

Medicine and Beyond

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My name is Andy and I am an emergency medicine SpR working in London and I rotate round some of the biggest hospitals in the UK in the A&E Departments.

A little but more about me, well I am, as I said, an emergency medicine SpR and I work in North East and Central London, that's my rotation, I currently work at the University College Hospital in London, and that's a really nice pretty picture of the bizarre space-age looking door probably none of you can really see, but this little red door, that where I go in every morning. It says A&E in tiny little letters, I think it is kind of to scare people from coming in as we are always very busy.

I actually graduated from Leicester back in 2002 but I will talk more about that in a minute. I graduated from Newcastle in Medicine in 2007. I have some particular subspecialty interests in pre-hospital emergency medicine, paediatric emergency medicine and also medical education, with which I am quite heavily involved.

What do I actually do on a daily basis? Well I got this off Facebook which I thought was quite good. My mates, several of whom work in advertising, think that I save sick children on a regular basis. My Mum just thinks I am some kind of bizarre hero, but only after I told her. Most people think I earn a fortune, which I clearly don't, and I think that, is that a Lamborghini on there? I don't quite know. I don't have one of those, and I don't even have a car, because there is no point in London it would cost far too much. The government at the minute thinks we earn far too much and is cutting pensions and various other bits which I am sure you have heard in the media. I like to think of myself as Gregory House, working out what nobody else can work out. Then occasionally I have to ask the boss who tells me I'm an idiot.

Continuing professional development and exams, sorry to say guys, as has already been said today, exams are a continuous thing. There are exams in every single year of medical school, there are exams to get into

becoming a Registrar, there are exams to become a Consultant, and if you think your exams are hard now I can tell you they are bloody awful, and they cost a hell of a lot of money, so for instance my Consultants exam, which I am not looking forward to in a couple of years, is £3,000 and you have to fund it yourself.

But, what do I actually do? Well, I've been a doctor for seven years, I have worked within the NHS for six of them. The NHS is a massive organisation; it is actually one of the top ten employers in the world and employs a total of 1.3 million people. In the Department I work in at the minute we see about 370 people per day, which is one hundred and thirty five thousand per year, and it makes it one of the top fifteen to twenty departments in the country in terms of actual size. My job involves initially assessing and treating some of the most critically unwell, sick, injured adults and children basically, initially assessing them and trying to make them better and work out what is wrong with them. I do fortunately get to help the most dependant and vulnerable people in society, children, families, parents, the homeless, those with long-term sick and other problems and it is a great benefit and a privilege always. But, in my role as the Senior Registrar, normally the Consultant is responsible partly for a lot of the department administration, so I end up running the entire department on a regular basis supervising all the medical and nursing care, which can be quite a lot of responsibility when you have got over one hundred patients in the department and over seventy other members of staff at least all at the same time.

So what do I do on an average day? Well, funnily enough because it is A&E, no two days are ever the same, it literally depends on either who decides to walk through the front door or come in via an ambulance. You do have to be pretty much prepared for anything and really adaptable because all sorts of things can turn up in a novel way you might never have seen and you also come up with novel solutions all the time. It is physically and mentally demanding and your standard shift length is 10-12 hours and I standard shift length because if you actually leave on time that's quite a miracle, you usually have to budget for going home at least half an hour late because inevitably you have a few things to tie up at the end of your shift and it varies depending on which medical specialty you are in. It can be quite exciting, I do regularly see, every other day, heart attacks, meningitis, strokes, car accidents, people falling out of buildings, stabbings, gun shots, all the stuff that you have seen in ER. However equally it can be equally as unglamorous with people who are flat out with drug overdoses, unfortunately the nasty side of life with abused children, all sorts of random bodily fluids that we would like to try and avoid, boils, bugs, bums, and an innumerate number of drunks and according to the BBC website and everything else it is far more of that. On Friday and Saturday night, particularly among the student fraternity, we have at least thirty people who come in to the

department from a place called Fives across the road. Every drink is £5 and has five shots in it and is guaranteed that everyone is mauled and they need to be sent home safely.

So how did I end up where I am now? Well, as I said before, I actually started at this hallowed institution back in 1999 and I graduated in Medical Biochemistry back in 2002. I then moved on to study medicine at Newcastle and graduated in 2007. You have heard some wonderful things today about differences and not knowing your career direction and all these other things. In reality I always knew I wanted to do medicine, I am that anomaly who always thought I want to do that and actually by doing my undergraduate degree it only confirmed that for me. I enjoyed doing all the things at Leicester and I really found the degree was amazing for what I was going to go on and do but, when I did my dissertation being in the lab, I realised that lab-based stuff is not for me at all. I got kicked out of the library a thousand times, because as you can see I am quite hyperactive, I am ridiculously noisy and I cannot function in that kind of environment, so I have to be in the middle of chaos, noise and medicine is quite good for all that.

I ended up doing my foundation training, which is the first couple of years, which everyone has to do after they graduate at Durham University Hospital in the North East, and then I moved down to London where I took my junior Registrar post in what is now called the Acute Common Stem. That's a very good programme where you do some emergency medicine, anaesthetics, intensive care and acute medicine and generally prepares you for whatever specialty you go into but tends to lead into those. I was lucky enough to do a year at one of the country's most famous major trauma centres at the Royal London which is really good fun, but also allowed me to learn more about treating those that are very injured and, as I said, stabbings, gunshots, falling from heights, and it also serves the HEMS helicopter that you might have seen on TV and/or, read about in the media.

After that I decided to ditch all of that and then take a year out and the reason was I wanted to work at London 2012. There are opportunities in your training if you go on to doing this when you can jump out of the programme in order to go and do life experiences that you wouldn't otherwise have opportunity to do. Since the Olympics probably will only come back to this country in about one hundred years after I am dead, I thought I would give it a go. I also went on to go and work in Australia but there will be more about that in the rest of the talk. After I had been to Australia I came back to take my Senior Registrar post in London in emergency medicine.

The photographs in this slide. That's me outside Shirley House at Stamford Hall, back in 1999 with an even worse haircut than I now possess. I now live literally up the road from Tower Bridge which is quite nice. So why pursue a career in medicine? Well, it is a very rewarding career as I said, you get to help and care for the vulnerable and the unwell. You get to regularly provide support to families, the desperate, those who have no other alternative and the terminally ill and actually make them all feel better, which is always quite nice. It is always challenging, it is always very stimulating and can feel sometimes like a bit of an uphill battle, but there are many career options and many specialties, so whatever you end up thinking you like doing during your medical training or even afterwards, there are always avenues open to you in order to pursue those things. Also, if you go on and study medicine, your degree is valid around the world so you have the opportunity for foreign travel and practice. It is directly comparable in some countries, which I will mention later, but in others, with a simple exam if you wanted to do those things, you can easily move on because in the UK the training is pretty much as gold standard for anywhere around the world. It is a very respected profession still, in despite of them trying to batter it a little bit in recent times, there are the same opportunities throughout the UK, so both financially and also regionally if you do have problems you can rotate round if you don't have many commitments but there are still opportunities if you have children or various other bits when you can work in one particular place. It is very well paid compared to some other careers, not as well as Barristers or various other bits and bobs, but still I haven't include particularly financial calculation but it is all on the BMA website but normally, because of the Agenda for Change, as a starting FY1 you would probably be looking at between about £25,000 to £28,000 plus 50% banding so you probably will start on about £37,000 as an average starting wage. To give you some kind of idea I'm in my seventh year and I now get £40,000 and £20,000 of my banding so I am quite happy to admit I now get paid £60,000 per year. When I am a Consultant in a couple of years' time depending on the contract, it's a bit more complicated than that, but normally it's between about £90,000 and £110,000. If you end up being a GP and you are salaried partner in a practice they have a divided pot of money and you split it up between yourselves, so as a result it is somewhere between about £75,000 to £90,000 if you are employed by an NHS trust, but can be anything up to about £175,000 or even more depending on how it is split up. So it can be pretty lucrative depending on what your opportunities are. Also, we are always going to need doctors, so as a result you have a high level of job security, and at the minute because there is more people in the population and more people getting older they aren't getting rid of anybody anytime soon.

So what are the disadvantages? As I said, it's a high level of pressure, in particular with the time pressures and targets, particularly in my job, have you ever heard of the four hour target in A&E? It causes nothing

but nightmares, but it is good because it does mean that people don't hang around forever without some decisions being made. There are very strict codes of conduct and professional ethics so as a result you just have to be very careful that you never go anywhere near those lines at all times, but they are set out very clearly. It can be extremely physically and mentally draining, that is slightly specialty specific, I do one of the ones that is probably the hardest but ultimately there are slightly easier examples where there are opportunities for part-time work to make those things a bit easier, particularly at the junior end of the job. There are high levels of stress, there are long hours, and it can be hard to plan things around the job. Your social activities can be affected slightly, particularly if you are doing on in three or one in four weekends and regular night shifts. It can be difficult because you can deal with life and death things. If you get a decision wrong that is actually ok, these things happen, but it can be difficult and take a personal and moral tone on you when you have to deal with these things. You will see some of the worst sides of human nature unfortunately by the sheer nature of the job you do come into contact with people who are violent, aggressive, people who abuse others, it's not pleasant but it is just the nature of the job.

The NHS is a continuously changing environment, particularly in the fact that in this country we tend to have two main political parties in charge and they completely disagree on how it should operate and, as a result, they change it almost every four to five years when they get in, and the Department of Health is a bit of a revolving door and again they also change things every five minutes but ultimately, on the ground, people tend to just get on with it. As I mentioned before there is a never ending requirement for further professional assessment and exams and revalidation.

So how do you get into it? Well, first of all there is the application bit. Some of you might already have done it, as for next year you tend to have to do it by October / November, but anyway decide ASAP so that you can start getting all the things that you need for your application as much as possible and adding stuff to it to push yourself above everybody else. It is such a competitive process, there are so many people, and anything that makes you better than them will help you. The most vital thing is showing some form of work experience or some kind of volunteering. It doesn't traditionally have to be hospital based work experience, it can be things like working in nursing homes, that's what is traditionally done, but anything like St John's ambulance, any kind of volunteering working with children, working with other groups they all count the same because people are aware that it is difficult to just suddenly arrange hospital-based work experience.

I would suggest you choose medical schools widely. There are now great differences in the course structure in terms of their academic versus clinical work, stages of when the clinical work is introduced, but also in terms of their entry requirements and also, particularly in recent times, the UKCAT. Some of you may have already sat it or applied to sit it, it is now that 26 of the 30 odd medical schools require it and, although I don't personally agree with it because I think it removes some people who I think would be ideal for the medical profession, if you are going to apply to one of those institutions again do it early so you know your score, because it gives you more options on where you can apply. If possible, if you can get someone in the profession, preferably somebody senior, who can read through your application on your UCAS statement or anything else that is good because they can show you how to highlight things that are good and remove things that aren't required. Again, it's going to be read by a few people, and if it is too difficult to read they will just toss it in the bin, so ultimately make sure it is read by somebody who is good at English so they can proof read it so it is easy to read and also that the English is all correct. Nothing looks worse than having an application that is full of bad grammar for instance.

So how do you get into medicine part 2? Prepare hard for the interview guys because you are up against quite a lot of people. Again, other things that put you at the top compared to other people, if you are aware of things that are going on in the media around medicine there will be some kind of question about that, have some kind of stories in the back your head that you can talk about. Know about current NHS, Department of Health policies and where things are moving to, again you will probably be asked about those. Particularly know the structure of the course. And be able to say why the one institution you think the one you want to go to is better than another. I appreciate that is very difficult because basically you are going to end up with a standard qualification at the end of the day so how is it easy to say why one place is better than another. If you craft a good answer to that question it already makes you look better than your peers.

A good source of information is the Modernising Medical Careers website [NOW <http://specialtytraining.hee.nhs.uk>] and also the foundation programme. They give you a full overview of the career path and training, but in essence you will either do four or five years as an undergraduate followed by two years of the foundation programme and then at some point you either have the option to do more years or take time out in Clinical Fellow posts or move abroad. Then you will apply for your junior Registrar training, normally about three years, followed by a period of senior Registrar training which can be anywhere between about three and six years depending on which speciality it is and if you add in any sub-specialty and eventually you will become a Consultant with your CCT. One pearl of wisdom, I would

suggest you get the person specification off the MMC website. It is basically a list of all the junior Registrar and Senior Registrar jobs and it says what is designed for people's character that they are looking for on communication, team work and all these other things, if you download one, and essentially try and steer your application towards it you will tick all the buzzwords that they are looking for regarding teamwork, resilience, communication skills, everything, if you look at that it just gives you something to know what people are looking for. It is the same thing that they look for in potential medical students as they do in junior doctors. But the most important skill of all is good communication skills, partly because the main part of the job is talking to patients, but secondly if they don't believe when you talk to them at the interview that you have got good communication skills they won't think that you can talk to patients properly from that point of view. So as a result that is the highest part of the scoring and it is involved in everything we do.

Other medical opportunities, widening the umbrella. There are opportunities in medical research, they do PhDs, they do Masters, and they also do more things related to clinical trials comparing why one new drug is better than another and whether we want to introduce that to clinical practice, and also whether diagnostic tests are better than others and how to improve things for the overall population.

There are other ways you can get involved in medical education, either through a formal link with a University such as this or any of the other Universities. Or, for instance, there are opportunities to do life support courses, if you are recognised as being quite good at teaching you can go on an teach advanced life support, which is actually quite good fun because you get two days off work to teach people how to be better at their jobs and how to resuscitate adults and children in major trauma, and that is always quite good.

There are also opportunities in medico-legal and private practice. Medico-legal is actually quite sad, because it is basically looking through things and pointing out where other people got it all wrong and earning money for doing that. I don't like that sort of thing but it is quite lucrative. There is also the option for private practice. Private practice is exceptionally lucrative, particularly depending on which speciality it is in. Higher specialties that command that are things like Orthopaedics, Plastic Surgery and Anaesthetics, and they tend to naturally lend themselves to that kind of thing. I do mention about the money because, although I haven't said it specifically, tuition fees are quite expensive and at £9,000 per year you are probably going to be looking at some kind of financial return from your degree with the continued

investment over the four to five years. As a result, if you are thinking that way those specialities will definitely guarantee you the kind of return you may have been looking for.

In terms of other opportunities you can take part in clinical commissioning groups, hospital management and executive activities, public health for the entire country, other things that are involved in Department of Health in advising the government. Also planning for major incidents, such as fires and floods, and you can take part for charity, so Red Cross, Médecins Sans Frontières, British Heart Foundation, and many others.

Other medical opportunities, well, as I said, there are opportunities to work abroad, easily you can work in Australia, New Zealand, and Canada, because they instantly ratify your degree as being directly relevant, as we do for theirs. As a result you don't need to take any additional exams and you can automatically register with their healthcare bodies, and essentially move straight across if you get a job, which is very nice. The same is true in the Middle East. You can go to the USA and South Africa but the USA you probably need to sit a College Board Exam, which if you have already passed the ones in this country should be reasonably simple, and in South Africa you can go it is a great opportunity but I would stick to the major centres because it is still reasonably dangerous country outside the main conurbations. You can also get involved in pre-hospital care so that's BASICS in this country (<http://www.basics.org.uk>) which are essentially the ambulance service to provide advanced intervention such as intubating people and ventilating them on the roadside if they have been in a big accident. Helicopter emergency medical service, ambulance services, or aviation medicine. I use this as an example, I have been very lucky and I got to go to Australia, that's a picture of me in the desert picking a sick patient up, going on the fire and emergency services helicopter teaching people how to cut people out of cars is the one on the bottom right and landing on the top of Perth Hospital at night with the skyline in the background which is always quite good fun.

Other opportunities you might not be aware of or know exist. Expedition medicine, so you can lead people going on tours of the great wall of China, going up mountains, going to Borneo, all sorts of places. Event medicine, so in this country there are two guides which require that there is a certain level of medical and nursing provision at big major events and either concerts or football stadiums. I am lucky enough to get to work at Wembley which is great fun. Also things like motor racing, sport medicine, and also the opportunity to maybe write in the media and journalism, particularly with the advent of increasing things to

do with twitter and other things you can get your opinion out there and change things very rapidly. As I mentioned before, I was lucky enough to become a life support instructor, so I frequently get into adult life support, advanced children's life support, major incident management, BASICS. I have been involved fortunately or unfortunately as being in charge at the receiving hospital for part of the Hackney riots in 2011, the Tottenham Court Road fire back in December, and also the Apollo theatre collapse that you might have seen recently in the media back in December as well. In fact that's a really awful picture of me, I'm sort of in the middle on the top one doing the triage as the patients come in. As I said, you can go on to do expedition medicine, it was really good fun, the course was £700, it was quite a good piece of investment and I have been lucky enough to summit Kilimanjaro at least twice and take people up that which has always been quite good fun and, as I said, I took a year out and was able to be part of the medical team at the London 2012 Olympics. I was lucky enough to do five sports, equestrianism, the Velodrome, the BMX, the basketball, the football, got some nice memories from that obviously which was great and taking a cheeky picture of Zara Philips which she was very happy about because I helped her when she fell off the horse, and at the BMX which this poor American girl who was only 17 she face-planted the asphalt then smashed her abdomen off the next bump and she had to go to hospital to have a full CT because she has an intra-abdominal bleed and we helped her off the course.

Other things, I got to be the lead doctor at the Wakestock festival which was quite interesting. It was essentially a pigs field where they have a festival thing and people drowning in giant puddles and all sorts of things when they were on alcohol and drugs which all makes life very entertaining. Through my activities at Wembley I have been lucky enough to be the Chief Medical Officer when they had the gold medal match at Wembley, I've been the Deputy Chief Medical Officer for the FA cup final, done various pop concerts, the American football recently which was quite good fun that's the picture of Jacksonville and San Francisco smashing each other up which gives some very interesting lower limb injuries. I have also covered the Rugby League World Cup and when I was in Australia I got asked, because I was working for the flying doctors, to help cover the Australian Off-Road Safari with motor cross and four wheel drive and various other bits and bobs. As I said I was lucky enough in my year out to go and do medical retrieval for the flying doctors service in Western Australia with pre-hospital care, aeromedical retrieval. I got to jump onto helicopters including the fire service helicopter and the police helicopter, landed on a tanker half way off the coast to try and resuscitate someone who had had a cardiac arrest. Air-sea rescue and remote area medicine, including landing a plane on the road, which is quite hair-raising.

Overall, medicine is a very exciting and varied career. I hope that it has been useful seeing some of the pictures of the potential things you might do and there are millions more given that there are at least fifty common specialties in medicine and far more subspecialties that you could have the opportunities to do. If you do it is very demanding, but I definitely think that benefits massively out way all the down sides, particularly when you find your niche within it, and what you enjoy doing. As I said plan the application as early as possible and tailor it to look at the actual attributes that they are looking for and work experience is an absolute must. Prepare well for the interview, know the course structures, so that when you get asked you can say why you would love to go to that institution opposed to all of the others and know a bit about recent developments in medicine other than from the media.

Question Time

Q: What made you pick the undergraduate course in Newcastle compared to the postgraduate and did you have a backup plan?

A: I am nearly 33, so back when I was moving across there were only 20 people in the first cohort of the four-year course at Newcastle. So they had pretty much already been pre-determined who it was going to be. So my back up at the time was, because there weren't so many options, was to have a couple of four year courses and a couple of five year courses. Newcastle was an exceptionally good course compared to the rest of the country and was rated number one at the time when I graduated which was quite good. So I really wanted to go there. As a result, fortunately, I was offered a place and therefore I had some other options to do the four year, particularly as one of them was St George's in London, but I preferred to go up north instead, particularly given that in medicine if you become a Consultant now, although people do try and retire early, you are looking at working until you are sixty, so there is no rush at all. So if there is a city you would rather be in or there is a course you would rather do or there is some reason why you would be drawn to a particular place I would still say go for that because at the end of the day you will end up with the same qualification and your experience is probably more important.

Chris Willmott: we would still follow that advice actually, when it comes to applying for two four and two five year courses as being a good balance.

Q: When did you start getting paid?

A: When you graduate and you get your MBBS or your MBChB, you normally get handed a lovely certificate in July. In August you already know which hospital you are going to, you will already have your posts, you will know where it is going to be at least for the first year and normally for the first two years if you get into the foundation programme, and then literally you get your first pay cheque three weeks into August and everyone has worked out some great present they want to buy. It's normally a bit of a treat to yourself. Mine was a big TV that I bought the third week in August.

Q: But you are still paying for the medicine undergraduate course?

A: Oh Yes. My student loan by the time I finished was £32,500 and I paid it off about seven weeks ago, but that was with some money from Australia.

Q: Is there much bureaucracy and paper work is involved in your job in A&E?

A: There is, but it is more for medico-legal reasons. So obviously you have lots of filling in blood forms, filing in chest x-rays and that kind of thing, although the more senior you become the less they like you to be doing that because other people can do that for you, a bit like sensible division of labour. But in terms of the documentation, you basically have to write down enough so that if it comes back to you ten years later and someone has said "you didn't assess my neurovascular supply when I got my hand injury and now I can't work", then you can go back through your notes and say there it is it was fine then you have obviously developed that since. How much you write depends on your seniority, so you can tell who has written what, Consultants usually write about six words and Registrars normally write about half a page, junior Registrars write about a page and a half and F1s write about four pages. So as a result there is a lot but in A&E there is less because you have to get on and see the patients, in other specialties there is a lot more particularly in where you have to provide counselling and various other bits and bobs because you need to know a lot more detail. So an average medical clerking could be four pages long by comparison.

Q: After you finished your biochemistry degree and you decided to go to medical school did you fund that yourself or did you use a student loan?

A: I had a student loan whilst I was at Leicester and because it was another undergraduate degree I was allowed to continue taking more student loans. So I just took more, but I was in the fortuitous position where tuition fees were about £2,800 - £3,000 max for a bit of it, not £9,000 like it is now. One of my big concerns about medical education at the minute is the sheer cost. The BMA think that it will cost about £70,000 to go to medical school now is that probably whatever you thought you might do at the start you would probably be heading more towards specialities where there is more of a guaranteed financial return. There are definitely those in medicine and you can be very comfortable and earn a lot of money if you want to. It is just more like the American system where you have to pay more up front. Although the one thing about student loans these days I think is that you don't pay anything back until you really graduate and start earning money. To start with it is probably only a couple of hundred quid coming out of your account per month so you probably won't notice it really to start with. There are other opportunities. So, for instance, if you go to Australia for a year they pay a lot more money and you can probably save up enough money to pay it all off in one go. That's technically what I did.

Q: Did you apply for medicine straight after coming out of sixth form or did you come to this Uni to do this degree and then move on to it?

A: I did, yes. It is a bit controversial, but I applied to a particularly institution and I got two A's and a C which was enough to get in. Then they couldn't find a place for me after I had got my results. So it was a bit of a horrible two weeks with my parents on holiday and fortunately one of the nicest things about Leicester is that they rescued me from an impending disaster. So as a result, probably all of the wonderful things that have happened to me are partly to do with this institution. I did apply directly, we only had twenty five on the Medical Biochemistry course when I was here and I think ten have gone on to be doctors. I think it is still quite a high percentage now but if you are determined enough the advantage about being a graduate is that you can hit the ground running whereas people who have never done it before can't. So they never advertise this but the reality is that however much alcohol you have drunk and however many crazy party nights you have been out on while you have been at University, Medicine is even worse. So as a result, for the first two years they know that you can cope with the pressure, they know you can cope, they know you will pass your exams probably and that part for you means you are not going to get worried about being away from home because you have already done it. As a result you are a safe bet to manage the flock of the new people who are probably more naïve and don't really know what it is like until they have been there for at least a year for instance.