

# comment

“We need to focus on what doctors say about their motivation and morale” **DAVID OLIVER**

“All I can do is apologise on behalf of the NHS, which is failing patients” **HELEN SALISBURY**

**PLUS** Raising the age of tobacco purchase to 21; ending financial incentive schemes

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**TAKING STOCK** Rammya Mathew

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## Reframing the language around error

In medicine, we often equate being wrong with having made a mistake. But we should remember, as the 19th and 20th century physician William Osler observed, that “medicine is a science of uncertainty and an art of probability.” So, even when we have made the soundest of decisions, we may still get it wrong.

Our knee jerk response, which has been indoctrinated in us as part of the culture of appraisal, is that we should automatically change the way we practise whenever we make a wrong call. This is certainly appropriate when we’ve made a mistake. But it may not be when an event with a poor outcome occurs against the odds. Atypical presentations leading to delayed or missed diagnoses are par for the course, as are rare or unpredictable complications that couldn’t have been foreseen.

I was reminded of this when reading of a case in the mainstream media, about a 2 year old girl whose diagnosis of lung cancer was “missed by six doctors.” She presented with a persistent cough and reduced appetite since starting nursery at 6 months of age, and her symptoms were attributed each time to an upper respiratory tract infection. Without knowing the specifics of the case, it wouldn’t be right to comment, but I’m sure most GPs recognise this as a common history and a very rare diagnosis in a 2 year old.

I wonder how the doctors involved will allow this incident to shape their practice. They may organise more chest x rays, or perhaps they’ll lower their threshold for seeking specialist assessment in an unwell child. This could have consequences for both the healthcare system and its patients: referral rates increase, putting pressure on the system, and more patients endure needless investigations.

The psychologists Daniel Kahneman and Amos Tversky described this phenomenon as “availability”: the tendency to overestimate an event’s likelihood because of how recent it is in the memory or how unusual or emotionally charged it was.

The literature detailing the impact of such cognitive biases in medical decision making is expansive. But proven solutions are few and far between. Reframing the language around medical error would be a good start, so that we clearly distinguish the errors that are genuine and need addressing from the inevitable misfortunes we’re bound to encounter as part of a career in medicine.

When in doubt we should be able to invite peer or even external review of our decision making—but assessors must be careful not to allow their judgment of these decisions to be clouded by negative outcomes that couldn’t reasonably have been foreseen. And perhaps our appraisers should also be routinely asking us to reflect on the times when we got it wrong but concluded that changing our practice was not going to improve matters for anyone.

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## If we want to stop children smoking, raise the cigarette purchase age to 21

Increasing the legal age for buying tobacco products should be combined with other measures to cut the number of young smokers

**A**chieving a smoke-free generation—defined as smoking rates below 5% across all groups in society—is a key public health goal, but not one that can be achieved simply by continuing with existing measures. Helping existing smokers to quit remains essential, but the most vital element is to stop young people from starting to smoke in the first place.

Most smokers start during childhood, hundreds in the UK each day, and two thirds of those who try smoking will go on to become regular smokers. In this context, the proposal from the All Party Parliamentary Group (APPG) on Smoking and Health to increase the legal age for tobacco purchase from 18 to 21 is welcome. This change would make it harder for children to obtain cigarettes and, importantly, would take legal purchase of cigarettes beyond school age.

Smoking is a contagious habit, transmitted by peers—the higher the proportion of a child's friends who smoke, the more likely they are to smoke. The age increase will protect younger children from exposure to

older pupils in school who smoke and whose behaviour they may want to imitate. The gap will also remove a potential source of supply within schools.

The tobacco industry fears this policy. Philip Morris has stated that raising the legal minimum age for cigarette purchase to 21 could “gut” their key young adult market of 17 to 20 year olds. When the UK increased the legal age for tobacco purchase from 16 to 18 in 2007, this was associated with a fall in youth smoking rates, an effect which a further increase would be expected to replicate. The change in the legal age is feasible, and already in place in six US states.

### Polluter pays

Importantly, the age increase is only one in a raft of measures the APPG proposes. A “polluter pays” levy, set to raise a fixed amount from the tobacco manufacturers of around £150m per year, will help to pay for a revitalised, evidence based set of tobacco control policies. This could include supporting the proposed introduction of a retail licensing scheme for tobacco products.



**The higher the proportion of a child's friends who smoke, the more likely they are to smoke**

Currently, anyone is allowed to sell tobacco. Licensing would help to limit underage sales and make it easier to ban those who break the law. The current restrictions on retail display have been linked with a fall in the proportion of children who smoke buying cigarettes in shops. However, the difficulty obtaining cigarettes reported by those who do buy them is no greater than in previous surveys. This highlights the need, in addition to licensing, for more effective enforcement which a levy could help to fund.

## **BMJ OPINION** Richard Vize

### Performance will only improve when financial incentive schemes are ditched



After 30 years of failure, the NHS is embarking on yet another attempt to devise the perfect payment regime. In its report Payments and Contracting for Integrated Care, the King's Fund highlights the absurdity of clinging to this shibboleth despite decades of evidence that it doesn't work.

The NHS has set prices for around 3000 services, ranging from £63 for the simplest emergency department attendance to £40 550 for complex cranial operations. Alongside this clinical shopping list is a Heath Robinsonish construction of uplifts, carve outs, caps, bundles, blocks, baselines, risk transfers, gain sharing, loss sharing, penalties, and incentives, designed to drive behaviours around everything from adopting new technologies to how a hospital is cleaned.

This system fails to achieve its objectives and inhibits clinicians from improving care

quality. It encourages treatment in hospitals rather than prevention in the community, and there is scant evidence that incentive schemes have delivered substantial improvements in quality or efficiency.

Among many other flaws, these schemes are built on the sand of commissioners' assessments of current and future population needs, and the volumes, costs, and quality of services they will need. These exercises require the crunching of huge amounts of data to produce numbers in which there is little confidence, while driving an inherently adversarial relationship between commissioners and providers.

So what is the alternative? Parts of England are experimenting with alternatives, among them Bolton, Leeds, and South Tyneside. The background to the Bolton example makes excruciating reading. After Bolton NHS Foundation Trust and Bolton Clinical



MARK THOMAS

Other measures include further increases in taxes to reduce affordability, particularly for hand rolled tobacco; restoring spending on mass media education campaigns back to 2008 levels; supporting regional tobacco control bodies that have had a substantial impact; and the inclusion of government mandated pack inserts to support quitting.

Polling data show that these measures are popular with the public, and as healthcare professionals we should be advocating for them. Ministers should seize the opportunity to deliver a healthy legacy.

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Commissioning Group both got into difficulties, they spent 2014 and 2015 sending each other more than 300 formal letters in contractual disputes. Whole teams were pitted against each other, while the big questions of how to transform the local care system went unanswered.

The leaders, thankfully, decided to get a grip of the problem, recognising that their reliance on financial levers was at the heart of their difficulties. They decided simply to work collaboratively and transparently, with open financial books, for the benefit of the whole system. They agreed that the commissioners would pay the hospital around £200m for the year ahead, and they would share responsibility for resolving problems such as demand spikes.

Data were used to improve services rather than drive payments. Redesigned clinical services and millions of pounds in savings followed.

Richard Vize is a public policy journalist and analyst, specialising in health and local government

## ACUTE PERSPECTIVE David Oliver

# Will pay premiums help lure doctors to shortage specialties?

**T**he crisis in recruitment and retention of the clinical workforce is the biggest threat to the viability of the UK's health service. This stark reality has been acknowledged by think tanks, royal colleges, unions, and NHS leadership bodies.

One in 10 medical vacancies is unfilled, and in the annual British Social Attitudes survey the public cited staff pressures and shortages as key concerns. Some specialties are struggling especially hard to fill posts and to retain older staff, with big geographical inequities. We need a whole variety of actions to train, support, re-enthuse, and retain staff.

Might pay incentives and differentials attract doctors to the hardest hit specialties or to less popular regions?

In the UK, NHS specialist doctors are salaried employees working to national terms and conditions, and training numbers are centrally determined. Across specialties salary scales are the same, and the average pay of GP partners (but not salaried) is of the same order as that of secondary specialists.

Specialties with a high degree of on-call intensity or unsociable hours are recognised to some extent, in on-call premiums. The NHS also allows for limited use of recruitment and retention premiums, and some specialties offer the opportunity to boost NHS earnings with private practice.

But the NHS doesn't have the huge discrepancies between, say, the tertiary care interventionism and primary care generalism seen in some systems with greater marketisation or where specialists are contractors, not

employees. So, why not decide to pay, for instance, emergency, intensive care, acute internal, or geriatric medicine doctors, or GPs, half as much again as the outpatient specialties with limited out-of-hours work and less intensity? Why not also liberate hard pressed regions by adding local premiums?

Here's my best guess at the arguments against.

The NHS benefits from a sense of solidarity and commitment to a national service. The approaches above might set specialties against one another and further fragment the workforce. They might also allow better funded or more successful institutions or localities to merely increase disparities.

Most of all, I don't think that those drawn to some of these less popular areas of practice are much motivated by financial gain in the first place. They're more attracted by the nature of the work and their affinity with it, and I'm not sure that we'd want people to pick them simply for pay.

I suspect we need to focus on factors other than pay, especially when you consider what NHS doctors say about their motivation, wellbeing, and morale. That may be flexible working, career breaks, or sabbaticals. Or it may be personal development, compensatory rest periods, and portfolio careers.

Maybe I'm wrong. If so, please send a rapid response. It's a conversation we need to have.

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**I don't think those drawn to these areas of practice are much motivated by financial gain**





## Should I go private, doctor?

I've always had some patients whose default option is to seek private hospital consultations and treatment. Some have health insurance through their work, some come from overseas and have never felt comfortable with the NHS, and a few are just wealthy. They don't tend to ask me whether they should go private.

This question about private treatment comes from other patients. They may want procedures that the NHS no longer funds—surgical treatment of troublesome varicose veins, removal of unsightly but non-malignant skin lesions, or other “low priority” complaints. That’s “low priority” to the clinical commissioning group: the individual patient may not see it that way. In these cases, the only option for patients is to find the money or put up with the symptoms.

Some patients ask me about quality of care: will they get a better standard of care in a private hospital? We might talk about the length of consultations, senior input, and safety in private hospitals.

Mostly, however, we talk about money and symptoms: what's affordable and what's bearable. These are patients who need investigation and treatment beyond what I can offer in my surgery. We've agreed that a referral is necessary, I've done the routine NHS paperwork, and a few days later the patient returns with an appointment date six months in the future.

Some of these patients are at pains to express that they're great believers in the NHS, who would never have imagined themselves as private healthcare users or “queue jumpers,” and I can see their struggle as they wrestle with this decision.

Patients are mainly asking, “How bad will these symptoms get if I hang on for NHS treatment?” They're making complicated assessments about where the money will come from, time off work, and what adjustments they need to make to afford private care.

For many of my patients and thousands more around the country, however, this conversation doesn't arise. There is no spare money. All I can do is apologise on behalf of the service I work for. The NHS—which is meant to provide timely investigation, treatment, and relief of suffering—is failing patients as waiting times increase.

I think I understand why the doctors at my local trust are falling so far short of the official targets: there aren't enough doctors, nurses, or funds.

There's a gap between the promise of a comprehensive NHS, available to all according to clinical need, and the reality. The recently announced NHS funding plan may be enough to stem further decline, but it doesn't look likely to put an end to this question in my surgery any time soon.

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Mostly, we talk about money and symptoms: what's affordable and what's bearable

## LATEST PODCASTS



### An acutely disturbed person in the community

It can be difficult to know what to do when a person in severe psychological distress presents to a general practice or community clinic, particularly if they are behaving aggressively, or if they are refusing help.

We hear from Kush, who lives with bi-polar disorder. He fondly remembers a kind policeman. He was experiencing a manic phase, and had absconded from care: “I tried to run off over the roof. At the time, it was a really dangerous thing to do, but you don't really feel any fear when you're in that state. And the policeman, he was just so lovely, he was so nice. They dealt with it really well.”

Aileen O'Brien, reader in psychiatry and education at St George's, University of London, explains why the way in which the initial contact with an acutely disturbed person is made can change the outcome. She gives advice on what to do in that situation, explains why de-escalation is useful, and who else to involve.

### An opt-out system for organ donation

Erin Walker has had two liver transplants, the first at the age of four and the second when she was a teenager, after rejection of the first transplant. She has been told that she will likely need another one: “I feel extremely anxious and panicked when you talk about families being able to veto the wishes of an organ donor. I feel very sad for families who are grieving and need to decide whether to donate a loved person's organs, especially in the case where they didn't know that person's wishes.”

Legislation in England is set to move to an opt-out system for organ donation. Veronica English, head of medical ethics and human rights at the BMA, and Blair L Sadler, physician and senior adviser to California State University, debate the evidence on what will increase donation rates.



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Curated by Juliet Dobson, digital content editor, *The BMJ*

## MISSED GP APPOINTMENTS

**Main explanation is ignored**

Many patients may have good reasons to miss appointments, as David Oliver (16 Feb) rightly argues. But he and many researchers ignore the single biggest cause of missed appointments: GP behaviour.

Data on “did not attend” rates show one dominant factor: how long the patient had to wait for an appointment. Less than 2% of patients offered same day appointments fail to turn up, but when the appointment is delayed to the next day the rate is 5%. If the appointment is in the next week or later the rate is 8–9%.

We will not fix the problem by fining or punishing patients: we will fix it only by encouraging GPs to design their processes so that most appointments can be handled on the same day.

Stephen Black, data scientist, Biggleswade  
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## PROTON BEAM THERAPY

**Use real world data too**

Limb reports that RCTs are needed to evaluate the potential benefits from expanding the indications for proton therapy (Feature, 16 Feb). In proton therapy advantages in radiation dose distribution are usually used to reduce the severity of long term morbidity, so trials with endpoints decades later may be a problem.

RCTs may also miss benefits in subgroups and may not pick up rare, very late stochastic events such as radiation induced cancers.

Dutch health authorities have used a model based approach, predicting an eventual requirement for proton therapy in up to 10% of irradiated patients. This involves analysis of comparative proton and conventional x ray plans, which in several scenarios can model benefits in terms of reduced normal tissue complication probability. This approach is being explored in breast cancer.



## LETTER OF THE WEEK

**Use cannabis cautiously, particularly in chronic pain**

Hurley writes, “Very few UK patients have gained access to previously illegal cannabis based medicinal products since doctors were given permission to prescribe them in November 2018, and patients are complaining” (This Week, 23 Feb). There is a danger of confusion about the medical use of cannabis.

Cannabidiol has been shown to be effective in certain well defined epilepsy syndromes. Evidence for use of cannabis products in pain syndromes is much weaker, yet we have seen increasing requests from patients for cannabis in our specialist pain and rheumatology clinics. Commercial companies (including cigarette manufacturers) are also greatly interested in this potentially lucrative market.

Cannabis is a drug of addiction. We already face a problem with opioid dependence in people for whom addiction is often a response to societal dislocation as much as physical pain. By moving too quickly to accept cannabis use in chronic pain we risk exchanging one dependence for another or, worse, adding a further dependence. More education of health professionals and patients is needed while we assess the benefits and harms of cannabinoids. Meanwhile, we and our professional bodies are right to be cautious.

Mark Lloyd, consultant rheumatologist, Karin Cannons, nurse consultant, Frimley  
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Current NHS indications for proton therapy are not based on RCT outcomes. The strongest consensus for proton therapy is in treating children, but the evidence comprises mainly case series from a single institution and planning comparisons that extrapolate the likely reduction in late effects from historical dose-response data.

UK health administrations should use a holistic approach to evidence, not just RCTs, as well as planning studies and model based approaches. Collection of real world outcomes and further research into the effect of health economic factors, taking into account the costs of treating long term complications, are essential.

Roger Taylor, professor of clinical oncology, Swansea

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## CAPNOGRAPHY

**May not apply to neonates**

Detection of exhaled CO<sub>2</sub> is a useful adjunct to confirm correct endotracheal tube placement (Editorial, 9 Feb), but we urge caution in applying adult study results to newborns. Waveform capnography has improved tube placement in adults but doesn't completely prevent deaths from oesophageal intubation and may misidentify around 1 in 40 neonatal intubations.

Most neonatal ICUs use colorimetric capnometry as standard for all intubations. We aren't aware of any work in newborns directly comparing waveform capnography with colorimetric capnometry. Physiological changes in newborn

infants during transition at birth mandate careful interpretation of capnometry results. Ventilators in neonatal ICUs are highly sensitive to changes in flow produced by extubation, providing visual and auditory alarms, and spontaneous extubations are almost invariably immediately recognised. Further value of waveform capnography in detecting tube dislodgment in neonatal ICUs is as yet unproved.

Video laryngoscopy has enabled a 100% success rate in trainees performing intubation (from a 30% baseline) in a Scottish quaternary neonatal ICU. Video laryngoscopy, combined with ventilator graphics after intubation, gives a reproducible approach to reliable and correct tube placement with ongoing monitoring of endotracheal position in neonates.

Practices with proven benefits for older patients may not apply in neonatal ICUs, and any new technology should be shown to provide greater benefit than risk in the relevant setting.

Robert Tinnion, Helen Mactier, Colin Morley, Allan Jackson, Stephen Wardle, consultant neonatologists; Charles Roehr, professor of neonatal and paediatric science; on behalf of the British Association of Perinatal Medicine

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## CARBON NEUTRALITY BY 2030

**Climate change GP toolkit**

Leading doctors call for the UK to be carbon neutral by 2030 (News, 23 Feb). GPs are busy people and may not know how they can contribute personally and collectively to reduce the risks of global warming.

The RCGP in collaboration with the National Union of Students has a free online toolkit, *Green Impact for Health*, to help GPs improve their sustainability and reduce their environmental impact. It can be used as a list of actions to do in general practice or as a continuing improvement programme in which the practice collects points for its efforts to improve its sustainability. Terry Kemple, past president, RCGP  
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## ANALYSIS

# Can human factors restore faith in the GMC?

The decision to incorporate workplace context into the process for evaluating fitness to practise cases is an important step in advancing patient safety in the UK, say **Lauren Morgan and colleagues**

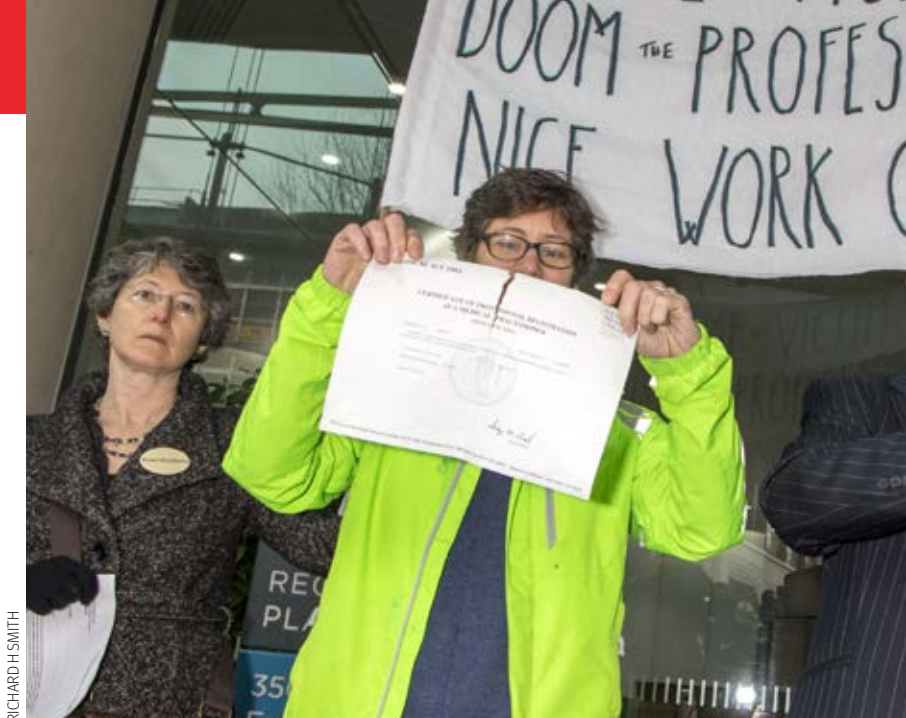
**T**he relation between the GMC and the profession it regulates could fairly be described as in crisis. The case of junior doctor Hadiza Bawa-Garba placed the GMC's fitness to practise functions in the media limelight and fuelled feelings of injustice within the medical profession.<sup>1</sup> The crown court verdict of gross negligence manslaughter, combined with the GMC's statutory duty to "maintain public confidence in the medical profession" put the GMC in a difficult position in this complex case, with a profession already at odds with its regulator.

The key questions raised were about how the context in which doctors work is considered when evaluating their performance. The catalogue of adverse factors Bawa-Garba faced included unfamiliarity with her environment, excessive workload and

**Modern medicine involves team actions, it is unrealistic to assign responsibility to one individual**

### KEY MESSAGES

- GMC processes for investigating fitness to practise cases arising from healthcare error do not adequately consider the doctors' work context
- Low confidence in the fairness of GMC procedures is an important cause of the culture of fear among NHS doctors
- This culture handicaps efforts to learn from error by conducting open, learning investigations
- The GMC is integrating a human factors analytical approach into fitness to practise procedures to make the process fairer and change the culture
- Its recognition of the need to change is a potentially important step for patient safety



RICHARD H SMITH

time pressure, lack of appropriate support, technology failures, and miscommunications—none of which could reasonably be attributed to her. The reaction of many frontline doctors familiar with the pressures of modern NHS practice was, "There but for the grace of God go I."

The depth of feeling against the GMC openly expressed by doctors, and the condemnation by respected publications such as the *Guardian*, suggested a profound breakdown of confidence in the regulator. The views of patients and the public may be different, as much less has been heard about their perspective on this case. How did we end up here, and what can we do about it?

### How the GMC has evolved

The GMC was established under the Medical Act of 1858 to "take charge of registration and medical education across the UK and the publication of a pharmacopoeia." The act was proposed to protect the public from unqualified practitioners. This original purpose has become much less prominent in its public profile, although it still commits substantial resources to evaluating the credentials of international graduates in the UK.

Previous generations of doctors had a very different relationship with the GMC, which they regarded as benign, distant, and largely irrelevant to their clinical lives, provided they practised according to accepted norms. The old nostrum was that you would never

meet the GMC as long as you avoided the "3As"—addiction, advertising, and adultery with patients. This changed when the 1978 Medical Act moved the GMC from a self regulatory body to a professional, independent, regulatory body covering both education and fitness to practise. The GMC was now charged with assessing fitness to practise on the grounds of health as well as professional conduct.

### Roots of conflict

The changes that really led to the deterioration in the relationship with the profession, however, occurred in 1995 and 2008. The Medical (Professional Performance) Act 1995 charged the GMC with evaluating fitness to practise when avoidable harm may have come to a patient because a doctor had acted incorrectly.

This gave the GMC powers to suspend or place conditions on the registration of a practitioner whose standard of professional performance was found to have been seriously deficient. The standards of good medical practice that the GMC was required to set out were aspirational—consistent with the heroic, vocational model of the good professional underpinning the 1858 act.

The Health and Social Care Act (2008) reduced the standard of proof required in GMC hearings from the criminal (beyond reasonable doubt) to the civil (on the balance of probabilities) level. These changes were associated with a trebling of complaints and an increase in the





percentage of erasure decisions at tribunals.<sup>2</sup> The language of *Good Medical Practice* is uncompromising, using the word “must” liberally when referring to expectations of behaviour.

As compliance with these demanding criteria is the yardstick for excluding doctors from practice, there is an inherent risk of unsafe decisions. This has been made more obvious by the changing nature of team working in medicine and by the advancing scientific understanding of error at work.

### Modernisation of investigative processes

How can things be improved? In the long term, new legislation is required, but a large part of the problem is that history has bequeathed the GMC a quasi-judicial investigation process with a narrow focus on the actions of an individual doctor.

Modern medicine necessarily involves coordinated team actions, and it is often unrealistic to assign total responsibility to any doctor or other individual. Ensuring fairness in evaluating error in modern medicine requires a different approach.

The transport and energy industries have long recognised the need to understand the full context when evaluating error. Both have used incident analysis based on human factors science to ensure that lessons are quickly learnt and overall safety steadily advanced.<sup>3-5</sup> The same approach could benefit the processes of the GMC’s fitness to practise division.

**GMC members tear up their registration certificates in protest at the Bawa-Garba decision**

**A climate of fear is the biggest threat to patient safety**

Donald Berwick, author of *Mid Staffs report*



### Human factors in healthcare

Human factors is the science of understanding and optimising human performance in the workplace. Systems of work can be viewed as comprising the technology used, the task being completed, the environment within which work takes place, the teams and communication involved, and the overarching organisational structures and culture.<sup>6</sup>

Although key individuals may have a large impact, the system surrounding them can have equally large or greater effects. In analyses of adverse events, the system can often be seen to convert well intentioned and apparently sensible actions into contributory elements of a disaster.

Neither individual doctors nor other system components act in isolation; their effects resonate with each other, sometimes with unpredictable and dangerous results. A new computer system, for example, may help junior doctors but increase the risk of error for others—for example, locums who are less familiar with the technology. Therefore, in fairly judging the practice of one person, we must also consider the system within which he or she is working, examining the potential effect of each component and the resonance between them.

An important element of civil and criminal justice is judgment by a jury of your peers. This is because they are deemed to understand the relevant context and influences in a way that judges may not, and can therefore weigh the actions of the accused against what they would consider reasonable in the light of

their understanding. Integrating human factors into fitness to practise investigations upholds the same principle by taking into account the complexities of the work system, the conflicts that constantly need to be resolved, and the power of workplace culture—the “way things are done here.” Practices that have evolved to “get the job done” or even to enhance safety may no longer reflect the way managers had intended or understood the work to be completed. Real life practice may not reflect the prescriptions of national guidelines, and this may be entirely appropriate—for example, when guidelines conflict.

Work as done rather than work as imagined or prescribed must be fully understood in the context of an investigation.<sup>7</sup> Individuals should not be penalised for creating ways to deliver care in suboptimal circumstances when viable alternatives are not immediately clear.

Human factors science allows us to understand why actions leading to an error made sense to workers at the time and recognises that humans, while prone to error, also contribute enormously to creating safety in organisations through cooperation and anticipation.<sup>8</sup> This detailed understanding of context is essential for truly just decisions on culpability.

The track record of the human factors approach to investigations of error in other sectors is impressive in terms of its ability to identify modifications to key systems factors that can lead to a sustainable improvement in the reliability and safety of work systems. The association between introducing a human factors approach to safety and decreased incident rates has been consistent across numerous work environments. But the separate effects of human factors based investigations and safety improvement programmes are impossible to disentangle, since they are rarely, if ever, introduced separately.

Introducing human factors into GMC investigations is therefore unlikely to directly affect patient safety generally—but it may do so indirectly, by influencing NHS bodies to increase their focus on systems based solutions to some of the contextual factors

GETTY IMAGES

involved in incidents such as the Bawa-Garba case.

Although the primary task of the GMC is to judge whether a doctor's ability to practise safely is impaired, full understanding of the context will help to identify contributory systems problems that need to be eliminated.

Healthcare in general has begun to embrace human factors science over the past decade, beginning with training in non-technical skills to improve team working,<sup>9</sup> and moving on to projects such as redesign of clinical IT systems and of investigations of safety incidents.

In its educational role, the GMC already specifies that human factors is included in both undergraduate and specialist training curriculums. Healthcare is beginning to make up the considerable distance it lags behind many safety critical industries (transport, nuclear, software design, etc) in adopting appropriate human factors approaches.

Explicit adoption of human factors approaches to investigation of medical error or "malpractice," however, does not seem to be widespread internationally. One example of good practice is in the US, where some institutional insurers investigate serious incidents using human factors and may insist on improvements in the safety of systems as a condition of continued coverage.

### Programme for change

The GMC has recognised the serious nature of the problems confronting it and the potential of human factors in contributing to a solution. It has sought advice from our organisation, the Patient Safety Academy, on how to integrate human factors into its processes, both to improve their fairness and to reassure the medical profession.

The perceived failings of the GMC are, at least partially, consequences of the legislation dictating what it can and cannot do, and of problems within the medical profession itself. Examples of these problems include the disproportionate number of doctors from black and ethnic minority backgrounds who appear before tribunals (largely explained



MARK THOMAS

### The GMC has recognised the serious nature of the problems confronting it

by the hugely disproportionate referral of such doctors to the GMC by their colleagues and the public) and condemnatory expert clinical opinions from eminent clinicians who have no human factors training to help them to consider context appropriately.

The GMC has made several changes to embrace human factors. These include providing all staff in the fitness to practise directorate with training on the principles of human factors, a redesign of the processes and paperwork that support an investigation, and the use of external human factors experts to advise on referrals (in the way that medical experts currently do).

This programme shows an encouraging recognition of the need for change and willingness to implement it in the face of substantial legal constraints. The commitment to recognise the organisational context within which a doctor is working when their fitness to practise is questioned is a huge step forward in the investigation processes. We hope it will result in a fairer system of investigation, and that the profession will recognise and be reassured by it.

All change brings risks and challenges. Many institutional cultures are resistant to change, and success cannot be guaranteed. It is essential that any temporary disruption to process does not affect

doctors being investigated, who are acutely vulnerable, and equally that the GMC's ability to recognise and deal with individual doctors whose practice is genuinely and consistently unsafe is not compromised.

It will also be important to explain to the public that, by enhancing justice in the process, this work will enhance fairness for patients as well as for doctors.

We agree with Don Berwick's comments in his report on NHS safety issues after the Mid Staffordshire inquiry.<sup>10</sup> He described the "climate of fear" in the NHS as the single biggest barrier to patient safety. Fear of the GMC and analogous professional regulators such as the Nursing and Midwifery Council, has been among the biggest factors in generating this climate for the past two decades.

A profession secure in the knowledge that it can trust its regulator to be just, and to understand the context of clinical error, is much more likely to be able to learn from mistakes and to lead to real sustainable improvements in patient safety.

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## OBITUARIES

# William “Tiger” Watson

Started his medical career as a prisoner of war

William Humphreys Watson (b 1921; q Guy’s Hospital Medical School, London, 1950; MBE, MRCP), died from old age on 29 December 2018

With a medical career that began in a prisoner of war camp in the second world war and stretched to aid work in Africa by way of general practice in Shrewsbury, William Watson’s life would have been exotic and interesting enough.

The most dramatic moment of his life came in 1942 at the age of 20, when he participated in what the media dubbed “the greatest raid of them all.” Watson earned the Military Cross for his role in the 1942 attack on the dock at St Nazaire, a facility the Allies feared would allow a large German battleship, the *Tirpitz*, to attack their Atlantic convoys. The dock could not be destroyed by conventional bombing, so more than 600 British military personnel sailed 250 miles to Normandy and up the river Loire to St Nazaire. They succeeded in destroying the pumping and winding gear for the dock, and HMS *Campbeltown*, an old destroyer packed with explosives on a delayed fuse, blew it up the next day.

### Wartime experiences

Watson led a five strong commando unit providing covering fire for the demolition squads. When under heavy German fire, Watson was heard to shout to his team: “Do you want to live forever?”—something he was later embarrassed about and put down to reading too many action comics. (His nickname, Tiger, derived not from any particular ferocity but from his commanding officer’s view that he had a smile rather like that of comic book character Tiger Tim’s.)

Although the raid was a great success, around a quarter of the participants died, and Watson was one of 215 soldiers and sailors taken prisoner. He had been shot in the buttocks and in his left arm, but under interrogation he and another young

solider reportedly suggested they were boy scouts out on a sailing weekend that had gone wrong. He was allowed to keep the bullet removed from his buttock, providing an idiosyncratic family souvenir until it was lost when one of his four children took it to school for a “show and tell” session.

While in prison camp in Germany, Watson used medical textbooks provided through the Red Cross to prepare for and pass the first year pre-medical written examination. That was sufficient for him to be transferred to another prison camp which desperately needed medical staff. He worked as a supervised medical assistant until “trigger happy” Americans liberated the camp, an experience he joked was almost as frightening as the St Nazaire raid.

On returning to England he studied medicine at Guy’s, despite losing some self confidence at effectively being five years behind people his own age. That point was reinforced by meeting his future wife, Wyn, who was already a qualified doctor working at Guy’s despite being younger than him.

### Humanitarian relief work

Spending much of his career as one of three partners in a Shrewsbury practice, from 1970 Watson mixed the life of a provincial English GP with humanitarian aid work in Africa—with an increasing focus on the latter after his children left home. It was the Biafran war and resulting famine that drew Watson into relief work. Initially, Wyn acted as locum GP in the practice while her husband was away on such projects, but as the trips grew longer they worked on relief projects together. This included two years in Malawi in the 1980s, working with patients with leprosy for Lepara, and postings in Afghanistan, Nepal, Somalia, and Sierra Leone. Working in Ethiopia in the mid-1970s, Watson was presented to the then emperor, Haile Selassie, noting sardonically: “All the



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beggars were cleared from the streets and the trees were whitewashed for the occasion.”

Watson believed in providing sustainable infrastructure improvements and training rather than one-off short term interventions by aid agencies. He worked with organisations that included local health workers, administrators, and community leaders in their projects. Working with the charity WaterAid, he encouraged the St Nazaire Society (an active group for survivors of the raid) to fund two water wells in Bolgatanga, Ghana.

Meanwhile, during his 27 years as a GP Watson raised funds and campaigned for a hospice in Shrewsbury, which culminated in the opening of the Severn Hospice as the 1980s drew to a close. He was the acting medical director before the hospice opened its doors and, on top of fundraising and planning work, spent much time persuading local GPs and hospital consultants of the merits of the hospice philosophy. The MBE he was awarded in 2002 was largely because of this work.

Predeceased by his wife, Wyn, in November 2018, Watson leaves four children.

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## OBITUARIES

### Brian James Ross Junior

Consultant nephrologist (b 1946; q St Andrews 1970; MD, FRCP), died suddenly from ischaemic heart disease on 10 January 2019



Brian James Ross Junior trained in nephrology in Aberdeen and Melbourne and started in Glasgow in 1979. A considerate and skilled clinician, Brian was an early proponent of patient representation in medical organisations. He introduced continuous ambulatory peritoneal dialysis (CAPD) to Glasgow, computerised the renal unit's case records, established the Scottish Renal Registry, and led comparative audit and peer review and developed training standards through the Joint Committee on Higher Medical Training and the European Union of Medical Specialists. A proud alumnus of Dundee High School and a talented all-rounder who played cricket for Aberdeenshire, Brian was happiest in his garden or garage. His first wife, Sheena, died in 1972. In 1979 he married Liz; they had two children, who survive him, along with his partner, Freda.

Douglas Briggs, Margaret McMillan, Stuart Rodger  
Cite this as: *BMJ* 2019;364:l904

### Robert Darragh Montgomery

Consultant gastroenterologist (b 1927; q Cambridge/Middlesex Hospital, 1950; MA, MD, FRCP Lond, FRCP Edin), died from Alzheimer's dementia on 30 November 2018



Robert Darragh Montgomery was appointed consultant physician and gastroenterologist to East Birmingham (now Heartlands) Hospital and Solihull Hospital in 1964. He was president of the Midlands Physicians Association and the West Midlands Gastroenterology Society. He carried out research in the areas of gastric and duodenal ulcers and became a national authority in this area. He published more than 100 research papers and contributed chapters for several medical textbooks. When he retired from the NHS in 1992 he was replaced by two full time consultants. He developed Alzheimer's dementia in his mid-70s, which slowly led to his withdrawal from the world. He leaves Jean, his wife of 60 years; three children; and four grandchildren.

Charles Montgomery  
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### Ryan Michael Musy

Radiology registrar (b 1989; q Edinburgh University 2012; MRCP), died from metastatic melanoma on 22 July 2018



Ryan Michael Musy took the opportunity to develop his skills in Northern Ireland, where he started foundation training in the South Eastern Trust. He quickly gained a reputation as a dedicated and trusted physician. Ryan won a place on the radiology training programme and is fondly remembered by the staff of the Belfast Trust, where he held his last position. Even as he wrestled with illness, he continued his studies and sat his primary radiology examinations. His devotion to his clinical duties was second only to his devotion to the faith that sustained him till the end of his life. This man of integrity and wisdom well beyond his years is greatly missed by those who loved him. Ryan leaves his parents, Margaret and Eddie; sister, Hannah; and wider family and friends.

Neil McGeown  
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### Shashikant C Patel

Surgeon Alberta, Canada (b 1939; q Birmingham 1963; FRCS, FRCS Ed 1970), died after severe septicaemia as a complication of the renal dialysis programme for his chronic kidney failure on 21 January 2019



Shashikant C Patel ("Shashi") moved to the UK from his native Kenya at the age of 16. He did his surgical training at the United Birmingham Teaching Hospitals and other hospitals in England. In the absence of opportunities in the UK, Shashi moved his family to Canada and accepted an offer from Westlock, Alberta, Canada (a small community centre and town). He settled there permanently. With colleagues, he developed many specialist surgical practices and saved patients from having to travel to bigger centres for referrals. Shashi was active in the Rotary Club of Westlock and was treasurer of the Canadian Tractor Museum. Predeceased by his wife, Koki, he leaves three sons and three grandchildren. Kishore Shah

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### Roger Protheroe

Consultant pathologist (b 1924; q Cambridge 1947; MD, FRCPath), died from old age on 30 May 2018



Roger Protheroe developed an interest in pathology when stationed in Hong Kong with the Royal Army Medical Corps in 1950. Back in London he met and married Charmian Mason, who was training in anaesthetics. He spent 15 months at the Armed Forces Institute of Pathology in Washington, DC. On his return he became senior lecturer at St George's Hospital in London and, in 1963, consultant pathologist at Heartlands and Solihull hospitals, where he developed services in cytology and haematology and held management positions. On his 65th birthday he reluctantly retired from the NHS. Although he was treated for lung cancer and prostate cancer, he eventually died from old age. Predeceased by Charmian, he leaves four children, eight grandchildren, and a great grandson.

David Protheroe  
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### Sandra Wylie

General practitioner (b 1926; q Queen's University Belfast 1950), died from bronchial pneumonia on 9 February 2019



After her houseman's year in 1951, Sandra Wylie married Mark Loughridge, who had already established a general practice in Carrickfergus, County Antrim. After her husband's death in 1977, Sandra took over the helm of the practice and guided it to its transition into a modern health centre. Sandra was the first female provost of the Northern Faculty of General Practitioners in 1980-81. After retiring in 1985, she travelled extensively while maintaining her passion for her garden and her miniature poodles. In later years Sandra enjoyed the security and comfort of living with her son, Dale, and daughter in law, Wendy. She leaves two children; two grandchildren; and two great granddaughters.

Dale Loughridge  
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