FYi

ISSUE **06**

DON'T CALL ME DUMMY

IS THIS THE FUTURE OF MEDICAL TRAINING?

ALSO INSIDE

AN **MDDUS** PUBLICATION

MDDUS

PHOTO: WALTER NEILSON

Welcome to your FYi

I AM DELIGHTED TO BE TAKING over as your new editor at *FYi*. I hope I can bring a different perspective to the role, having worked for over 10 years as a physiotherapist, both here in the UK and in the United States, before medical school. I have also been a member of the Territorial Army since 2003, a job which has taken me to new places and challenged me in so many ways, including a six-month tour of duty in Iraq.

In each of these roles, I have been required to work in a variety of different settings and under varying amounts of pressure, while still performing to a high standard. As trainee doctors, similar demands are placed upon us and my article on page 6 on handling stress offers a few tips and techniques on how to deal with this.

Expedition medicine is an increasingly popular sideline for doctors and on page 4 Dr Amy Hughes talks about her exciting role in providing expedition and wilderness training for medical professionals. The future of medical training is looking increasingly hi-tech, so on page 12 Adrian O'Dowd investigates the use of medical simulators which allow doctors to hone their skills on sophisticated human-like manikins.

Clear communication is crucial when treating patients and on page 5 associate editor Joanne Curran highlights the risks of using medical jargon or slang and the potential for causing confusion. Doctors who are looking for a challenging career in a highly skilled specialty might consider anaesthetics. Our article on page 8 looks at the training and opportunities available in this increasingly popular field. And finally, Dr Craig Brown gives a trainee's perspective on the important issue of child protection on page 10.

• **Dr Rebekah Skeldon**
Editor

EWTD REVIEW COULD ALLOW JUNIORS MORE FLEXIBLE HOURS

SENIOR MEDICS hope a review of the European Working Time Directive in Brussels will bring greater flexibility to junior doctors' working hours.

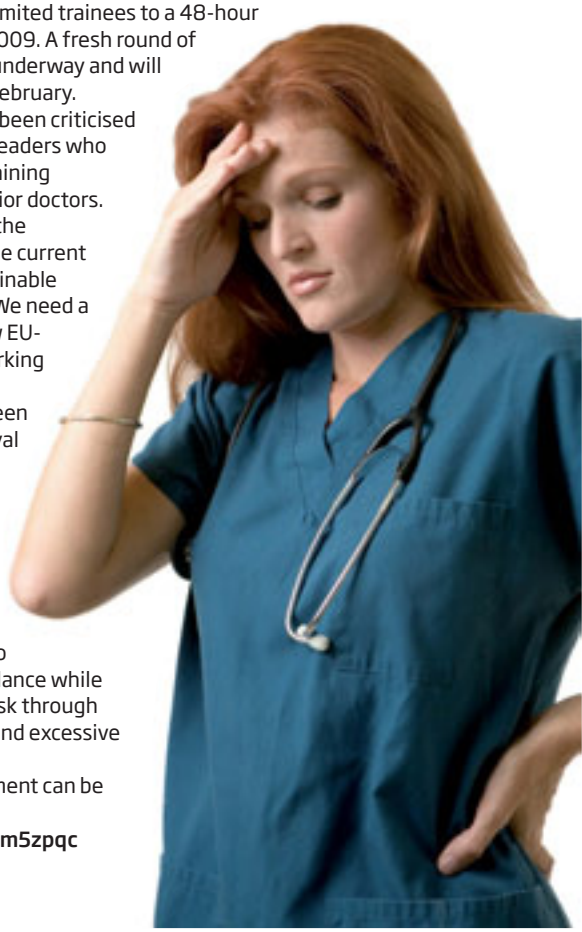
The European Commission recently set out plans to revise the directive which has limited trainees to a 48-hour week since August 2009. A fresh round of consultation is now underway and will run until the end of February.

The directive has been criticised by some healthcare leaders who believe it restricts training opportunities for junior doctors.

A spokesman for the Commission said: "The current situation is not sustainable politically or legally. We need a fresh start and a new EU-level approach to working time."

The review has been welcomed by the Royal College of Surgeons president John Black. He said: "UK surgeons and physicians know that the European Working Time Directive has failed to improve work-life balance while putting patients at risk through diminished training and excessive shift handovers."

The review document can be found at **www.tinyurl.com/4m5zpqc**



NEW BODY TO CONTROL EDUCATION AND TRAINING

A NEW independent body is to be set up to plan the NHS workforce and coordinate training and education in England.

Health Education England will be set up this year and will be fully operational by 2012. It will take on the advisory role of Medical Education England and the professional advisory boards for education and training.

The new body is being created as part of the government health white paper, *Liberating the NHS: developing the healthcare workforce*. It signals a shift in government policy to move responsibility for workforce planning to local rather than central control.

The government also plans to raise funds for training the next generation of healthcare professionals by imposing a levy on providers, and it intends to apply tariffs for medical and other clinical placements to provide a level playing field for the flow of funds. It's hoped the new system will simplify the distribution of education and training funds.

The consultation on the reforms runs until March 31, 2011 – make a comment at **www.tinyurl.com/2uhafhw**

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JUNIORS CARING FOR "TOO MANY VERY ILL PATIENTS", RCP SURVEY SHOWS

JUNIOR DOCTORS are caring for "too many very ill patients" because of a lack of consultants out-of-hours, the Royal College of Physicians has claimed.

They say patients deserve better care in hospitals in the evenings and weekends and that there are not enough senior doctors available during these times. Issuing a new statement on doctors' working hours, the College said work rotas and the structure of the entire medical team need to be urgently reviewed.

The College also said it is concerned by "the mounting evidence of poor care delivered to patients in hospital" and has recommended for the first time that any hospital admitting acutely ill patients should have a consultant physician on-site for at least 12 hours a day, seven days a week. That consultant, the statement says, should have no other duties scheduled during this time.

The statement follows a survey by the RCP of 126 hospitals from 109 different trusts in England, Northern Ireland and Wales. It found that none had more than 12 hours of weekend cover from consultants specialising in acute medicine. Only three per cent of hospitals surveyed provided this level of cover for nine to 12 hours and nearly three-quarters had no specialist cover at all.

RCP president Sir Richard Thompson said there have been big improvements in the care of seriously ill patients in recent years but out-of-hours is still falling short. He said: "Patients are still not getting the care they deserve at night and at weekends. Too many junior doctors are covering too many very ill patients, and this has to change. Our evidence shows that a predominantly consultant-delivered medical service is the best way to improve patient care."

He has been backed by health secretary Andrew Lansley who said he is looking at ways of increasing the involvement of consultants in direct clinical care at night and at weekends.

FEES CUT FOR NEW DOCTORS

NEWLY QUALIFIED doctors will save £255 on GMC fees, it's been announced.

Provisionally registered doctors will pay £100 a year – down from £145 – and the cost of the first year of full registration has been halved to £210. The changes will take effect from April 1, 2011.

The fee cuts are part of a package of measures agreed by the GMC's Council. Doctors who earn less than £26,000 will now qualify for a 50 per cent discount in their annual retention fees and those

applying to the specialist register or GP register will also save money. The cost of a Certificate of Completion of Training (CCT) or a Certificate of Eligibility for Specialist Registration or GP Registration (CESR or CEGPR) has also been reduced by £305. A CCT is now £500 while a CESR and CEGPR are £1,600.

The main annual retention fee is being frozen at £420 for 2011/2012.

THE FIGHT FOR F1 JOBS

THE CAMPAIGN to find foundation jobs for all trainee doctors has been stepped up by student leaders.

The BMA has pledged to do everything it can to ensure every final year finds an F1 post. Student leader Karin Purshouse said the organisation would be pressing the UK Foundation Programme Office to ensure it takes "all necessary steps" to implement its contingency plan, which was triggered by an oversubscription for places.

A rise in demand in December meant there was a surplus of 180 applicants – or two per cent – for 7,073 foundation school places due to start in August 2011. The UKFPO said those trainees had been put on a reserve list "pending allocation to foundation training programmes over the coming months."

Because of the drop-out rates of previous years, the UKFPO said it was confident that all those on the reserve list will be allocated jobs. Four people withdrew from the process just before the foundation schools allocation this year. Of the 180 on the reserve list, 110 are from UK medical schools. There were 267 eligible applicants from non-UK medical schools this year – up from 167 in 2009. UKFPO national director Derek Gallen said more than 90 per cent of the 7,073 final years successfully allocated to posts were granted their first-choice foundation schools.

Advice on the UKFPO contingency plan is available to read online at the Foundation Programme website **www.foundationprogramme.nhs.uk**

EXTREME DOCTORING

Amy Hughes has practised medicine in some of the most challenging environments on earth – from a desert marathon in Namibia to dog sledging near the Arctic circle. She talks here to *FYi*

EXPEDITION Medicine is one of the leading providers of expedition and wilderness training for healthcare professionals and the organisation's new medical director is Dr Amy Hughes. Amy is currently a specialist registrar in pre-hospital medicine working for the Helicopter Emergency Medical Team (HEMS) in Kent and has been involved in expedition medicine for the last seven years.

How did you first get interested in expedition medicine?
Towards the end of my first year as an SHO I was keen to spend a year away from hospital medicine but in a constructive manner. Having spent my elective with the rescue helicopter in New Zealand, I think I was craving a bit of adventure (haven't stopped!). I did a bit of research on the internet and spoke to a colleague of mine who was involved with a company (Across the Divide) that employed medics on all its charitable short expeditions. Later I enrolled on a course – expedition medicine – which provided an insight into a whole different, incredibly appealing and exciting side of medicine.

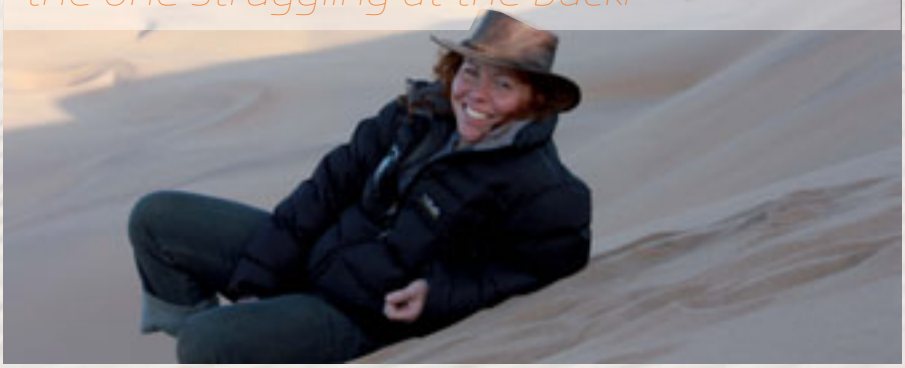
What was your first expedition?
I went with a company called Blue Ventures on a static dive site working with volunteer divers and the local community in a remote part of Madagascar. They were happy to take someone who had a bit of travelling experience, six months emergency medicine and who was interested in the project. It was a superb starting point.

What has been your greatest challenge as a doctor on expedition?
Every expedition comes with the potential for something catastrophic to happen, be it from an accident or from a pre-existing medical condition which is exacerbated... and in the remotest possible place! So pre-planning is absolutely essential – and that is often a huge challenge and responsibility. For me the toughest experience has been the medical and logistical co-ordination of an ultramarathon in the Namibia desert – 127km over 24 hours in heat up to 46 degrees with 30 runners. Anything can go wrong in such an extreme environment – medically, logistically, communications – and with such an incredibly extreme activity.

What medical conditions are common to expeditions?
It depends on the environment. Diarrhoea and vomiting from poor sanitation and hand hygiene can be very prevalent. Hot weather tends to bring heat-related illnesses, skin conditions, fungal infections and tropical infections. In cold weather it's hypothermia, frost nip and frost bite. For endurance expeditions – dehydration, sodium imbalance, muscle injury are challenges. And of course there are the pre-existing problems, like asthma, or even withdrawal from alcohol!

Are there practical medical skills that every expedition doctor should perfect?
Being a competent traveller is vital – not to be the one struggling at the back of the group or scared of the environment you are in. This is really important for developing trust in a team. In terms of practical medical skills, it's important to be able to provide a good accurate assessment of any patient who may need casevacing (casualty evacuation) as this can entail a huge amount of resources and time. If someone can be managed in camp effectively without further risking their health then this needs to be recognised. Other practical skills would include wound management, dressings, rash recognition, fracture and dislocation management, IV cannulation, splinting...

"Being a competent traveller is vital - not the one struggling at the back."



What is the most useful bit of kit for an expedition medic?
Alcohol gel hand wash!

What can you expect to do and learn on an expedition medicine course?
A course will usually encompass generic teaching from very experienced individuals on hot and cold weather expeditions, legal aspects, communications, group dynamics, security as well as small group practical sessions on pre-hospital wilderness care, navigation, rope skills, improvised stretchers, aviation, radio communications. We also offer specific courses on diving medicine (with practical), desert medicine, jungle and polar to name a few.

Are there qualifications available in expedition medicine?
Yes – a large range from a masters in wilderness medicine, to diplomas in mountain medicine and tropical medicine or a masters in disaster medicine.

What opportunities are out there for doctors with an interest and expertise in expedition medicine?
There are many opportunities – however taking up an opportunity can sometimes involve risk, deviating slightly from the 'normal' structured medical pathway and going slightly into the unknown. But the benefits are vast – not only in the people you meet, the countries visited and activities undertaken, but also in developing yourself as an individual and as a medic. Expedition medicine develops skills and attributes additional to (and often more beneficial than) clinical ones – team work, leadership, decision making, innovation, reliability, management, communication, education and teaching. The list can go on.

Where are you off to next?
My next adventure after finishing the HEMS job I am doing at the moment is with Médecins Sans Frontières in April..... to a destination as yet unknown!

To find out more about training opportunities at Expedition Medicine go to **www.expeditionmedicine.co.uk**

Interview by Jim Killgore, contributing editor

SPEAKING IN TONGUES

Medical jargon or slang might save time but confusing terms pose a threat to patient safety.

TRAINING to be a doctor may sometimes feel like learning an entirely new language.

Whether it's talk of dealing with "an indication of needs matrix" or measuring "patient outcomes", the use of Latin or Greek phrases, complex instructions on how and when to administer medication or the endless abbreviations, the profession seems to have a vocabulary all its own. And while using this medical-speak can act as a useful shorthand for under-pressure doctors, it can also be a source of confusion and present a challenge to both patients and fellow healthcare workers alike.

The biggest problems arise when medical terms or abbreviations introduce ambiguity and are open to being interpreted in different ways.

One example is the doctor who notes 'CP' in a patient's records. While she will likely remember the abbreviation refers to chest pain, consider the next doctor who may think the note indicates cerebral palsy. And abbreviations indicating different routes for administration of treatment can easily be confused, from "im" (intramuscular) to "iv" (intravenous) to "it" (intrathecal). MDDUS is aware of significant cases, some involving patient death, when there has been an error in reading such abbreviations – particularly when a practitioner is not used to working in a certain field. Illegible handwriting can also be a factor in these cases. Doctors must take extra care in checking abbreviations, especially when the consequences of making a mistake are significant. If in doubt – always check.

There are many different types of medical jargon – all of which can impair clear and accurate communication. This includes using medical terms when simple language would do. An assistant professor at a US medical centre said doctors sometimes use jargon because they are trying to be specific.

"The trade-off is most people don't understand what those fancy terms are, and it causes problems," he said. Instead of saying hypertension, doctors should call it high blood pressure. Rather than referring to blood glucose, they should call it blood sugar. And hyperlipidaemia? That's high cholesterol. A simple check at the end of the consultation to ask the patient if they understood or have any questions can prove useful.

The use of Latin and Greek terms is still common in medicine, but a 2008 report in *The Lancet* highlighted the patient safety issues surrounding their use. Dr Melinda Lyons of the University of Cambridge called for such terms to be ditched, believing they are only preserved by "linguistic snobbery". She explained: "The risk for adverse consequences of sound-alike terms is greatest if they are used in time-pressured situations in which there is unfamiliarity with the terms, there is little opportunity to clarify them, and there are high levels of noise and distraction."

"Avoid terms that are not relevant to the patient's treatment"

Prefixes like intra and inter, anti and ante, hypo and hyper are examples of terms that look and sound the same but have different or opposite meanings. Dr Lyons believes "confusion could have serious consequences for patients" and has called for clear terminology to avoid mix-ups. She added: "For the sake of clinicians and patients alike, removal of archaic, risk-prone terms to simplify the language of medicine is a necessary step."

Medical slang is another phenomenon that you may become familiar with during your training. While most junior doctors will be well warned about it, there may still be times when a patient record has the abbreviation "FLK" where a doctor is treating what he reckons is a "Funny Looking Kid". Other examples include "CTD" meaning Circling the Drain (for a patient close to death), NFN meaning Normal for Norfolk and UBI which refers to an Unexplained Beer Injury in a drunken patient.

But while such acronyms might be intended to be humorous, the increasing rate of litigation means there is a far higher chance that doctors will be asked in court to explain such abbreviations in medical notes. The duty of care to all patients extends to the keeping of accurate and clear medical records. Where the record is rendered ambiguous by the use of slang then this could constitute a breach of the required standard of care. It would be down to the doctor in a case like this to prove the slang used was established – used by other doctors – and that it was unambiguous.

MDDUS medico-legal adviser Dr Gail Gilmartin said: "It is good practice to avoid using terms that are not relevant to the patient's treatment, especially terms that insult or make fun of a patient. Slang, jargon or abbreviations might save you time, but consider the harm that can occur in the management of a patient whose notes are not clear, as well as the offence that could be caused if the patient were to find insulting comments in their records."

Joanne Curran is associate editor of FYi

New *FYi* editor and F1 trainee **Dr Rebekah Skeldon** looks at ways of coping with the stress of medical training

STRESS. The very word is enough to give you palpitations. And after five or six years studying at medical school, writing endless job applications and embarking on foundation training, you are probably all too familiar with the concept. There's a lot of pressure put on us as trainee doctors and while pressure can be a positive force in motivating us, too much can have the opposite effect.

Stress is a natural reaction to too much pressure, according to official definitions. It's what a person experiences when they feel the demands of their work are greater than their ability to cope. But it is not enough just to know our jobs can sometimes be stressful – it's vital that we can recognise when we are becoming too stressed and take action to deal with it.

The first step in handling stress is learning to recognise the signs in yourself. It sounds simple but in the midst of a hectic ward when you are busy worrying about how your patients are doing and you have a list of jobs as long as your arm, it's very easy to forget to ask yourself 'how am I doing?' Some typical symptoms of stress include feeling overly tired during the day, poor sleep at night, frequent headaches, loss of concentration, poor memory, irritability and frequent colds/minor illnesses. Sound familiar? Then read on.

Get organised

There is no easy fix or magic pill that will ease the stress of the job but there are lots of small things you can do each day (or night) that can make your shift go more smoothly. Being organised is a great start. This may come more naturally to some people than it does for others but it is a skill you can improve with practice. Firstly, keeping an up-to-date ward list with patient names, Community Health Index numbers (in Scotland), date of admission, diagnosis/current issues, date bloods requested and jobs column will not only help you remember important information about your patients for ward rounds but will help colleagues covering your caseload when you are on annual leave or off sick.

Secondly, a 'bloods folder' with all your patients' results clearly laid out on a single sheet is invaluable. It will save you many trips back and forth to the computer and avoid the need to search through multiple results screens to determine trends, for instance, in renal function. Finally, always have with you, either in the bloods folder or on a separate clipboard, various blank request forms, discharge scripts and continuation sheets so that you can impress your consultant by multi-tasking on the ward round. If your consultant/seniors perceive you as being even mildly competent in this domain then you can avoid some of the disapproving looks or tellings-off. You may even be entrusted/rewarded with the opportunity to do the odd new practical procedure or two.

Swift action

Don't let stress build up to the point where you start to feel overwhelmed by your job – it's best to recognise it and tackle it early. When doing my highly unscientific research for this article, many of my fellow FYs thought that simple strategies such as taking a deep breath and counting to 10 could be quite effective. They also highlighted the importance of asking for help when you are busy or having difficulties. This may be a case of just asking a less busy colleague if they could help with some of your jobs or it may mean asking them or your senior for advice on how to manage a particular situation or problem.

One other popular suggestion to ease stress levels was to 'have a rant'. Obviously, having a stand-up row or hysterics in the middle of the ward is not the way to go, but a quick chat in a sympathetic ear, whether in the doctors' room, the mess or at home, can help release some of your frustrations.

Another key to maintaining your sanity, especially during long shifts, is to ensure that you take your allocated breaks. If you are fortunate enough to have a doctors' mess in the hospital where you work then do make good use of its facilities. It's a great place to catch up with other FYs and share some of your experiences (whether good, bad or comedic), ask for advice, compare notes about your seniors or just simply organise your social life, however much of it you have left. If you have no mess, try to at least escape the hustle and bustle of the ward, the change of scenery will do you the world of good. Don't fall into the habit of eating your lunch in the doctors' room. Not only will you be frequently interrupted by requests from the nurses to, for example, prescribe fluids/amend a kardex for your own patients but you'll probably be asked to do similar jobs for your colleagues' patients seeing as you are there and they have left the ward to have their lunch.

"Pressure can be a positive force in motivating us but too much can have the opposite effect"

Be healthy

In general, a good way to beat stress is to try to lead as healthy a lifestyle as possible. For starters, always eat something for breakfast as lunch may be hours later than planned. Keep some healthy snacks handy, like fresh or dried fruit, to keep you going until break time. Also, bring in bottles of water or other healthy drinks so you don't become too dehydrated. Coffee and chocolate offer a quick fix and, unfortunately, tend to be readily available in the hospital. But that sudden caffeine or sugar rush will not last long and you will likely feel more tired and less energised once the effect wears off. Most importantly, always try to get a good night's sleep.

It is all too easy to become engrossed in all things medicine. But it is essential to have outside interests and friends so that you can let your mind switch off at the end of the working day/week. Sport and exercise are well known stress-busters and a great way to meet new people, but if you are not athletically-minded, a less energetic hobby or interest can be equally therapeutic. For more hints and tips on leading a healthier lifestyle and stress management, including a 'stress test', you can visit the NHS Choices website at **www.tinyurl.com/6kku6ux**. Although largely written with the general public in mind, it does offer some useful and practical ideas and advice.

If you are still finding things stressful and feel you need more help, speak to your clinical or educational supervisor sooner rather than later so that formal support mechanisms can be discussed and put in place for you at work. If that route sounds a little daunting then another option is to contact the British Medical Association who offer a national counselling and advisory service for its members, including medical students. Here you can receive confidential advice and support from either a trained counsellor or a doctor on any issue which may be worrying you.

MDDUS have also sponsored a useful and entertaining booklet by the *BMJ* for newly qualified doctors entitled *You Will Survive*. It is packed with useful hints and tips for coping with the stresses and strains of FY life along with a few cautionary tales and humorous anecdotes thrown in for good measure. To receive a copy contact Karen Walsh at **kwalsh@mddus.com**

Dr Rebekah Skeldon is in her first year of the foundation training programme and is editor of FYi.

UNSUNG HEROES

Pain services, intensive care units, theatres and labour wards could not function safely without the essential services of the anaesthetist

POPULAR TV medical dramas have tended to focus their attentions on the fast-paced world of surgery or A&E where glamorous doctors save lives against all the odds and just in the nick of time.

But what these programmes usually fail to highlight is the crucial role played by the single largest group of NHS hospital doctors – anaesthetists. Because when it all starts to go wrong with critically ill patients, difficult venous access or compromised airways most doctors will admit to feeling an enormous surge of relief at seeing "the gas man" arrive on the scene.

Specialists in this field are generally understood to be the doctors "who put you to sleep", but their role extends beyond this. Anaesthetists are involved in acute and chronic pain management and intensive care. They regularly are involved in emergency situations around the hospital, providing vital management of the airway and advanced respiratory and cardiovascular support when required.

Anaesthetists need to have a good understanding of not only medicine and surgery but also of physics and chemistry because they work with medical gases and specialised equipment. It is the only specialty in which experience in intensive care is an integral part of the training programme. Anaesthetics is challenging because specialists often work under great pressure, but it is also widely described as a practical, varied and friendly specialty.

Entry and training

Anaesthetics is not always given a great deal of teaching time at medical schools, making it difficult for junior doctors to know if it's the specialty for them. The foundation system has some anaesthetic placements and also allows doctors to experience anaesthetics in 'taster weeks' during FY1 or 2 placements.

"The anaesthetist's skills are used in patient care throughout the hospital."

The Royal College of Anaesthetics (RCoA) provide an excellent website with detailed information on careers and other aspects of the specialty at **www.rcoa.ac.uk**. They advise juniors to discuss career options with specialty trainees or the clinical tutor of the anaesthetic department of the hospital where they are training. They also run an annual information day for foundation doctors.

Although members of the public may not always realise anaesthetists are doctors, it's important to recognise they are a multi-talented group with many transferrable skills. The diversity of the specialty allows trainees to mould their careers to areas of interest and specialised skills. There are many subspecialties which work closely with other specialties – e.g. paediatrics, obstetrics, cardiac surgery and neurosurgery – while others such as intensive care medicine and pain medicine have evolved independently.

Upon completion of FY2, trainees will start with at least two years of core training during which they must achieve a basic level of competence. This is a heavily supervised period with focused training to allow the development of specialised skills. There are two entry routes: directly into the anaesthesia programme or via Acute Care Common Stem (ACCS) training which will usually take one year longer.

After core training the trainee has to apply for, and be accepted on to a specialty registrar training programme for a further five years. Specialty registrars are also supervised by consultants as they gain experience in all subspecialty areas. Once all training requirements are completed, the trainee will obtain a certificate of completion of training (CCT) and be able to practise at consultant level.

The Royal College of Anaesthetists sets the high standards of the training. The curriculum covers all areas including pain medicine and intensive care. There are two examinations and trainees cannot progress to the third and fifth years of training until they have passed the relevant parts. Those who pass become fellows of the college and can use FRCA after their name.

The College ensures a number of professional skills are taught across the seven-year programme, including:

- Professional attitudes
- Clinical practice
- Team working
- Leadership
- Innovation
- Management
- Safety in clinical practice.

In practice

The anaesthetist's skills are used in patient care throughout the hospital although their major role does still lie in providing anaesthesia during surgery. They work in varied multi-disciplinary teams. This may involve preparation of surgical patients for theatres and the relief of post-operative pain. They are integral to the functioning of the obstetric unit, providing pain relief and peri-operative care. They are members of the cardiac arrest and trauma teams working around the hospital and regularly in accident and emergency. They work in intensive care units and chronic pain management. They provide sedation and anaesthesia for patients undergoing a variety of procedures including interventional radiology, endoscopy and ECT.

Anaesthetists are widely involved in teaching and training and may also lead or manage the various departments in which they play a major role such as day surgery, operating theatres, recovery units, high dependency units, critical care services and resuscitation services.

The future

The future of the anaesthetist is bright. The NHS Careers website describes the specialty as being "centrally placed" in the acute services of hospitals. They are the largest department in the hospital. New technologies and surgical techniques mean that anaesthetists have to remain active in developing their skills and underline their crucial role in the peri-operative period. Allied specialties of anaesthesia are also growing: chronic-pain treatment has an expanding pharmacopoeia and critical care is now being practised throughout the hospital with 'Outreach' and the Hospital at Night project. Anaesthesia is central to these.

The Group of Anaesthetists in Training have an information booklet, *Who is the Anaesthetist?* which can be accessed at:
www.tinyurl.com/45e9sr9

Joanne Curran is associate editor of FYi

Q&A Dr Sophie Shapter, ST5 in anaesthetics

• What attracted you to anaesthetics?

As a medical student I enjoyed my experience of anaesthetics. It was quite different to other specialities I had experienced. As a senior house officer in A&E I was introduced to the "caped heroes" who would come and sort out the really sick patients and take them away.

I liked the idea of being able to deal with acutely unwell patients, initiating treatment and seeing the results of your work immediately. Anaesthetics offered all of this but, importantly, not all of the time, which was fortunate because I was also attracted to time spent in theatre.

• What do you enjoy most about the job?

I really enjoy the acute challenges we can be faced with on call and having the skills to deal with them; it's very rewarding when you actually make a difference. I also enjoy working within the theatre environment, the varied exposure to surgical specialties and being a valued member of the multi-disciplinary theatre team.

• Are there any downsides?

The work can be very challenging but the biggest downside I think is shift work and nights. None of us enjoy it and it only seems to get more difficult as you get older.

• What do you find most challenging?

Anaesthetics is quite different to any other specialty within medicine so when you start your training the learning curve is particularly steep. You can feel overwhelmed by how much there is to learn in the beginning.

• What about the role has most surprised you?

The huge spectrum of acute illness that we can be involved in from trauma calls to cardiac arrests, from septic shock to multi-organ failure and acute life-threatening asthma . We also perform a wide range of clinical skills and procedures.

• What is your most memorable experience so far?

Passing my FRCA. The exams in anaesthetics are renowned for being particularly difficult. A colleague once said that the exams are payback for having such a great job and if they were easy then every doctor would be an anaesthetist.

• What advice would you give to a final year or FY trainee considering anaesthetics?

Anaesthetists are very friendly folk, so gain some experience by doing a taster week at your hospital. This will also give you an idea of whether it's for you or not. Some people, believe it or not, find the specialty boring.

ARE THE KIDS ALL RIGHT?

Dr Craig Brown offers a trainee's perspective on dealing with suspected child abuse and neglect

JUNIOR doctors can experience many frightening firsts – the first day on the job, the first night shift (hopefully not the same as the first day on the job), the first cardiac arrest, the first time having absolutely no idea what to do in a situation. The list could go on and might also include the first time you come across a child protection issue.

A number of recent high-profile cases in the media, including that of Baby P, have kept child protection in the forefront of our attention. Such cases can look daunting to any healthcare professional and in this article I am going to discuss some of the important factors regarding child protection from the perspective of a junior doctor. Where might it crop up in practice? What signs commonly raise suspicion? What should be done if you suspect child protection issues? I will also identify some sources of guidance that can be useful when considering child protection.

Troubled families

In the document *0-18 years: guidance for all doctors*, the General Medical Council highlights why child protection is important: "Early identification of risks can help children and young people get the care and support they need to be healthy, safe and happy, and to achieve their potential."

Child protection issues may present in a number of contexts – and not just when you are working in paediatrics or paediatric emergency medicine. In the AMAU (acute medical assessment unit) you may get a parent who presents intoxicated or with an overdose, or in general practice you may get children who attend looking malnourished or unkempt. Just in asking the question "Where and how are the children?" for all patients you will find that there are a number of families out there needing additional support. The GMC requires doctors who work with children or young people to have the knowledge and skills to identify abuse and neglect. GMC guidance states:

"Doctors play a crucial role in protecting children from abuse and neglect. You may be told or notice things that teachers and social workers, for example, may not. You may have access to confidential information that causes you to have concern for the safety or well-being of children.

"Doctors should always act in the best interests of children and young people. This should be the guiding principle in all decisions which may affect them. But identifying their best interests is not always easy. This is particularly the case in relation to treatment that does not have proven health benefits or when competent young people refuse treatment that is clearly in their medical interests. There can also be a conflict between child protection and confidentiality, both of which are vitally important to the welfare of children and young people."

"Always act in the best interests of children... This should be the guiding principle."

Knowing the red flags

Child protection issues fall into various categories including physical, emotional and sexual abuse as well as neglect. Just as certain features in the history or examination of a patient with, say, back pain can act as 'red flags' pointing towards suspicious disease, so too with child protection. Red flags and pattern recognition can lead us to suspect that something is not quite right.

Concerns may arise from the patient history. Consider the following:

- "He fell down the stairs" – this from the mother of an 8-month-old. Obviously this is an implausible story if the child is not crawling or walking.
- "He fell off his bike a week ago" – delayed presentation seeking help for medical illness.
- "She was at her gran's," said to the triage nurse and then to the doctor: "She was upstairs playing alone" – inconsistency in history.

These are just a few examples of clues from the history that there may be more going on than first appears.

Particular features and patterns indicating child protection and welfare issues can also emerge on examination. These include unusual bruise patterns compared to common bruising for age and stage of development (for example babies aren't mobile therefore shouldn't

generally bruise by bumping into things), malnourished and unkempt look, markings consistent with non-accidental injury such as being struck with a belt, hand or rod, or cigarette burns. It is important to remember the differences between adults and paediatric populations in terms of anatomy and physiology, i.e. children have "springy ribs" therefore serious internal trauma may have occurred without apparent broken ribs. This highlights the importance of a thorough physical examination and documentation in patients for which child protection may be an issue.

Making the call

What do you do if a potential child protection issue arises? Don't panic – there is guidance available to junior doctors and you will not be expected to face the dilemma alone.

Remember that you must act in the child's best interests and the first thing to do is discuss the case with your consultant or another senior member of the team. They will often know the best way to proceed, what the main issues are and will be able to re-evaluate the history with the benefit of greater knowledge and experience of the red-flags and pattern recognition relevant to child protection. Other useful sources of help are the local child protection team – a mixture of social workers, paediatricians and other multi-disciplinary team members who can often provide further information on particular families and children that are known to them, or just offer some advice where needed. The child protection team and/or your consultant will be able to advise you on what to do with the patient at the present time, what to say to the parents/guardians and how best to document in the hospital notes any relevant discussions.

Disclosure and confidentiality

GMC guidance also offers a number of practical points and advice in regard to disclosure and confidentiality in potential child protection cases. It states:

"Your first concern must be the safety of children and young people. You must inform an appropriate person or authority promptly of any reasonable concern that children or young people are at risk of abuse or neglect, when that is in a child's best interests or necessary to protect other children or young people. You must be able to justify a decision not to share such a concern, having taken advice from a named or designated doctor for child protection or an experienced colleague, or a defence or professional body. You should record your concerns, discussions and reasons for not sharing information in these circumstances."

This is important advice, empowering the doctor to make the safety of the child our first concern even if confidential information has to be shared. It is worth mentioning here that what is shared must be proportionate and relevant and it is often worth discussing what you will share with somebody more senior and seeking further advice if necessary.

Other guidance and support

The Scottish Government currently has a programme called 'Getting it right for every child' (GIRFEC) which offers a set of values and principles with multi-agency emphasis and includes 'Keeping children and young people safe'. GIRFEC provides guidelines for all people working with children and young persons in a multi-agency approach with a standard framework for discussing child welfare issues. This allows information sharing and action between agencies in terms of child protection issues (see below for link to more information).

Another way of becoming better prepared for dealing with child protection is by attending local or national courses in child protection, for example 'Safeguarding children: Recognition and response in child protection' available from the Advanced Life Support Group (ALSG).

Child protection issues can be frightening and uncomfortable for the junior doctor to deal with and may arise in unexpected places but there is support out there and it is our responsibility to act on any concerns we may have. Recognising the red flags in history and examination findings, thinking of the safety of the child as our first concern and having some knowledge of what to do and of the guidance available can make the issue much less daunting and will enable early identification of children who need further support to become healthy, safe and to achieve their full potential.

Resources

- GMC Guidance: *0-18 years: guidance for all doctors* – **www.gmc-org.uk**
- ALSG Safeguarding Children, Recognition and Response in child protection – **www.alsg.org**
- National Society for the Prevention of Cruelty to Children (NSPCC) – **www.nspcc.org.uk**
- The Scottish Government GIRFEC programme - **www.tinyurl.com/brzxag**

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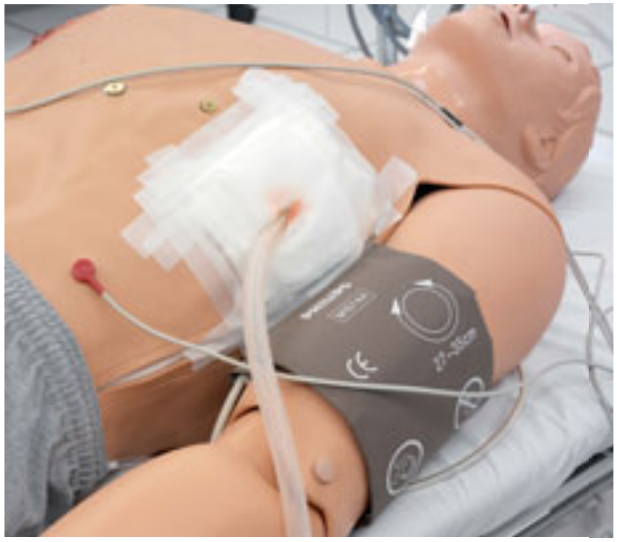

HIGH FIDELITY TRAINING

Are patient simulators any substitute for the real thing in training doctors? **Adrian O'Dowd** investigates

THE PHRASE "practice makes perfect" is often applied in many areas of life but in medicine the stakes can be undoubtedly higher – life and death.

The use of medical simulators is a well-established part of junior doctor and medical student education as a means of 'risk-free' training, but some in the profession are questioning its appropriateness and the degree it should play now and in the future in preparing doctors for real-life patients.

Medical simulators can vary widely in terms of their technological sophistication, ranging from the most basic human-like dummies to manikins that have a pulse and heart sounds, and which can talk, blink, breathe, move, cry, sweat and react to drugs and interventions.

The UK currently has around 73 sites that provide some form of medical simulation. Far fewer could be classified as offering more advanced "high fidelity" simulators that allow students and junior doctors to experience simulated situations and procedures including cardiac arrest, trauma, lumbar punctures and laparoscopic surgical techniques. The level of technology available in simulators is evolving and becoming increasingly sophisticated, such as that available at sites like the Bristol Medical Simulation Centre (see p.14) and the innovative new clinical skills unit of the Royal College of Surgeons of England.

But are such simulators being utilised enough?

Keeping it real

A Medical Education England commissioned report published in May 2010 by Professor Sir John Temple addressed the issue as part of a review of the impact of the European Working Time Directive (EWTD) on training for doctors, dentists and other professionals. The report advocates greater use of simulation in medical training, saying that, where appropriate, skills and expertise should be learned in a simulation environment and not on patients. Effective use of simulation could help lessen the impact of reduced hours and shift working – thanks to the EWTD – by accelerating the acquisition of skills and transferring learning away from the patient.

The report argues for increased investment in simulation, which allows trainee doctors to develop a level of competency in operational skills and in dealing with 'human factors' such as working as part of a team and managing complex cases. It also recommends that the Department of Health, Deaneries and colleges work together to produce a national strategy for the development of simulation and its inclusion in postgraduate training.

England's former chief medical officer (CMO) Sir Liam Donaldson has also agreed that simulation is important. In both of his annual reports of 2008 and 2009 he said access to simulation-based training was patchy.

"Doctors struggle to be allowed out of service commitments to attend these courses and increasingly have to pay for them out of their own pocket. Course prices have increased significantly," said Sir Liam.

He pointed out that various studies of simulation training for surgical skills have shown that surgeons trained in this way make fewer errors and carry out technically more exact procedures. He recommended that simulation-based training should be fully

PHOTOS: ABOVE COURTESY OF METI © 2011; OPPOSITE RCSEng

Opposite page: chest drain and intubation using the Human Patient Simulator (HPS)

This page, from left: RCS team skills training theatre; and practising laparoscopic techniques in the RCS clinical skills unit

"Simulators are never going to be 100 per cent like the real thing."

integrated and funded within training programmes for clinicians at all stages.

No substitute for real patients

Junior doctors seem to have more mixed views on the suitability of increased use of simulators as demonstrated at last year's BMA junior doctors' annual conference.

Doctors voted overwhelmingly for two parts of a motion that called for all trainees to have access to appropriate simulation facilities for their training and called on the BMA to work with employers, deans and others to ensure adequate provision was made for study leave to allow access to simulators. However, the participants rejected a part of the motion that said learning practical skills for the first time on patients, even with close supervision, was becoming increasingly difficult to justify when high-fidelity simulators existed. In other words, they felt it was wrong to insist that all training be carried out on simulators before junior doctors got to treat patients.

During the debate, Dr Sabrina Talukdar, from north Thames, said: "High fidelity simulators are fantastic. However, access to them varies enormously and I think they are simply too few and too far between.

"Learning practical skills in collaboration with patients under close supervision and with their informed consent is a vital part of our training and always will be. There is simply no substitute to learning on real people."

But Dr Tom Dolphin, co-chair of the BMA's junior doctors committee and a junior doctor specialising in anaesthesia in London, believes simulators have an important role to play as an adjunct to training with real patients.

"Simulators are never going to be 100 per cent like the real thing and there is a place for both. Some of the things you are never going to see until they happen once in a lifetime or career, so with those things you have no choice but to simulate."

Local funding decision

No doubt the use of medical simulators will continue to increase across the UK due to a combination of factors including greater availability and lower price. In England the government is currently giving the issue careful consideration. Dr Stuart Carney is a senior clinical adviser for the medical education and training programme at the Department of Health and also chair of the Technology Enhanced Learning Strategy Development Group which has been charged with producing a strategy for the appropriate provision and use of innovative technologies (e.g. simulation) to support the learning of healthcare professionals. The strategy is due to be published this spring.

"It's right and proper that people gain experience in simulated environments, before they undertake procedures with supervision," says Dr Carney. "But as an advocate I recognise the value of simulation only in so far as it is an adjunct to training in the clinical environment."

Funding is an obvious issue. Dr Carney argues that the question of how much investment should be put into simulators is best left to local decision makers.

"We are anticipating a world where funding decisions are going to be taken locally and simulation is a case in point. Simulation facilities and clinical skills labs up and down the country have been the product of local funding decisions.

"The Department's role in all of this is bringing together best practice and showing a vision and way forward."

No matter how it will be organized or funded it would seem a guaranteed place for simulators is assured.

Case study: Bristol Medical Simulation Centre

"The main benefit of simulators is that you can reproduce many times things that are very rare so that when they actually happen, you can do something right the first time."

So says Dr Stephen Mather, consultant anaesthetist and senior faculty at the renowned Bristol Medical Simulation Centre (BMSC) – considered to be one of the most innovative and successful high-fidelity simulation centres in the UK. BMSC opened in 1997 as a joint venture between the then United Bristol Healthcare NHS Trust and the University of Bristol and has recently been relocated to a £6 million education centre and is now completely funded by the NHS.

The centre has a core faculty of six clinicians as well as a wider faculty of around 20 people (clinicians and educators) who come on occasion. Expertise is also brought in from the aviation industry, ambulance service and psychologists. Much of the training is on high-fidelity Human Patient Simulators (HPS) produced by METI (Medical Education Technologies Inc, based in the USA) and specifically designed for training in anesthesia, respiratory and critical care.

Stan the man (sometimes)

Each HPS manikin – or Stan - features realistic skin and pupils that automatically dilate and constrict in response to light. Audible heart sounds can be programmed to mimic arrhythmias and Stan can even go into cardiac arrest, allowing students to practise CPR or the use of a defibrillator. The HPS also breathes with variable lung compliance and airways resistance and can simulate a variety of respiratory conditions including tension pneumothorax which trainees can treat with needle decompression.

Stan also features various sites for checking pulse, interchangeable genitalia for practising catheter insertion and even thumbs that twitch in response to a peripheral nerve stimulator. The system allows users to programme in a specific patient profile or to modify a preconfigured one. Just about anything that can happen to a real patient can be simulated in Stan – from common problems to severe events, such as malignant hyperthermia, anaphylaxis and cardiac tamponade.

A bar-code reader allows users to simulate specific drug treatments and dosages and reproduce effects based on specificity, paediatric versus adult dosages, IV versus oral administration, and any specific drug allergy considerations.

"Stan features realistic skin and pupils that constrict in response to light."

The centre has adult, child and baby manikins that can be used to recreate different clinical incidents and critical procedures. The many elaborate functions of these manikins are operated from an adjacent control room, which allows wide-ranging educational scenarios to be created and recorded for later debriefing.

People attending the centre are offered training on crisis resource management, emergency department procedures, critical care training in the ICU or PICU, basic science training for students, and formative assessments for trainees. The centre also offers off-site simulator training using portable teaching systems such as the Laerdal SimMan.

Meeting FY training needs

Foundation doctors in particular are seen to be ideal participants at the centre, says Dr Mather.

"We did some parallel educational research and had junior doctors come in for simulation training and assessment voluntarily," he says. "We found they didn't match up entirely to what we thought they should know."

Research on junior doctor competencies convinced the Deanery that they ought to fund foundation doctor training using the centre's resources and this has also been extended to give final year medical students some team training.

Adapting to what is needed is crucial, according to Dr Mather, who says: "What we are doing now is taking some simulators that are transportable out into the wards where you set one up in a bed. People doing a ward round can see three or four patients and then the next one is a simulator. That is more the future.

"A medium fidelity simulator going out into the ward can achieve more than a high fidelity simulator in a simulation centre because it's in their environment and their comfort zone."

Dr Mather adds: "I believe there are probably enough simulation centres in the UK, but they need to be utilised more and need to be put together in a more organised fashion via the NHS. The problem is everyone is doing their own thing."

Simulators are an important part of preparing doctors for the real world, he says, but have their limits.

"The whole expectation of simulation is that it will increase exposure to things you don't see very much, but it won't necessarily make you competent because a simulator is not a person."

Adrian O'Dowd is a freelance medical journalist

PHOTO: BMSC

Infant patient simulator at BMSC.

OUT THERE

IT COMES BUT ONCE A YEAR – THANKFULLY Researchers in the US have found that death rates tend to spike during the holidays – notably on Christmas and New Year's Day. The reasons are unclear but it's speculated that "psychological stress" may play a part – that and the six bottles of Merlot. *Source: nationalpost.com*

REDS DREAD SURGERY And so do blonds and brunettes but doctors in a recent literature review in the *BMJ* have cited studies demonstrating that red heads tend to be more sensitive to perception of pain from heat and cold. It has also been found that use of subcutaneous lidocaine was significantly less efficacious in a "red-haired cohort". So go gentle on Danny Alexander. *Source: BMJ*

FARTS IN A JAR Strange but true – doctors during the Great Plague of London in 1665 recommended patients store their farts in a jar, according to a new book by David Haviland. They were instructed to sniff the fumes to ward off the deadly vapour thought to cause the disease. *Source: AOL News*

EAT... BRAIN Harvard professor Dr Steven Schlozman is using zombie movies to teach psychiatry and his lecture on zombie neurobiology has already gone viral. He asks students what they would do if a zombie was brought into the emergency room. Umm... run for it?

WHAT ARE WE LOOKING AT?

Stumped? The answer is at the bottom of the page

PHOTO: SCIENCE PHOTO LIBRARY

PHOTO: THE KOBAL COLLECTION

Pick: DVD - Something the Lord Made

Directed by Joseph Sargent, starring Alan Rickman, Mos Def, Kyra Sedgwick; 2004

HEART surgery wasn't considered possible in 1930s America. But all that changed when unassuming black carpenter Vivien Thomas teamed up with bright young surgeon Dr Alfred Blalock.

Together, they defied the social codes of the time and formed a formidable team that would invent pioneering surgical techniques and equipment that went on to save many lives. The film opens in 1930 and follows their remarkable, yet volatile, partnership over 34 years and most notably their discovery of a technique to cure the heart defect tetralogy of Fallot, which causes Blue Baby Syndrome.

Hip hop artist Mos Def takes up the role of Thomas while Brit actor Alan Rickman plays Blalock, who once praised Thomas' surgical skill as being "like something the Lord made." But because of his race, Thomas struggled for years on low pay and only received recognition towards the end of his career.

This Emmy award-winning film was made for US network HBO. Don't let the made-for-TV label fool you – this well-balanced, fascinating film more than holds its own, thanks in no small part to excellent performances.

Book Review:
Sick Notes – True Stories from the Front Lines of Medicine
by Tony Copperfield

Monday Books; ***£8.99***

Review by Jim Killgore, contributing editor

FEW MEDICAL writers offer a more bleak or subversively funny view of life as a GP in the NHS today than Dr Tony Copperfield. Many readers will be familiar with his columns and blogs in the *Times* or the medical tabloid *Pulse*. Now his self-described "cathartic moanings" can be read in paperback form.

In *Sick Notes* Copperfield welcomes us to fictional Bleak house medical practice, located in a "squat grey monstrosity" less health centre than "concrete cancer". Here he faces a daily parade of humanity demanding antibiotics and Viagra ("The missus wants a bit more of the old how's-your-father...") or bearing long symptom lists ("more on the back") in addition to the occasional genuine serious illness. This is healthcare as practised in the trenches, beyond the government spin of patient-centred care, managed referral and quality and outcome frameworks.

And what kind of thanks can be expected? "I've heard that you're marginally less crap than the rest of them," says one patient to Copperfield in explanation of why she resorted to seeing him. Another patient, grateful for the care provided her elderly mother, offers him thanks in the form of "something quite extraordinary: one loaf of sliced bread (white)".

"We...I mean the whole family, really... we wanted to show our appreciation..."

No doubt (or at least one hopes) Copperfield's observations and views on being a GP and the NHS in general are way over the top, as in all satire. But if you're considering general practice as a career it might be wise to temper your enthusiasm with a read of this book. He suggests: "One way of training (to be a GP) would be to try and do the *Times* crossword on a high wire while one person shouts at you and another hits you with a plank."

Saying all this – the book is not unrelentingly bleak. One does see the dedicated GP (actually two, Copperfield is the "pseudonymous creation" of a pair of GPs) shining through in places. His definition of health seems infinitely more humane and sympathetic than the high-handed one pushed by the World Health Organisation – "a state of physical, mental and social wellbeing and not merely the absence of disease".

Copperfield offers: "I'd suggest that health is feeling 'fit for a purpose', no matter how tiny or grand that purpose might be."

Who can argue with that?

WHAT ARE WE LOOKING AT? *Coloured SEM of eye of eight-week-old foetus*