becoming increasingly attractive. In the NICEC study, 30 per cent of respondents were intending to pursue flexible working at some stage in their careers, compared with six per cent who already had tried this option. Growth in this area may widen access to some specialties which traditionally had long, less sociable hours such as surgery or emergency medicine.

## Resources

- A booklet for budding physicians including a worked SWOT analysis - [tinyurl.com/l4ut32t](http://tinyurl.com/l4ut32t)
- Log in to take the medical quiz based on the book *How to Choose a Medical Specialty* (Anita Taylor) - <http://schools.studentdoctor.net/selector>
- The BMA website has a list of Royal College websites and addresses - [tinyurl.com/k43smru](http://tinyurl.com/k43smru)
- A light-hearted algorithm for selecting a specialty - [tinyurl.com/kstvtq9n](http://tinyurl.com/kstvtq9n)
- Interpreting the Sci59 psychometric test - [tinyurl.com/p6dmf23](http://tinyurl.com/p6dmf23)

**Dr Anne Parfitt-Rogers** is an F1 doctor and editor of FYi

# HANGING UP THE STETHOSCOPE

Many noted public figures practised medicine before switching careers. Doctor-turned-writer **Allan Gaw** investigates the reasons why

**W**HAT do the former Foreign Secretary David Owen, the poet John Keats, comic Harry Hill and I have in common? This may sound like the start of a bad joke, but it is a serious question. No, we are not all poets, nor comedians, nor politicians, but we have all studied and practised medicine only to give it up for another profession.

Students choose to study medicine for different reasons. Once qualified, some of us, for equally different reasons, will choose to hang up our stethoscopes in favour of another calling. But why *did* we give up medicine—why does any doctor? This is often a source of bemusement to non-medics who view the profession as an escalator that, once mounted, is ridden virtually to the pearly gates. Medicine, we are quietly reminded, is a calling that it would be impolite to ignore. All that time and study, and of course money, must be justified by a fulfilling lifelong career.

It is true that medicine offers the chance to change lives for the better. That desire is what attracts most of us in the first place but, once there, some discover there are other routes to the same goal.

Some leave because they are forced to – compelled by circumstances to give up their chosen profession such as for ill health. Others may find they are forced to choose between two different callings. Lord David Owen was a junior doctor in London preparing to sit his MRCP examination when he was elected to parliament. Suddenly, a decision had to be made and a life in politics won out over medicine. But his choice was not between helping to change lives or not—it was between two means of achieving the same end. While politics might not seem an obvious choice for a doctor there are others who have given up medicine for an altogether more revolutionary practice. For example, the Argentinian Che Guevara wore a white coat before he wore that beret.

Some doctors leave medicine because they are simply much better at something else, and find they can change lives in other perhaps less obvious ways. John Keats studied medicine and surgery for longer than he was a poet. For over six years he was either apprenticed or studying at Guy's Hospital. Despite being well regarded as a junior surgeon, Keats turned out to be an even better poet. However, one life may have informed the other, as some critics see strong medical influences in Keats' poetry. Other physicians who have picked up the pen have also found inspiration in their former careers. Anton Chekov, the dramatist and master short story teller, features doctors in 83 of his short stories. Arthur Conan Doyle drew upon his knowledge of lecturer Dr Joseph Bell as the model for his most famous creation, Sherlock Holmes, and in Michael Crichton's breakthrough novel, *The Andromeda Strain*, he told a tale of microbiology long before he dabbled with dinosaurs.

Some of course leave because they discover that although they wish to change lives, the practice of medicine is not for them.

Many doctors, like all professionals, become disillusioned at one point or another in their careers, but most soldier on and come out the other side, stronger and wiser. But a few feel it is best to move on. The comedian

Harry Hill was a junior doctor in London when he felt like this. Medicine's loss was, however, stand-up's gain. While he recalls that there was a kind of gallows humour in medicine, his own whimsical comedy turned into something quite the opposite, perhaps as a reaction. Others

who have swapped medicine for comedy may have had the same strategy. There is little that can be attributed to medicine in the work of Graham Chapman of Monty Python fame, nor of Graeme Garden of the Goodies. These two comedians studied medicine, but, for both, the lure of comedy was a greater attraction.

And, what about me? I was not offered a parliamentary seat. Nor did I discover I was the greatest poet of my generation. I did not even feel compelled to find a role that was the antithesis of being a doctor. Medicine and I simply grew apart. The world into which I graduated had changed so radically that my job was now unrecognisable and at the same time my interests were starting to drift away from medicine. I still wanted to change lives for the better, and on good days maybe even change the world, but I wondered one day whether I could do that in another way. And, importantly, I had a Plan B.

Doctors are generally very smart people and smart people are versatile. But even smart people get frightened or bored or frustrated, or simply change their minds. Doctors can choose to leave the job they trained for just as many other professionals do, finding new challenges in a myriad of other roles. As working lives are becoming ever longer, there should be no need to struggle on in a job we find unfulfilling. And there should be no need for the talented to confine their activities to a single career.

Incidentally, if you are looking for a major career change you might consider two doctors who found high office in the church. The 13th century Pope John XXI was a doctor before he stepped into the shoes of the fisherman. If your aspirations are even loftier, why not emulate St Luke the Evangelist, and go all out for canonisation. Aim high.

**Dr Allan Gaw is a clinical researcher and writer in Glasgow**

## TIPS ON CORE SKILLS

**Dr Sophie Ludlam** offers advice on tackling three more core procedures that all trainees must perform

**F** 1 DOCTORS must demonstrate competence in 15 procedures in order to become eligible for full GMC registration. Here are some helpful tips on performing IV infusion of blood and blood products, injection of local anaesthetic and subcutaneous injections.

### IV infusion of blood and blood products

Each hospital has its own protocol for the use of blood products, so it is definitely worth familiarising yourself with this before attempting this core procedure. I remember prescribing and setting up my first unit of red blood cells for transfusion. It was for a patient who had an upper GI bleed on my ward. I assessed her cardiovascular and hydration status and she had a tachycardia and low blood pressure. I asked for two units of red cells from transfusion, but supported her with intravenous fluids in the meantime.

As students we are taught about transfusions and their reactions and this made me nervous - but don't worry. I found a nurse who agreed to guide me through the process. If the right checks are carried out and procedures followed, the risks are minimal.

Before I carry out IV infusion of blood and blood products, I always make sure the transfusion is indicated and that I get informed consent from the patient before ordering any blood products. I also learned early on to make sure the lab has an up-to-date Group and Save sample from which to cross-match.

It's important to always check the prescription and blood product at the patient's bedside with their ID wristband before starting the transfusion (the nursing staff can often help with this). Similarly, I make sure patient observations are recorded throughout the transfusion to monitor for any reactions. If I'm in any doubt, then I know I can ring the transfusion lab for advice.

### Injection of local anaesthetic

Using local anaesthetic can make certain procedures a much easier experience for both you as an F1 and your patient. I first used it during an attempt at a lumbar puncture, but it is also used for procedures such as chest drains and wound suturing. I talked through

the procedure with the medical registrar and we decided on lignocaine as our anaesthetic of choice. Once the patient gave their consent and we had decided on our injection site, I injected the lignocaine just beneath the skin. I then injected more anaesthetic along the intended path of my spinal needle. Unfortunately, I was unsuccessful at the lumbar puncture, but despite this the patient remained pain-free throughout due to successful injection of local anaesthetic!

Before administering LA, I am always sure to check the patient's allergy status and then warn them that it may sting a little as it is being injected. Choosing the appropriate LA and concentration for the procedure you're performing is, of course, very important. I checked this with a senior colleague, but the *British National Formulary (BNF)* is also a useful resource.

In using LA, I always wait a few minutes to allow the initial local anaesthetic to work before continuing with any further injection or procedure. I then make sure to observe the patient afterwards for any side-effects such as redness of the skin - true allergy is rare. When using a syringe, I always like to withdraw the plunger a little before injecting the drug to check I haven't accidentally hit a blood vessel and it's safe to continue.

### Subcutaneous injections

When it comes to subcutaneous injections as F1s, we are more used to prescribing the drugs than administering them. The best opportunity to gain this competency on the ward is either with the insulin-dependent diabetic patients, or those who need low molecular weight heparin (LMWH).

I remember I first asked a young lady with type 1 diabetes if I could administer her insulin, but she wasn't keen - often they like to deliver their own. So I asked a nurse if I could follow her on her late afternoon drugs round and help her with her dalteparin injections. I watched her give the first one and then it was my turn. Luckily, the pens come pre-filled with their own short needles, so I could just focus on the correct site and technique of injection.

Fat distribution determines your site of injection, with the commonest sites being the abdomen and thighs. I chose to inject

into the abdomen, being sure to avoid sites with evidence of overlying infection or fat breakdown. I then cleaned the skin, inserted the needle at 90 degrees and then slowly injected the LMWH, using the aseptic non-touch technique.

As with LA injections, the same principle applies when using a syringe in that I always withdraw the plunger a little before injecting to check I haven't hit a blood vessel. Just as administering any drug, I make sure it is checked, documented and signed for correctly on the patient's drug card.

### My main pointers for core procedures in general

Although the thought of completing 15 core procedures during F1 may be daunting, they are actually things that you will do most days on the wards without even realising it.

(Don't forget to ensure you have appropriate guidance when you are carrying out any of these procedures.)

Here are my top three tips for getting them signed off:

1. Do them as early as you can in F1, for two reasons:
  - If you don't succeed at the first attempt (this is very common), you will have plenty of time to try again.
  - Continuing to practise and record further attempts at core procedures in your portfolio will show dedication to improving your clinical skills and give you a varied range of feedback - all of which will help you to be a better doctor.
2. Anyone trained in performing the procedure and giving feedback can sign you off - the nursing staff can be extremely helpful.
3. Sit down with the assessor to complete the form as soon as possible - to ensure they complete the form and give you the all-important feedback.

**Dr Sophie Ludlam is an FY2 in orthopaedics at Royal Bolton Hospital**

# COMMUNICATION COMMUNICATION COMMUNICATION!



**Dr Caroline Millar** highlights the importance of ensuring out-of-hours test results are not lost in the system

INADEQUATE handover of clinical information carries significant risks for both clinicians and their patients. As a biochemistry registrar in a large tertiary hospital I regularly encounter clinical risk as we try to effectively communicate critical results out-of-hours.

I work in a laboratory that processes all core samples, including urea and electrolytes, liver function tests and thyroid function tests, continuously on a 24/7 basis. This improves throughput and efficiency, therefore providing better patient care. Or so you would think!

Samples arriving in the lab from any GP or outpatient clinic after 5pm are analysed as and when they arrive. So how can there be a problem if results are generated more efficiently? Results are only useful if they are interpreted appropriately, communicated effectively and acted upon. Samples arriving late in the afternoon may generate critical results after the health centres are closed or the last outpatient has left the clinic. Thus, patient care can be compromised.

The Royal College of Pathologists have stated that "the responsibility of the laboratory staff is to communicate the markedly abnormal test result to the clinical team - either to the GP who made the request or to the out-of-hours provider. It is the responsibility of the requesting clinical team to review results of tests that they have requested and have proper handover arrangements in place to review and act on abnormal results after hours, in the best interests of the patient." Our laboratory protocol, based on this advice, has been negotiated with both the primary care physicians and out-of-hours providers at a local level. Although fairly robust, problems still arise when a patient's contact and clinical details are not available and sampling times are not clearly stated.

In my experience, a common reason for calling the out-of-hours service is a critically high potassium result. If renal function is normal this may be due to delayed receipt of the sample into the laboratory. However, this is impossible to confirm if sampling times are not clearly stated.

If this result is acted upon, the patient may have a late evening jaunt to A&E only to be told their repeat result is normal. If on the other hand the patient is on potassium supplements and an ACE inhibitor, the high potassium places them at risk of a cardiac arrhythmia or arrest and requires admission for cardiac monitoring and an insulin and glucose

infusion. Thus, relevant drug information, which unfortunately is often missing, is critical to patient safety.

Traditionally, a clinician who orders a test is responsible for receiving and acting upon the results once available. However, more and more frequently it is other members of the healthcare team who order tests. Until an explicit code of practice is agreed, the lead clinician for the service should assume that they are responsible for receiving and acting upon results. In particular, clear processes are required to establish responsibility for taking action on outpatient blood results out-of-hours.

Recently, we have liaised with our cardiology department after a "near miss" on a Friday afternoon. In brief, grossly deranged urea and electrolytes from a patient attending a heart failure clinic were not reported until after the clinic had finished. There was no named physician or nurse on the request form. Several attempts to convey the abnormal results failed and finally a cryptic message (to protect patient confidentiality) was left on an answering machine at the aforementioned clinic. Fortunately, the message was picked up later that evening by a specialist nurse and the patient was admitted. However, this resulted in a formal system being put in place for abnormal results to be conveyed to CCU out-of-hours.

Effective communication, both verbal and written, lies at the centre of good patient care. The General Medical Council recognises this and makes clear the expectation that doctors will "keep colleagues well informed when sharing the care of patients".

In terms of laboratory test results, clinical risk may be reduced if suitable processes are in place for the communication of critical results and healthcare professionals provide adequate patient information with the request. Indeed, all physicians who use the laboratory service should, when completing request forms, bear in mind that the request may generate an abnormal result that may have to be communicated out-of-hours to another doctor.

---

**Dr Caroline Millar, FRCPath, is a specialty registrar in chemical pathology and metabolic medicine**

# LIFELONG CARING

A career in nephrology offers great variety and a chance to build long-term patient care relationships

THE UK's aging population presents many healthcare challenges, one of which is an increase in the number of people with kidney disease. This rise has seen continued expansion in the specialty of renal medicine where doctors provide care across a wide range of clinical need, from acutely ill patients to those with chronic conditions.

It is this opportunity to provide long-term treatment that holds much appeal for specialists in the field who often care for patients over many years, allowing a partnership to develop between the patient and the renal multidisciplinary team.

There is great variety in the medical conditions that nephrologists treat, from diabetes to scleroderma, and amyloidosis to liver failure. Nephrologists are also increasingly sub-specialising in areas such as transplantation, while academic nephrology provides many opportunities to drive new research and improve patient care in renal medicine, dialysis and transplantation.

## Entry and training

Doctors who have completed foundation training can enter renal medicine via core training (usually two years), choosing either core medical training (CMT) or acute care common stem in acute medicine (ACCS-AM). This is followed by higher

specialty training for at least three more years.

The specialty training curriculum for renal medicine from the Joint Royal Colleges of Physicians Training Board (JRCPTB) details what is required to achieve a certificate of completion of training (CCT). (This includes payment to enrol with JRCPTB.)

The JRCPTB describes core training as providing physicians with: the ability to investigate, treat and diagnose patients with acute and chronic medical symptoms; and high quality review skills for managing inpatients and outpatients. Higher specialty training builds on these core skills to develop the specific competencies required to practise independently as a consultant in renal medicine.

Renal medicine has primary responsibility for the management of patients with kidney disease and specialists treat:

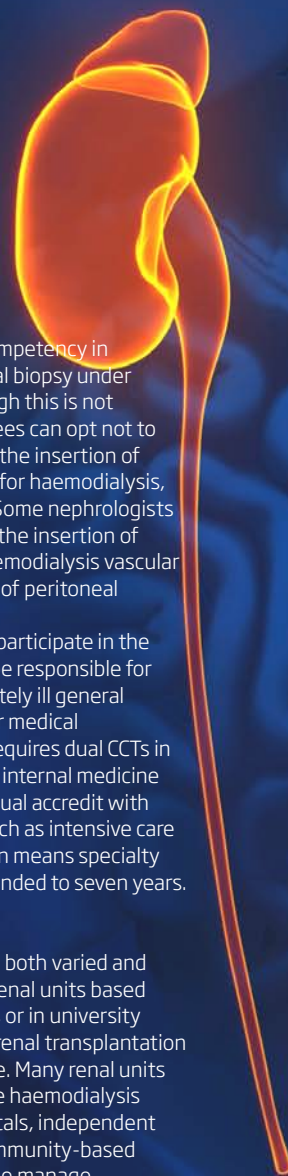
- disorders that primarily or solely affect the kidneys (such as some forms of glomerulonephritis)
- disorders that affect the kidney as part of a multi-system disease (such as diabetic nephropathy)
- disorders that are linked to changes or abnormalities in renal physiology (such as acid-base disturbances).

The curriculum requires competency in two main procedures - renal biopsy under ultrasound guidance (though this is not essential for CCT and trainees can opt not to gain this competency) and the insertion of temporary vascular access for haemodialysis, which is essential for CCT. Some nephrologists also become competent in the insertion of tunnelled catheters for haemodialysis vascular access and in the insertion of peritoneal dialysis catheters.

For a renal physician to participate in the acute medical take and to be responsible for the care of unselected, acutely ill general medical patients as a senior medical appointment, the JRCPTB requires dual CCTs in renal medicine and general internal medicine (GIM). It is also possible to dual accredit with other related specialties such as intensive care medicine. Dual accreditation means specialty training will usually be extended to seven years.

## The job

The job of a nephrologist is both varied and challenging. Most work in renal units based in district general hospitals or in university teaching hospitals, where renal transplantation most commonly takes place. Many renal units also provide care in satellite haemodialysis units, either in other hospitals, independent treatment centres or in community-based facilities. Nephrologists who manage





## Q&A

**Dr Sian Griffin,**  
consultant nephrologist  
based in Cardiff

**What first attracted you to renal medicine?**

I rotated to nephrology when meandering through my medical SHO rotation with no clear plan and was immediately hooked. I've been lucky to work from the beginning with a group of committed and inspirational registrars and consultants. I was attracted by the uniquely close and lifelong relationship between patients with renal disease and their doctors, and the need to clearly understand both clinical and laboratory medicine. It was also very appealing to have available a blood test to tell you just how bad the situation was and access to a big shiny machine to fix it!

**What do you enjoy most about the job?**

Having dialysis or receiving a kidney transplant can be overwhelming for people. I enjoy providing an explanation and reassurance so patients and their relatives can regain a feeling of control over their situation. My research area has been renal immunology, and applying this to optimise the opportunities for renal transplantation and their outcome is very exciting. The impact of renal disease reaches beyond the patient into many areas of their and their family's lives. Being part of a cohesive team that works to address these issues is one of the most rewarding aspects of the job.

**What do you find most challenging?**

Finding enough hours in the day!

**Has anything surprised you about the specialty?**

On the plus side - the rapid progression of legislation to allow altruistic organ donation, and the number of selfless individuals who have donated a kidney to a stranger. On the downside - I've been optimistically anticipating a cure for diabetes and hence the disappearance of diabetic nephropathy for years, but I think it's still going to be the leading cause of end-stage renal failure for some time yet.

**What do you consider the most important attributes of a good renal medicine specialist?**

A nephrologist needs to be able to combine the ability to keep a clear head and make quick decisions in emergency situations, but also maintain long-term interest and engagement with patients. You need to work well with members of the multi-disciplinary team, and medical colleagues from many other specialties.

**Is there any advice you could give to a final year or FY trainee considering renal medicine?**

Do it! The specialty offers the opportunity to develop skills in the management of both acute, life-threatening emergencies and chronic disease. There are unrivalled opportunities for research and working abroad - which might involve epidemiological studies, the unravelling of complex ethical issues, cutting edge clinical and basic science or disaster response. There's never a dull moment.

haemodialysis patients will also regularly visit a dialysis unit, either within the main renal unit or at a satellite unit. This can take up to half a day each week.

In larger renal units, consultant nephrologists often spend fixed blocks of time on-call looking after all renal inpatients on behalf of all the nephrologists in the unit. These arrangements typically last around two weeks, but vary depending on the size of the unit.

A growing aspect of the work of renal physicians, in partnership with primary care and some secondary care specialties, is the early detection of kidney problems and the prevention and management of progressive kidney disease. There is currently a national drive to improve the recognition and management of acute kidney injury (AKI).

Specialists work as part of a multidisciplinary team, particularly with renal nurses, pharmacists, dieticians, psychologists and social workers. There is also close involvement with other specialties such as vascular access and renal transplant surgeons, cardiologists, paediatricians, diabetologists and palliative care physicians. Patients with acute renal failure are often jointly managed with intensive care physicians and anaesthetists.

Renal patients are also prone to conditions such as sleep problems, weak bones, joint problems and depression and specialists will be expected to recognise and manage these appropriately.

The curriculum calls on doctors to appreciate that "patients have physical, social, spiritual and psychological needs", highlighting the importance of promoting good communication with the patient and their family.

While the majority of people with chronic kidney disease will not develop progressive kidney failure, some will progress to end-stage kidney failure. It is in circumstances such as this that renal physicians must be able to offer the information and support that is needed by patients and families facing death.

The curriculum states that "renal physicians deliver effective patient-focussed care for patients with kidney disease throughout the patient journey from diagnosis to end-of-life care. This enhances patient care and facilitates high quality complex long-term decision making."

### Sources/Useful links:

- Joint Royal Colleges of Physicians Training Board - [www.jrcptb.org.uk/specialties/renal-medicine](http://www.jrcptb.org.uk/specialties/renal-medicine)
- The Renal Association - [www.renal.org](http://www.renal.org)
- NHS Medical Careers - [www.medicalcareers.nhs.uk](http://www.medicalcareers.nhs.uk)

*Dr Alison Brown is a consultant nephrologist and secretary of The Renal Association*



# INFORMED DECISIONS

Consent is a crucial part of medical practice but can seem a complex process for trainees. MDDUS medical adviser **Dr Naeem Nazem** highlights the basic principles

**T**RAINEES are at the forefront of investigations and treatment in hospital. You may be undertaking your own investigations on a patient, performing a procedure under supervision or obtaining consent before a theatre list. In all of these instances, and many more besides, it is important to be aware of your professional (and legal) duty to obtain valid, informed consent. The importance of consent is perhaps best illustrated by considering what can happen when it is not obtained.

A failure of this kind can have an immediate impact on the doctor-patient relationship. A hospital stay can be a strange and unsettling experience for most patients and one that will only be made worse if they feel "left out" of the decision-making process involving their care. MDDUS is aware of many complaints made by patients who did not sufficiently understand their treatment, leading to a breakdown in communication and subsequent deterioration of the doctor-patient relationship.

Neglecting to obtain consent can also have more serious consequences. There is no special

privilege conferred to the actions of a doctor in a hospital setting compared to the actions of members of the public in the community. Even touching your patient to examine them requires their prior consent. Significantly, an absence of such consent may leave you vulnerable to criminal allegations of assault or battery as well as a possible GMC investigation.

While the number of patient complaints relating to consent is relatively low, and the number of doctors facing criminal charges connected to consent lower still, it is something that should be kept at the forefront



of every patient interaction. Bear in mind that for consent to be valid it must be:

- **Informed** – the patient must have been given sufficient information to make a decision
- **Competent** – the patient must have the maturity and mental capacity to make a decision
- **Voluntary** – the decision must be an expression of the patient's free will.

### What type of consent do you need?

Some doctors think of obtaining consent as a long and arduous process, involving paperwork and lengthy discussions with a patient and their relatives. In a busy hospital setting, however, it would be impractical to require written consent every time you wanted to take a simple blood pressure measurement. Equally, it would be inappropriate to rely solely on verbal consent for surgical procedures and other complex treatments. There is a balance you must strike, taking into account the nature of the procedure,

the patient and your environment.

Consent can be express or implied. When it comes to simple interventions such as measuring blood pressure, implied consent is almost always sufficient and can usually be assumed when the patient co-operates with your request (i.e. rolling up their sleeve and presenting their arm). As with all forms of consent, the important issue is that the patient is aware of what you are doing, and why, before you start doing it. To avoid any doubt, it is useful to ask a question such as "do you mind if I check your blood pressure?"

Express consent is when a patient positively indicates their agreement through more than implication. It can be verbal or in writing. Determining whether you need to obtain written consent, or whether verbal will suffice, is very much dependent on the individual circumstances of your case. The GMC has provided some guidance to doctors in their booklet entitled *Consent: patients and doctors making decisions together*. This recommends that you should seek written consent in all but minor or routine investigations.

### Who should take it?

Ideally, the person performing an investigation or treatment should obtain consent from the patient. However, trainees are often tasked with obtaining consent from a group of patients, for example before a theatre list or endoscopy clinic. In these circumstances, the doctor performing the actual procedure is delegating their responsibility to you. Before accepting a delegated task, you should ensure that you have the necessary knowledge, skills and expertise to perform it. If you think you are out of your depth, it is perfectly reasonable to say so and either obtain the relevant training or refer it to a suitable colleague. Remember a patient can only give you informed consent if you are able to provide them with all the relevant information and answer any questions they may have.

### Who should you seek consent from?

Remember that no one else is able to give consent on behalf of a patient who has capacity. Some patients want to bury their heads in the sand and want you to speak to a friend or relative and have them make all the decisions. However, you should make it clear to these patients that you must give them a minimum amount of information to obtain their valid and informed consent. It is also a good idea to document carefully the nature of your discussion and the patient's views.

### When should you take it?

This very much depends on the nature of the procedure for which you are taking consent.

For complex procedures, patients should be given time to absorb all of the information and have an opportunity to reflect upon it before giving you their decision. However, for procedures such as IV cannulation or arterial puncture, it may be reasonable to obtain consent at the time.

As well as considering the nature of the procedure, you should also take into account the state of the patient. In order to be valid, consent must be given from a patient with capacity in the absence of any duress. If a patient is acutely unwell or distressed, and you do not need their consent urgently, it is worthwhile deferring it to a time when they are more settled.

### Where should you take it?

You should also think carefully about the environment in which you obtain consent. Ideally, it should be free from interruptions and enable the patient to focus on what you are saying. You may want to see if there is a room available nearby or draw the curtains around the patient's bed to minimise outside distractions. If possible, ask a colleague to hold your bleep to allow you to focus on your conversation with the patient.

In addition to making sure the environment is suitable for you to obtain consent, consider whether the patient could benefit from having another party present. They may want to have a close friend or relative to support them and discuss things with afterwards. It is important to ensure that neither you, nor any third party present, exert undue influence over the patient's decision.

### What should you say?

The nature of your discussion with a patient will very much depend on the procedure. You should try and engage in an open and frank discussion, which enables the patient to feel involved in their care and to clarify anything that is unclear. Your discussion should include the purpose of the intended procedure, the risks and benefits, and the alternative options. Many hospitals have patient information leaflets for common procedures and you may find it useful to go through this with the patient and leave it with them to consider after you have left.

As well as thinking about what you should say, think about the manner in which you say it. Most patients find hospitals an unsettling environment and may be quite anxious when you speak with them. It is therefore helpful to pause regularly and check they have understood everything as you go along.

**Dr Naeem Nazem is a medical adviser at MDDUS**



# MEDICAL ETHICS

**MADE EASY**

**Dr John Dudgeon** offers a quick, practical tool for the busy doctor

In my experience, when ethics comes up in conversation, many doctors develop a pained or puzzled look. But in working with patients, helping my trainees or answering complaints at the office of the Scottish Public Services Ombudsman, I am increasingly aware of ethics being a part of most of the decisions that doctors make. No doubt it can create feelings of uncertainty but I hope my back-of-an-envelope explanation will make ethics less something to be unsure about and more of a useful tool to help work our way through the increasing challenges of modern medicine. I should make it clear from the start that I am no expert – but maybe this leaves me well placed to present this simple and practical guide.

Ethics is nothing more than a system of principles or values which can help us in decision-making. It is not necessarily about discovering what is right. In medicine there are often contrasting views that have their own legitimate morality (morality = a personal, intuitive sense of what is right or wrong). This is when ethics is required. When used to decide these issues, ethics has to justify the path taken.

## Theory in practice

For me, one thing that causes uncertainty around medical ethics is the language used. It is arguably over-complex but it can be simplified. There are also multiple ethical theories, thought out by great minds. The kudos

due to those responsible is not to be ignored but if we try to remember them all we would never, in my opinion, put medical ethics into practical use.

Some of the better known theories are:

- **Consequentialism** – Often called utilitarianism, this suggests we should select the right choice of action as determined by the manner of doing good which leads to the greatest happiness for the greatest number, where happiness equals benefit or good. Traditionally, Jeremy Bentham is associated with utilitarianism but there are many modern forms like preference utilitarianism.
- **Deontology** – This is a duty-based school of ethics which advises that some actions are intrinsically wrong in themselves, regardless of their foreseeable outcomes. Classically associated with Kant, he stressed that every person must be treated as an end in him or herself rather than as a means to an end.
- **Other types** – Further approaches exist like liberal individualism and communitarianism, all of which have importance to specific areas of medicine, but I would suggest forgetting all of the above and thinking instead about the Four Principles.

## The Four Principles

Ethicists Tom Beauchamp and James Childress devised this approach to ethics. It has aspects of many other schools of thought and it is the model most commonly applied to medical ethical problems. The Four Principles are:

- **Autonomy** – individuals must be respected as independent moral agents with the right to choose how to live their own lives.
- **Beneficence** – one should strive to do good where possible.
- **Non-maleficence** – one should avoid doing harm to others.
- **Justice** – people should be treated fairly, although this does not necessarily equate with treating everyone equally.

Non-maleficence and beneficence would typically be associated with consequentialism, and autonomy and justice with deontology.

The Four Principles are easy to use. Consider the last patient you saw and apply the Four Principles to one of the problems they presented to you. Every case will vary in how much each of the principles will be relevant but that is the beauty of this approach. It is flexible and can be altered depending on the individual circumstances. One way to visualise this is to draw a box as below and alter the area each principle occupies by size depending on its importance in the case being considered.

Autonomy	Beneficence
Non-maleficence	Justice

### Example 1

Consider a 14-year-old girl attending the surgery asking for the contraceptive pill. Assume her doctor has determined that she is Gillick competent. This is my own simplistic take on this case. See how the size of the individual boxes alter and change depending on the individual circumstances presenting.

<b>Autonomy:</b> Despite being under the age of legal consent her autonomy has to be respected.	<b>Beneficence:</b> Giving her the support and prescription she requires as well as sexual health advice and review for support.
<b>Non-maleficence:</b> Ensure her competence is assessed properly and she has no contraindications to the COCP.	<b>Justice:</b> Making her aware she will be treated fairly and her confidentiality respected despite her age.

### Example 2

I had a particularly difficult case some time ago. A patient we know well had presented to our nurse for a routine review. She had coincidentally been noticed to have a terribly swollen abdomen. When asked about it, the patient advised she thought it was due to her alcohol-related liver disease or a tumour. It had been like this for some months. Our nurse offered to get one of the doctors to look at it for her. She firmly declined. She advised that if it was something nasty she did not want to know and she planned to keep enjoying herself and “go out on a high.” Our nurse was convinced the patient understood the implications of her decision. She was sober and retained capacity to make her own decisions. I had to advise that we could not intervene but leave an offer open to see her at any point if she changed her mind.

<b>Autonomy:</b> Her right to make her own health decisions has to be respected.	<b>Beneficence:</b> There is little opportunity to do good here other than respecting her wishes and offering easy access to us.
<b>Non-maleficence:</b> Respecting her wishes and not causing the distress of investigations and a possible serious diagnosis.	<b>Justice:</b> Ensuring her alcoholism does not bias us against her while ensuring she has capacity to fully understand her decision.

### Complaints handling

Using the Four Principles has also been helpful to me in my role as a medical advisor at SPSO. I wonder if we all used them more, would complaints reduce? Consider the proposition point by point:

- **Autonomy** – Respecting the individual’s right to choose and involving them in decision-making would eliminate many of the complaints I see where the patients felt excluded from important decisions.
- **Beneficence** – It is my opinion that most doctors have empathy with their patients but many of the complaints I see would not have arisen if the doctors involved had been kind.
- **Non-maleficence** – Some complaints about medical error occur when the doctor has been trying a bit too hard rather than sitting back and involving the patient in the decision-making process. One example of this is drug side-effects where the medication could have been avoided if some simple discussion and negotiation between doctor and patient had taken place.
- **Justice** – Many patients (particularly those in prison) complain because they feel they have either been treated unfairly or discriminated against. While these episodes are rare, we all have our inner prejudices. Taking a moment to do a quick check to ensure we are not allowing these to influence our professional decisions would, I am sure, lead to happier patients and doctors.

Why not try to apply the Four Principles to your practice?

**Dr John Dudgeon is a GP and medical adviser with the Scottish Public Services Ombudsman**

# OPERATIVE RISK

## Day 1

Mrs K is 36 years old and presents at her GP surgery complaining of chronic abdominal and back pain. She also reports having heavy and painful periods and discomfort during and after sex. She is worried and depressed and it is affecting her marriage. The GP suspects Mrs K is suffering from endometriosis and refers her to a gynaecologist.



## Day 7

Mrs K attends a private hospital for a consultation with a gynaecologist – Ms T. The consultant confirms a history of deep dyspareunia and post-coital ache. The uterus is found to be very tender on pelvic examination. Ms T recommends a laparoscopy to find the exact cause of the pain and possibly treat. She discusses what is involved in the procedure and offers Mrs K a date within a few weeks.



## Day 29

Early on the morning of the procedure Mrs K meets the consultant briefly for a pre-operative discussion and signs a standard consent form for: "Diagnostic laparoscopy +/- adhesiolysis +/- endometriosis treatment". The procedure is carried out later that morning. An uncomplicated laparoscopic entry is made just below the umbilicus along with a second port inserted. A small area of endometriosis is noted in the Pouch of Douglas and lateral to the utero-sacral ligament. The endometriosis is cauterised with a helium beam coagulator. Mrs K recovers well from the anaesthetic and is discharged home later that evening.



## Day 30

An on-call GP attends Mrs K at midday. She is suffering from severe abdominal pain and vomiting. An ambulance is called and she is transferred to an NHS emergency department. Here she is assessed and the history and examination is suggestive of peritonitis. Later that evening she undergoes an emergency laparotomy. Free fluid and fibrous exudate are found in the peritoneal cavity caused by leakage from the bowel. Further exploration reveals two small "through and through" perforations in the ileum about 60cm from the ileo-caecal junction. The perforations are repaired and the peritoneal cavity lavaged with a drain left in situ. Mrs K undergoes a protracted recovery and is in hospital for another week with IV antibiotics. In subsequent visits over the next few months to her GP she complains of abdominal pain with tiredness and low mood.

SIX months later Ms T receives a letter of claim from solicitors representing Mrs K alleging clinical negligence. In the letter it is claimed that the surgeon did not take reasonable care when carrying out the operation and also that she did not properly inform Mrs K of the risks involved in the procedure, including the risk of bowel perforation. She is seeking damages for loss of earnings in her time off work and also compensation for physical and emotional harm.

MDDUS in acting for Ms T commissions an expert report from a consultant gynaecologist. Ms T produces a detailed account her treatment of Mrs K and this is examined along with other relevant documents including the patient records.

The expert judges that, given the patient's history and the findings upon examination, it was entirely appropriate to suggest laparoscopy. In regard to consent the expert notes that the standard form used did not include an explicit record of discussion of the risks involved in the particular procedure.

In her account of the case Mrs T set out her standard consent procedure with a discussion of risk-benefit and mention of the small risk of bowel perforation. But the details of this discussion are recorded neither in the patient notes nor on the standard consent form.

Bowel perforation is a well-recognised complication of laparoscopy though relatively rare. In his assessment of the case the expert can find no negligence in the conduct of the procedure. He states: "it is a complication that will occur sooner or later at the hands of even the most experienced surgeon and no technique yet described for laparoscopy removes the risk".

In his conclusion the expert finds no evidence of breach in the duty of care by Ms T in regard to the decision to operate or in conduct of the procedure and the patient's post-operative care. His only concern is in regard to the contemporaneous documentation regarding consent and pre-operative discussion of the risks of the procedure. Specific written evidence of such

discussion is lacking in the patient records.

MDDUS lawyers write back to the patient's solicitors robustly countering the claims of negligence against Ms T. After further correspondence the claim is eventually dropped with no further action.

## Key points

- Medical complications are not necessarily matters of clinical negligence.
- Ensure that records concerning pre-operative consent include specific discussion of serious and common risks for the particular procedure.
- Contemporaneous records of treatment discussions tend to carry greater legal weight than later statements of "usual practice".

## OUT THERE

**LIFTS LIKE LOOS** Hospital lift buttons harbour more bacteria than toilets. Toronto physicians found the prevalence of bacterial colonisation on lift buttons was 61 per cent compared to just 43 per cent in and around toilet surfaces. They recommend touchless sensors or larger buttons that can be elbow-activated.

**FRIEND OR FOE** Young doctors who are friendly with patients struggle to be truthful with them, according to a *Lancet Oncology* study. Blurring personal and professional lines can also make patients less honest about side effects. Hugging, Facebook friending and using first names are not recommended.

**BLOOD GRAB** A plant-based polymer gel developed in New York can stop bleeding within seconds by "grabbing" onto blood and "snapping it back together to seal the wound." It's hoped VetGel could be used on the battlefield and in medical emergencies and may eventually replace plasters and bandages.

**GOOGLE SAVED ME** Who needs doctors when we have internet search engines? Recent research by Medical Accident Group claims 21 per cent of patients trusted information found via Google search results above their GP, while 27 per cent said they relied "entirely on Google for a diagnosis". Of those who self-diagnosed, 58 per cent got it wrong and had exaggerated their illness.



**WHAT ARE WE LOOKING AT?**  
Stumped? The answer is at the bottom of the page

PHOTO: NIBSC/SCIENCE PHOTO LIBRARY

## Pick: DVD - Contagion



Directed by Steven Soderbergh, starring Jude Law, Marion Cotillard, Gwyneth Paltrow, Matt Damon, Kate Winslet; 2011

ONCE read that at the London press showing of Steven Soderbergh's *Contagion* reviewers were handed out free pocket bottles of anti-bacterial handwash - an Ab Fab touch of absurdist marketing if ever there was.

This gut-wrenching thriller explores the all-too-real possibility of a deadly H1N1-type viral outbreak exploding into global pandemic. Soderbergh directs an ensemble cast in multiple stories played out against an epic medical disaster.

Businesswoman Beth Emhoff (Paltrow) returns from a Hong Kong business trip suffering from flu and just days later both she

and her young son are dead - and her husband Mitch (Damon) is in quarantine though seemingly immune. Infection spreads and scientists from various agencies scramble to investigate the source in order to develop an effective vaccine - but not before the contagion has encircled the globe leading to mass quarantine and general panic.

A rash of zombie films and TV series have in recent years effectively exploited similar fears - loss of control, societal breakdown, brutal dehumanisation - but *Contagion* makes for altogether more uncomfortable viewing in its disturbing plausibility.

## Book Review:

### Do No Harm: Stories of Life, Death and Brain Surgery By Henry Marsh

W&N: £6.29 paperback, 2014

Review by Jim Killgore,  
publications editor, MDDUS

THIS fascinating book by neurosurgeon Henry Marsh - familiar to many from the documentaries *Your Life in Their Hands* and *The English Surgeon* - is a memoir of sorts, though woven through a series of fascinating vignettes involving some of the patients he has operated on over the years.

Marsh writes with refreshing honesty and humility yet no false modesty. He is confident of his unique skill yet also painfully aware of the limitations of his role - which he calls more craft than art.

"Much of what happens in hospitals is a matter of luck, both good and bad; success and failure are often out of the doctor's control," he writes. "Knowing when not to operate is just as important as knowing how to operate, and is a more difficult skill to acquire."

Many of the surgical challenges described in this book ultimately come down to plumbing, though at the most intricate extremes - removing tumours or clipping off aneurysms without compromising the rich blood supply to the brain where even minute haemorrhages can result in catastrophic blood loss. All done with fine precision using a binocular operating microscope: "I am deeply in love with the one I use, just as any good craftsman is with his tools," he says.

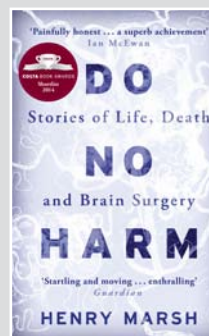
The anatomy Marsh describes looking down his microscope is almost otherworldly. "I often have to cut into the brain and it is something I

hate doing. With a pair of diathermy forceps I coagulate the beautiful and intricate blood vessels that lie on the brain's shining surface. I cut into it with a small scalpel and make a hole through which I push with a fine sucker... The idea that my sucker is moving through thought itself, through emotion and reason, that memories, dreams and reflections should consist of jelly, is simply too strange to understand."

Surgical errors in such procedures are more often than not attended with devastating circumstances for the patient and Marsh provides frank insight on how neurosurgeons deal with this responsibility.

"You can't stay pleased with yourself for long in neurosurgery," says one colleague. "There's always another disaster waiting round the corner."

This book offers a rare view of what life is like in the premiere league of surgery - but it is also an artful and engrossing read.



# JOIN NOW FOR FY1

Calling all 2015 graduates – sign up for MDDUS graduate membership now and get your 2015 school yearbook\*.

The yearbook is **free** if you take up graduate membership with MDDUS, which offers access to medico-legal assistance and professional indemnity for **just £10**.

For a graduate application form, please contact Olivia McCulloch at MDDUS on [omcculloch@mddus.com](mailto:omcculloch@mddus.com) or **0845 270 2034**



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

## Discover careers tools and resources to:

- make the right career choices
- build a career development plan
- enhance your professional development
- maintain your clinical excellence

**We offer expert advice, support and guidance throughout all stages of your career, with:**

- free contract checking service
- employment advice for peace of mind
- exclusive discounts on workshops
- free webinars
- over 1,000 CPD accredited e-learning modules on **BMJ Learning**
- free access to online psychometric test
- one-to-one career coaching
- and much, much more

**Get in touch with the team today!**  
[info.bmacareers@bma.org.uk](mailto:info.bmacareers@bma.org.uk)

# BMA



**British Medical Association**  
[bma.org.uk/careers](http://bma.org.uk/careers)