

comment

“For the first time in 20 years the NHS has a net exit of EU trained clinicians” **DAVID OLIVER**
“Will we be able to teach RoboDoc to have a subtle conversation?” **HELEN SALISBURY**
PLUS The decline of “doing” skills and stalling life expectancy

TAKING STOCK Rammya Mathew

Soups alone will not conquer obesity

When discussing dietary changes with patients I’m often greeted with blank expressions. It may seem simple in theory: eat healthy whole foods with less refined sugar and, dare I say it, fewer carbohydrates. But people find it hard to know where to start when it comes to modifying their diet, and they often have a sense of apathy about being able to lose weight.

The idea of using low calorie, ketosis inducing, liquid diets to lose weight has been trending for some time. Critics argue that such diets are unsustainable and unlikely to solve the growing obesity epidemic. Yet the results of two recent studies have suggested otherwise. In one trial, participants who restricted their oral intake to about 800 calories a day on a liquid diet achieved significant weight loss at 12 months, and an impressive 46% also achieved remission of type 2 diabetes.

It’s not surprising that participants lose weight when restricting their calorie intake so drastically. But is there an advantage to taking such an aggressive approach versus standard dietary advice?

My sense is that, for some people, a liquid diet has the advantage of taking away the complexity of knowing which foods to eat, how much, and how often. The fact that it offers quick, noticeable results also instils a sense of “I can do this.”

Once people realise that they can lose weight and experience positive benefits to their physical and mental wellbeing, they’re perhaps better placed to take traditional lifestyle advice on board. Those trial participants had foods reintroduced after a period of 3-5 months and still managed to maintain weight loss—so, although liquid diets may be unsustainable in the long term, they may help instigate behaviour change.

At present any promise of a non-pharmacological intervention to reverse type 2 diabetes is certainly welcome news, but it does raise the question of why,

as a nation, we understand so little about healthy eating that we need diets prescribed in the form of shakes and soups.

The chef Jean-Christophe Novelli recently spoke out about the need to reintroduce home economics lessons in schools so that young people might learn to cook healthy food. Could it be that the solution to the obesity crisis lies in the classroom rather than the consulting room?

Equipping people with the knowledge to make the right choices, and the skills to live and eat healthily, must be a better option in the long run than cultivating a growing dependence on liquid diets, slimming pills, and bariatric surgery.

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People find it hard to know where to start when it comes to modifying their diet

The vanishing art of doing

Practical skills are becoming marginalised

In recent years I've noticed a change in some of the medical students I work with. They seem far less comfortable with "doing." Many of them struggle with apparently simple tasks, like cutting out a paper shape with scissors or tying a reef knot. This makes me uneasy.

Doing is an essential element of clinical practice. It is how we gather information, carry out procedures, and communicate with our patients. Although medicine depends on scientific knowledge, it is through doing that such knowledge is applied and clinicians convey care. Yet doing is becoming unfashionable, eclipsed by an undue focus on factual knowledge.

Like learning a language, the skills of doing come naturally to children when they are very young. From early infancy we explore the material world through immersion. This starts at home—learning to tie shoelaces, making models, being in the kitchen. At primary school, until recently, children were exposed to many other materials, as well as learning handwriting and other basic skills.

This sensory stimulation continued at secondary school, with opportunities for drawing, painting, design technology,

woodworking, cooking, music, dance, drama, and much else.

It was once reasonable to assume that young people had had a wide exposure to such skills by the time they reached university. But now the UK state school curriculum is eliminating opportunities for creative doing, framing them as dispensable distractions from "core" subjects like maths, science, and English. Even in science, many pupils no longer gain laboratory experience. Practical skills are becoming marginalised.

Craft and performance

If medical students have missed out in childhood and adolescence, they have a lot of ground to make up. Of course this doesn't mean they won't eventually become skilled and confident clinicians—but it may take them longer. For medicine is not an applied science, but a practice based on human interaction and an engagement between people. It is a combination of craft and performance. Medicine relies on doing things with people and to people. Not only invasive procedures and surgical operations—everyday clinical encounters are based on physical connection and on becoming comfortable with touching and doing.



It was reasonable to assume students had had a wide exposure to material skills by the time they reached university

Advances in imaging technology have altered the status of doing. Scans provide undreamt of detail without the need for clinical examination, and physical contact no longer seems necessary for accurate diagnosis. Yet this is to overlook the communicative role of physicality, the care we convey through expert touch, or the indifference shown by its absence. If we are to communicate effectively as clinicians, we need to be comfortable with doing.

These concerns are not peculiar to medicine, but are part of a broader social sweep, where opportunities for tactile and sensory input are becoming reduced. The dominance of screens is sometimes cited as a cause. I disagree. There is nothing wrong with screens provided that other kinds of

England's stalling life expectancy: pointers for action?

The slowdown of life expectancy increases in England after decades of steady improvement has triggered furious speculation about the causes, as well as calls for action. These worrying trends prompted the Department of Health and Social Care to ask Public Health England (PHE) to investigate, and their report was published last month.

The PHE review covers considerable ground in unpacking mortality trends and what's driving them. It finds that both sexes, all age groups, and several causes of death have contributed to the slowdown in life expectancy improvements. Decelerating improvements in cardiovascular disease mortality are a major contributor. Winter deaths from flu and other respiratory diseases also play a significant part in some years, most notably in 2015 when a severe flu outbreak caused life expectancy



A bad flu outbreak could result in a rise in mortality this year

to fall not just in the UK but also in many European countries.

Two particularly unwelcome trends highlighted by PHE are widening inequalities between affluent and deprived areas and the rising numbers of young

adults dying from accidental poisoning, mainly from drug misuse.

While PHE's report provides useful pointers to the drivers of stalling life expectancy, it also prompts many questions. For example, are improvements in cardiovascular disease mortality slowing because of rising obesity and diabetes? Or do they reflect an inevitable slowdown in gains from controlling risk factors such as blood pressure, cholesterol, and smoking now the low hanging fruit has been picked? Why is life expectancy actually falling in the most deprived areas? And are there signs of the UK following in the unhappy footsteps of the US where "deaths of despair," such as suicides and drug overdoses, are growing among young adults? These questions, and many more, remain unanswered.

The plateau in UK life expectancy correlates with the onset of austerity, and it's possible



activity also get their due. Mine is not an anti-technology argument. Quite the reverse. New technology brings new opportunities for doing. Robot assisted surgery and interventional radiology, for example, require specialised skills of hand and body which we need to learn and teach. We will always need dexterity, precision, and the ability to use our bodies under pressure for the benefit of other people. What we must not lose is the awareness of how important these skills are.

We must attend to the performance and materiality of medicine as much as its scientific knowledge. For this we must become fluent in the languages of doing and making, expert in the vocabularies of touch. If we do not, we and our patients will be the losers.

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that public expenditure cuts accelerated or even precipitated some deaths, especially among frail, older people.

Although not all the pieces of the mortality jigsaw are in place, we are now better informed about where action is needed. Strategies for reducing cardiovascular disease mortality should be re-energised and measures taken to reduce the vulnerability of older people to cold, respiratory disease, and other winter killers. Targeted interventions are also needed to tackle the causes of ill health and the wider determinants of mortality in deprived communities.

More work is still needed to understand what is happening. Yet there are enough pointers here to trigger action, and action is urgently called for—especially given PHE's warning that a bad flu outbreak and severe cold spell in the 2018-19 winter could result in a rise in mortality this year.

Veena Raleigh is a senior fellow at the King's Fund

ACUTE PERSPECTIVE David Oliver

Immigration curbs threaten the NHS

Workforce gaps currently pose a major threat to the viability of our health services, as noted in a joint 2018 report by the King's Fund, Nuffield Trust, and Health Foundation.

One in 11 NHS clinical posts is currently unfilled, rising to one in eight nursing posts. The report estimates that, without concerted action, the current shortage of NHS staff employed by trusts in England—already around 100 000—will grow to an estimated 250 000 by 2030.

Some of the proposed solutions have been put forward before, by organisations including NHS Providers and the Royal College of Physicians. These centre on training more staff at home and doing more to look after staff to retain more of them. But this will take years, so let's get real.

Burdensome process

There is no magic workforce tree and, without workers from overseas, the NHS is on a slippery cliff edge. Around 144 000 NHS staff (12.7% of the total) have non-British nationality, and 63 000 (5.7%) have non-UK European Union nationality.

Clinicians from overseas who want to work here are put off by the burdensome process of professional registration and regulation and by immigration bureaucracy. Tier 2 visa rules requiring entrants to be earning or expecting to earn more than £30 000 a year, even those from the EU, disqualify a range of nursing and allied professional staff and junior doctors.

Applying for visas carries costs for applicants and a further cost and administration burden for employers, estimated at £490m a year post-Brexit. Although the home secretary announced a relaxation in visa restrictions for doctors and nurses in 2018, he then said that this was temporary. December's immigration white paper discussed increasing the number of tier 2 visas—but not lowering the £30 000 salary threshold that will exclude many skilled clinical staff.

Are we actively trying to confuse or put off potential immigrant NHS workers?

Of course, the UK should not set out to strip poorer countries of clinicians they've trained, but schemes such as the Medical Training Initiative offer a win-win solution. This stipulates that non-EU doctors who come to the UK under the scheme must return home after 24 months, with the training and knowledge they've gained while working for the NHS. The scheme was capped at 1500 places a year but after concerted lobbying is set to increase to 3000, bucking the bad news trend.

Net exit from the NHS

Even though Brexit has yet to be implemented, the mood music and ongoing uncertainty mean that EU trained clinicians no longer feel welcome or certain of their future here. The number of EU nurses registering to practise here has fallen dramatically, and for the first time in over 20 years we have a net exit from the NHS by EU trained clinicians.

Barnstorming rhetoric from pro-leave campaigners, newspapers, and MPs have made immigration a signal issue. Opinion polls have shown that immigration curbs and the need to control our own borders were key factors in the leave vote. In reality we've been able to control non-EU immigration for years and have expediently chosen not to—partly because public services need the staff.

Of course, we need to train more of our own staff and to do a much better job of retaining them. But policies and attitudes that adversely affect our current and potential immigrant workforce will sabotage our own interests and those of patients who might need the NHS.

There is no magic workforce tree and, without workers from overseas, the NHS is on a slippery cliff edge



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Did you save any lives today?

Did you save any lives today? “Not obviously,” most doctors would usually answer. But a recent study on continuity of care found that maybe we did, just by being in the same outpatient clinic or GP surgery over time, seeing the same patients.

Sometimes I feel like a dinosaur, clinging to traditional general practice while the meteorite of new care models approaches. But what’s at stake here is not just the patient’s longevity but the quality of care and—dare I say it?—the possibility of enjoying my work and avoiding burnout.

I recently visited an elderly patient who is in the late stages of dementia. He initially looked blank, but when told my surname he said my first name and smiled. I remembered how, before he was ill, we would squeeze fascinating conversations about his work around our consultations. For him and his family it matters that their doctor knows who he was—and still is, deep inside.

I try hard to treat all of my patients equally, but it’s easier to care about the people you know, and caring makes the work easier and more interesting. As money flows into technological solutions for the predictable (and predicted) shortage of doctors and nurses we should stop and think hard about what we risk losing.

Even if artificial intelligence driven chatbots were able to provide accurate

diagnoses—and that’s a big “if”—this is only a small part of what doctors do, and arguably the easy bit. Will we be able to teach RoboDoc to have a subtle conversation with our patient about whether or not she’s actually taking her tablets and explore the reasons why? Can it listen while the disabled patient spills his grief and frustration about delayed benefit payments, deteriorating walking, and poor sleep, working with him to come up with a plan to help?

Continuity of care is about knowledge that may not be written anywhere accessible: knowing that a patient’s father died of a ruptured aortic aneurysm makes his intense worry about mild abdominal pain understandable. Or this knowledge may be something that can’t easily be captured in words: how does this patient normally look or behave? More mundanely, this knowledge means that you can pick up where you left off last time, making consultations much more efficient.

Continuity of care is also about trust. When consultations are going well, patients entrust their symptoms, thoughts, and feelings to doctors, believing in our competence and goodwill. For many patients it takes time to build trust. And, if it’s too embarrassing to talk about blood in your poo or to bring your testicular lump to be examined, today’s opportunity to save a life may be missed.

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Even if chatbots could provide accurate diagnoses this is only a small part of what doctors do

NEW BMJ PODCASTS

Trojan milk

Is cow’s milk protein allergy extending the reach of infant formula manufacturers? A recent investigation suggests that it is, and in a linked podcast, Chris



van Tulleken explains why this is giving rise to concern: “There’s the straightforward problem of the risk of possible overdiagnosis of a condition. And overdiagnosis is harmful in all kinds of ways: it’s harmful to the person being overdiagnosed, it’s very expensive, it wastes resources, it neglects their real problems. But there’s another much larger problem with this, which is that this condition is creating a network of influences for the industry with the profession that are potentially much more damaging.”

Multisectoral collaboration at work

Is multisectoral working the key to achieving the sustainable development goals (SDGs)? A new collection of articles looks at 12 case studies of multisectoral collaboration that have made a difference.



As Wendy Graham, an adviser on the collection, says in this podcast: “It’s not always easy to work together, we know that in the health professions. It’s easy to say we need to do it, but it’s much harder to actually achieve that. It’s not the panacea for every problem as we go forward, but it may make an important difference in terms of accelerating progress.”

Evidence based medicine roundup: Devices



“What’s happened over the past 10 years is a continual number of devices... particularly the high risk implantable devices, have come out on the market and have come out with no evidence, particularly in Europe.”

In the second of our EBM roundups, which look at new developments in the world of evidence, Carl Heneghan, Helen Macdonald, and Duncan Jarvies are joined by *BMJ* journalist Deborah Cohen to discuss failing regulation for implantable devices.

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FLASH GLUCOSE DEVICES

CCG criteria are incoherent

Few of the criteria written by clinical commissioning groups for access to FreeStyle Libre make any sense (BMJ Investigation, 10 November).

They look like a set of excuses cooked up after a financial decision to prescribe FreeStyle Libre as little as possible. For example, most people with type 1 diabetes don't test their blood glucose often enough because we don't issue enough conventional test strips. Yet most criteria start by saying FreeStyle Libre should be prescribed only to those already testing at least 8-10 times a day.

Some CCGs say that they are waiting for better evidence of the benefits of continuous testing. But the prescribing criteria make it harder to get that evidence as they don't target the groups most likely to benefit.

It seems odd for the NHS to rely on patient non-compliance to keep costs down, but that is the implication of current guidance. Moreover, it doesn't consider the cost of future complications, which is already at least 100 times the worst case cost of FreeStyle Libre.

Stephen Black, data scientist, Black Box Data Science

[Cite this as: BMJ 2018;363:k5203](#)

Update: From April 2019, all patients with type 1 diabetes who meet the clinical guidelines should have access to this device, NHS England has now announced.

FreeStyle Libre system changes lives

Would you drive a car without a speedometer? With a fuel gauge visible only infrequently? That is what we expect of insulin users who monitor their diabetes with finger prick glucose testing. The FreeStyle Libre is rationed by the NHS without regard to patient choice or common sense.

Those who buy their own FreeStyle Libre are delighted to be pricking their fingers less and to be more aware of their glucose.



LETTER OF THE WEEK

Equity of access to medical devices

Concerns raised about accessing the FreeStyle Libre flash glucose monitor encapsulate many of the wider problems facing technologies that are not medicines (BMJ Investigation, 10 November). Unlike medicines, the published evidence base is often weak, and this is unlikely to change.

Should resources be allocated only to areas where strong evidence exists from randomised controlled trials (RCTs) and meta-analyses, even if the gains are marginal?

For FreeStyle Libre, the main evidence is from two RCTs. Methodological weaknesses mean the risk of bias cannot be excluded. In such circumstances, alternative sources of evidence may be useful.

The Scottish Health Technologies Group used a bespoke economic model to inform their advice, finding that FreeStyle Libre was cost effective for people with type 1 diabetes and for those with type 2 diabetes who were intensive insulin users and monitored their own blood glucose. One way sensitivity analyses showed cost effectiveness under various scenarios and cost saving against self monitoring when a mean of eight tests a day was considered.

FreeStyle Libre shows the challenges facing patients, assessment agencies, and decision makers in recognising the value of new non-drug technologies and subsequently achieving equity of access. Evidence should inform decision making wherever possible, but the search for that evidence may need to transcend the conventional gold standard RCT, systematic review, or meta-analysis.

Neil Smart, vice chair, Scottish Health Technologies Group

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If "heading for a hypo," they can intervene. Shouldn't everyone with type 1 diabetes have access to this?

The cost to the NHS would not be insurmountable in a rarer illness. But the prevalence of type 1 diabetes should be our most effective bargaining tool. The NHS needs a national deal with Abbott (and let's hope competitors are on their way) to make the sensors affordable. The health secretary has recognised this, but still excludes 75% of people with type 1 diabetes.

Mary Charlton, specialty doctor in diabetes, Birmingham

[Cite this as: BMJ 2018;363:k5204](#)

AI AND DOCTORS DEBATE

AI and the nuances of general practice

I agree with Rampton and Spinas that the doctor-patient relationship is so central to medicine that artificial intelligence will not make doctors obsolete (Head to Head, 10 November).

GPs soon realise that patients are less bothered by what is wrong with them than what isn't. They simply want to know that their headache isn't a brain tumour, their numbness multiple sclerosis, or their chest pain a heart attack. But realising this requires careful digging, and the clues can be

as nuanced as a change of facial expression, which would be beyond the most advanced AI systems.

Symptoms without physiological cause are often self limiting and may never reach clinical scrutiny. But if AI diagnostic algorithms become easily accessible online, symptoms that would have resolved spontaneously will become subject to more scrutiny, with the attendant risks of overdiagnosis, overinvestigation, and overtreatment.

Keith Hopcroft, GP, Basildon

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Embracing technology to avoid obsolescence

The doctor of the day has become defunct many times before and will certainly do so again. A 12th century doctor would be of little use in a hospital today.

We have learnt such a huge amount that the only way to avoid obsolescence is to embrace data technology and AI. No other tools will allow us to filter, analyse, and apply the information we use to treat patients.

Paul D McGovern, specialty registrar in occupational medicine, Northampton

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MEDICS IN FIRST WORLD WAR

Must women be nurses?

Your article "Those who also served" includes an image with the caption: "Nurses attend an operation on a wounded soldier in a battle hospital in France" (The Big Picture, 10 November).

This photograph is from one of the "women's hospitals" of the first world war, and everyone in the photo—nurses, surgeon, anaesthetist, supervising consultant—is a woman.

These hospitals were an incredible achievement and are worthy of their own article in *The BMJ*. To say "nurses attend an operation" is to fall into the sexist trap of assuming that women must be nurses.

Melanie Davies, former president, Medical Women's Federation

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ANALYSIS

How new medical examiners aim to improve death registrations

Alan Fletcher and colleagues outline how the newly created roles could produce a world leading mortality review system that will better protect patients—if the process is implemented appropriately



The current death certification system in England and Wales has not changed in more than 50 years. But from April 2019 a new system of medical examiners will be introduced that will deliver a more comprehensive system of assurances for all deaths not referred to the coroner in England and Wales.¹

This provides an unprecedented opportunity to develop a system that tackles concerns about avoidable hospital deaths, that works in partnership with families and carers, and that identifies deaths due to problems in care.

We draw on our experience and ongoing research to describe the new role of medical examiner and how it could improve patient safety.

The Care Quality Commission now requires all acute hospital trusts to be able to “say something about every death”

What is a medical examiner?

The role of medical examiner was developed from recommendations in the 2003 Home Office Fundamental Review of Death Certification and Investigation² and in response to concerns raised by Janet Smith in the third report of her investigation into the murders committed by English GP Harold Shipman.³ This recommendation was endorsed by Robert Francis in his investigation into avoidable deaths at the Mid Staffordshire NHS Foundation Trust⁴ and Bill Kirkup in the review of deaths and patient safety at Morecombe Bay Hospitals.⁵

A medical examiner is an independent senior doctor who will be accountable to the national medical examiner.⁶ The role is to manage three matters related to the cause of death and relevant documentation, taking the views of bereaved relatives into consideration. First, where a medical certificate of cause of death (MCCD) is completed, the medical examiner will ensure the content is as accurate as possible. Second, where a case needs to be notified to a coroner, the medical examiner will make sure it is undertaken as quickly and accurately as possible. Finally, the medical examiner will detect and report clinical governance concerns as early as possible.

This is different from the role of the medical examiners in North America, who investigate deaths

occurring under unusual or suspicious circumstances, perform postmortem examinations, and may initiate inquests.

What will a medical examiner do?

Medical examiners will become involved immediately after a death, with the support of appropriately qualified medical examiner officers (another new role). To date, most of the medical examiners in pilot studies have focused on hospital deaths, but a few consider community cases.

In all cases not investigated by a coroner, the medical examiner must carry out a proportionate review of medical records (focusing on the last hospital admission, selected investigation results, correspondence, and interventions), discuss the case with the qualified attending practitioner completing the MCCD, interact with relatives to clarify any concerns or questions regarding the cause or circumstances of death, and review the MCCD.

All these steps must be completed before the death is registered, and the target standard is to achieve this within 24 hours of the medical examiner's office having received the records. Standards for delivering the medical examiners service have been published by the medical examiners committee of the Royal College of Pathologists.⁷

The Coroners and Justice Act 2009⁸ provides legal provision for

KEY MESSAGES

- Medical examiners provide independent scrutiny of medical records, supplemented by discussions with bereaved relatives, for all hospital deaths
- This assessment can improve recording of the cause of death, fulfil the need to say something about every death, and identify threats to patient safety
- Medical examiner assessment is not intended to make a judgment about preventability of death but to identify causes for concern
- Research is underway to determine how medical examiner assessment can work alongside case record review to provide a robust mortality review system



Impact of assessment

Since 2008, medical examiners have been established in pilot sites across the UK to help the Department of Health and Social Care refine its policy plans and establish the key functions of a medical examiner system.

In 2016 the department reported data from more than 23 000 medical examiner reviews of deaths at pilot sites in Sheffield and Gloucester, showing that the referrals to the coroner were more consistent and appropriate than referrals before medical examiners were involved, rejection of the MCCD by the registrar was eliminated (compared with historical rejection rates), and input from relatives occurred in every case.⁹ The pilot sites also identified some potential problems (see right).

A parallel study by the Office for National Statistics to examine the effect of medical examiners on the confirmed cause of death on the MCCD found that the International Classification of Diseases coding was changed in 12% of cases and less fundamental changes were made in a further 10%.¹⁰ MCCDs are known to contain inaccuracies and incomplete information,¹¹⁻¹³ which was corrected by the medical examiners. If replicated in a national system, this has major implications for epidemiology, public health, and allocation of resources. It is also important for bereaved people to have death certificates that accurately describe the cause of death.

The 2016 review also found that independent scrutiny of medical records, supplemented by discussions with bereaved relatives, was a consistent source of high quality information about the quality of care, irrespective of the nature of the problem or the type of organisation providing care (hospitals, general practice, social care, and so on). This indicates that medical examiners reviewing deaths could have a role in improving patient safety.

Improving patient safety

In December 2016 the Care Quality Commission reported that learning from deaths was not being given sufficient priority in some NHS organisations and that valuable opportunities for identifying and

Potential problems identified from the medical examiner pilots

- Half a day was added to the time from records being provided after death to the MCCD being released, compared with time taken before introduction of medical examiners
- The provision of an out-of-hours service was restricted by lack of funding
- The proposed funding model was not fully tested
- Attending doctors were initially circumspect
- There was a perception in some areas that the medical examiner told the attending doctor what to write, which would be inappropriate
- A small number of bereaved relatives were initially puzzled about the purpose of contact from the medical examiner

THE CURRENT SYSTEM FOR EXAMINING DEATHS IN ENGLAND AND WALES

A registered medical practitioner who has attended the dead person before death must complete a medical certificate of cause of death (MCCD) to the best of their knowledge and belief. If the cause of death is unknown or the death is thought to be unnatural in any way, the death must be referred to a coroner, who is an independent judicial officer with legislated powers. There is no second check of the cause or circumstances of death unless the body is to be cremated. The National Mortality Case Record Review programme aims to introduce a standardised method for reviewing case records of adults who have died in acute general hospitals in England and Scotland, but this detailed review is likely to be feasible for only a proportion of hospital deaths.

medical examiners, but this has not yet been enacted owing to the complexity of legislation affecting several government departments and uncertainty around funding.

The planned implementation of the initial non-statutory medical examiner system will focus on acute hospitals from April 2019, but some places will consider primary care deaths. The full statutory system is due to be implemented within two years to include all deaths not investigated by a coroner, including primary care.

making improvements were being missed.¹⁴ It identified the need to engage families and carers and to recognise their insights as a vital source of information. The Care Quality Commission now requires all acute hospital trusts to be able to “say something about every death.” In March 2017 NHS England launched the Learning from Deaths initiative,¹⁵ which required acute hospitals to undertake case record reviews on selected cases based on criteria most likely to yield opportunities for learning, reflection, and improvement.

NHS England did not stipulate any one method for case record review, but recommended structured judgment review.¹⁶ This uses a standardised clinical judgment based method and involves trained clinical reviewers making explicit quality and safety judgments, scores, and comments about the care provided, using a phase of care approach.

Medical examiners could help to meet these requirements. Their scrutiny of cases could be used to ensure that every death is examined and that families and carers are engaged, while allowing additional structured judgment review to focus on cases with clinical governance concerns. Early identification of clinical governance concerns provides opportunities to reduce avoidable deaths, as well as reducing complaints or litigation if bereaved relatives have their concerns recognised.

Estimating preventable death rates

Medical examiner review is intended to identify causes for concern requiring further investigation. Unlike structured reviews of hospital deaths, it is not intended to determine preventability.

Studies using structured judgment review have estimated that up to 5.2% of deaths are probably avoidable.¹⁷⁻¹⁹ But judgments regarding levels of preventability vary between observers,¹⁷ so each case requires agreement between independent reviewers. Uncertainty around this judgment has led many to conclude that structured judgment review is better used to identify concern themes rather than preventability in individual cases.

Unpublished data from the pilot of medical examiners (A Fletcher, personal communication) show that, of 3875 consecutive deaths, the medical examiner identified 153 cases with clinical governance concerns, where attending doctors were unaware of the issues. Examples include medical or surgical mishaps potentially leading to premature death, delays in giving correct treatments, and bereaved relatives drawing attention to system failures. This indicates that medical examiner screening before structured judgment review could substantially reduce the number of reviews required.

Valuable lessons from structured judgment review could, however, be missed if medical examiner assessment is too superficial or the threshold for clinical governance notification is too high. We currently have no data to determine how appropriately medical examiner assessment identifies threats to patient safety, although it serves the requirement to know something about every death.

The National Institute for Health Research's policy research programme has funded a study that will compare the findings of medical examiner assessment and structured judgment review as used in the National Mortality Case Record Review Programme at pilot sites.^{20,21}

These two processes are intended to be complementary, so inconsistencies are expected and

Medical examiners must be independent and able to make potentially critical assessments of NHS care

neither should be considered the gold standard. The study will provide valuable insights into how these two processes work alongside each other and determine how medical examiner screening influences the workload and yield of information from structured judgment review.

Hospital trusts needing to learn from all deaths may be tempted to use medical examiner screening to select cases for structured judgment review, but they must recognise the current lack of data to support this approach. Until findings from the research in progress are available, trusts should at least augment this approach with additional reviews selected using an alternative process.

Potential challenges

The timescale for implementing the medical examiner system is tight. Both the examiners and officers will come from a limited pool of senior clinicians who already face substantial demands, and they must have the correct skills and attributes. Key attributes include up to date knowledge of clinical medicine, the healthcare system, and general matters; pragmatism; good communication skills; and the ability to work in a team. New medical examiners will need training and existing medical examiners will need ongoing updates to ensure consistent quality of assessments. We need new data collection systems that can be linked to existing systems.

The initial plan for funding the system is to use fees for the second part of the cremation form, which poses logistical challenges—principally that cremation forms mandate an examination of the deceased in all cases, which can take up a considerable amount of time, and that applying this funding model to community deaths will be difficult. Introduction of the medical examiner system may also increase the workload of clinical governance and coroner services. The pilot sites were mainly based in hospital care so extending the system to primary care is likely to involve additional and potentially unforeseen problems.

Medical examiners must be independent and able to make

potentially critical assessments of NHS care, but ensuring independence—alongside the need for accountability and practical matters such as resources and data protection—will be challenging.

The national director for patient safety recently announced that medical examiners will be employed by NHS trusts, but they will have a separate reporting line to NHS Improvement and the national medical examiner. Ensuring that the many different stakeholders understand the changes resulting from the medical examiner system will be a communications challenge.

Next steps

The next steps in implementation include appointing the national medical examiner; organising funding streams (including from central government); publishing a national reporting system; establishing a digital system for data entry, sharing, and analysis; releasing updated e-learning modules; providing face to face training from the Royal College of Pathologists; and providing communication events and material to all stakeholders. The concurrent rollout of the National Mortality Case Record Review programme provides a system for more detailed investigation of cases identified by the medical examiner.

Medical examiner assessment and structured judgment review have different origins, purposes, and methods, so we should expect different results. But aligning these two important policy measures to give a robust independent system that is protected by statute has the potential to make the mortality review system in England and Wales the best in the world.

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OBITUARIES

John Edward Henderson

General practitioner Harrogate, north Yorkshire (b 1948; q Keble College, Oxford, 1973), died by suicide in February 2018

After graduating John Edward Henderson moved to north Yorkshire, where he and his childhood sweetheart, Pam, were raised and fell in love. He became a partner in a general practice and raised a young family. He was well loved by his patients and took a holistic approach to wellbeing, which inspired his children to follow him into medicine. John left the surgery prematurely as he struggled to meet the demands of change and proceeded to do locums for a couple of years before retiring quietly. In retirement he enjoyed singing, golf, helping with riding for disabled people, cycling and spending time travelling with his wife, and playing with his grandchildren. He ended his life unexpectedly by suicide after a challenging winter. He leaves Pam, three children, and eight grandchildren.

Liz Henderson, Chris Gibbons

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Sachchidanand Sinha

Professor of general surgery (b 1936; q Darbhanga Medical College, India, 1962; MS, MS, FRCS Glas, FRCS Ed), died after a short illness with heart and renal failure on 18 March 2018

Sachchidanand Sinha did a short service commission for the Indian Army in the Royal Army Medical Corps. He worked in the NHS in the 1970s but returned to the health service in India in 1978 and finally retired as a professor of surgery at Patna Medical College Hospital. He leaves behind a rich legacy of service to his community and a sense of duty towards his profession.

An avid golfer who took to the game late but played it with a passion, Sachchidanand was fond of gardening and yoga, and he loved spending time with his family. He leaves his wife, Indu; three sons, two of whom work for the NHS; and five grandchildren.

Sanjay Sinha

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John Galvin

General practitioner Wath-upon-Dearne, south Yorkshire (b 1928; q Leeds 1952), died from natural causes on 20 September 2018

John Galvin married Olga in 1954. After national service in Northumberland, he joined a general practice in Wath-upon-Dearne in south Yorkshire, where he later established his own practice. He swiftly established a reputation among his patients as a skilled and attentive doctor—and with the local chemists as the writer of all but indecipherable prescriptions. He would never allow an appointment system at his surgery—he stayed until he had seen everyone who needed him—and he made himself available all hours of the day and night. In recent years, his health failed, and dementia began to fog his mind, but he continued to charm the wonderful staff at Glebefields Care Home, Banbury, right until the end. Predeceased by his eldest son and by Olga, John Galvin leaves two sons.

Nick Galvin

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Montague W M Hadley

Consultant radiologist Inverness (b 1921; q Edinburgh University 1944; MD, FRCP, DMRD, FRCR), died from cardiac failure on 31 January 2018

Montague W M Hadley (“Monty”) joined the Royal Army Medical Corps in 1945 and was posted to India for two years. On his return to Edinburgh he took up research posts and eventually trained in radiology. He was delighted to return to Inverness in 1960 to take up a consultant radiologist post. He further developed nuclear medicine and introduced catheter angiography and mammography to the Highlands and Islands, with monthly clinic visits flying to both Caithness and Stornoway. He and his wife, Dorothy, celebrated their 70th wedding anniversary with a family party just two months before he died. Monty leaves Dorothy, four children, nine grandchildren, and seven great grandchildren.

Donald Hadley, Louise Roy, Aileen Taylor, Sheena Allan

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Naomi Shirley Richman

Consultant child psychiatrist, Great Ormond Street Hospital, London, and reader, Institute of Child Health, London (b 1934; q Middlesex Hospital 1958; MSc, FRCPsych), died from an infection secondary to Alzheimer’s disease on 16 June 2018

At the Institute of Child Health in the 1970s and 1980s Naomi Shirley Richman carried out studies of emotional and behavioural disorders in preschool children. In 1989 she worked in Mozambique, on a Save the Children Fund programme aimed at helping children traumatised by civil war. In Angola, central America, the Palestinian territories occupied by Israel, and southeast Asia, she organised training programmes for children exposed to violence. Naomi was active politically throughout her life. She did not have a family of her own, but had a close relationship with her niece, Rachel. She leaves Rachel, two nephews, and their families.

Philip Graham, Rachel Richman

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Donald Henry Ellis

General practitioner Birmingham 1951-92 (b 1926; q Birmingham 1948), died from myocardial infarction on 29 September 2018

Donald Henry Ellis (“Don”) was born and brought up in Birmingham’s deprived Bordesley Green ward, where he also practised as a GP from 1951 to 1992. National service gave him a lifelong interest in sports medicine and led to his working as the club doctor for Birmingham City Football Club. Don was a driving force behind the development of general practice locally and was committed to early computerisation, the support and development of his more junior colleagues, and the development of the primary care team. At Yardley Green Medical Centre he imbued his partners with a belief that caring for the old and the young was the bedrock of family medicine. He leaves his wife, Julie; three children; six grandchildren; and five great grandchildren.

Neil Brown, Elizabeth Nyholm

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Lisa M Schwartz

Devoted her career to improving transparency and understanding of medical evidence

Lisa M Schwartz (b 1963; q New York University School of Medicine 1989), died from cancer on 29 October 2018

Everyone in any way concerned about the state of contemporary medicine will be shocked and dismayed by the untimely death of Lisa Schwartz, professor of medicine and community and family medicine at the Dartmouth Institute for Health Policy and Clinical Practice and co-director of the Center for Medicine and the Media.

Schwartz was born in the Bronx, in New York City, on 30 June 1963 and qualified as a doctor in 1989. The following year she met Steven Woloshin while they were working as medical residents at Bellevue Hospital in Manhattan. Bellevue was founded in 1736 and is the oldest public hospital in the US, which somehow makes it a fitting setting for the creation of a partnership totally committed to the concept of public good within medicine. They married in 1992 and for the following 26 years shared the closest professional and personal relationship that I have ever been privileged to witness.

“Stumbling blocks”

Very soon after embarking on clinical work with patients, Schwartz and Woloshin began to raise fundamental questions about the validity of the apparent truths that they had been taught in medical school. As Schwartz told Carl Heneghan, professor of Evidence-Based Medicine, Oxford University, in 2017, they had been taught to regard “screening as love.” They would come to realise very quickly that the situation was far more complex than that.

At Schwartz’s funeral, Rabbi Edward Boraz linked her faith to her work by pointing out the Torah injunction: “Do not put a stumbling block before the blind.” He explained: “This is not to be understood literally, but rather figuratively. Do not withhold information that could cause a

person to stumble. What greater stumbling block could there be than not being fully aware of what kind of medicine one is putting into their body? This is what Schwartz dedicated herself to—she and Woloshin forced the healthcare industry to more accurately disclose the truth so that there would not be a stumbling block when it came to decisions regarding one’s health.”

Schwartz could spot the flaw in an argument or an academic paper faster than anyone else and was fearless in exposing it. Yet, as her many colleagues and students know, she did so with kindness, respect, and a sincere desire to help make things better.

Together Schwartz and Woloshin wrote well over 100 academic papers in which they systematically sought out and analysed each successive stumbling block that they saw coming between their patients and the potential benefits of medical science. They began with the pitfalls of words, writing a beautiful paper for *JAMA* in 1995, entitled *Language Barriers in Medicine in the United States*, which set the pattern for all their future work. They went on to explore the implications of expanding disease definitions, direct-to-consumer advertising, disease awareness campaigns, the exaggeration of risk, and the paucity of information provided for patients about medical tests, treatments, and screening, all of which serve to drive overdiagnosis and overtreatment. They collaborated with many other authors but always wrote together.

“Know your chances”

They realised early on that the key to change was patient and public understanding, and this led directly to their commitment to the education of journalists, mostly through the annual National Institutes of Health “Medicine in the media” courses. Here their teaching was based on



ROB STRONG

Schwartz could spot the flaw in an argument or an academic paper faster than anyone else and was fearless in exposing it

their 2008 book *Know Your Chances*, written with Gil Welch and available free online. This was aimed directly at lay people but proved a huge help to patients and professionals alike. Characteristically, they undertook a randomised controlled trial to show that the book really did improve understanding. They regarded keeping bad science out of the news as a triumph.

They applied the same methodology to their creation of the Drug Fact Box, designed to replace the opacity of the standard drug packet insert and, once again, they conducted an RCT to prove its effectiveness. The single most appropriate tribute to Schwartz would be for the Food and Drug Administration finally and fully to adopt her Drug Fact Box proposal.

In 2011 Schwartz was diagnosed with cancer and endured seven years of debilitating uncertainty, combined with the rigours of chemotherapy, during which she drew on her enormous reserves of determination and courage. She continued with every aspect of her life apparently undaunted: reading, writing, teaching, travelling, and lecturing. She leaves the three great loves of her life: Woloshin and their two children.

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MARK WASHBURN

Lisa Schwartz and her husband and research partner Steven Woloshin at Dartmouth-Hitchcock Medical Center, New Hampshire