this week

PSA SCREENING page 380 • **WINTER PRESSURES NOW YEAR LONG** page 382

BMA considers strike options

The BMA Council was set to debate the next steps for junior doctors in their contract dispute at a meeting on Wednesday 14 September, before *The BMJ* went to press, against a backdrop of growing calls from junior doctors to ballot again before pressing ahead with five day strikes planned for October, November, and December.

Last week the BMA called off a five day strike due to start on Monday 12 September after thousands of junior doctors contacted the BMA to express concern about the safety of patients in the event of such a prolonged withdrawal of their labour.

Several junior doctors have since raised the option of a second ballot in Twitter discussions. "The BMA has a duty to see what we want," said Aoife Abbey (@WhistlingDixie4), a junior doctor in the West Midlands, adding, "The mandate is no longer applicable." In a challenge to the BMA the ophthalmology registrar Thomas Nixon (@TRWNixon) said, "Junior doctors on the ground don't want this action. If I'm wrong, prove it with a ballot." London junior doctor Steven Duckworth (@perpetualSHO) said, "I won't be joining this industrial action unless there's another ballot or BMA polling is released," referring to an unreleased poll of junior doctors' views of different types of action.

Rachel Clarke, a junior doctor in Oxford, wrote in her doctoroxford.com blog, "Is the BMA junior doctors committee really unable to concede that calling for extreme industrial action in the absence of clear goals and objectives was a step too far?"

Most members of the BMA Council contacted by *The BMJ* would not be drawn on whether there should be a second ballot before the planned five day strikes, but a few said that in their view a second ballot was needed.

Council member Peter Holden told *The BMJ*, "My personal view is that there should be a second ballot. A five day strike is a long haul, giving very particular stresses to NHS services," adding that he would be happy with one day strike action on the basis of the original ballot last November.

Council member David Bailey said, "The initial ballot clearly wasn't based on the deal finally negotiated. And juniors have since voted to reject that but not for further industrial action."

The council's meeting this week was also due to discuss forms of industrial action as an addition or alternative to strikes.

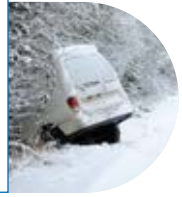
Susan Mayor, London

Cite this as: *BMJ* 2016;354:i4981

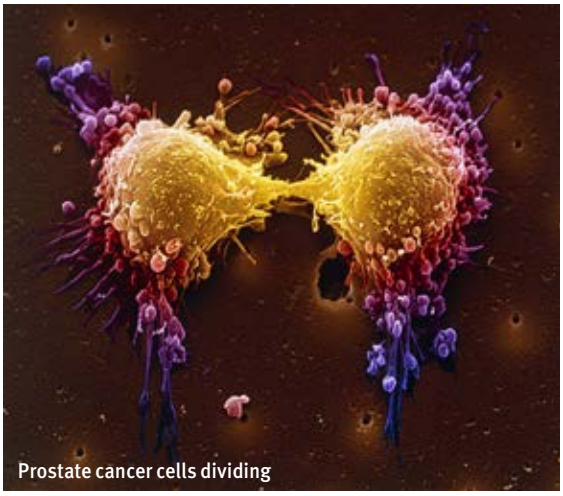
Rachel Clarke (left), a junior doctor in Oxford, said, "Personally, I cannot support further strikes when I'm so confused about what their aim is"

LATEST ONLINE

- Strike action will intensify winter pressures on A&E
- Cochrane review supports e-cigarette use for quitting
- Taliban militants kill doctor working to eradicate polio



SEVEN DAYS IN


STEVE GSCHMEISSNER/SPL

Prostate cancer cells dividing

Risk of dying from early prostate cancer is low

The risk of dying from early stage prostate cancer, detected by a prostate specific antigen (PSA) test, is very low—no more than 1% over 10 years—irrespective of whether the tumour is treated with surgery, radiotherapy, or active monitoring, concludes a study published in the *New England Journal of Medicine*.

The study involved 82 429 symptomless men aged 50 to 69, drawn from UK general practice lists and given a PSA test from 1999 to 2009. Localised prostate cancer was diagnosed in 2664 men, 1643 of whom agreed to be randomly assigned to active monitoring (545), surgery (553), or radiotherapy (545).

Of the 545 assigned to active monitoring, 291 had been treated with surgery or radiotherapy by the end of 2015.

After an average of 10 years' follow-up, prostate cancer survival was 99% in all three groups (P=0.48). But the number of men whose disease had progressed or spread was higher among those who had been actively monitored (112 *v* 46 with either surgery or radiotherapy), although no disease progression was seen in three in four of them.

Caroline White, London Cite this as: *BMJ* 2016;354:i4984

Drug laws

Government urged to relax medicinal cannabis laws

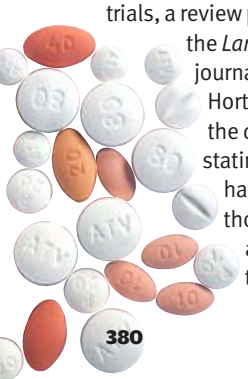
Cannabis should be legalised for medicinal use, the All Party Parliamentary Group on Drug Reform has urged. The group called for the drug to be relisted from schedule I to IV to enable people with conditions such as chronic and severe pain, insomnia, and depression to obtain it "without suffering the added stress of breaking the law." (doi:10.1136/bmj.i4986)

Statins

Review downplays worries about adverse effects

The benefits of statins have been underplayed and the harms exaggerated because too much emphasis has been placed on observational studies and too little on randomised controlled trials, a review published in the *Lancet* found. The journal's editor, Richard Horton, said that the controversy over statins had probably harmed the health of thousands of people across the UK and that the review aimed to better inform patients and their doctors. (doi:10.1136/bmj.i4893)

EDITORIAL, p 388



Cancer

Three in four do not know obesity link to cancer

An online survey of 3293 people by Cancer Research UK showed that nearly 75% of respondents (2457/3293) were unaware that being overweight or obese increased a person's risk of developing cancer.

When asked about specific cancers, respondents were more likely to see a link with cancers in organs linked to digestion—the bowel (60%), liver (55%), and pancreas (47%)—than in other organs, such as the breast (31%), womb (21%), or ovary (22%). (doi:10.1136/bmj.i4898)

Zika

WHO lengthens safe sex advice

The World Health Organization strengthened its advice on preventing sexual transmission of the Zika virus and recommends that men and women practise safe sex for six months after returning from an infected region, even if they have no symptoms. It previously said that only returning men needed to practise safe sex and for just two months. (doi:10.1136/bmj.i4897)

Junior doctors

NHS chief executive warns over length of strikes

NHS England's chief executive, Simon Stevens (right), warned junior doctors that their planned five day strikes will do patients "no good" and that trusts will be unable to guarantee safe care. Three separate five day strikes are planned for October, November, and December. "We should be in no doubt that it will not be possible to ensure there will be no harm to patients even with several weeks' notice," Stevens said. (doi:10.1136/bmj.i4895)

IT systems

Health secretary promises "world class" hospital IT

England's health secretary, Jeremy Hunt, pledged to improve and extend the NHS's digital services, bolstered by a staff skills academy and an "Ivy League" of exemplar trusts. His pledge coincided with the Wachter review, Making IT Work, which found that, although GPs in England had led the way in delivering electronic records, hospital IT systems were "not up to scratch" and were impeding efforts to improve care. Hunt described the findings as "sobering" and "too important to ignore." (doi:10.1136/bmj.i4913)

NHS plans online symptom checker

Hunt also unveiled plans to remodel the NHS 111 triage service to enable patients to input symptoms and receive tailored advice or a call back from a health professional. The plan is part of a £4.2bn health technology package that will also enable patients to book appointments, access medical records, and order prescriptions on a new NHS.uk website. (doi:10.1136/bmj.i4905)

MEDICINE

Sugar

Sugar warnings have not reduced children's consumption

Children in England consume two to three times the recommended daily amount of sugar, figures from Public Health England showed. It advises that sugar should account for no more than 5% of daily calories, but the National Diet and Nutrition Survey found that the average in 2012-14 was 13.4% in 4-10 year olds, 15.2% in 11-18 year olds, 12.3% in under 65s, and 11.1% in over 65s.

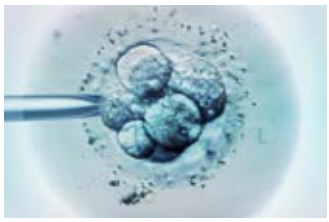
Sugar industry funded dietary research

In 1967 the Sugar Research Foundation paid three nutrition professors at Harvard University to publish a research review in the *New England Journal of Medicine*, focusing on fat and cholesterol as the dietary causes of coronary heart disease and downplaying sugar consumption, a report in *JAMA Internal Medicine* showed. (doi:10.1136/bmj.i4936)

Egg freezing

Scrap 10 year limit, lawyer says

The Human Fertilisation and Embryology Act 1990 allows eggs to be stored for 10 years, but this time limit should be scrapped, a lawyer wrote in the *Journal of Medical Ethics*. Emily Jackson, professor of law at the London School of Economics, noted that the statutory storage time limit requires the eggs of a woman storing them at the optimum clinical time to be destroyed around her late 30s. This, says Jackson, "represents an interference with her right to respect for her family life, which is neither necessary nor proportionate."



Children in England consume two to three times the recommended daily amount of sugar

Poverty

Charity calls for action to alleviate poverty by 2030

The Joseph Rowntree Foundation said that ministers should set a target for 2030 for a UK where no one is ever destitute, fewer than 10% are in poverty at any one time, and no one remains in poverty for more than two years. The foundation is urging policies to improve education and skills, strengthen families and communities, boost incomes, and end people on low incomes paying a premium for goods and services.

Richest 1% own 20 times more than UK's poorest

The charity Oxfam urged the prime minister, Theresa May, to tackle inequality after it released a report saying that the richest 1% own more than those in the bottom 20% of the income scale—around 13 million people. The briefing said that, if urgent action is not taken, nearly 400 000 more households could be in poverty by 2030.

Cite this as: *BMJ* 2016;354:i4966

DIABETES

3.8 million people in England aged over 16 had diabetes in 2015, or around **9%** of adults, data from Public Health England show

SIXTY SECONDS ON . . . DEPARTMENT OF HEALTH ACCOUNTS

THEY'RE THE GOLD STANDARD FOR GOOD ACCOUNTING, OBVIOUSLY?

No. The House of Commons Public Accounts Committee has described the Department of Health's most recent set as "rotten."

WHY, AREN'T THEY ACCURATE?

Slightly out. They contain details of an unexpected £417m windfall in national insurance contributions that the health department had failed to declare to Her Majesty's Treasury.

I SUPPOSE THEY HAVE TO PAY THAT WINDFALL BACK?

HM Treasury is not asking for it, probably because the mistake, which the health department has described as "an administrative error," turned the department's potential £207m deficit into a £210m surplus. Don't expect that they will be so generous if there are any such mistakes in Jo Public's tax return.

SO, WHAT WAS THE EXCUSE?

Brexit, apparently. Chris Wormald, permanent secretary at the health department, said, "There was quite a lot going on at that period, and it was seven days after the formation of a new cabinet."

AT LEAST THEY FILED THEM PROMPTLY?

Depends how you look at it. They were laid before parliament five months in advance of the statutory deadline, to coincide with the publication of a plan by the NHS on how it was going to reset finances.

THAT'S GOOD, ISN'T IT?

Not exactly. They were actually laid before parliament on the last day before MPs rose for the summer recess in July—seven days after they had been signed off by the comptroller and auditor general. The chair of the Public Accounts Committee, Meg Hillier, described this as "sailing too close to the wind" and said it was "an underhand attempt" to cover up the poor state of the health department's finances.

Anne Gulland, London

Cite this as: *BMJ* 2016;354:i4978

NHS winter pressures are becoming an all year reality, warn experts

The intense extra workload pressure often experienced by the NHS in winter has become a year long experience, say experts responding to the publication of the latest official data on the performance of the NHS in England.

NHS England's combined performance summary data show an NHS that is missing many of its targets and hitting new record lows for performance in some areas.

The data for July 2016 show that 90.3% of patients were seen within four hours in hospital emergency departments, down from 95% in the same month last year, and that 37 500 waited more than four hours for admission after the decision to admit, double the 17 300 last year.

Waiting times for elective treatment also rose, with 91.3% of patients starting consultant led treatment within 18 weeks, the worst performance since 2011. The target is 92%.

Delays in discharging patients from hospital were also up: there were 184 200 total delayed days in discharging patients from hospitals in July, which compares with 147 400 in the same month last year (a 25% rise).

"It feels as if the NHS has stepped through the wardrobe and into the perpetual winter of Narnia"—Clare Marx, president of Royal College of Surgeons

THE LION, THE WITCH AND THE WARDROBE

DELAYED DISCHARGES

There were 184 200 total delayed days in discharging patients from hospitals in July, compared with 147 400 in the same month last year—a 25% rise

Clare Marx, president of the Royal College of Surgeons, said, "It feels as if the NHS has stepped through the wardrobe and into the perpetual winter of Narnia.

"The sorts of winter pressures on waiting times and accident and emergency services are continuing well into summer. We would usually expect an improvement in waiting times over the spring and summer months—however, the government's target for consultant led referral to treatment waiting times has not been met since February.

"We cannot forget that behind these statistics are potentially very ill and anxious patients who are being made to wait far too long for treatment."

Patients' treatment was often delayed because of a lack of beds, Marx added. "The forthcoming autumn statement offers an opportunity for the government to provide more money for the NHS and social care and to agree to a cross party commission to review how we can make the NHS sustainable for the long term."

Nigel Edwards, chief executive of the health think tank the Nuffield

Patient threatens legal action over hep C compensation

A man infected with hepatitis C through NHS treatment with contaminated blood is threatening legal action against the government over a new compensation scheme, which he claims is unlawful.

Lawyers for Alex Smith, 61, have written to Jeremy Hunt, health secretary for England, threatening to go to the High Court unless he makes changes to the scheme to put those with hepatitis C on an equal footing with those infected with HIV through blood.

Thousands of patients, mostly with haemophilia, became infected with HIV and hepatitis C through blood imported from the US in the 1970s and 1980s, much of it bought from high risk donors, such as prisoners.

Under the current discretionary compensation scheme for England patients with HIV get annual payments, but patients with hepatitis C are eligible only if their disease has progressed to stage 2 (cirrhosis, primary liver cancer, B cell non-Hodgkin's lymphoma, or liver transplant).

The new scheme proposes annual payments of £3500 for those with stage 1, chronic hepatitis C, and £15 500 for those with stage 2 hepatitis C or HIV. Those with both would get £30 500 a year. The scheme also sets up a special appeals mechanism for those with stage 1 hepatitis C who feel the effects on their health qualify them to ask for their annual payments to be increased from £3500 to £15 500.

Smith's solicitors, Leigh Day, argue that the scheme is unlawful

RECORD DEMAND ON NHS IS PUSHING SERVICES ABOVE SAFE THRESHOLDS, KING'S FUND REPORT WARNS

Record levels of demand on the NHS in England are straining the service as growing numbers of people attend emergency departments, wait for elective procedures, and have their hospital discharge delayed, the latest quarterly monitoring report from the health think tank the King's Fund warns.

- Just over a million patients were admitted to hospital from emergency departments in the first quarter of 2016-17, 14 200 more emergency admissions than in the first quarter of last year.
- The number of patients attending emergency departments rose to 5.8 million, 54000 more than in the same period last year.
- More than 90% of beds were occupied by patients—well above the 85% threshold that is generally considered safe in the first quarter of the year.
- In the first quarter of 2016-17 almost a tenth (9.7%) of patients spent longer than four hours in the emergency department, the highest level at that time of year since 2003-04.
- At the end of June this year, 6100 patients were medically fit to leave hospital but were still awaiting discharge—the highest number since data collection began and an increase of 22% on June 2015.
- The total elective waiting list of patients continued to grow, with an estimated 3.8 million patients waiting for treatment in June 2016, the highest level since December 2007.

Cite this as: *BMJ* 2016;354:i4910

Trust, said, "Today's statistics, covering July, show that the days of a traditional summer respite for the NHS are gone for good. The figure for delays in discharging patients from hospital is particularly worrying—up by a quarter in just 12 months."

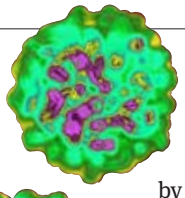
The Society for Acute Medicine's president, Mark Holland, said that the new data reflected a "system which is close to breaking down." He added, "Performance is most significantly hampered due to our inability to discharge people at the back door of our hospitals. Failure to get people home is, in my view, a national emergency."

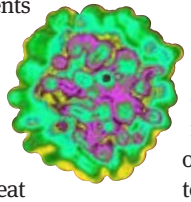
Matthew Swindells, NHS England's national director for operations and information, said, "Hospitals are continuing to look after more than nine out of 10 A&E patients within four hours, and more than nine in 10 patients are waiting less than 18 weeks for their routine operations.

"While this is probably the best performance of any western nation, these figures underline the pressures facing the NHS and the obvious risks to patient care posed by weeks of further drawn-out industrial action."

Adrian O'Dowd, London

Cite this as: *BMJ* 2016;354:i4907





in discriminating between those with HIV and hepatitis C. They state that the government said in 2011 that the case for greater similarity between payments for HIV and hepatitis C infection was "based on the argument that the impact on quality of life of living with chronic hepatitis C is at least as great as that of living with HIV."

Rosa Curling, human rights solicitor at Leigh Day, said, "It has been over 18 months since we first wrote to the Department of Health raising our clients' concerns about the discrimination faced by hepatitis C sufferers as a result of this scheme."

A spokesperson for the Department of Health said, "The department is more than doubling its annual spend on the scheme. . . and is therefore able to provide an annual payment to all infected individuals for the first time."

Clare Dyer, *The BMJ*

Cite this as: *BMJ* 2016;354:i4937

FIVE MINUTES WITH . . .

Steve Rolles

The policy analyst for Transform Drug Policy Foundation reacts to new figures on drug deaths

"The government has been claiming for a long time that its drug policy is successful, because overall levels of drug use are dropping. But most of the drop is down to the fall in cannabis use, which is not associated with drug related deaths.

"The majority of the deaths [reported by the Office for National Statistics, which show that the number of drug poisoning deaths in England and Wales are at a record high] are opiate related. There's an ageing population of injecting heroin users who are now dying in worrying numbers. They have multiple health issues: a lot of them have hepatitis, HIV, or tuberculosis, so they're already vulnerable, but that's not a reason for them to be dying of overdoses.

"The government has shifted its approach from one of harm reduction to a more ideological commitment towards abstinence. Our concern is that we're now restricting people's access to proven harm reduction services.

WE NEED DOCTORS ON THE FRONT LINE, NOT THE POLICE

"Despite the evidence, the government is still refusing to entertain the idea of supervised injection facilities, where people who inject drugs bring their drugs and take them in a supervised, hygienic space. They're given clean injecting equipment, and if they have an adverse event, such as an overdose, someone is there to look after them. No one has ever died in a supervised injecting facility.

"These programmes show that by bringing people into daily contact with health professionals you can improve health, reduce offending, and make drug users more likely to access other treatment services. But if you criminalise and stigmatise users the opposite is likely.

"This is a public health problem, and we need doctors and health professionals on the front line, rather than the police and the judiciary.

Anne Gulland, London

Cite this as: *BMJ* 2016;354:i4930

See www.bmj.com/news

Junior doctors' High Court challenge to Hunt

As the junior doctors behind Justice for Health prepare for next week's judicial review of the decision to impose a new contract in England, **Clare Dyer** looks at the case

Next week the dispute over the new contract for junior doctors in England moves from the picket line to a new battleground: the Royal Courts of Justice in London. On 19 and 20 September five junior doctors are mounting a legal challenge in the High Court to health secretary Jeremy Hunt's power to impose the contract on them.

How has the case got to court?

Five junior doctors—Marie-Estella McVeigh, Francesca Silman, Ben White, Nadia Masood, and Amar Mashru—raised money using the online crowdfunding platform CrowdJustice. They raised £300 000 from more than 5000 donors.

They secured the services of Bindmans, a public law firm, and set up the company Justice for Health to take the case forward. A High Court judge gave the go ahead for the two day expedited hearing starting on 19 September.

What's the basis of the case?

Justice for Health is seeking a judicial review of Hunt's decision to impose the contract, which is set to be phased in from 5 October.

Judicial review is a procedure for challenging the lawfulness of decisions by public bodies. In this case, lawyers for the junior doctors argue that Hunt's decision was unlawful because he had no power in law to make it. Hunt's lawyers accept that he has no power to impose the contract but argue that his decision was only to make a non-binding recommendation to NHS employers to use the standard contract.

There are two more grounds for the challenge. Justice for Health argues that Hunt breached his duty of clarity in stating that he was going to "impose," "introduce," or "implement" the contract, making NHS organisations and the public believe that he had such a power when he did not.

It also accuses him of irrationality in stating that the reason for the contract was to ensure patient safety in the proposed seven day NHS, when

Senior doctors must support junior colleagues, say colleges

Senior doctors must ensure that their junior colleagues feel supported while the dispute over the junior doctor contract continues, leaders of the medical royal colleges have said.

Last week the Royal College of Anaesthetists issued a statement saying that it was "crucial that trainees are, and feel, supported at this time." The college said that doctors who felt "overwhelmed" should talk to fellow trainees, family, and friends, meet their supervisors, tutors, or mentors, and use available support schemes.

"It is important that as a profession we remain united in caring for each other," it said. "Look after yourselves and each other."

The statement was signed by Liam Brennan, president of the Royal College of Anaesthetists, along with other senior members of the college, the Faculty of Intensive Care Medicine, and the Association of Anaesthetists of Great Britain and Ireland.

"It remains a challenging and difficult time for doctors in training," the statement said. "The news of imposition of a contract that many doctors have serious and valid concerns over and the latest decision by the BMA to pursue further industrial action have undoubtedly led to further stress for trainees after a year of uncertainty," it added.

It is important that as a profession we remain united in caring for each other
– joint statement

"At times, it may feel that we are no further forward and the lack of resolution to date is unsettling to trainees who already face the pressure of exams, job applications, non-clinical work and the daily challenge of balancing training and service in a stretched healthcare system."

The Royal College of Surgeons has also underlined its commitment to supporting junior doctors. "We appreciate that the current impasse creates further stress and disruption for trainee surgeons, and we want to remind them that they can talk to colleagues, their educational supervisor, or their surgical tutor if they want any

there is no evidence linking mortality at weekends with the role of junior doctors.

How will the case unfold?

The junior doctors' case will be presented by Jenni Richards, a persuasive QC who recently won the right for a 60 year old woman to use her dead daughter's frozen eggs to try to conceive her own grandchild. An equally well regarded QC, Clive Sheldon, who often represents the government and is described by a legal directory as "great to have on your side in a scrap," will put forward the health secretary's arguments.

In a judicial review case the court is not concerned with the correctness of the decision that is being challenged but only with whether it was reached in the correct way. If Mr Justice Green, who is hearing the case, decides that the decision was unlawful, he can quash it, although he cannot substitute his own decision.

The judge could accept Hunt's argument that the decision he took was only a non-binding recommendation and not an imposition and therefore within his legal powers. Or Green could declare the decision unlawful and quash it, with the expectation that Hunt would take a fresh decision. Judgment is expected within days.

"We felt that a lot of decisions made at a very high level were deeply wrong, and we would like to see if a judge thinks that too"
– Ben White

Go to careers.bmj.com for more careers content

Will the outcome affect the dispute over the contract?

Not necessarily. Even if the judge decided that Hunt had acted unlawfully, the health secretary could still go ahead with the same contract provided that he took a fresh decision framed as a recommendation and based on valid reasoning.

Justice for Health's lawyers contend that a fresh decision should be supported by proper reasons, because junior doctors and their employers need clarity about their right to agree on terms that differ from the new contract.

"The law is a very significant independent force," says Ben White, one of the five Justice for Health doctors. "I think we all felt that a lot of decisions made at a very high level were deeply wrong, and we would like to see if a judge thinks that too."

Saimo Chahal, solicitor for the Justice for Health doctors, adds, "What these doctors are doing is saying that the public interest demands that Mr Hunt now account for his actions, as every NHS employee needs to know what Mr Hunt can and cannot do."

Clare Dyer, *The BMJ*

Cite this as: *BMJ* 2016;354:i4975

additional pastoral support," Clare Marx, president of the college, told *The BMJ*.

Neena Modi, president of the Royal College of Paediatrics and Child Health, said that consultants and other senior staff in paediatrics were available to support their junior colleagues. "Pressure on trainees is currently at an all time high, with more than half of paediatric units not currently meeting recommended staffing standards," she said. "This, coupled with the damaging imposition of the junior doctors contract and failure to reach a negotiated settlement, is diminishing trainee morale."

Tom Moberly, *The BMJ*

Cite this as: *BMJ* 2016;354:i4971

"The current impasse creates further stress and disruption for trainees"
– Clare Marx

"Pressure on trainees is currently at an all time high"
– Neena Modi

FIVE SOURCES OF SUPPORT FOR JUNIOR DOCTORS

The joint statement (see below left) by the Royal College of Anaesthetists, the Faculty of Intensive Care Medicine, and the Association of Anaesthetists of Great Britain and Ireland highlights five sources of support for junior doctors.

1 FRIENDS AND COLLEAGUES

"Do not forget what is available if you feel overwhelmed," the three organisations say. "Talk to somebody: fellow trainees, family, and friends."

2 SUPERVISORS

"Meet with your clinical or educational supervisor, college tutor, or mentor," the statement advises.

3 WELLBEING SCHEMES

The joint statement points to the Association of Anaesthetists' wellbeing scheme (www.aagbi.org/professionals/welfare), which offers support to members with regard to any professional or personal issue that requires support, and its mentoring scheme.

4 ORGANISATIONS

The Royal College of Anaesthetists' website provides links to several organisations (www.rcoa.ac.uk/careers-and-training/career-and-personal-difficulties), including Alcoholics Anonymous, Doctors for Doctors, British Doctors and Dentists Group, Doctors' Support Network, Healthcare Professionals Recovery Group, Narcotics Anonymous, the Practitioner Health Programme, the Samaritans, and the Sick Doctors Trust.

5 BMA

The BMA's Your Wellbeing service (bma.org.uk/advice/work-life-support/your-wellbeing) provides a range of services to support and advise doctors, including a 24 hour counselling service.

THE BIG PICTURE

Health effects of 9/11 terror attacks continue to grow

Some 15 years after the terrorist attack on New York on 11 September 2001, at least 1000 people, including many emergency responders, are known to have died from illnesses related to their exposure to toxic dust and 37 000 people are officially recognised as sick.

In the next five years, the death toll from health problems related to the New York attacks is likely to exceed the 2753 deaths on the day that two hijacked passenger jets were flown into the twin towers of the World Trade Center, according to Jim Melius, a doctor who also advises the White House on worker health and chairs the steering committee overseeing the US government's health programme for 9/11 responders.

"There are a lot of people who are very, very ill with lung disease who will see at least 10 years taken from their normal life span," he told the *Guardian*. "We are already seeing many more premature deaths occurring, and among younger people, from the cancers."

The dust and debris around the World Trade Center contained asbestos, lead, glass, heavy metals, concrete, and poisonous gases as well as exploding jet fuel and fragments of dead bodies.

The World Trade Center Health Program provides monitoring and treatment for a list of conditions that are officially recognised as 9/11 related, including airway and digestive disorders, mental health conditions, musculoskeletal disorders, and cancers (www.cdc.gov/wtc/conditions.html).

This year, Christine Todd Whitman, the head of the Environmental Protection Agency in 2001, admitted for the first time that she was wrong to assure people after the attack that the air was safe.

"We did the very best we could at the time with the knowledge we had," she said.

Sophie Arie, *The BMJ*

Cite this as: *BMJ* 2016;354:i4979

ALEX CAMACHO/GAMMA-RAPHO/GETTY IMAGES

EDITORIAL

Statins evidence: when answers also raise questions

Sharing the data is more likely to settle the debate than another review


BMJ attempts to end statins controversy

Drug 'stops 80,000 heart attacks and strokes a year'

Side-effects rare according to new review of evidence

200,000

Statins are likely to have contributed to the large reductions in cardiovascular disease that have occurred in North America and Europe. Clinical trials of these affordable generic drugs have a remarkable record of showing benefit, with side effects mostly uncommon and minor, and resolving after discontinuation of the drug.[1] Moreover, many complaints among statin users are misattributed to the drug.

Nevertheless, some scientists have raised persistent concerns.[2] They have asked questions about the effectiveness and adverse effects of statins, particularly in low risk populations and those not well represented in the trials. Advocates for statins equate the dissent to yelling "Fire" in a crowded theatre, when no fire exists.[3] Others defend the rights of well intentioned scientists and clinicians to question evidence.[4]

Into this fray comes a publication from some of the world's leading scientists—a review article with attitude. The authors' intent is to provide "the appropriate interpretation of evidence."[5] The review, which consolidates previously published information, aims to explain "how evidence from randomized trials yields reliable information about both the efficacy and safety of statin therapy."

The instinct to correct misinformation should be encouraged, but the adverse effects of quieting dissent can also be consequential

Harlan M Krumholz, professor, Section of Cardiovascular Medicine and the Robert Wood Johnson Foundation Clinical Scholars Program, Department of Internal Medicine, Yale School of Medicine, Suite 200 New Haven, CT, USA harlan.krumholz@yale.edu

Moreover, "it discusses how claims that statins commonly cause adverse effects reflect a failure to recognize the limitations of other sources of evidence about the effects of treatment." Their findings strongly support the benefits of statins in comparison to very modest risks. The article concludes that, "It is, therefore, of concern that exaggerated claims about side effect rates with statin therapy may be responsible for its under-use among individuals at increased risk of cardiovascular events."

Knowledge gaps

The review questions the use of observational data and argues persuasively for the use of statins based on trial evidence. However, the limitations of that trial evidence also deserve attention. The trial populations do not fully reflect the diversity of patients seen in contemporary practice across the world.

Even among those enrolled, the individual trials were underpowered to detect many relevant harms. Moreover, these trials are getting old and the experience of patients with cardiovascular disease continues to evolve. Finally, the comparative effectiveness and safety of individual statins remains unclear.[6]

These concerns are unlikely to be addressed by future trials. We have a predicament if observational data are not good enough to fill these knowledge gaps.

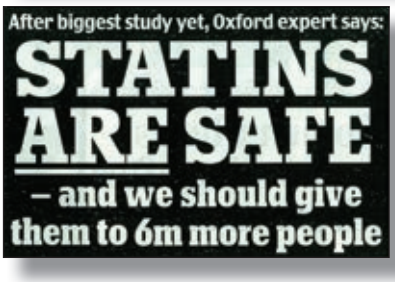
This fray raises another uncomfortable question about scientific debate. When should we shut down debate on a topic in the interest of the public's health? The review was prompted by concerns that press reports of scientific articles questioning the safety of statins led some patients to abandon the drugs and resulted in avoidable cardiovascular events. The instinct to correct misinformation should be encouraged, but the adverse effects of quieting dissent can also be consequential.

There are problems with premature closure on a hypothesis just as there are with delayed closure when there is already enough evidence to answer the question.

The new review is powerful and it is useful that these experts have made their case and used evidence to advocate for a verdict. It would have been more powerful still if it had been accompanied by an announcement that the data from the statin trials would be made publicly available for others to analyse. Some people fear that data sharing could produce poor science that spreads misinformation. But science should be self correcting when there is open access to the data.

We are rapidly entering an era where sharing will become the norm. Many international organisations have endorsed data sharing, and the International Committee of Medical Journal Editors "believes that there is an ethical obligation to responsibly share data generated by interventional clinical trials because participants have put themselves at risk."[9] Sharing the individual patient level data from the statin trials would be another fine contribution by this group of research leaders and a strong message that no single person or group should have exclusive access to trial data. In the end, the sharing of these data by the trialists may do more to advance their interprettion of the data and promote consensus than anything else they could do.

Cite this as: *BMJ* 2016;354:i4963
Find this at: http://dx.doi.org/10.1136/bmj.i4963



Statins really are safe to use, experts insist

Tom Whipple Science Editor

Statins are safe and effective, the world's most comprehensive study has found — but millions of people are at risk of heart attacks and strokes after heeding "poor quality" research about side-effects.

Thousands of deaths could be avoided if more Britons took the cholesterol-lowering drugs, scientists who reviewed data on 100,000 patients said.

They attacked previous studies for exaggerating the dangers. Richard Horton, editor of *The Lancet*, which published the review, said that he wanted to "correct the public record about the safety and efficacy of statins" after misleading research had harmed patients' health.

BMJ BLOG Richard Lehman

Where next with statins?

The *Lancet*'s lengthy review on statins is masterly in its discussion of many fundamental issues about trial methodology and interpretation, and it makes an excellent case for the overall benefits of statins for cardiovascular protection. But this is not "new" news. The discussion of adverse effects is theoretically sound but offers no new data and does not match clinical experience. And the implications for discussion with individuals were far from clear to me. So I put down a few points that stood out for me in this long-running debate.

The protective effects of statins are not in doubt and are proportional to the degree of cardiovascular risk. I agree with Jeremy Sussman (University of Michigan). "Statins remain among the most important advances in medical history and have prevented untold heart attacks and strokes. They reduce rates of heart attacks and strokes in essentially all people though they prevent non-fatal events at greater rates than fatal ones." [bmj.co/husten]

The harms of statins are generally mild and reversible. But muscle pain and fatigability are not a figment of misattribution and public misinformation. They are too prevalent and recurrent in people who desperately want to stay on statins. Rather than discount a widely observed phenomenon, we should ask why there is such a mismatch with reporting in the trials. There is an urgent need for studies in elderly people to test the hypothesis that their borderline daily functioning may be impaired by statins, tipping people into dependency.

Although the protective effect of statins is proportionate to their pharmacological action on LDL cholesterol, it does not follow that all LDL lowering drugs can be assumed to be protective or that this is necessarily their sole mode of protective effect. The Clinical Trials Support Unit has received hundreds of millions of pounds to devise and conduct trials on other classes of LDL lowering drugs. So far, only statins have proved convincingly effective in reducing real events. The most promising new drug for cardiovascular protection, empagliflozin, does not work by LDL-C reduction.

The issue of induced type 2 diabetes is just an artefact of the way we define the threshold

Muscle pain and fatigability are not a figment of public misinformation

for T2DM. Statins often cause a small rise in blood sugar, which would be of significance only if it was associated with an increase in macrovascular or microvascular disease. On the contrary, statins reduce macrovascular disease endpoints, and no evidence suggests that they increase eye or kidney microvascular disease.

The main adverse effect of statins is to induce arrogance in their proponents. The evidence for this class of drugs is massive, and the areas of controversy are quite small. Most of the current debate consists of throwing blame at *The BMJ* for creating public doubt about statins in two short articles. So it has become an argument about communicating evidence to the public and to individuals, and this is something the *Lancet*'s authors seem to think should be done by authoritative persuasion based on numbers needed to treat. In fact, the NNTs for statins are generally much too large to be persuasive for individuals, and they are in any case not evenly distributed across individuals. Nobody has devised the ideal decision tool, partly because we're only just beginning to take account of how human beings actually react to different kinds of risk framing.

Nobody can even make an informed guess about how many people would or would not take statins—especially for primary prevention—if they were fully informed about potential benefits and harms.

The alternative is for lesser breeds of doctor to simply tell all of these people what to do based on computer prompts about cardiovascular risk, in 10 minute appointments usually made for other reasons. If people then experience side effects they should be firmly told that the trials show that these cannot be due to statins. If this ever was the real world, it's certainly not the one we're living in now. Taking lifetime preventive medication is an individual choice, and we need to be practical—and humble—in our approach to informing and supporting it. The true work of shared decision making has scarcely begun.

Richard Lehman is a retired GP and senior advisory fellow in primary care, Cochrane UK, Oxford. He writes a weekly research review for *The BMJ*

EDITORIAL

Mental illness and terrorism

Oversimplification and lack of evidence stigmatise people with mental illness and impede prevention efforts

Terrorism is a politically defined act of attack against a state by non-state actors. It is thus not just criminal behaviour but given special status as a threat to the citizens of the national state and assumed to be politically motivated. Terrorist acts are often justified as responses to oppression, discrimination, inequality, persecution, and adversity or, as in the case of Islamist extremist movements, a desire to impose an alternative religious, cultural, and legal framework on society.

We do not know enough about the antecedents of terrorism nor the process by which individuals become "radicalised."[3 4] Evidence is emerging that there are many varieties of terrorists, just as there are many different psychological, social, and behavioural antecedents, and that adversity and discrimination may not always feature.[5 6] Terrorist groups and networks seem to avoid recruiting people with mental health problems, probably because they share some of the same stigmatised views as the rest of society and see people with mental health conditions as unreliable, difficult to train, and a security threat.[7]

People with mental illness can develop delusional beliefs that include political or religious content—for example, in the case of the Norwegian mass murderer Anders Breivik

Fatal attraction

Recent attention has shifted to lone actors, individuals who are not linked to established terror networks but are attracted to their aspirations and act in their interests.[8] Such people seem to have a different profile, in which mental illnesses are more common and they seem to be influenced by their immediate social networks.[6] People with mental illness can develop delusional beliefs that include political or religious content and these are difficult to disentangle from overvalued ideas common in political or religious ideology—for example, in the case of the Norwegian mass murderer Anders Breivik.[9] To make matters more complex, no single diagnosis is associated with "lone actor" terrorism. A psychiatric diagnosis where appropriate is important, but it does not explain motivation—diagnosis will interact with prevailing social and cultural concerns.

We are too ready to invoke "terrorism" as the cause of unprovoked acts of individual or group violence, and simultaneously to propose mental illnesses as the explanation behind such complex behaviours.[9] Not only does this unfairly stigmatise the many millions with mental health problems, perhaps deterring people from seeking help, but it can also stand in the way of the careful analysis that must be undertaken in each case.

In response to these political and societal challenges, the UK government launched a counterterrorism strategy (CONTEST) that included Prevent, a set of preventive actions.[10] Specified authorities, including health bodies, are now obliged to show due regard to preventing people from being drawn into terrorism.[10] This has alarmed many practitioners, who are dismayed at their expected participation in state security and point to the paucity of published evidence for the effectiveness of the programme.[11] Concerns about extremist ideas that could result in actual violence are difficult to quantify, but health professionals, including psychiatrists, are asked to follow their organisational guidance on confidentiality and multiagency risk assessment and management.

Guidance for doctors

The Royal College of Psychiatrists has set out ethical and clinical guidance to ensure psychiatrists and other mental health professionals support Prevent on an evidence based footing.[13] Specifically, it seeks an evidence based approach to policy and practice, the sharing of research and clinical data so that lessons can be learnt, and careful delineation of the roles and responsibilities of doctors and mental health professionals.

We know from the science of predicting extremely rare events—for example, suicide and homicide—that precision is impossible to achieve. Instead it gives way to the art of good clinical practice supported by research evidence, audit data, and continuous learning cycles. The National Confidential Inquiry into Suicide and Homicide is one good example.

An effective counterterrorism strategy, which is in all our interests, will be more successful if it engages fully with mental health professionals, public health agencies, and communities, making the research evidence and the basis of recommended actions as transparent as possible without undermining genuine security concerns.[15] This will create more trust and support for Prevent from all quarters.

Kamaldeep Bhui, professor of cultural psychiatry and epidemiology, Centre for Psychiatry, Wolfson Institute of Preventive Medicine, Barts and The London School of Medicine and Dentistry, London
k.s.bhui@qmul.ac.uk

Adrian James, registrar, Royal College of Psychiatrists, London, UK

Simon Wessely, professor of psychiatry, King's Centre for Military Studies, Institute of Psychiatry, Psychology, and Neuroscience, King's College, London

Cite this as: *BMJ* 2016;354:i4869
Find this at: http://dx.doi.org/10.1136/bmj.i4869

ANALYSIS

Ethical problems with clinical trials and how to fix them

Jonathan Mendel and colleagues

draw lessons from recent trials and call for greater transparency on ethics committee decisions

KEY MESSAGES

- Obtaining access to ethics committee documents is difficult and time consuming
- Ethics committees should require a systematic review of existing evidence to minimise avoidable harm
- Approval documentation should be freely available

Clinical trials are subject to costly and onerous regulation that aims to ensure they are well designed, with risks to participants minimised wherever possible, and any serious outstanding risks communicated clearly to participants. But how well do current regulatory frameworks meet these aims?

A recent study reported that over 10 000 people with rheumatoid arthritis have been randomised to control groups receiving ineffective treatment in trials of biological disease modifying antirheumatic drugs, risking "irreversible deterioration in condition."[1] Taking three recent trials, we investigated the process of ethical approval, and the information given to patients, for two trials of ocrelizumab included in this study (STAGE[2] and FEATURE[3]). We also reviewed documents for a homeopathy trial in rheumatoid arthritis because problems with ethical approval and informed consent in complementary and alternative medicine have been reported.[4] Rheumatoid arthritis is a common disease for which many new therapies have been developed over the past two decades; it is therefore ideal for exploring these issues, which are relevant to clinical trials in all areas of medicine.

Barriers to accessing ethics documents

We experienced extensive delays and challenges obtaining documents and information for all the trials. Genentech/Roche sponsors both the STAGE and FEATURE trials. One of us, Jonathan Mendel, approached the company by email and phone to ask about the justification for using a placebo control group, request copies of documents and correspondence with the ethics committee on this issue, and request copies of documents given to participants (a template consent form and patient information sheet). Roche initially refused, stating that the Association of the British Pharmaceutical Industry code of conduct prohibits commercial promotion of drugs directly to patients. Although Mendel is not a healthcare professional, the request gave his academic email address and explained the purpose of our study. We were therefore surprised to see this regulation being cited as a reason not to share information. Ben Goldacre (one of three medical doctors on the project) then contacted Roche. However, while Roche did send us parts of the documentation from the ethical approval process, it they declined a request for copies of all correspondence with this ethics committee, explaining "ocrelizumab is undergoing regulatory assessment and this information forms part of the confidential filing dossier." We then requested these documents from the Health Research Authority, under the UK's Freedom of Information Act.

We chose the homeopathy trial at Wrightington, Wigan, and Leigh NHS Foundation Trust because it was highlighted on social media[5] as an example of ethical problems in complementary and alternative medicine research. We made a freedom of information request to the trust for all documents to and from the ethics committee in relation to this trial. Only after extensive correspondence did we eventually receive all the requested information.

We reviewed the trial documentation to assess (where relevant) how the use of a placebo comparator was justified; how well the trial processes met ethical expectations for research on human participants; and whether adequate information on shortcomings or risks with the comparator was given to patients.

Ocrelizumab trials

FEATURE and STAGE randomised patients with active rheumatoid arthritis and inadequate responses to methotrexate to treatment with either ocrelizumab or placebo plus methotrexate for a prolonged period (up to 48 weeks in STAGE) before reallocation to active therapy or open label treatment with ocrelizumab. As rituximab (which has the same molecular target as ocrelizumab) was an established treatment for active rheumatoid arthritis, this potentially deprived participants of effective treatment for as much as a year. Inadequate treatment can lead to irreversible structural damage, additional pain, and functional impairment.

FEATURE's ethics application acknowledges that "the main ethical concern with this study is the need for the control arm to receive placebo ocrelizumab infusions. However, this group will receive methotrexate throughout the trial, which is considered standard first-line therapy in many institutions and the participants can continue with analgesics, non-steroidal anti-inflammatory drugs (NSAIDs) and steroids if receiving these medications at a stable dose prior to the trial."

A recent study reported that over 10 000 people with rheumatoid arthritis have been randomised to control groups receiving ineffective treatment

Inconsistencies in homeopathy ethics documentation

The homeopathy trial ethics committee form states that patients taking biologically active drugs or who have used homeopathy in the past six months are excluded; however, the only exclusions mentioned on the research protocol are people who are "under 18, have previous experience of homeopathic treatment, are pregnant or breast feeding or have severe co-morbidities that might affect RA treatment." The ethics form does not mention exclusion of people who are breast feeding or under 18.

Methotrexate is used as first line treatment, but trial participants had already had unsuccessful treatment with methotrexate and so were no longer at the first line stage. The applicants quote a single cohort study by Kapral and colleagues[6] as evidence that methotrexate is effective, even in those for whom it has previously been ineffective. However, the findings of this study cannot be readily generalised, and the initial dose of methotrexate (median 10 mg) was much lower than in FEATURE (16.3 mg at baseline). Most patients in Kapral's cohort whose initial dose of methotrexate was similar to that in FEATURE did not respond to "re-employment." Instead of relying on this study, discussion of risk mitigation could have been grounded in a review of the available evidence.

Another ethical problem with the trials' design is that rescue therapy was permitted but not mandated. The presence of real or perceived barriers to escalating treatment through rescue therapy is supported by the fact that only 26% of placebo treated participants in STAGE received rescue drugs, despite active disease at baseline and previous lack of response to methotrexate. Furthermore, only 27.6% of the placebo group achieved a 20% improvement in a composite measure of disease activity (ACR20), equivalent to a minor clinical response, at week 48.

Participants in STAGE who received the active drug had a significant structural benefit compared with controls, confirming that patients taking placebo were disadvantaged despite the availability of rescue therapy. This risk could have been mitigated if other biological drugs with evidence of effectiveness had been used as comparator.

A research ethics committee looking at FEATURE asked for "clarification regarding whether the patients in the placebo arm would be deprived of other treatment options." However, it seems to have accepted reassurance that "patients would be able to take additional medications (NSAIDS and steroids) as needed, and that there were many options for escape therapy." We found no evidence that the committee further discussed this key issue or using another biological drug as an active comparator (despite their widespread use at this stage of disease).

Homeopathy

The exclusions listed on the ethics committee form for the homeopathy trial differ from those in the research protocol (box), but there is no evidence that the committee raised this. Moreover, some of the trial's exclusion criteria seem unjustified since homeopathic remedies beyond the C12 potency (that is, diluted 12 times at a ratio 1:100 resulting in a final dilution of $1:10^{24}$) contain no active molecules to, for example, interact with biological drugs.

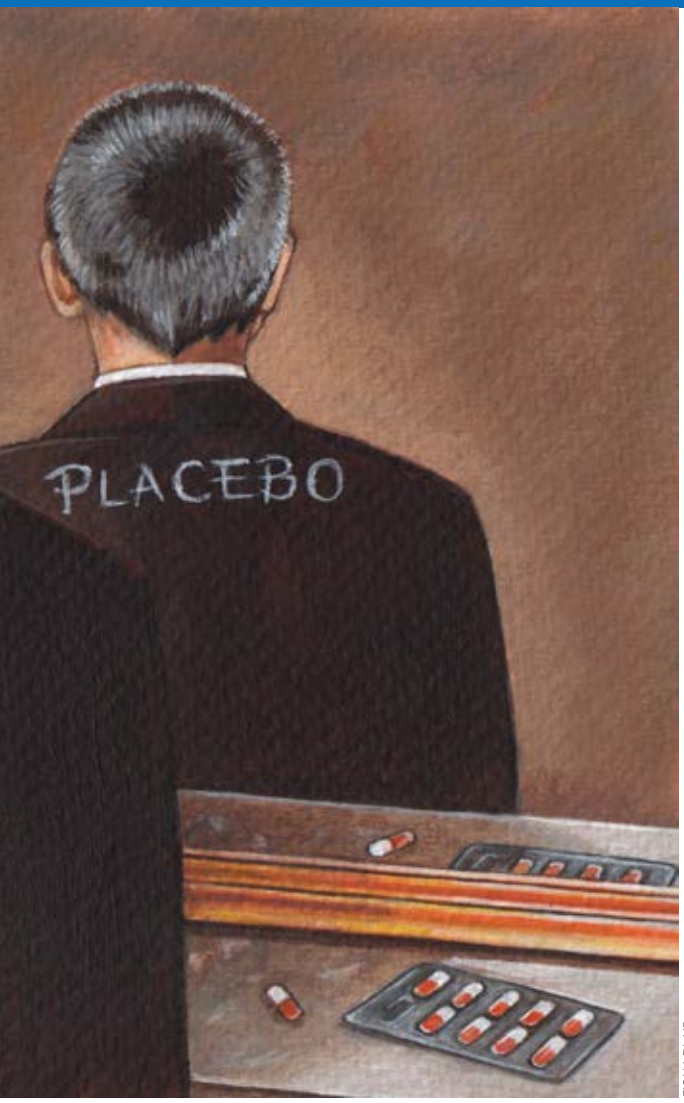
Informed consent

Roche supplied only an excerpt from an application to a UK ethics committee for the FEATURE study. This recognised that "the main ethical concern with this study is the need for the control arm to receive placebo ocrelizumab infusions." However, the committee did not ensure that participants were told this. There is room for professional debate on the extent of specific risks, and it is not necessary to share all information seen by the committee with participants. However, it is important that participants are aware of major concerns with the research so that they can make an informed choice; the fact that the control group's treatment was seen as the main ethical concern suggests that it should have been shared with participants. At the least the committee might be expected to discuss whether this information should be shared.

Poor regulation of research can cause direct harm to patients and undermine its credibility

The consent forms for the two drug trials did not explicitly state the additional risks to members of the placebo control group such as increased pain, impairment, and permanent structural damage. Also, while the risks of corticosteroids are explained, the consent forms do not make explicit the risks of increased doses as rescue therapy.

The ethics committee approved the homeopathy trialists' outlined procedure for soliciting informed consent. However, the information provided was problematic. The patient information (as revised after ethics review) stated that homeopathic remedies are "usually based on minerals or herbs." This implies that they contain active ingredients, but remedies beyond the C12 potency contain no active molecules. The patient information stated that "there is currently little clinical evidence



FIONA BLAIR

about the efficacy of homeopathic remedies" but did not state that the totality of the available evidence fails to show that highly dilute homeopathic remedies are effective beyond placebo.[7]

While some or all patients may still have made an informed choice to participate, knowing the shortcomings, the ethics committee form does not discuss whether the study is a good use of patients' time or NHS resources.

Towards greater transparency

Our analysis suggests it is naive to accept ethics committee approval alone as evidence that ethical concerns have been appropriately reviewed, with the trial appropriately designed, best evidence considered, and harms minimised. Similarly, statements that informed consent was obtained do not guarantee that participants were given the information that a broader range of clinicians, researchers, and patients would regard as appropriate for informed consent. We recognise that there is room for disagreement on the concerns raised by any individual trial or document, but a better route is transparency: it should be straightforward for anyone to access the details of the ethical review and the actual information given to patients in order to critically appraise them. At present, there are substantial barriers to accessing the relevant documents.

Jonathan Mendel, lecturer in human geography, Geography, School of Social Sciences, University of Dundee, UK
j.m.mendel@dundee.ac.uk

Ben Goldacre, senior clinical research fellow, Centre for Evidence-Based Medicine, University of Oxford, UK

Edzard Ernst, emeritus professor, Peninsula Medical School, University of Exeter, UK

Samuel Whittle, consultant rheumatologist, Discipline of Medicine, University of Adelaide, Australia

Only 26% of placebo treated participants in STAGE received rescue drugs, despite active disease at baseline

These issues are important throughout medicine. In our experience, similar methodological shortcomings are characteristic of many studies of biological drugs for rheumatoid arthritis,[1] of complementary and alternative medicines,[4] and of other areas of medical research. While a systematic review of a larger sample of trials would be desirable, the difficulties in accessing basic ethics documents means that such scrutiny is unlikely to be feasible.

Poor regulation of research can cause direct harm to patients and undermine its credibility. However, the failings identified could be improved. We suggest the following, which reflect established recommendations for medical research:

Systematically review evidence relating to current and proposed treatments—A robust understanding of the possible utility, risks, and benefits of a proposed trial requires examination of what is already known about the topic. In the examples above, a systematic review could have ensured that a much clearer picture of the evidence was available to the ethics committee and participants. Although a systematic review is not sufficient (for example, investigators might produce a highly biased review), having such a review available for critical scrutiny will be an improvement.

Assess the quality of the proposed research, and tell patients about this—Ideally, ethics committees or other appropriate bodies should critically evaluate the quality of the evidence submitted by investigators and the research proposal. While there will be a large grey area, some trials are sufficiently unlikely to prove informative that committees should be able to reject them. If the ethics process permits poor quality research, the limitations of the research should be made explicit to patients so they can make an informed choice about participation. This might become part of what Iain Chalmers describes as a "patient-led good controlled trials guide."[8]

Ensure that risks are appropriately mitigated—Including risks associated with placebo.

Give patients a summary of existing evidence and of any risks of participation—When patients face risks from participation in a trial, or where previous research casts doubt on a therapy's plausibility, this should be clearly and explicitly explained.

Make all documentation around ethical approval and consent freely available—Blank consent forms should be made publicly available alongside trial registration, accompanied by the participant information sheet. Similarly, correspondence with ethics committees and other bodies with a similar role should routinely be made publicly available. This will allow ethics processes to be independently reviewed, publically discussed, and learnt from.

Larger scale research is needed to investigate the prevalence of the problems we have identified with ethical approval and informed consent. Such studies would allow assessment of differences between committees and facilitate accountability. At minimum, a review of transparency policies for institutional and national ethics review bodies is needed. Ethics processes are important to society, and should be open to public scrutiny. Openness is vital, both to minimise avoidable participant harms and to maintain public trust.

Cite this as: *BMJ* 2016;354:i4626
Find this at: http://dx.doi.org/10.1136/bmj.i4626

ILLUSTRATION: DUNCAN SMITH

William (Bill) Frankland, 104, is Britain's oldest active scientist. Born before the first world war, he may contemplate retirement when he turns 105 next March. He qualified at St Mary's Hospital Medical School in London and served in the Royal Army Medical Corps. After more than three years as a prisoner of the Japanese he returned to St Mary's and specialised in allergies. He collaborated with Alexander Fleming on penicillin, started daily pollen counts in 1953, and championed desensitisation as an allergy treatment. In the early 1950s he carried out double blind placebo trials in allergy and asthma. He is an honorary fellow of his old college, Queen's College, Oxford.

BMJ CONFIDENTIAL

William Frankland
Fleming to Saddam Hussein

What was your earliest ambition?
To be a doctor: solving the causes of people's illnesses would be like solving a detective story, I thought. No altruistic motives.

Who has been your biggest inspiration?
Alexander Fleming, whom I had to see every day at 10 am in the last two years of his life. I was his clinical assistant at St Mary's Hospital, and I was supposed to keep him informed about the patients in a ward with complicated diseases. We talked about everything but the patients.

What was the worst mistake in your career?
Not realising that a medical history, as told by a mother about her (deceased) baby, was all lies.

Bevan or Lansley? Who has been the best and the worst health secretary?
Bevan's NHS was an inspired idea: Bevan would not have realised that his NHS would become the envy of the world—although it is now underfunded, under-doctored, and overstretched.

Who was your most grateful patient?
Saddam Hussein. In the late 1970s I was asked to go to Baghdad to treat his asthma and allergies. He didn't have asthma or allergies, but he was smoking more than 40 cigarettes a day. I advised him to stop smoking. Three and a half months later he was dramatically better and, because he was so grateful, I was invited back to Baghdad with my family to have lunch with him.

To whom would you most like to apologise?
My late wife. I spent too much time away from home, travelling the world lecturing.

If you were given £1m what would you spend it on?
I'd give it to my favourite charity, Asthma UK, to spend on research only.

What single unheralded change has made the most difference in your field?
I'm totally bewildered and utterly astonished by research work in genes and immunology. Under trial now is an RNA and nanoparticle based immunotherapy vaccine against all forms of cancer. We used to be interested in patients; now the interest is in their cells.

What is your most treasured possession?
My home.

What, if anything, are you doing to reduce your carbon footprint?
I've given up flying, but this wasn't the reason.

What personal ambition do you still have?
To live another six months, as this will save a great deal in tax.

Summarise your personality in three words
Luck, longevity, and loquaciousness.

What is your pet hate?
Anyone smoking.

What would be on the menu for your last supper?
If not anorexic, I'd have lamb with mint sauce, new potatoes, and garden peas, followed by apple pie and lots of custard.

Cite this as: *BMJ* 2016;354:i4824