this week

EXTENDED GP HOURS CUT A&E USE page 338 • **MEN B VACCINATION SUCCESS** page 340

Patient safety concerns stop strike

The BMA's cancellation of next week's five day strike by junior doctors in England was primarily due to warnings from trainees, senior doctors, and NHS managers that the safety of patients would be put at greater risk than in previous strikes, because of the strike's longer duration and the shorter notice given by the BMA of the action.

The BMA said in a statement on Monday 5 September that although it had provided more than the legally required seven days' notice NHS England said that it needed more time to plan for escalated action.

The BMA's Junior Doctors Committee said that thousands of junior doctors had contacted the BMA to express concern about patient safety in the event of a strike.

Medical directors and chief executives of trusts told *The BMJ* that the short notice of the planned strike had given them very little time to plan. "It would have meant that we had to cancel everything instead of having time to find out what could still go ahead," said one chief executive of a trust in the north of England.

The longer duration of the planned strike also contributed to concern. "The duration of the strike will cause a build up of problems over the week. You can't lose this amount of staff and not slow things down," said the chief executive of a trust in southeast England.

Trusts found it difficult to assess how many junior doctors were planning to join the strike, but it was generally thought that the number would be smaller than in previous strikes. Trusts thought that the main factors contributing to this were unwillingness to risk harm to patients and financial implications, because of the longer duration, and reduced support from colleagues and the public.

The medical director of a trust in the south of England said, "I wrote to all of our junior doctors last week to ask them (politely!) if they could let us know their intentions, accepting that they are not obliged to do so," adding that by the time the strike was called off the director had "not had a single response of any kind." This contrasts with previous strikes, when junior doctors responded to similar letters and around 70% went out on strike. "We certainly had an idea [then] of who was going to be around," the chief executive said. Trainees in foundation years 1 and 2 had only recently begun their current rotations (on 3 August), and this may have contributed to uncertainty.

Susan Mayor, London **Cite this as:** *BMJ* 2016;354:i4844

Thousands of junior doctors contacted the BMA to express concern about the effect of the planned five day strike on patient safety

LATEST ONLINE

- GPs told to encourage patients to use their private health insurance
- Psychiatrist struck off for repeated plagiarism
- Top transplant surgeon should never have been hired by Karolinska, inquiry concludes

SEVEN DAYS IN

JONOT LAURENT/SPL

Extending primary care cuts emergency visits

Providing additional GP appointments outside working hours reduces attendance at hospital emergency departments but may not save the health service money overall, research in *PLoS Medicine* has shown.

NHS Greater Manchester provided £3.1m to enable several groups of primary care practices to provide additional appointments outside regular general practice hours in 2014. The study compared 56 practices (serving 346 024 patients) offering additional evening and weekend appointments with 469 primary care practices (serving 2 596 330 patients) providing routine access.

Over one year, patients registered with the extended access practices had a 26.4% relative reduction, compared with patients at practices providing routine access, in patient initiated emergency department visits for minor problems, making 10 933 fewer visits a year (95% confidence interval −38.6% to −14.2%). For every three booked primary care appointment slots added to a practice's schedule, one visit to an emergency department was avoided.

The study also found a 26.6% relative reduction in costs of minor emergency department visits, but considering emergency department savings alone, extending primary care was unlikely to be cost effective, the researchers concluded.

Jacqui Wise, London Cite this as: *BMJ* 2016;354:i4818

Vaccination

NICE consults on vaccination rates

The National Institute for Health and Care Excellence launched a consultation on how to increase child vaccination in England in response to falling rates. It recommends following up missed immunisations with phone calls or texts and recording all vaccinations in GP records,

personal child health records, and child health information systems. Other plans include checking records of young offenders entering prison or other secure settings for any missed vaccinations. [doi:10.1136/bmj.i4769]

Funding

Planned cuts to pharmacy budget are delayed

David Mowat, health minister, announced at the Royal Pharmaceutical Society's annual conference in Birmingham that the government's planned 6% cut to community pharmacy funding in October would be delayed to "make sure that we are making the correct decision." The government had estimated that the £170m cut could lead to 3000 pharmacies closing, which pharmacy leaders argued would make it difficult for them to relieve pressure on GPs and emergency departments by providing health advice.

Surgery restriction

NHS England intervenes in CCG's surgery plan

NHS Vale of York clinical commissioning group (CCG), which had threatened to delay non-life threatening procedures by a year for patients with a body mass index above 30 and by six months for smokers, agreed to rethink the plan after NHS England intervened. NHS England can mediate because the CCG is under special measures.

Medicolegal

Doctor convicted of fraud is struck off

Anthony Madu (right), who qualified in Nigeria and worked as a registrar in obstetrics and gynaecology in Cardiff, was struck off the UK medical register after being convicted of fraud for working as a locum while on extended leave and sick leave without divulging his true circumstances to any of his employers. A Medical Practitioners Tribunal Service hearing considered the sanction "necessary in order to maintain the reputation of the profession." [doi:10.1136/bmj.i4761]

Dentistry

Patients go to GP with toothache

An estimated 600 000 appointments a year are made by patients requiring dental care, a study of GP consultations by the British Dental Association showed. Henrik Overgaard-Nielsen of the British Dental Association blamed the government for "ramping up England's dental charges." He told the *Times*, "Increasingly they look like a tax on health. These inflated charges are pushing those who can't pay towards overstretched GPs."

Air pollution

Childhood air pollution affects adult lung function

People who lived in the UK's most polluted areas as a child in the 1950s are nearly twice as likely to die from a respiratory condition as those who lived in the least polluted areas, showed a study reported at the European Respiratory Society Congress. To highlight the research, the Healthy Lungs for Life Campaign offered free lung function tests in three giant "clean air bubbles" in Trafalgar Square, London.

Respiratory conditions

Children's RTI admission risk is assessed

Seven characteristics in children with respiratory tract infections seen in general practice are independently associated with hospital admission, a study found: age under 2

MEDICINE

years; current asthma; illness duration of 3 days or less; moderate or severe vomiting in the previous 24 hours; severe fever in the previous 24 hours; body temperature of 37.8°C or more at presentation; and clinician reported wheeze on auscultation. Children with four or more of these have the highest risk of admission and should be monitored for signs of deterioration and followed up within 24 hours. Those with fewer features do not need immediate antibiotics. [doi:10.1136/bmj.i4763]

Vitamin D may cut severe asthma attacks

Taking vitamin D supplements in addition to standard asthma drugs reduced the risk of severe asthma attacks needing admission or emergency department care, a Cochrane review of clinical trials in adults and children found. A meta-analysis of placebo controlled trials lasting at least 12 weeks found seven trials including 435 children and two studies involving 658 adults. [doi:10.1136/bmj.i4809]

Obesity

Children gain weight in primary school years

One in 10 children starting primary school in England at a healthy weight is obese or overweight on leaving, figures from Cancer Research UK showed, and a third overall (33%) are overweight or obese on leaving. To highlight this, the charity transformed a shop front into an "XL" school uniform shop. It said that being overweight or obese contributed to 18 100 cases of cancer a year and that the government's childhood obesity strategy had not offered an adequate solution.

Exercise on prescription has been piloted in some areas

Councils urge GPs to prescribe exercise

The Local Government Association urged GPs in England and Wales to issue exercise prescriptions to obese or overweight patients outlining moderate physical activity goals, after pilot schemes in some areas. These may be for organised walks, conservation work, activities in parks, gardening at home, or exercise classes run by local councils. Izzi Seccombe, chair of the association's Community Wellbeing Board, said, "Not every visit to a GP is necessarily a medical one. By writing formal prescriptions for exercise, it would encourage people to do more physical activity."

Cite this as: *BMJ* 2016;354:i4836

OVARIAN CANCER

Deaths from ovarian cancer fell by 10% in EU countries between 2002 and 2012. Young women aged 20-49 years showed the greatest drop, attributed to use of oral contraceptives

SIXTY SECONDS ON . . . CBT

THE APP WILL SEE YOU NOW

Search online for "apps for depression" and you'll get more than a million hits. "People are starting to assume you can get therapy on a smartphone and we won't need CBT to be provided by health services anymore," explained Rona Moss-Morris, King's College London professor of psychology as applied to medicine, at a media update this week. But most people, when asked, choose therapy from a person rather than an app, she said. And this is particularly true for young people.

CAN YOU FORM A THERAPEUTIC RELATIONSHIP WITH AN APP?

A therapeutic relationship accounts for a lot of the effect of almost any therapy, and this is what's at the heart of CBT, said Michael Sharpe, professor of psychological medicine at Oxford University. "People are not going to make changes unless there is a trusting relationship, and one of the challenges of using technology is how to achieve this therapeutic relationship." You can get small effects with technology, but you don't get large, robust, or longlasting effects.

BUT CBT IS JUST TALKING, ISN'T IT?

It's much more interactive and exploratory than that. "It's a collaborative approach between the patient and the therapist, drawing out thinking patterns and behaviours that people find unhelpful and helping them to work on them," Moss-Morris pointed out.

HOMEWORK NOT TEACHER

An app can provide useful homework between therapy sessions but can't respond as elegantly as a trained therapist to help someone unpick the complexity of their situation, said Til Wykes, professor of clinical psychology and rehabilitation at King's College London. A seven choice tick list just doesn't hack it.

PUTTING APPS IN THEIR PLACE

We are not going to have enough skilled therapists in the near future for everyone to have one to one therapy. So trained therapists will use intelligent technology to boost outcomes and possibly reduce the number of sessions that people attend, said Wykes.

Sue Mayor, *The BMJ*

Cite this as: *BMJ* 2016;354:i4835

MenB vaccine programme cuts cases of meningitis and septicaemia

The number of cases of meningitis and septicaemia caused by meningococcal group B infection in infants has halved since the introduction of a new vaccine last year, Public Health England reports.

All newborn babies in the UK are now routinely offered the vaccination against meningococcal group B, the world's first infant programme to use this vaccine. In the 10 months since the programme began only 37 recorded cases of meningococcal B were recorded in infants aged under 1, compared with an average of 74 in the same period of the previous four years. Public Health England said that this year's number was 42% lower than a trend line through the past four years would have predicted.

Matthew Snape, consultant in general paediatrics and vaccinology and honorary senior clinical lecturer at Oxford University Hospitals NHS Trust, commented, "These are very exciting data, providing the first direct proof that the MenB [meningococcal B] vaccine works . . . It is especially encouraging to see such a clear result only 10 months from the introduction of the vaccine."

Campaigners have called for the vaccine to be made available to all children under 5. However, in July the Joint Committee on Vaccination and Immunisation rejected a call for the programme to be extended to all children under 2, saying that there was not enough stock of the vaccine. It added that vaccinating older children was unlikely to be cost effective.

ANGELA HAMPTON/ALAMY

Jacqui Wise, London

Cite this as: *BMJ* 2016;354:i4839

Hip fracture: surgeons and geriatricians must collaborate

A major audit of hip fracture surgery and follow-up care published by the Royal College of Physicians shows that not all patients receive properly planned rehabilitation from a multidisciplinary team.

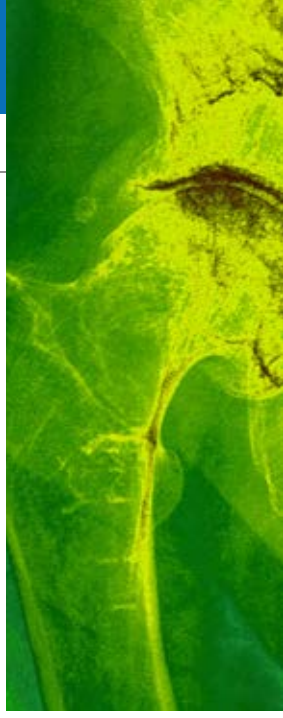
Guidelines from the National Institute for Health and Care Excellence (NICE) recommend that patients be treated as part of a "hip fracture programme" with collaboration between orthopaedic surgeons and geriatricians.

The RCP 2016 audit report looked at data on the care received by 64 864 people with hip fractures at 177 hospitals in England, Wales, and Northern Ireland during 2015. The data were derived from the National Hip Fracture Database (NHFD), which was set up in 2007 to improve care.

The report says collaboration between orthopaedic surgeons and geriatricians in coordinated programmes has led to improved care, as 72% of patients received surgery by their second day in hospital and 76% were able to get out of bed by the day after their operation.

However, some hospitals were still using a traditional, orthopaedic led model: only 44% of hospitals said that they provided shared care from surgeons and geriatricians. And some collaborations seemed to focus on the acute care of patients and paid far less attention to longer term rehabilitation, the report found. Only 67% of hospitals followed up their patients 120 days after admission.

The authors said that, despite improvements in outcomes achieved by innovative, collaborative working, hip fractures still posed a "major public health challenge." Hip fracture is associated with a total cost to health and social services



Hip fractures still pose a "major public health challenge"

ANTONIA REEVE/SPL

DATA ON CARE

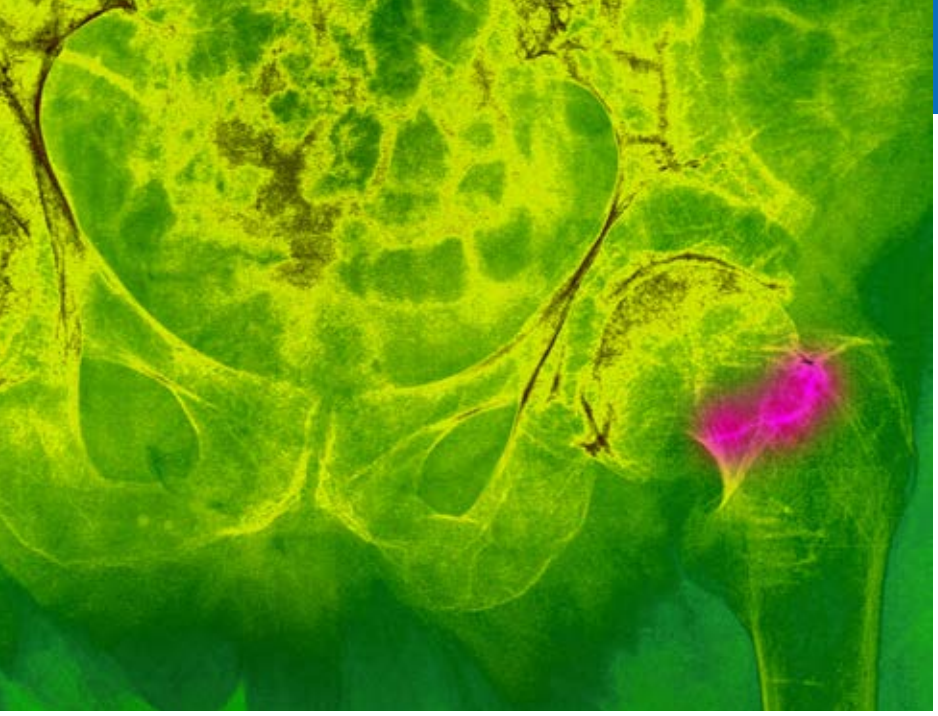
72% of patients received surgery by their second day in hospital and 76% were able to get out of bed by the day after their operation

Real world study: better test of new drugs?

A real world controlled effectiveness study carried out in unselected patients from UK general practices provides a better way of evaluating drug treatments for use in routine clinical care than standard randomised controlled trials, say the authors of a study in chronic obstructive pulmonary disease (COPD).

The Salford Lung Study randomly assigned 2799 patients with COPD to a once daily inhaled combination of fluticasone-furoate and vilanterol or to usual care. The patients were recruited from 75 general practices in Salford and south Manchester, where an established electronic record system connects primary and secondary care. This enabled the unobtrusive observation of patients for effectiveness and safety monitoring as part of their routine clinical care rather than requiring visits to research centres. It also meant a much wider population of patients than would be allowed by the strict inclusion criteria of a standard randomised trial.

To preserve the real world nature of the trial, the patients' experience was kept as close as possible to everyday clinical practice. The key investigators were the patients' usual GPs, who were able to select therapy for the usual care group based on their own clinical opinion, and



CAVALLINI JAMES/BSIP/SPL

Hip fracture: collaboration between geriatricians and orthopaedic surgeons improves outcomes

of over £1bn a year, and 1% of the NHS budget goes to caring for such patients. Hip fracture patients may remain in hospital for several weeks, taking up around 1.5 million bed days each year and equating to continuous occupation of more than 4000 NHS beds.

Antony Johansen, the NHFD clinical lead and a consultant orthogeriatrician at the University Hospital of Wales trauma unit, said, "Collaboration between geriatricians and orthopaedic surgeons was key to NICE's recommendation that patients are treated as part of a 'hip fracture programme.' The NHFD has documented the success of such programmes in delivering improved hip fracture care, but many are still focused on the first hours and days of care.

"Teams in acute hospitals must link with colleagues in rehabilitation and social care if hip fracture programmes are to deliver such care and to understand how this supports their patients' recovery."

The report recommends that clinical governance must extend beyond the acute part of the patient pathway of care for frail older people to include rehabilitation, intermediate care, and community elements. It also recommends that all hospital hip fracture teams undertake a 120 day follow-up as an integral part of the care they provide.

Jacqui Thornton, London

Cite this as: *BMJ* 2016;354:i4834

treatments were dispensed by community pharmacies.

Results at one year showed that the rate of moderate or severe exacerbations was reduced from 1.90 a year in the usual care group to 1.74 a year with fluticasone-furoate and vilanterol, representing an 8.4% reduction (95% confidence interval 1.1% to 15.9%; P=0.02). No significant difference was seen in the rate of COPD consultations.

Susan Mayor, London

Cite this as: *BMJ* 2016;354:i4796

WHAT IS A REAL WORLD COMPARATIVE TRIAL?

Real world comparative effectiveness trials evaluate treatments in a way that is much closer to routine clinical care than randomised trials by involving more representative patients and being conducted in less restricted environments. They compare one treatment with another in all patients with the condition being investigated rather than only those meeting strict entry criteria and are carried out by the health professionals providing their usual care, such as GPs, rather than by research staff working in clinical trial centres.

JUNIOR DOCTORS' STRIKE

It's time for serious dialogue, not playing politics

As public support wanes, the BMA must get real, argues **Andy Cowper**

To date the BMA has had five strikes over the new junior doctors' contract, without noticeable success in advancing its cause.

Worryingly for the BMA, new YouGov polling data for the *Times* show a fall in public support for the strike. YouGov's April polling found that 53% of people thought the doctors were right to go on strike, with 29% considering it wrong and 18% not sure. This week's poll finds those figures substantially changed, at 42% right, 38% wrong, and 20% not sure.

This industrial action was originally called because negotiations failed to produce a satisfactory new junior doctors' contract.

What changes to the contract would satisfy junior doctors' leaders and BMA members remains unclear. Their three main criticisms of the original proposed contract were regarding fairness, safety, and pay rates at weekends. The government gave ground on all these. This dispute now seems to be about the breakdown of trust between junior doctors and their employers, particularly over rota gaps, and highly variable (and allegedly absent) supervision. There is also no small element of party politics at work among a subset of BMA leaders.

ANDY COWPER, EDITOR, *HEALTH POLICY INSIGHT*

The politics from the government's point of view are simple. The new prime minister, Theresa May, is not going to open her term by backing down in an industrial dispute, especially on a manifesto commitment. May endorsed Hunt emphatically. Calls for his dismissal are naive.

It's hard not to sympathise with hardworking junior doctors, the future consultant workforce.

But junior doctors and their leaders need to realise what Hunt has grasped, that this dispute will be won in two places—in the long run and in the court of public opinion. If the BMA fails to rise to the challenge, its credibility and influence may be fatally impaired.

Cite this as: *BMJ* 2016;354:i4846

Junior doctors' dispute: where are we now?

Abi Rimmer looks at the remaining concerns in the dispute over the junior doctors' contract and how recent legislative changes could affect future industrial action

What are the remaining sticking points in the contract dispute?
The BMA says that it wants the government to lift the imposition of the contract and restart meaningful talks. It says that junior doctors still have serious concerns with the contract, particularly the effects it will have on those working less than full time. The BMA is also concerned about the effects on junior doctors working the most weekends, typically in specialties where there is already a shortage of doctors, such as emergency medicine.

Weren't these matters resolved when the BMA agreed a deal with the government?
In May Acas (the Advisory, Conciliation, and Arbitration Service), which facilitated talks between the BMA and the government parties, said that an agreement on a new contract had been reached. At that time the BMA said that key improvements to the contract, following the talks, included "recognition of junior doctors' work . . . across every day of the week" and "proper consideration of and provision for equality in the contract."

The BMA said that there had also been improvements to flexible pay premiums for specialties such as emergency medicine and psychiatry "to address the current recruitment and retention crisis" and "more rigorous oversight of the new guardian role to ensure safe working for junior doctors." Despite these reassurances, and support for the contract from Johann Malawana, then chair of the BMA Junior Doctors Committee, in July 58% of junior doctors and medical students in England who took part in a referendum voted to reject the proposed new contract. In July, the BMA surveyed its junior doctor members to gauge views on industrial action. The BMA has not published the results, but the *Daily Mail* has reported details of leaked BMA documents that it says show only 32% of junior doctors would support taking all-out strike action.

What is the basis of junior doctors' mandate for ongoing strike action?
The BMA's mandate for strike action has remained live since the association's ballot of junior doctors in November 2015. Of the 37 155 junior doctor members of the BMA balloted, 28 305 responded to the ballot (representing a 76% turnout), and of these 98% voted in favour of strike action.

Why did BMA Council have to approve the forthcoming strike action?
It is BMA policy for a committee, such as the Junior Doctors Committee, to take a request to take industrial action to the council where it must be approved. Previous industrial action was approved at the November 2015 council meeting.

When can a union take industrial action?
The Trade Union Congress says that the law sets many detailed requirements for industrial action including that the action is in relation to a work dispute (this would rule out, for example, action for political reasons); there is a majority in favour of the action; and

NEW RESTRICTIONS ON STRIKE ACTION

Changes are set to be introduced to trade union law later this year that will alter the way that unions are allowed to ballot for industrial action in the future. The act will set a six month time limit, which can be increased to nine months, if the union and employer agree, for industrial action to take place after a ballot, so that mandates are always recent.

The act will also require higher levels of union membership to support industrial action for it to go ahead. Chris Seaton, an industrial relations specialist at law firm Burges Salmon, explains that a simple majority of those voting will no longer be sufficient. "At least 50% of all eligible members must have voted to make the ballot valid," he says.

There will also be further restrictions on action that involves health services, which are classed as an "important public service" by the act. Under the rules, the proportion of health workers who have voted in favour of industrial action

notice has been given of the industrial action.

The public services union Unison says that for a union to be immune from liability when taking action there has to be a "trade dispute"—for example, a dispute about terms and conditions or the allocation of work or duties. The dispute should be real and substantial, and it cannot be a political dispute—that is, when a union is not really in dispute with the employer but is protesting about government policy, Unison says.

Chris Seaton, a partner at the independent UK law firm Burges Salmon who specialises in industrial relations law, explains that if a strike action by a union is purely a protest against government policy, it is not a trade dispute. If, for example, there had been broad agreement between the BMA and the government on the terms and conditions of a new contract, and the ongoing dispute was really about government policy, this might open up a potential challenge to whether this was an ongoing trade dispute or a protest against government policy, Seaton says.

Seaton says that, in his experience, whether industrial action is based on a "trade dispute" is rarely challenged. "I have advised on this in the past, but even if there are political undertones it is often not difficult for the unions to argue that the main reason for the dispute is to preserve jobs or working conditions."

Cite this as: *BMJ* 2016;354:i4841

must account for at least 40% of those entitled to vote, Seaton says. It is estimated that around 46-52% of eligible BMA members voted to strike in the junior doctors' ballot.

Seaton says that the forthcoming changes could potentially create significant hurdles in relation to the junior doctors' dispute. "Of course it was concerns around the disruption to emergency services that was part of the reason for these changes being proposed by the government," he says.

Reactions to the strike suspension

Doctors respond to the BMA's announcement that next week's strike action has been suspended. **Tom Moberly** reports

RICHARD THOMSON, consultant gastroenterologist and physician educator, Northumberland

"I sense that there was a great deal of unease among trainees at the latest round of strike action—a deep reluctance to get bogged down in trench warfare when all they really want to do is get on with doctoring. To me, this dispute is in essence emotional; when Jeremy Hunt chose to question trainees' sense of vocation he lit the blue touch paper for the #iminworkjeremy campaign."

TANAYA SARKHEL, surgical tutor and consultant orthopaedic surgeon, Surrey

"I'm relieved that the strike has been called off for next week. It was such short notice; the best way we can support our junior colleagues is to make the best preparations we can to keep patients safe. It will also allow the major structural problems of the NHS (rota gaps, closing services, GP pressures) to continue to be exposed without the narrative being clouded by industrial action."

ED SCHWARZ, GP trainee, Cornwall

"The current situation could easily be resolved by removing the threat of imposition and then re-entering negotiations and ensuring that the contract is fair and safe. Failing that, in place of strikes I think that all junior doctors should email their employers stating that they do not agree with the new contract and that any safety matters that occur as a result of these new contracts are solely the employer's responsibility. I am not sure further strikes are going to add to our cause, and five day strikes will alter public support."

STEPHEN GULLIFORD, consultant in acute medicine and clinical director for unscheduled care, Lancashire

"I welcome the suspension of industrial action next week by the BMA. This will serve to maintain patient safety and public faith in the profession. This winter is set to be one of the most challenging in history for the NHS, and its staff will be under intense pressure. Undertaking strike action during this time will achieve nothing other than exacerbate the situation and put patients' emergency care further at risk."

VICTORIA EWAN, year 7 specialty trainee and academic clinical lecturer in geriatric medicine, Newcastle upon Tyne

"My concern is that further strikes are unlikely to break the deadlock, and public support seems to be waning. I don't want any more strikes. But neither do I want to lose an entire generation of junior doctors. I still feel desperately disappointed that the real issues at hand have been misrepresented. We've neatly presented ourselves as a scapegoat for an underfinanced seven day NHS not delivering."

Cite this as: *BMJ* 2016;354:i4845

THE BIG PICTURE

An unhappy 10th birthday

For a decade the humanitarian charity Doctors of the World has been running a clinic in east London to help vulnerable people who are otherwise unable to access healthcare. The patients include refugees and undocumented migrants, some of whom have been trafficked or tortured.

For an exhibition to mark the occasion several photographers have contributed portraits of the clinic's users and volunteer staff. The Sri Lankan man pictured escaped to London after being tortured and forced to leave his country. No general practice would register him despite his needing urgent medical help.

Thelma Thomas, a GP and one of the clinic's volunteers, says, "Working at Doctors of the World breaks down myths and barriers—you're talking to people, not to migrants."

Since the clinic first opened in Bethnal Green in 2006 demand has tripled, and the clinic now has 1600 users a year.

Leigh Daynes, executive director of Doctors of the World, said, "Ten years on our Bethnal Green clinic is needed now more than ever as successive governments make it harder for vulnerable, destitute migrants to get the healthcare they are entitled to.

"Ignorance, discrimination, and exclusion continue to drive our patients underground. The people who come to our clinic are often isolated, desperate, and frightened."

The media gave prominence to the recent anniversary of the death of the 3 year old Syrian refugee boy Aylan Kurdi. Photos of his lifeless body washed up on a Turkish beach led to international outrage last September.

The United Nations Refugee Agency recently reported that worldwide 65.3 million people were displaced at the end of 2015, up from 59.5 million the year before—roughly the population of the UK. The vast majority (86%) are in developing countries. Half are children.

The exhibition, Undocumented: Healthcare for the Hidden, runs 7-10 September 2016 at the Four Corners Gallery, London E2 0QN. Doctors of the World is keen to find venues to host the show after that. See www.printsforrefugees.com to buy prints, with all proceeds going directly to Doctors of the World.

Richard Hurley, *The BMJ*

Cite this as: *BMJ* 2016;354:i4838

"Working at Doctors of the World breaks down myths and barriers—you're talking to people, not to migrants"
– Volunteer Dr Thelma Thomas

PHOTOS: KATIE PETERS & JENNY LEWIS/DOCTORS OF THE WORLD

EDITORIAL

Men who have sex with men: time to end the fixation with HIV

Attention must shift to broader inequalities in health and wellbeing

The collective emphasis of health interventions targeted at gay, bisexual, and other men who have sex with men remains focused on preventing sexually transmitted infection, to the extent that absence of HIV has come to be regarded almost synonymously with gay men's health.

Beyond HIV, health disparities in this group of men encompass a range of physical conditions, including asthma, cardiovascular disease, and cancer.[1] But it is in sexual health, mental health, smoking, and alcohol and recreational drug use that the inequalities remain most apparent. A companion document to the Public Health Outcomes Framework and Public Health England's draft strategy to promote the health and wellbeing of gay, bisexual, and other men who have sex with men highlights the synergy between these inequalities and emphasises a holistic approach.[4 5]

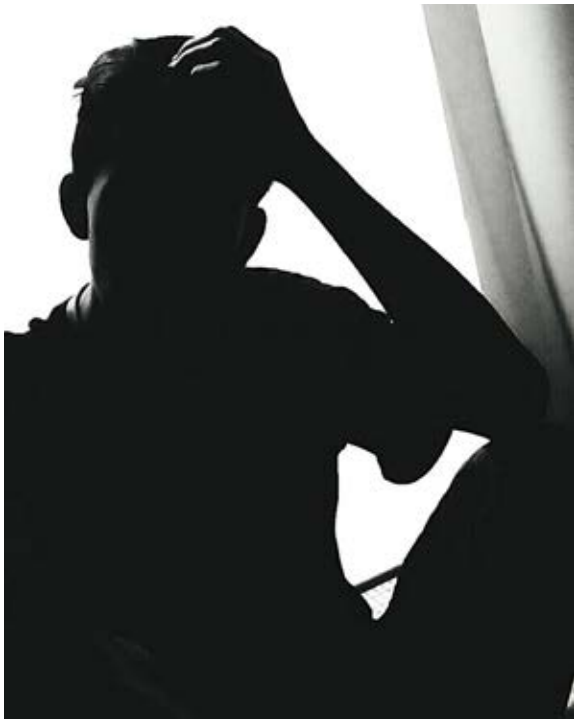
Decriminalisation and anti-discrimination legislation remain priorities globally. In 75 countries men who have sex with men risk arrest, conviction, and violence because of punitive laws.[6] A legacy of hostility remains in UK society. The advocacy group Stonewall reported that more than half of gay and bisexual UK school pupils experienced homophobic bullying.[4] Gay men also remain victims of hate crime and may be abused for public displays of affection.[6]

The minority stress hypothesis postulates that the stigma, prejudice, and discrimination experienced by minority groups drives mental and physical health problems.[7] Compared with heterosexuals, men who have sex with men are around 2.5 times more likely to experience a mental disorder at any point in their lifetime and six times more likely to have attempted suicide.[7 8]

Transforming societal attitudes and tackling abuse and bullying in schools remain priorities

A better understanding

Chemsex, the sexualised use of mephedrone, crystallised methamphetamine, and γ-hydroxybutyrate (GHB) or γ-butyrolactone (GBL), is associated with anal sex without a condom, other unintended risk behaviours, HIV, and sexually transmitted infections.[9 10] Understanding the motivation for drug use, chemsex, or any potentially self harming choice is key. In qualitative studies, some men who have sex with men report using risky sex to improve confidence or to ameliorate negative feelings such as loneliness, isolation, low self esteem, internalised sexual stigma, or HIV stigma.[9 12] We need a better understanding of the biological, psychological, social, and cultural motivation factors for risk taking behaviours and participation in chemsex as well as the broader social, legal, and health consequences of chemsex.



DAVID GONZALEZ/EYEEM/GETTY IMAGES

Transforming societal attitudes and tackling abuse and bullying in schools remain priorities. Sex and relationship education curriculums should become more inclusive, and we need to create safe environments for young men to explore their sexuality. Reporting of sexual orientation, already routinely done in sexual health services, should be extended to primary care, mental health, and substance use services as a first step to measuring the extent of need. Health professionals should receive cultural competency training to better serve the needs of this population. There is also a need to challenge cultural norms within gay communities and improve emotional literacy—understanding not only the consequences of risk taking but its motivations and triggers. The agendas of commissioners, policy makers, and national level funders, researchers, and the voluntary sector should be reoriented to tackle all health inequalities among gay, bisexual, and other men who have sex with men.

The narrow HIV focused prevention model should be abandoned. An approach that promotes health and wellbeing and takes specific action on the wider inequalities facing this population is more likely to achieve sustainable results. It also enables the inclusion of men who are already HIV positive. Harnessing the creativity and resourcefulness within gay and bisexual communities will be vital to inform and shape a much needed system-wide transformation.

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EDITORIAL

Unethical skin bleaching with glutathione

UK regulators must warn against this harmful practice

Skin bleaching is the misuse of skin lightening agents to lighten skin colour.[1] It is a purely cosmetic procedure which should be distinguished from the use of skin lightening agents by physicians to treat pigmentary disorders.

Skin bleaching is a global phenomenon practised by a range of people living in communities in Africa, North and South America, Asia, the Middle East, and Europe.[1] Agents used for skin bleaching include hydroquinone, topical steroids, mercurials, kojic acid, and sometimes products such as battery fluid and cement.[1]

Potential adverse effects associated with this practice include irritant and allergic contact dermatitis, exogenous ochronosis, infections, and systemic problems such as hypertension, diabetes mellitus, and renal disease.[1] In light of this, public health campaigns around the world have focused on educating communities about the dangers of skin bleaching.

Despite these efforts, anecdotal evidence suggests that there has been an increase in the use of parenteral glutathione for skin bleaching in the UK. This service is being provided by beauty and aesthetic clinics, and in some cases non-medical practitioners administer the parental glutathione. The cost of this "treatment" can be very high.

Advisory warning

There is, however, a lack of authoritative public health information in the UK about the efficacy and safety of this practice. In contrast, in the US the Food and Drug Administration (FDA) has recently issued an advisory warning on the dangers associated with the use of injectable skin lightening agents, such as glutathione.[2]

In the Philippines—where the use of parenteral glutathione for skin bleaching is common—both the FDA and the Philippine Dermatology Society have issued advisory warnings about the practice.[3 4]

Glutathione is a tripeptide consisting of cysteine, glycine, and glutamate.[4] It exists in two forms: an intracellular reduced form and an oxidised form. There are thought to be several reasons for the skin lightening effect of glutathione: its antioxidant properties; its ability to switch eumelanin production to pheomelanin (the type of melanin found in individuals with lighter skin tones); the inhibitory effect it has on tyrosinase (a key enzyme in melanogenesis) and its interference with the transfer of tyrosinase to premelanosomes.[5]

Evidence vacuum

Published data supporting the efficacy of systemic glutathione as a skin lightening agent are limited. One randomised, double blind, placebo controlled study conducted in Thailand demonstrated lightening in both sun and non-sun exposed skin in 30 subjects treated with oral glutathione.[6]

A second recent study also demonstrated similar skin lightening effects in 30 subjects who received a lozenge formulation containing reduced l-glutathione, as well as selenium, vitamin C, vitamin D_3, vitamin E, and grape seed extract.[3] Both of these studies involved a small number of subjects and had a short follow-up period.[3 6]

To date there are no published clinical trials that have evaluated the use of parenteral glutathione for skin bleaching. There are also no published guidelines for appropriate dosing regimens, or guidance for treatment duration when using this agent in this setting.

Pharmacokinetic studies in relation to parenteral glutathione have focused on the use of this agent intravenously in patients with reactive oxygen species injury, such as acute paraquat intoxication.[7]

Adverse effects reported in relation to the use of intravenous glutathione for skin bleaching include neurotoxicity, renal, and hepatic toxicity, transient headaches, and adverse cutaneous eruptions such as Stevens-Johnson syndrome and toxic epidermal necrolysis.[3 4]

Other potential risks include transmission of infectious agents, such as HIV, hepatitis C and B. This is of particular concern when non-medical practitioners administer this treatment.

Finally—given that glutathione plays an important role in mediating the switch from eumelanin to pheomelanin synthesis—there are theoretical concerns about the long term skin cancer risk.[4 6]

Although there is no explicit approval for the use of parenteral glutathione for skin bleaching in the UK, its use for this purpose appears to be increasing. Apart from the ethical issues raised by the practice, there are also concerns about efficacy and potential adverse effects. Clear public health information and advisory warnings in relation to this practice—from governmental agencies such as the Medicines Health Regulatory Agency—are needed in the UK.

Don't try this at home

Anecdotal evidence suggests that there has been an increase in the use of parenteral glutathione for skin bleaching in the UK

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BLOG OF THE WEEK Ara Darzi

Workload fears over online patient records

Since April 2016, all GP practices in England are required to give patients online access to a summary of their medical history.

By March 2018, the aim is to give patients full access to their GP and hospital record.

Just as digital technology has changed the way we bank and shop, it is already changing the way we access healthcare. Enabling patients to see their records, book appointments, and order repeat prescriptions online is making services more convenient, personal, and efficient, and giving patients more control.

That is the upside. But barriers remain. Making records available does not guarantee that patients will use them.

And there is professional scepticism. Research for the Sowerby e-Health forum, a group of experts investigating uses of medical data at the Institute of Global Health Innovation, at Imperial College London, shows almost two thirds (62%) of 152 GPs and more than a quarter of 350 hospital doctors (29%) fear that giving patients access to their records will increase their workload.

The research, due to be presented at a conference in London next week, found almost one in 10 GPs (9%) said it would make patients' health worse.

Less than one in five (19%) believed it would improve their health. Hospital doctors were only slightly more positive with just over one in four (29%) saying access would make patients' health better.

A key NHS target is to improve self care by people with chronic conditions. But the survey suggests GPs are pessimistic, with fewer than one in five saying access to records will improve these patients' understanding. Hospital doctors are more optimistic with more than half (58%) saying it will boost understanding.

Doctors have an understandable fear that the more patients trawl through their records and search the internet, the more problems they may raise.

An earlier study of patients in Norway who were given the ability to communicate with their doctors electronically found they raised more health concerns than in a face to face consultation. That improved satisfaction for the patients but appears to have left the doctors feeling overburdened and unable to decide where to focus their attention, with a potentially worse outcome.

A digital NHS will help put patients at the centre of care, and better able to manage their conditions, thereby reducing the burden on doctors. That is the goal. But doctors will need to be reassured that it will make their task easier, not more complex.

Ara Darzi is a surgeon and director of the Institute of Global Health Innovation,established to improve global healthcare through evidence based innovation He was a Labour health minister from 2007-09

To read this blog in full, and leave a response, go to bmj.co/sowerby

The wilderness of the medically unexplained

This is an extract from a patient perspective essay written by Lisa Steen, a GP and former trainee psychiatrist. She has since died. She describes her experience of having a medically unexplained diagnosis and the two years that it took to discover that she had cancer

Read the blog in full, and the debate it has triggered, at bmj.co/lisa_steen

Doctors get ill, and don't always know what's wrong. Give them a class A service. It is harder getting treated as a doctor than as a layperson

In June 2014 the junior radiology technician found a solid/cystic mass 10 cm in diameter arising from my left kidney.

I was initially jubilant thinking this would turn out to be a phaeochromocytoma—maybe dopamine secreting. And now I could have an "anxietyectomy." An urgent CT of the abdomen and pelvis was recommended.

The result was not cause for celebration. The mass was reported as looking like a renal cell carcinoma. There were also multiple sclerotic lesions in the spine, ribs, and pelvis reported as metastases.

I had just landed a job as GP Lead for Inclusion service, treating patients with drug and alcohol problems. But the news came just a few days after my interview and offer of the post. My progression through medical services was much more efficient after that.

I don't know how long I'll live. It probably won't be for many weeks. But right now I'm glad to be alive, and I'm grateful for the expensive drug which is holding back the cancer. And I'm angry at being left in the medically unexplained wilderness.

I had felt unwell in terms of dizziness and visual symptoms since August 2012, and presented to my GP in September 2012, nearly two years before my diagnosis was made in July 2014.

I almost told them [the doctors] the answer: I repeated over and over my belief of a genetic syndrome linked to the carotid body, something related to it, but they were unable to hear the answer from a patient. They were reluctant to lay their hands on and examine a fellow medic. I was disappointed in finding a very poor appetite for a diagnostic hunt, which may in part be the result of protocol and superspecialism. I disliked being unable to order my own tests, and I regret not pulling more strings. I was too embarrassed about my "psychiatric" condition, too confused by not having the whole answer ready.

My story is a cautionary tale to all health professionals when we get ill. Illness is somehow not the done thing. It upsets our "them/us" belief system, which helps us cope with the horror of what we see. "We do not get ill; they are ill." We are a lot more military than we realise.

We are trained to keep going, as if there was a war on. Our workloads are superhuman, and we seriously do not appreciate it if those around us "slack off," particularly those taking sick leave with depression or stress.

The communication was different: it didn't go the same way as if I was a non-medic. Doctors don't like being told what to do, and if you try to do it obliquely they don't notice. They don't worry much, as they assume that you'll come back. But it's hard getting to appointments when one is working, and just how many times can you come back if it gets worse?

Doctors get ill, and don't always know what's wrong. Give them a class A service. It is harder getting treated as a doctor than as a layperson.

Sepsis and antibiotics: finding the right balance

A series of patients dying unnecessarily from sepsis has increased public pressure on doctors to get better at spotting it. But some are concerned that NICE guidance may lead to many patients being given antibiotics "just in case." **Ingrid Torjesen** reports

In July the National Institute for Health and Care Excellence (NICE) published its first guidance on recognising, assessing, and diagnosing sepsis.[1] The guidance emphasises that health professionals must think about the possibility of sepsis in all patients who may have an infection and treat those who show signs of sepsis with the same urgency given to those who complain of chest pain that might be a heart attack.[2]

In hospitals, patients with suspected sepsis who meet at least one of several high risk criteria should have blood tests, and if sepsis is not excluded in one hour they should be given a broad spectrum antibiotic at the maximum recommended dose.

But some microbiologists and emergency medicine doctors warn that the guidance will increase the number of patients who may now be considered at high risk and could therefore prompt a big rise in unnecessary antibiotic prescribing at a time when huge efforts are being made to reduce prescribing and curb growing antimicrobial resistance. They also warn that prescribing antibiotics to seriously ill patients who turn out not to have sepsis could adversely affect their care.

The guideline is "incredibly complicated and thorough," says Stephen Brett, consultant in intensive care medicine and head of research for critical care at Imperial College Healthcare NHS Trust, but "it is unclear how it will be delivered practically" on the front line.

"There are certainly people who go under the radar and are missed because they don't have the obvious temperatures, hot and cold sweats, and low blood pressure, particularly elderly people in whom it may be less obvious," says Andrew Thompson, emergency medicine consultant at Musgrove Park Hospital. He says he can understand why the NICE criteria broaden the definition beyond these classic symptoms. But he adds that the "swing that is trying to capture the patients that we are missing" seems to have gone too far.

NICE CRITERIA FOR HIGH RISK OF SEPSIS

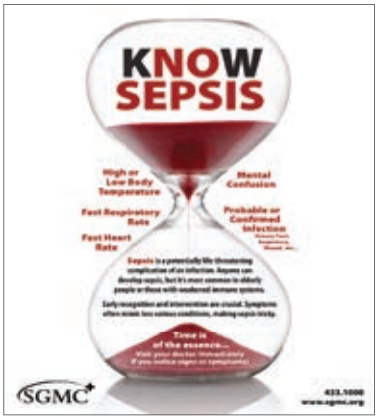
- Altered mental state
- Raised respiratory rate or new need for oxygen
- Raised heart rate
- Low blood pressure
- Urinary retention for 18 hours
- Mottled or ashen appearance

A large part of the problem is that there is no simple definition of sepsis

"Almost all our frailer patients will be meeting the criteria with very little difficulty," he explains, and while the NICE guideline does not say that these patients necessarily have an infection and need antibiotics, it says that you should assess them within an hour, do blood cultures, and start intravenous antibiotics if their lactate is high."

The UK Sepsis Trust estimates that there are around 150 000 cases of sepsis in the UK every year and that it kills around 44 000 people a year, with many survivors experiencing long term complications. Specific figures are hard to pin down because sepsis may not be recognised immediately when patients are admitted. Even when it is detected there is no diagnostic code for sepsis, and when deaths occur sepsis related conditions are often not selected as the underlying cause of death.[3]

Nevertheless, improvements are clearly needed in the identification and management of sepsis and in awareness of it among healthcare professionals. Identifying patients at risk of severe sepsis is notoriously difficult as its presentation can vary widely. Yet if it is not treated quickly it can rapidly cause organ failure and death. People with sepsis may present with non-specific, non-localised signs, and the guidance rightly wants clinicians to think: "Could this be sepsis?"



Problem of definition

A large part of the problem in finding the right balance between identifying more patients with sepsis and not treating patients rapidly for a condition they turn out not to have, is that there is no simple definition of sepsis. Most doctors rely on the systematic inflammatory response syndrome (SIRS) criteria (worsening temperature, respiratory rate, and heart rate) presenting with organ dysfunction. But some patients will meet the SIRS criteria without having infection, and other patients, such as those taking steroids and immunosuppressants, will not display the expected signs. "We need a better test or a better clinical sieve for sepsis," says Robert Baker, consultant in microbiology and lead for antibiotic prescribing at Musgrove Park Hospital.

A new consensus definition (Sepsis-3) was published in *JAMA* in February,[4] but the NICE guidance does not use this definition. Sepsis-3 recommended the use of simple clinical criteria called quick sepsis related organ failure assessment (qSOFA)—respiratory rate ≥22/min, altered mental state, systolic blood pressure ≤100 mm Hg—to help clinicians identify patients with suspected infection who are likely to have poor outcomes and require prompt escalation of care.[4]

The NICE guidance says: "The Guideline Development Group were aware that qSOFA did not identify about 20% of people at risk of mortality and the moderate to high risk criteria in the [NICE] guideline do result in a wider group being assessed but not getting immediate antibiotics."

On guard: spreading the word about sepsis

The new NICE guideline asks doctors to continue to watch for traditional SIRS signs but also to look out for additional criteria that may indicate sepsis; many of these are based on the patient's history and include altered behaviour, confusion, and deteriorating function.

"We need a better test or a better clinical sieve for sepsis" Robert Baker, consultant in microbiology

Time pressure

Thompson has started an audit on his acute medical unit in an attempt to identify how many patients would fit the new criteria. Initial results suggest it is nearly 70%. Usually around 30% of patients would meet the SIRS criteria. "The number of patients that we are trying to ask junior doctors to see promptly and assess is going to pretty much double," he says and he fears that many junior doctors will feel pressured to start intravenous antibiotics before they have had time to assess the patients properly.

"It's a very challenging target to deliver and will potentially distract doctors from the other patients who have equally important needs," he adds.

Although prompt antibiotic treatment is associated with good outcomes, the evidence to support delivering them within one hour is lacking. The NICE guideline states that after reviewing the evidence, the guideline development group "recommended antibiotics within one hour for those at highest risk to ensure that those people with highest risk would benefit." However, it adds, "Comparison of the evidence for benefit for reduction in mortality for antibiotics within 1 hour versus 3 hours was inconclusive."[1]

And the time pressure to assess patients is likely to lead to more antibiotics being prescribed unnecessarily. "No intervention is going to stop that junior doctor in good faith trying to do the right thing. If they are in doubt they are going to think I had better give antibiotics and then check with the boss the next morning," says Nathwani Dilip, chair of the Scottish Antimicrobial Prescribing Group for the Scottish government's stewardship programme and honorary professor of infection at the University of Dundee.

What about the harms?

Numerous studies have shown that sepsis campaigns pushing prompt treatment with antibiotics do improve outcomes for sepsis patients, but all these campaigns have failed to measure the unintended consequences of the resulting overzealous use of antibiotics,[5 6] including increasing antimicrobial resistance, says Dilip, who is president of the British Society for Antimicrobial Chemotherapy.

Regardless of the need for antibiotic stewardship, Baker says: "Antibiotics are drugs like any other, and they have side effects, and some of these side effects can be serious. People forget about that."

Antibiotics can cause serious allergic reactions and kill gut flora, increasing the risk of *Clostridium difficile* infection. Macrolides like azithromycin and clarithromycin have been linked to increased mortality from cardiac conduction defects,[7] particularly in elderly people; gentamicin may cause nephrotoxicity and ototoxicity[8]; and macrolides can interact with warfarin[9]; the list goes on.

Early antibiotics can also interfere with the diagnosis and management of a patient who turns out not to have sepsis. For example, in possible endocarditis or deep bone and joint infections they "make it difficult to identify an organism in the blood stream, and that makes all the difference to the management," says Baker.

There are around **150 000** cases of sepsis in the UK every year and it kills around **44 000** people a year

One of the aspirations set out in the final report from the government commissioned antimicrobial review, published in May, is that by 2020 testing technology and data should be used to inform antibiotic prescribing decisions.[10] Yet according to Brett, tests that are able to provide "in near real time an identification of an organism and potentially its resistance patterns" will be available within a decade.[11]

"In the absence of rapid and accurate diagnostic tests, prescribing antibiotics only to those that need them is particularly challenging for physicians presented with potentially life threatening infections," says Laura Piddock, deputy director of the Institute of Microbiology and Infection, University of Birmingham, and director of Antibiotic Action. "Therefore, it is very important that everyone 'starts smart, then focuses,' regularly reviews antibiotic treatment, and stops it when there is no evidence of bacterial infection."[12]

This year's Commissioning for Quality and Innovation framework for NHS providers includes a new target to encourage a review of the need for antibiotics within 72 hours. Research shows that the decision to discontinue or change to a narrower spectrum antibiotic does not cause harm, even in patients with severe sepsis.[13]

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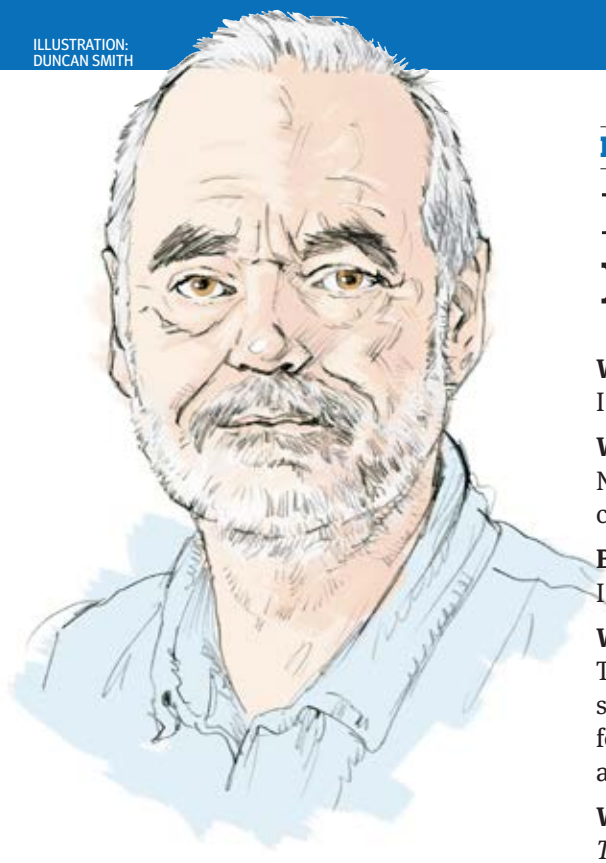

ILLUSTRATION: DUNCAN SMITH

David Spiegelhalter, 63, is Winton professor of the public understanding of risk at the University of Cambridge and the man who put the fun into funnel plots. A statistician, he cut his teeth on the Kennedy inquiry into deaths at Bristol Royal Infirmary and has made important contributions to understanding and presenting risk. He is the author of *Sex by Numbers*, a statistician's take on the eternal theme. He may be the only participant in the TV programme *Winter Wipeout* to have subsequently been knighted. He also claims to be world champion at Loop, a version of pool played on an elliptical table with a single pocket.

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David Spiegelhalter
Dislikes Hunt's use of statistics

What was your earliest ambition?
I wanted to be a racing driver. I was obsessed with cars.

What was the worst mistake in your career?
Not having a gap period after university to go somewhere utterly different and be challenged in ways other than doing stats. And trying stand-up comedy.

Bevan or Lansley? Who has been the best and the worst health secretary?
I don't know, but I'm not a great admirer of Jeremy Hunt's use of statistics.

What single unheralded change has made the most difference in your field?
The internet. But apart from that obvious candidate, the development of simulation based statistical methods, which freed statisticians from searching for the kind of neat mathematical solutions, usually based on utterly unrealistic assumptions, that still obsess economists trying to win a Nobel prize.

What book should every doctor read?
The House at Pooh Corner, for a lasting depiction of wise humility.

What music would you like mourners at your funeral to hear?
I'd be torn between "Erbarme dich, mein Gott," from Bach's *St Matthew Passion*, and "Pretty Vacant" by the Sex Pistols.

What is your guiltiest pleasure?
Sitting (alone) while watching *Plebs* on television and eating upmarket crisps.

What is your most treasured possession?
I don't care too much about possessions, except perhaps my original Crapper toilet, which I move from house to house, and family photographs.

What, if anything, are you doing to reduce your carbon footprint?
Not enough, but I'm trying to cut back on ruminant meats.

What personal ambition do you still have?
To walk 1000 miles in one stretch—I walked 500 miles to Santiago de Compostela, a highpoint of my life.

Summarise your personality in three words
Positive, methodical, unimaginative.

Where does alcohol fit into your life?
It fits very nicely, thank you very much. We've had a mixed relationship but seem to have reached an accommodation.

What is your pet hate?
Being patronised (I was youngest in the family and in every school class). Perhaps it's why I get so infuriated when authorities patronise the country by trotting out badly interpreted statistics.

Do you have any regrets about becoming a statistician?
Absolutely none—it's a wonderful job, combining analytical rigour with real life problems and difficult concepts with the need to provide clear explanations for people with no interest in the details.

If you weren't in your present position what would you be doing instead?
Trudging long distance footpaths while muttering to myself, wintering in India, doing amateur history, and writing self published books for a tiny audience.

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