HRT “does not increase mortality”

Women who receive hormone replacement therapy (HRT) are not at greater long term risk of all cause mortality or mortality from specific causes, such as cardiovascular disease or cancer, according to a new study.

The results of the study, published in JAMA, show that it is appropriate to offer HRT to women experiencing hot flushes and night sweats. However, the study found no long term reductions in all cause mortality among women who used HRT, so the results do not support using it for the prevention of cardiovascular or other chronic disease.

The effect of HRT on cancer—especially breast cancer—mortality, has generated concern among women and a reluctance to prescribe among some GPs. The latest findings support the current NICE guidance which says that for most women the benefits of HRT outweigh the risks.

The study assessed mortality outcomes among the 27,347 women who took part in the Women’s Health Initiative hormone therapy trials. In one trial, women were randomised to receive conjugated equine oestrogen (0.625 mg/day) plus medroxyprogesterone acetate (2.5 mg/day) or placebo for a median of 5.6 years and in the other, women were randomised to receive oestrogen alone or placebo for a median of 7.2 years. The trials were stopped because of an increased risk of breast cancer and stroke.

Health outcomes from the two trials have been reported but this study is the first to focus on all cause and cause specific mortality. The authors say that, because of the complex interplay of hormone therapy with different outcomes, all cause and cause specific mortality provide a key measure to help women and doctors make decisions.

For cardiovascular disease, mortality rates were 8.9% in the pooled hormone therapy group compared with 9% in the placebo group (hazard ratio 1.00; 95% CI 0.92 to 1.08). During the 18 years of follow-up there were 2,207 deaths from cancer in the overall pooled cohort and cancer mortality rates were almost identical between hormone users and non-users (8.2% compared with 8%; hazard ratio 1.03; 95% CI 0.95 to 1.12).

Heather Currie, of the Royal College of Obstetricians and Gynaecologists and the British Menopause Society, said, “Hormone therapy can be a safe and effective treatment for menopausal symptoms. For each woman, however, the risks and benefits are different.”

Jacqui Wise, London

Cite this as: BMJ 2017;358:j4230

The study, which followed up women involved in two trials for 18 years, confirmed that HRT is beneficial to women with menopausal symptoms.
CBT is effective for treating health anxiety
Cognitive behavioural therapy (CBT) can help patients overcome health anxiety effectively and could avoid thousands of unnecessary NHS appointments if used more widely, a clinical trial has found.

UK researchers estimated that one in five people attending general hospital clinics has abnormal health anxiety, exacerbated by research symptoms online. Symptoms include chest pains or headaches that persist despite medical reassurance. The CHAMP (cognitive behaviour therapy for health anxiety in medical patients) study examined the effectiveness of CBT-HA, a modified form of CBT targeted at people who worry excessively about their health and frequently seek reassurance and diagnosis from clinicians. The randomised controlled trial assessed outcomes to five years.

The study, funded by the National Institute for Health Research and published in its journals library, found that relatively simple psychological interventions had lasting benefit over five years, improving generalised anxiety and depressive symptoms more than standard care.

Gareth Iacobucci, The BMJ Cite this as: BMJ 2017;358:j4177

Research news
Limited evidence for pregnancy drinking advice
Evidence that light drinking during pregnancy poses a risk to the baby is “surprisingly limited,” a UK study reported. A team at Bristol University conducted a systematic review and meta-analyses of all available studies since the 1950s and found “sparse” evidence that light drinking during pregnancy is harmful. But the review, published in BMJ Open, found that light drinking was associated with an increased risk of premature birth.

Prolonged sitting has harmful impact
Moving every half hour could help limit the harmful effects of a sedentary lifestyle, said a study published in the Annals of Internal Medicine. US researchers reported that excessive sedentary time, whether throughout the day or in prolonged, uninterrupted bouts, is a “significant risk factor” for all cause mortality, regardless of exercise habits. “If you sit at work all day, if you sit at home a lot, then you should be really mindful of trying to take a break from your sitting habits as often as possible—at least every 30 minutes,” said Keith Diaz, coauthor of the study, from Columbia University Medical Center in New York.

Prescribing Opioid and Z drug use doubles in 15 years
The proportion of general practice patients in England given opioids and “Z drugs,” such as zopiclone, has doubled since 2000, a study showed. Researchers from the Public Health Research Consortium, based at the London School of Hygiene and Tropical Medicine, analysed a random sample of 49,999 patients who had had any dependence forming medicine prescribed (benzodiazepines, Z drugs, opioids, or GABAergic medicines) from 2000 to 2015. The sample was taken from the Clinical Practice Research Datalink, a primary care database of anonymised medical records.

Workforce
UK needs 25% more community paediatricians
The number of community paediatricians needs to increase by 25%—equivalent to 320 more doctors—to meet recommended workforce levels and reduce waiting times, said a report by the Royal College of Paediatrics and Child Health and the British Association for Community Child Health. The association chair, Gabrielle Laing, said that the shortage was leading to very long waiting times, on top of growing demand. “For example, 40% of services reported waits of over eight months for the assessment of suspected autism. Delays like this are completely unacceptable,” she said.

Brexit
Government pledges strong research links with EU
The UK will “continue to be involved in major scientific endeavours in Europe and across the world,” the government insisted, building on its “special relationship” with the EU. A paper from the Department for Exiting the European Union added that the UK was committed to working closely with the European Medicines Agency on areas such as inspections, drug safety, and exchange of information. When free movement of people ends after Brexit, the paper said that the “UK will continue to welcome the brightest and best” and is seeking agreement on mutual recognition of science qualifications.

Medicolegal
MDDUS announces price freeze for GPs
The Medical and Dental Defence Union of Scotland is to freeze the cost of indemnity for GPs until at least 2018, after the UK government’s U turn on changes to how the personal injury discount rate is calculated. The government had initially slashed the discount rate in March from 2.5% to –0.75%, causing the NHS compensation bill to soar, but it will now revise its approach to assume investment in a low risk diversified portfolio, which should produce a higher return. The lord chancellor will set the discount rate for England and Wales every three years.
Malaria

More cases are imported to UK

Some 1618 cases of imported malaria were reported in the UK in 2016, said Public Health England, up 15.6% from 2015. The total number of malaria cases has fluctuated over the past 10 years around a mean of 1533, a significant decrease of 21% on the mean from the previous 10 years (n=1944; P<0.01). Six UK deaths were associated with malaria importations in 2016, the same number as in 2015, and all were from falciparum malaria acquired in sub-Saharan and southern Africa. Most imported cases were caused by *Plasmodium falciparum*.

Digital health

App to access NHS services to be available from 2018

All patients in England should be able to access their medical records and book a GP appointment through an integrated app by the end of 2018, said the health secretary, Jeremy Hunt. Speaking at the NHS Health and Care Innovation Expo in Manchester, Hunt said that patients should also be able to access NHS 111, order repeat prescriptions, and express their organ donation and data sharing preferences through the app.

Zika virus

Birth rates in Brazil fall after pregnancy advice

Nine months after Brazil’s government advised women in high risk areas for the mosquito-borne Zika virus to postpone getting pregnant, the birth rate in São Paulo in southeastern Brazil dropped by 6.37%. The Ministry of Health issued the advice in November 2015 because of the risk that women would deliver a baby with microcephaly. Northeastern states were hardest hit by Zika infection, followed by the southeastern states.

The UK had 1618 imported malaria cases in 2016

General practice

Over half of practices would close lists temporarily

More than half (1005; 54%) of 1870 GP practices responding to a BMA survey were prepared to temporarily close their lists to new patients, and two fifths (822; 44%) would be prepared to close them permanently. The survey followed a motion passed at the annual conference of local medical committees demanding that their leaders ballot the profession on the potential mass closure of practice lists in response to the crisis facing general practice.

Organ donation

Teenager’s organs are given to record number of people

Jemima Layzell (right), a 13 year-old girl who died unexpectedly of a brain aneurysm, has had her organs transplanted to eight people—the largest number in the history of the organ donation service. Jemima’s heart, small bowel, and pancreas were transplanted into three people. Two people received her kidneys. Her liver was split and transplanted into another two people, and her lungs were transplanted into one patient. The eight recipients included five children.

The NHS uses 10% of the world’s pagers (129429), costing the NHS £6.6m a year. Replacing this outdated technology with smartphone applications could save £2.7m a year

SIXTY SECONDS ON...

UPSELLING

SORRY, BUT WHAT IS UPSELLING?

It’s a technique used by food and drink retailers to persuade people to spend a little bit more money to increase their portion size. For example, your cashier might ask whether you want to spend just 30p more to get a large rather than a regular sized fast food meal.

BARGAIN! WHAT’S THE PROBLEM?

A report from the Royal Society for Public Health and (cough) the weight loss organisation Slimming World says that the “drip-drip effect” of this verbal upselling means that the average person consumes an extra 330 kcal (1386 kJ) a week. This equates to 17 000 extra kcal a year and could lead to weight gain of 5 lb (2.3 kg) over a year.

BUT I DON’T EAT FAST FOOD

You might not realise it, but the average consumer is asked 106 times a year whether they would like to increase their portion size. You might not eat fast food, but have you ever opted for the large coffee when you asked for a medium?

MAYBE ONCE, AND PERHAPS MY KIDS ARE AT RISK

It’s young people who are most at risk from this underhand sales tactic. The report said that over half of practices would stop training their staff to upsell unhealthy foods and drinks. Extra carrots, anyone?

I SUPPOSE IF I GET FAT THERE’S ALWAYS SLIMMING WORLD

Although the report does espouse some of the weight loss group’s virtues, the simplest thing would be to refuse the chocolate and not gain weight in the first place.

OH, DON’T GET ALL SMUG ON ME. I NEED A DRINK

Would that be a double or a single?

Abi Rimmer, *The BMJ*

Cite this as: *BMJ* 2017;358:j4247

PAGERS

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SO, WHAT’S BEING DONE ABOUT IT?

The report calls for businesses to stop training their staff to upsell unhealthy food and stop offering financial incentives to them to do so. They should also only upsell healthy foods and drinks. Extra carrots, anyone?

I DON’T EAT FAST FOOD, BUT HAVE YOU EVER OPTED FOR THE LARGE COFFEE WHEN YOU ASKED FOR A MEDIUM?

MAYBE ONCE, AND MAYBE MY KIDS ARE AT RISK

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Abi Rimmer, *The BMJ*

Cite this as: *BMJ* 2017;358:j4212

Organ donation

Teenager’s organs are given to record number of people

Jemima Layzell (right), a 13 year-old girl who died unexpectedly of a brain aneurysm, has had her organs transplanted to eight people—the largest number in the history of the organ donation service. Jemima’s heart, small bowel, and pancreas were transplanted into three people. Two people received her kidneys. Her liver was split and transplanted into another two people, and her lungs were transplanted into one patient. The eight recipients included five children.

Cite this as: *BMJ* 2017;358:j4247
Increase in violent crime at GP surgeries

EXCLUSIVE: GPs and their staff are increasingly facing violence, harassment, and threatening behaviour in their surgeries, an investigation by The BMJ has found.

Crime figures obtained from police forces across the UK show a 9% rise in the overall number of recorded crimes committed on the premises of GP surgeries and health centres over the past year (from 1974 in 2015-16 to 2147 in 2016-17). This is in line with a 10% increase in the overall number of recorded crimes in England and Wales last year, the largest annual rise for a decade.

The figures obtained by The BMJ show a 5% increase in recorded assaults at GP surgeries and health centres (from 324 in 2015-16 to 339 in 2016-17), a 34% rise in cases of harassment (from 41 to 55), and a 90% surge in public order offences such as threatening behaviour (from 169 to 321) (figure). There was also a small rise in sexual offences (from 73 to 75 cases).

GP leaders said that the risk of confrontation would rise as patients found it harder to get an appointment or access services.

The BMJ obtained the data through requests sent under freedom of information legislation to the 45 police forces in the UK asking for the number of recorded crimes committed at general practices and how each crime was categorised. A total of 29 forces (all located in England and Wales) supplied data (a 64% response rate).

The most recent figures from NHS Protect, which publishes annual data on the number of physical assaults on staff reported across the NHS, show that 70,555 staff were assaulted in 2015-16, a 4% rise from 67,864 the previous year. But these figures do not include a breakdown of crimes recorded at general practices.

Richard Vautrey, chair of the BMA’s General Practitioners Committee and a GP in Leeds, said that the ongoing pressure on general practices was likely to be contributing to the increase in assaults, harassment, and public disorder. He said, “As the whole service comes under greater pressure, that boils over into confrontational situations more frequently, because GPs and their staff have less time to deal with their patients who are distressed or who are in difficulty or not getting what they want.”

Staff at risk

“It just shows that frontline staff, particularly those on reception and doctors and nurses who are in direct contact with patients every day, are potentially at increased risk as a result of these pressures that have been building up over recent years.”

In parts of the country local medical committees, which represent GPs, have reported that GPs and practice staff were being placed at risk by the failure of local commissioners to transfer very violent patients to specially commissioned “safe haven” services.

In West Yorkshire, where the number of cases of violence against the person at general practices rose by 77% last year (from 22 to 39), Calderdale Local Medical Committee recently warned that one local practice had been forced to close while police were called to a patient who should have been removed a month previously. “There have been some cases that we’re aware of where there have been significant incidents, but

State educated children do better at medical school

Students from state funded schools do better when attending medical school than students from independent schools, research published in BMJ Open has shown.

UK researchers found that, while students from independent schools tended to enter medical training scoring slightly higher in entry tests, students from state schools were around twice as likely to graduate in the top 10% of their class.

Evidence suggests that the make-up of medical students has become increasingly diverse in terms of gender, ethnicity, and age. But that progress has not been replicated by a similar change in the socioeconomic background, and the medical profession has been criticised for being dominated by people from affluent backgrounds.

Researchers from the University of Aberdeen looked at the relation between students’ secondary school grades, the school they attended, and their performance through medical school. They analysed data from students who graduated from 33 UK medical schools between 2012 and 2013.

The study considered candidates’ demographics: pre-entry grades (UCAS tariff scores); and their pre-admission test scores (UK clinical aptitude test and graduate medical school admissions test). It used the score each student achieved in their educational performance measure
Frontline staff are potentially at increased risk from pressures that have been building up

the commissioned service for violent patients (see box) has not been used, and barriers have been placed for practices to transfer such patients to those services,” said Vautrey.

Mark Sanford-Wood, medical secretary of Devon LMC and deputy chair of the BMA’s General Practitioners Committee, said that Devon LMC had scheduled an urgent meeting with NHS England, which commissions the violent patient scheme locally, after practices had requests to transfer violent patients turned down on the grounds that this might breach a patient’s human rights. He said that local commissioners must do more to protect staff. “For the regulations not to be applied leaves frontline staff at unacceptable risk,” said Sanford-Wood. “We talk about zero tolerance, but many commissioners appear content to tolerate some degree of abuse against staff. That’s completely unacceptable and must stop.”

Gareth Iacobucci, The BMJ

Cite this as: BMJ 2017;358:j4236

on their completion of medical school as the overall measurement of success.

The researchers found that although there was no significant difference between UCAS scores, students from independent schools scored significantly higher in their pre-admission tests compared with students from state schools.

However, over the course of medical school, state school students were more likely to outperform their independently schooled classmates. Jen Cleland, chair of medical education at the University of Aberdeen and lead author of the paper, said, “All students who get into medical school have had to work hard, but those from state schools may have had less support, and so once they get to university, they may already have well developed non-academic attributes such as motivation and resilience, which set them up to manage medical school effectively.”

Adrian O'Dowd, London

Cite this as: BMJ 2017;358:j4239

Study backs statins for high LDL patients

Treatment with statins reduced deaths from coronary heart disease by 28% in men with very high levels of low density lipoprotein (LDL) cholesterol but no other risk factors or signs of heart disease, a 15 year follow-up study has reported in the journal Circulation.

The authors said that the findings provide the first direct randomised trial evidence to confirm current guidance that patients with LDL above 190 mg/dL should be considered for statin treatment regardless of other risk factors. Kausik Ray, the study leader, from Imperial College London’s School of Public Health, said, “For the first time, we show that statins reduce the risk of death in this specific group of people who appear largely healthy except for very high LDL levels.

“The findings also suggest that we should consider prescribing statins more readily for those with elevated cholesterol levels above 155 mg/dL and who also appear otherwise healthy.”

Follow-up data

The researchers analysed follow-up data from the West of Scotland Coronary Prevention Study—a five year study in 1995 that provided the first evidence that treating men with high LDL levels with statins significantly cut the risk of death from heart disease. In that study 6595 men aged 45-64 with raised LDL were randomly assigned to receive 40 mg pravastatin a day or placebo, for five years.

The researchers followed 5229 of these men who had no evidence of heart disease for a further 15 years, once they had returned to the care of their usual physician. Of these, 2560 had LDL cholesterol above 190 mg/dL and 2969 were above 155 mg/dL but below 190 mg/dL. The ideal level is below 100 mg/dL, but this varies depending on individual risk factors. Five years after the trial finished, around a third of the men who were assigned pravastatin or placebo were taking statins.

Among the men initially allocated to receive pravastatin in the study found considerable reductions in the risk of coronary heart disease death (22%), cardiovascular death (17%), and all cause mortality (12%) over the 20 years of follow-up. Among those with LDL above 190 mg/dL who were assigned statins, the study showed reduced risk of coronary heart disease death (28%), cardiovascular death (25%), and all cause mortality (18%).

Jacqui Wise, London

Cite this as: BMJ 2017;358:j4171
Referral reviews under fire

GPs’ reactions to being compelled to check colleagues’ decisions have been mixed, but many fear it could lead to a postcode lottery in hospital treatments, reports Zosia Kmietowicz

The news that GPs in England are expected to review each other’s referrals to secondary care has provoked mixed responses of approval, uneasiness, and hostility among doctors and commissioners.

Practices already running referral peer review stand by their schemes, while some of those that are yet to implement NHS England’s mandate are demanding its withdrawal.

Paul Roblin, chief executive of Berkshire, Buckinghamshire, and Oxfordshire Local Medical Committee, which represents GPs in the area, said, “Oxford CCG [clinical commissioning group] has tried it before, and it wasn’t found to produce any documentable benefit, so it is planning not to implement the instruction.”

But other CCGs on Roblin’s patch have different ideas. “Bucks CCG is enthused about the instruction, despite the lack of evidence found in Oxford, while Milton Keynes CCG is more equivocal,” Roblin told The BMJ.

Postcode lottery

Roblin believes that allowing local commissioners to decide whether to have referral peer review is wrong and will lead to a postcode lottery. Patients being treated at the same hospital will come from different CCG areas, he points out, some with such a scheme and some without.

Roblin also believes that NHS England’s interpretation of the evidence it cites is inaccurate. “Oxfordshire CCG has it right,” he said. “It has tested it [referral peer review] and found that it is time consuming and not beneficial. All CCGs already benchmark referral rates, and those that are outliers are reviewed.”

Peter Holden, from Derby and Derbyshire Local Medical Committee, and a member of BMA Council, denounced peer review as a “delaying tactic” and “rationing.” His committee has said no to the policy and backed a request for the BMA’s General Practitioners Committee (GPC) to reject it at a meeting scheduled for 14 September (after The BMJ went to press).

“They [NHS England] can go whistle,” Holden told The BMJ. “This is a no brainer. There is no evidence for this policy. GPC has to stamp its foot and say no. [NHS England] wants us to spend 30 minutes at the end of every day reviewing each other’s referrals. There is plenty of evidence to show that GP referrals are wholly appropriate. We do not randomly refer.”

Luton CCG has been running its scheme of referral peer review since April 2016. The initiative has seen first outpatient referrals to all acute care trusts fall by 8% and those to the local acute care trust by 9.5%, and commissioners could not be happier.

A statement from the CCG said, “Applying evidence based medicine and a team approach to management ensures patients are directed to the most appropriate service from the first appointment. GP practices recognise the benefit in utilising existing clinical expertise within their practice to ensure continued professional development for all clinicians and the benefits this brings for patients.”

Not a priority

GPs in Manchester have been having their referrals to secondary care scrutinised in a peer review scheme for around two years. Tracey Vell, chief executive of Manchester Local Medical Committee, said it was largely GPs who did the “checking over” of referrals. “Sometimes it’s for pure content standardisation”

The Royal College of Psychiatrists has published a report highlighting the shortfall in consultant psychiatrists

OVERALL FINDINGS

People living in Scotland had the best access to specialist psychiatric care, with 10 consultant psychiatrists for every 100 000 people on average, while those in Wales had the poorest access, with six per 100 000. England and Northern Ireland both had eight consultant psychiatrists for every 100 000 people.

ENGLAND

People living in NHS England’s North, Central and East London area were best served, with 13 consultant psychiatrists for every 100 000, with North West London (12) and South London (11) also having high ratios. The worst served regions were East of England and Yorkshire and Humber, with five consultant psychiatrists for every 100 000 people, followed by Wessex (6) and the South West (6).

WALES

Consultant psychiatrist numbers varied nearly threefold across the local health board areas in Wales. The number ranged from four for every 100 000 people in Powys Teaching Local Health Board to 11 in Cwm Taf LHB.

SHORTFALL

The government has pledged to expand the mental health workforce, with an extra 570 consultant psychiatrists by 2020-21, but the number of medical students choosing psychiatry as a career has remained static in recent years. Since March 2012 the number of consultant psychiatrists in England has risen by 1.7%, a 12th of the 20.2% increase across all other specialties.
but also to see if we have missed another service the patient could be more fruitfully directed to,” she said.

But Vell was unsure about the wisdom of rolling out the scheme nationally. “I don’t know that I have seen enough in terms of evidence [for a national scheme]. Do I think there are some byproducts that are useful? Anecdotally, yes. It brings up conversations, and any conversations between practitioners tend to improve quality,” Vell told The BMJ. “But we have other things to do before we do that—around the whole process of delivering services closer to home rather than just looking at referrals and deciding whether they are appropriate or not.”

No compulsion
Richard Vautrey, chair of the GPC, said that the BMA had raised concerns about the policy with NHS England and it was considering the feedback. “The reality is that there is no compulsion on practices to engage in this,” he said. “GPs and practices, as CCG members, should ensure that their CGG doesn’t develop a proposal that is going to be counterproductive and provide a further barrier between GPs and specialists, preventing patients from getting access to services that they are entitled to.

“This is in the gift of local CCGs. They don’t have to do this in a prescriptive way. They should work with their local GPs and local medical committees around the issue of appropriate access to services, and they shouldn’t feel compelled to use the approach that is put out in this document.”

Novo Nordisk pays $58.7m to settle claims of mis-selling liraglutide

The Danish drug company Novo Nordisk has paid $58.7m (£45m) to settle a cluster of seven US lawsuits accusing the company of deceptive sales practices, paying kickbacks to high prescribing doctors, and playing down the cancer risks of its best selling antidiabetes drug liraglutide (marketed as Victoza).

The company was accused of promoting the off-label use of liraglutide in patients who did not have type 2 diabetes, of paying kickbacks to doctors, and of disguising its sales staff as “diabetes educators” before sending them to doctors’ offices.

But the most serious allegations concerned the company’s response to concerns raised by the US Food and Drug Administration about risk of cancer. When liraglutide was approved in 2010 the regulator noted an elevated rate of medullary thyroid carcinoma in rats and mice that were exposed to the drug in early trials. The drug was therefore introduced with a boxed warning and a risk evaluation and mitigation strategy (REMS), a set of requirements to govern corporate behaviour in selling drugs with potential risks.

The REMS agreement, requiring sales staff to mention those trial findings, was a key part of the approval and of the FDA’s assessment of risks and benefits associated with the drug, said the government. The agreement was further tightened after a 2011 survey found that fewer than half of family doctors knew about the potential cancer risk.

But instead of honouring that agreement, the government alleged, Novo Nordisk “provided its sales force with certain messages and tactics that created the false and misleading impression that the boxed warning and the Victoza REMS MTC [medullary thyroid carcinoma] risk message were erroneous, irrelevant, or unimportant.”

These tactics included claiming that the risk only applied to rats and mice. On one occasion sales managers “performed a skit in front of the entire sales force” in which one asked a character representing the FDA, “Do you think we’re treating rats and mice? I mean really!”

Sales staff also told physicians not to worry about medullary thyroid carcinoma because it was easy to treat, the government’s complaint claimed.

Litigation against Novo Nordisk was originally launched by two whistleblowers—a sales manager and a contracting nurse—and the US government became a plaintiff at a later date.

“When a drug manufacturer fails to share accurate risk information with doctors and patients, it deprives physicians of information vital to medical decision making,” said acting assistant attorney general Chad Readler, announcing the settlement.

Two whistleblowers began the legal case against the company and Victoza

Doug Langa, Novo Nordisk’s head of North America operations, said, “While we do not agree with the US government’s legal conclusions and deny any wrongdoing, we’re pleased to have negotiated a resolution that allows the company to return its full attention to developing medicines that help improve the lives of patients.”

The sum represents a small fraction of sales of liraglutide, which totalled $843m last year. News of the settlement saw Novo Nordisk’s share price rise by 0.3%.

Owen Dyer, Montreal
Cite this as: BMJ 2017;358:j4214

5 CAMPAIGN
The Royal College of Psychiatrists has responded to the shortage of consultants by launching a campaign to encourage more medical students into the specialty. “Choose Psychiatry” (rcpsych.ac.uk/choosespsychiatry) highlights the fact that mental health services consistently rate highly in nationwide polls on indicators such as staff satisfaction. For example, the 2016 NHS staff survey showed that the top three trusts for trainee satisfaction with the quality of work and care they could deliver were in the mental health sector.

Cite this as: BMJ 2017;358:j4211
Generations of care

This photograph, entitled Sorrow, has been awarded first prize in Flash Points, a competition organised to spark innovative ideas around public health.

The winners of the competition—organised by the Royal Society for Public Health and the Royal Photographic Society—were revealed last week. All the photographs portray health at different stages of life. Winning photographer Natasa Balogh said her image captured the “deep compassion and sorrow” in the relationship of a mother and daughter after many years of caring. The mother, 97, had had dementia for many years and was cared for by her daughter.

At the competition’s launch Shirley Cramer, RSPH’s chief executive, said, “RSPH is always seeking innovative ways in which to stimulate creative thinking around the public’s health. We’re excited to see how the photographers explore both the visible and subtle ways physical and mental health impact individuals.”

Alison Shepherd, The BMJ  Cite this as: BMJ 2017;358:j4241
Weighing up the benefits of registering those in remission from type 2 diabetes

Recoding patients who manage to reverse their diagnosis will not only encourage them to maintain their weight loss, but will also reduce national healthcare costs, argue Louise McCombie and colleagues.

In keeping with trends in most specialties, diabetes management is beginning to focus on reversible underlying disease mechanisms rather than treating symptoms and subsequent multisystem pathological consequences. Both (epi)genetic predisposition and ageing have a role in type 2 diabetes, but it is rare without weight gain.

**Lip service**

Lowering blood glucose or HbA1c concentrations remains the primary aim of management, as reflected in current clinical guidelines and the actions of licensed drugs. However, management and guidelines focus on use of antidiabetes drugs, with only lip service paid to diet and lifestyle advice. The scale of the market for drug therapies, and their likely inadequacy, is illustrated by the fact that 688 drugs (excluding insulins) are licensed worldwide to treat type 2 diabetes, with 70 generic compounds. They all lower blood glucose and HbA1c significantly, but no trials have examined drugs with optimal diet and lifestyle advice for weight control.

In contrast, consistent evidence shows that weight loss is associated with extended life expectancy for people with diabetes, and that weight loss of around 15 kg often produces total biochemical remission of type 2 diabetes, restoring beta cell function.

**Table 1 | Published and proposed criteria for diabetes in remission**

<table>
<thead>
<tr>
<th>Criteria for remission</th>
<th>Confirmation</th>
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<tbody>
<tr>
<td>ADA Consensus Group</td>
<td>Partial remission (no longer having diabetes): Both HbA1c &lt; 6.5% (&lt;48 mmol/mol) and fasting blood glucose 5.6-6.9 mmol/L without antidiabetes drugs (time not specified). Maintained for 1 year</td>
</tr>
<tr>
<td>Buchwald et al (systematic review after bariatric surgery)</td>
<td>Complete remission (no longer having pre-diabetes): Both HbA1c &lt; 6% (42 mmol/mol) and fasting blood glucose &lt; 5.6 mmol/L without antidiabetes drugs (time not specified). Maintained for 1 year</td>
</tr>
<tr>
<td>Authors' proposal for coding in routine practice</td>
<td>Previous diagnosis of type 2 diabetes by WHO criteria. HbA1c &lt; 6.5% (48 mmol/mol) or fasting blood glucose &lt; 7 mmol/L and 2 hour glucose &lt; 11 mmol/L after at least 2 months without antidiabetes medication. Two non-diabetic test results, at least 2 months apart then reviewed annually</td>
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**KEY MESSAGES**

- Remission of type 2 diabetes is achievable through substantial weight loss but is rarely recorded and probably under-reported.
- Recognising remission of diabetes can be a powerful motivator for patients to maintain weight loss.
- Diagnostic coding of “diabetes in remission” alleviates the social and financial penalties of diagnosis for patients while continuing surveillance.
- Correct coding provides a valuable indication of healthcare success and can inform planning.

Recognition that accumulation of ectopic fat in the liver and pancreas impairs organ function to cause type 2 diabetes, but is reversible, has raised awareness that remission is possible.

Media attention has encouraged increasing numbers of people with type 2 diabetes to lose weight and shed the diagnosis. Remission produces a strong sense of personal achievement and empowerment; it also benefits medical systems because patients no longer require antidiabetes drugs. The NHS spends almost £1bn a year (£22m a day) on antidiabetes drugs, and costs are rising worldwide as diabetes rates and drug prices escalate.

**Criteria for remission of diabetes**

There is no consensus on the criteria for remission of diabetes. The published criteria, and thus reported remission rates, vary, but all require being below the World Health Organization/American Diabetes Association (ADA) diagnostic thresholds for diabetes (table 1 (left)). Most recent publications, including the large Look AHEAD trial of lifestyle interventions, refer to an ADA consensus group statement that defined test results below the diagnostic threshold for diabetes as partial remission and remission of “pre-diabetes” as complete remission.
Patients and doctors may be unaware that type 2 diabetes can be reversed

Concentrations. No study has yet reported outcomes for people who achieve remission, but good glycaemic control through drug treatment improves microvascular outcomes (retinopathy, neuropathy, nephropathy) in both type 1 and type 2 diabetes. Reduced cardiac events have also been seen in patients with type 2 diabetes after bariatric surgery. In contrast, some trials have indicated raised mortality when HbA1c approaches normal levels, probably through hypoglycaemia provoking arrhythmias. Look AHEAD, reported 11.5% remission at 12 months with 8.6% weight loss, but that proportion fell by about 30% annually. Health outcomes have not yet been reported, but the limited evidence and first principles suggest remission (without drugs) should enhance overall prognosis, becoming a primary management target as early as possible.

Coding for health records
Remission of type 2 diabetes can be inferred from routine records of patients labelled diabetic who have non-diabetic biochemical test results (usually HbA1c <48 mmol/mol), when there is no record that antidiabetes drugs are prescribed.

In the UK, clinicians have used Read codes to record patients’ findings and procedures since 1985 but are now converting to the SNOMED system. The basic coding framework will remain, however. The Read code dictionary includes codes 21263 or 212H for “diabetes resolved” and C10P for “diabetes in remission.” Diabetes resolved is used for patients misdiagnosed with diabetes or in whom diabetes was secondary to a factor that has since been removed, such as withdrawal of steroid treatment. Such patients do not require annual reviews.

Code C10P should be used for patients who have achieved remission of type 2 diabetes, usually by substantial weight loss. These patients may be considered non-diabetic for matters such as insurance, driving, or employment but as the code is diagnostic they will remain scheduled for annual reviews and retinal screening programmes.

Achieving remission
In the few countries with data, patients are seldom recorded as having diabetes in remission. Karter and colleagues found remissions in only 0.14% of 120 000 US patients followed for seven years. The Scottish Care Information Diabetes database, which includes every patient in Scotland, shows that less than 0.1% of those with type 2 diabetes (245/254 208) were coded as being in remission in March 2017.

Lack of agreed criteria and guidance may have led to hesitation in coding remission, but the main reason for the low recording is probably that few patients are attempting or achieving remission. Patients and doctors may be unaware that type 2 diabetes can be reversed, despite recent publicity. The feasibility of sustained substantial intentional dietary weight loss is widely doubted, despite publications of structured approaches using an initial formula diet replacement to achieve rapid substantial weight loss and then maintain 12–15 kg loss at 12 months and beyond.
The 2010 guideline of the Scottish Intercollegiate Guidelines Network recommends sustained weight loss above 10% of body weight or 15 kg for people with severe and complicated obesity, including type 2 diabetes. This is difficult to achieve, even with bariatric surgery, and only 75%-80% of patients who succeed are rewarded with diabetes remission.

The drivers and barriers to successful remission are not fully evaluated but are likely to include age, body mass index, duration of diabetes, HbA1c concentrations, and drug treatment. Physical and social environments, emotional states, and self regulatory skills are important factors affecting adherence to a weight management intervention. It is unknown whether the degree of weight loss needed to achieve remission will be the same for Asian people, who commonly develop type 2 diabetes at a lower body mass index than people of European origin, but probably with similar body fat content.

Doctors may be understandably reluctant to redefine a patient as “in remission” if they are concerned that the remission, dependent on maintaining weight loss, may not persist, and that routine recall for annual checks might cease. However, under the remission coding annual reviews and screening recalls will continue. Another UK specific factor may have been fear of losing the incentive payments for managing diabetes under the Quality and Outcomes Framework (QOF). Again, coding “diabetes in remission” retains the diagnostic status so the practice payment would continue.

Diabetes in remission has not been specifically rewarded as a management target in QOF. Incentives have been shown to improve care and risk factors in other areas such as asthma and cardiovascular disease. Forthcoming revisions of QOF in NHS England, and its replacement in NHS Scotland, provide opportunities to include diabetes remission as an incentivised target.

### Benefits of remission

Achieving remission has health benefits for patients and removes the burden of daily monitoring and treatment, but correct coding of remission has multiple further benefits. It removes the stigma of having diabetes and provides a sense of personal achievement and social status (box, above).

Diabetes is expensive, both for individuals and for health systems. Evidence is needed on health demands and survival after remission, but the demands are likely to be lower. The average annual medical costs of type 2 diabetes in the US were calculated at $6414 (£5000) in 2007, rising with age to $9061 aged over 64, around 2.5 times greater than for people without diabetes.

The costs are climbing as expensive drugs are launched, under pharmacocentric clinical guidelines. In the UK these rising costs are borne by the NHS. Elsewhere, costs fall to the individual. Private health insurance will not usually cover existing diabetes, presenting a barrier to optimal care. Thus significantly more US adults with diabetes, and the majority aged over 65, rely on public insurance such as Medicare. The ADA’s indicative costs of cover for people with diabetes show annual premiums are around $12200 plus (optionally) $166 to allow about half of prescription drug costs to be covered. Prescription costs are not fully covered until an individual has spent more than $4950 on drugs in a year.

The 2009 US National Health Interview Survey found that, depending on total household income, people aged 18-64 with diabetes spend about $3000 a year on insurance premiums, or $2000-$6000 a year on healthcare (of poorer quality) if they do not have health insurance. Other types of insurance are also more expensive. Life assurance premiums are commonly doubled for people with diabetes, adding around £600 a year to an average policy. The international online insurance broker moneysupermarket.com offers people with type 2 diabetes equivalent travel policies at almost double the price of that for a person without medical problems, adding £20-£30 to the cost of 14 days’ cover in the US, or more if insulin is needed. At present, people who have diabetes in remission are included in the cheaper category (as are people with prediabetes).

Awareness of such tangible savings might help maintain weight loss and remission of type 2 diabetes: rewards and praise for goals achieved are key elements in changing behaviour.

### Moving forward

It is in everybody’s interest to reclassify people with type 2 diabetes when they become non-diabetic. Official guidelines and international consensus for recording diabetes in remission are needed. We have proposed two non-diabetic test results, at least two months apart, should be required, with annual reviews of HbA1c to confirm continuation. The appropriate interval between tests is open to debate. It must be long enough to eliminate people with temporary dips in glycaemia but short enough for patients to maintain motivation.

Having agreed criteria for coding diabetes in remission (C10P in the UK) will benefit patients and healthcare planning. Appropriate coding will make it possible to monitor progress in achieving remission of type 2 diabetes nationally and internationally and to improve predictions of long term health outcomes for patients with a known duration of remission.

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The threat of untreatable gonorrhoea

Requires a coordinated international response

Antibiotics are unlike other drugs used in medicine in that the more they are used the less effective they become. Their widespread use provides a strong selective pressure for the emergence and spread of bacteria that have developed resistance. Many bacterial infections are thus becoming increasingly difficult to treat, and among them is the sexually transmitted infection gonorrhoea, which is the second most common bacterial sexually transmitted infection in the UK.1

Untreated infection can lead to pelvic inflammatory disease, ectopic pregnancy, and tubal infertility. In rare instances the infecting bacterium, Neisseria gonorrhoeae, can invade the bloodstream causing septic arthritis or endocarditis.2 Thus the possible widespread occurrence of untreatable gonorrhoea is a serious public health threat, highlighted recently by the World Health Organization (WHO).3

Old adversary

The first antibiotics used for treating gonorrhoea, the sulfonamides, were introduced in the early 1940s, but resistance became widespread in a matter of years. Thereafter penicillin became the drug of choice, but over the next two decades increasingly high doses were needed as clinical isolates of N gonorrhoeae became more resistant. In 1976 penicillin treatment was severely compromised by the emergence of strains that produced enzymes (β-lactamases) that rendered penicillin inactive.4

Resistance to alternative tetracycline emerged in turn in the 1980s and spread internationally.5 From the 1990s onwards a fluoroquinolone, ciprofloxacin, became more widely used as first line treatment for gonorrhoea. However, by the mid-2000s, widespread resistance had led many countries to abandon ciprofloxacin in favour of the cephalosporins cefixime and ceftriaxone.6

Efforts were made to counter emerging cephalosporin resistance, initially by moving away from oral cefixime to high dose intramuscular ceftriaxone and then by a recommendation to combine this with azithromycin.6 7 Despite these changes, the first global report of dual therapy treatment failure, in a patient with pharyngeal gonorrhoea, was recently published, with the infecting strain found to be resistant to azithromycin, ceftriaxone, cefixime, cefotaxime, penicillin, tetracycline, and ciprofloxacin.8 The patient presented in the UK after acquiring infection in Japan, where a strain of N gonorrhoeae with reduced susceptibility to cephalospirins and azithromycin is spreading.9

Tackling the problem

So what can be done? Unfortunately the approach adopted in the past—namely, to use new antibiotics—is not a viable option because of the paucity of new antibiotics in the drug discovery pipeline. Development is problematic, although a recent report that exposure to a meningococcal group B outer membrane vesicle vaccine was associated with reduced rates of gonorrhoea in 15-30 year olds in New Zealand could inform vaccine development.10

One promising option is the introduction of rapid point of care tests that can detect N gonorrhoeae in clinical specimens and the bacteria’s susceptibility to specific antibiotics.11 This would enable clinicians to prescribe effective therapy at first point of care rather than use empirical antibiotic prescribing, which is the norm at present. Such an approach would benefit individuals and interrupt onward transmission of disease through earlier elimination of infection. Tailoring antibiotic treatment to individual patients would also increase heterogeneity of antibiotic use, thereby reducing the selection pressure for emergence and spread of resistance to individual antibiotics. However, while rapid tests are being developed, modelled, and evaluated,12 none is yet in widespread use.

Clearly, these efforts need to be supported by traditional approaches to gonorrhoea control, including behavioural risk reduction interventions, effective contact tracing, and encouraging regular testing for those at greatest risk. In the longer term,13 efforts need to be made to improve global surveillance of gonorrhoea, including antibiotic resistance and treatment failures, particularly in lower income countries. Antibiotic resistant gonorrhoea poses an international clinical and public health threat and, as such, warrants an integrated and coordinated international response.

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Substance misuse in older people

Baby boomers are the population at highest risk

Developed countries have seen substantial increases in longevity over the past 20 years, contributing to a global demographic shift. The number of older people (aged over 50) experiencing problems from substance misuse is also growing rapidly, with the numbers receiving treatment expected to treble in the US and double in Europe by 2020.

In both the UK and Australia, risky drinking is declining, except among people aged 50 years and older. There is also a strong upward trend for episodic heavy drinking in this age group. This generational trend is not restricted to alcohol. In Australia, the largest percentage increase in drug misuse between 2013 and 2016 was among people aged 60 and over, with this age group mainly misusing prescription drugs. However, people over 50 also have higher rates than younger age groups for both past year and lifetime illicit drug misuse (notably cannabis).

Of additional concern is the increasing proportion of women drinking in later life, particularly those whose alcohol consumption is triggered by life events such as retirement, bereavement, change in home situation, infrequent contact with family and friends, and social isolation. The rise of alcohol misuse in “baby boomers” (people born between 1946 and 1964) has also been noted in Asian countries.

Underdetection

With alcohol being the most common substance of misuse among older people, underdetection of alcohol problems is of immediate concern. A lack of sound alcohol screening to detect risky drinking may result in a greater need for treatment, longer duration of treatment, heavier use of ambulance services, and higher rates of hospital admission.

Two systematic reviews of both descriptive and analytical trials found that treatment programmes adapted for older people with substance misuse were associated with better outcomes than programmes aimed at all age groups. Age adapted programmes resulted in less severe addiction, higher rates of abstinence, improved health status, and better aftercare. Assessment, treatment, and recovery plans require careful consideration of age specific clinical needs. Professionals need to consider the possibility of coexisting mental disorders such as cognitive impairment and depression (dual diagnosis), as well as complex physical presentations that may include the presence of pain, insomnia, or the non-medical use of prescription drugs. Older people with dual diagnosis use both inpatient and outpatient services more frequently than those with substance misuse alone. The management of substance use in older people can also be influenced by mental capacity, which may change with the onset of cognitive impairment.

Future healthcare for older people with substance misuse will continue to present challenges for service delivery, particularly with the growing influence of baby boomers. Some of the recommendations from the 2011 Royal College of Psychiatrists’ report on substance misuse in older people (Our Invisible Addicts), such as examining safe drinking limits for older people, developing age specific skills in the assessment and treatment of substance misuse, and adapting services have been incorporated into an information guide for clinical practice. In the US, the importance of better education for clinicians has already been noted.

In the UK, a revision of Our Invisible Addicts is under way.

Complex presentations

The baby boomer population also brings challenges to the diagnostic process, given the complexity of clinical presentations. Clinicians will need improved knowledge and skills in assessing and treating older people at risk of misuse of opiate prescription drugs, cannabis, and, increasingly, gabapentinoid drugs used to treat neuropathic pain and anxiety.

Guidance for service commissioners has begun to acknowledge the needs of older people with substance misuse, particularly in the context of dual diagnosis. The Drink Wise Age Well project in the UK has also started to evaluate interventions for alcohol misuse in older people. But there remains an urgent need for better drug treatments for older people with substance misuse, more widespread training, and above all a stronger evidence base for both prevention and treatment.

The clinical complexity of older adults with substance misuse demands new solutions to a rapidly growing problem.
This is the age of lies, as truth is trampled and falsity flourishes, its reach grotesquely amplified by the internet. Or so believe many commentators dismayed by Brexit, the election of Donald Trump, climate change deniers, antivaccine campaigners, and the power of Hollywood stars whose nostrums on diet and health are taken seriously by millions.

Three such pundits, all authors of books on the phenomenon with strikingly similar titles, met recently for a debate at London’s Science Museum chaired by Fiona Fox, the chief executive of the Science Media Centre. Evan Davis of the BBC has written Post-Truth: Why We Have Reached Peak Bullshit; the political writer Matthew D’Ancona Post-Truth: The New War On Truth And How To Fight Back; and Buzzfeed’s special correspondent James Ball Post-Truth: How Bullshit Conquered The World.

“Post-truth” might describe a culture in which debate appeals to emotion rather than practicality, with repeated assertions to which factual rebuttals are ignored. But was it really a new phenomenon, Fox asked, or just a new name for an old thing? The row over the measles, mumps, and rubella (MMR) vaccine cited in the books was, after all, pretty familiar.

Post-truth was a virulent new form of an old disease, Davis said, and President Trump was the reason we were talking about it. What was new, said D’Ancona, was a greater public willingness to consume mendacity. “Trump and Brexit have brought to the fore things that have long been bubbling beneath the surface,” he said. Ball’s view was that the old problems had been “weaponised” by the internet, whose reach and power makes tackling these evils harder.

**Tobacco industry**

D’Ancona blamed a decline in faith in institutions as well as the “rocket booster” force of technology for the immediate ills. But he traced the deliberate creation of untruth back to the 1950s and the tobacco industry’s efforts to discredit research on the health effects of smoking. “The game was not to win the argument,” he argued, “but to upset the notion of scientific consensus—not victory but public confusion—and enough doubt to prevent tough action against smoking.”

The same techniques were being used by climate change deniers, and by the opponents of Obamacare who claimed that the NHS employed “death panels” to determine who should be treated and who not. He saw a need for charismatic leadership by scientists to turn the tide. “Truth always requires an emotional delivery system,” he said.

Davis took a contrary view, calling for scientists to be more modest in their claims. “My advice to scientists is not to argue more strongly but to apply psychology and be more modest in their claims,” he said. “Shouting is not the way to do it. They should be more open minded and respectful.”

Ball countered that researchers were more likely simply to keep their heads down. And those brave enough to peep above the parapet always sought to win the argument on their own terms, while what they should be doing—he said—was to win old fights in new ways. “The opposition aren’t going to say ‘Yes, you’ve been right all along, you’re terribly clever,’” he said. “We’ve messed up on climate change and millions will die. We need a new approach.”

**Thin science**

The risk, acknowledged Davis, was of falling for a “thin model” in which science is stripped of the very qualities, such as complexity, rigour, and thoroughness, that make it work. “We don’t need to ‘thin’ science. It’s about communication, talking to people where they are, at lower volume to reduce tribalism,” he insisted. “Shout too loud and you entrench people’s arguments.”

You won’t convince a follower of homeopathy he’s mistaken by calling him a dimwit, he said. Discussing the power of placebos might be a better starting point.

The suggestion that the Brexit vote and the election of Trump were prime cases of post-truth politics angered one audience member, who said that the panelists were liberals who had been in the minority on both arguments, had lost, and were now claiming the wins were the result of public ignorance fed by untruth. This was nothing more than virtue signalling, he said.

It was a point that deserved a better response than it got (which was none). Tribalism and unrealistic promises may have underpinned Trump’s victory, but were they absent from Jeremy Corbyn’s surprise election showing? The Labour leader didn’t get a mention in the debate, proof maybe of Davis’s claim that truth, post-truth, and bullshit are all a function of the tribe you belong to.

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HEAD TO HEAD

Should Google offer an online screening test for depression?

It could raise awareness and help to improve identification and treatment of mental health issues, says Ken Duckworth, but Simon Gilbody worries that screening could cause harm

yes

Currently, Googling “depression tests” yields many different surveys, not all of which are clinically validated or beneficial

Ken Duckworth, medical director, National Alliance on Mental Illness, Arlington, Virginia; Department of Psychiatry, Harvard Medical School ken@nami.org

Until recently, patients had to see a doctor to learn their blood pressure and blood sugar levels. Now, measurement tools are readily available at home, and raised public awareness of cardiac risk has contributed to a huge reduction in heart disease.

Contrast this with suicide, which, in the US, is increasing in almost all population groups. In the UK, suicide rates among women are the highest in a decade. While many people know what 120/80 mm Hg means, few know their PHQ-9 (patient health questionnaire 9) score. A common language for measuring depression could advance conversations among the public and with professionals.

PHQ-9 is a test validated for use in primary care to monitor the severity of depression and response to treatment. It is designed for patients to read and answer on their own. The result is a total of scores for each of nine DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) criteria, each rated from 0 to 3 for frequency of occurrence. The test is quick to do and used in many clinical settings.

Attitudinal barriers
Nearly a fifth of Americans experience clinical depression at some time. However, about half do not receive any treatment, and the rest wait an average six to eight years. A key reason may be that people with mental health conditions perceive that they do not need treatment. Studies show they report attitudinal barriers to seeking care much more often than structural or financial barriers.

Google and the US advocacy organisation the National Alliance on Mental Illness (NAMI) want to help by providing a screening test to people who are already seeking information online. A search for “Am I depressed?” (or similar) via mobile phone will offer a link to the PHQ-9 test. Links to materials from NAMI and telephone helplines will be given with the screening test results for people with higher scores.

Minimal risks
Are the screening tests a risky idea? The US Preventive Services Task Force (USPSTF) says not. It recommends including depression screening in routine clinical care. However, Google offering the PHQ-9 is not meant to replace clinical screening; nor does it constitute a universal screening programme.

Instead, it is intended as widespread education to prompt informed conversations with clinical professionals and to suggest potentially helpful resources. This is balanced against existing potential harms; currently, Googling “depression tests” yields many different surveys, not all of which are clinically validated or beneficial.

Could this lead to overtreatment? It seems unlikely, because the PHQ-9 result alone cannot drive treatment without a formal diagnosis. PHQ-9 does not recommend treatment. No industry money is involved.

Could this threaten privacy? Google will not store or log any responses or results, or link these with individuals’ other data. Google will not tailor advertisements to responses.

Could this lead to overwhelmed services? Helping people to access mental health assessment could lead to less harm and lower medical expenses associated with depression.

Only time will tell if it adds any cost burden to the healthcare system. Given the immense burden of this condition, this potential outcome could initiate conversations on newer investments in care, such as telemedicine, teletherapy, online cognitive behaviour therapy, and promoting models like collaborative care.

Currently, multiple metrics are used in mental health services to measure clinical status and improvement—when metrics are used at all. We don’t have a dozen blood pressure metrics. One of the greatest benefits of raising awareness may be the potential for PHQ-9 to become a
Much of the pathology that is picked up is transient psychological distress, which will remit without treatment

Simon Gilbody, professor of psychological medicine and health services research, Mental Health and Addictions Research Group, University of York; Hull York Medical School simon.gilbody@york.ac.uk

Writing on Google’s blog, Mary Giliberti, chief executive of NAMI, rehearses the argument that is often made to support population screening. She notes that one in five people experience clinical depression but only half of them actually receive treatment. She hopes “that by making this information available on Google, more people will become aware of depression and seek treatment.”

Google generates considerable revenue by selling targeted advertising and makes great use of the data provided by users. So how should its foray into mental health be viewed?

**Dubious case for screening**

My first concern is that this is a screening programme that bypasses the usual checks provided by bodies such as the UK National Screening Committee (UKNSC). Screening for depression is controversial, and we should remember Muir Gray’s dictum that “All screening programmes do harm; some do good as well.” The case for screening for depression fails on several key criteria.

False positive rates are high, and people with a positive result may have a range of disorders other than depression. Much of the pathology that is picked up is transient psychological distress, which will remit without treatment.

Screening should be implemented only when there are resources in place to meet the demand they generate. Treatment resources for depression are inadequate in most health systems, and it is likely that screening will add to the upward trend in antidepressant prescriptions (which have the greatest year on year increase of any drug class).

Systematic reviews show that screening programmes do not improve depression. The UKNSC does not recommend screening for good reason. Its US counterpart recommends screening only “with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up,” which Google will not provide.

My second concern is that people will be cautious about any assurance about privacy and misuse of data. Advertisements that appear on computer screens are targeted on the basis of web generated personal data, and data generated by a depression screening programme could be used to market antidepressants. Psychotropics have been heavily marketed in the US using direct-to-consumer advertising. Online questionnaires have been used as marketing tools to encourage people with anxiety disorders to self diagnose and request branded drugs.

**Blurred boundaries**

Historically, the boundaries between pharmaceutical advertising and patient information are also blurred by the presence of online disease awareness campaigns sponsored by industry. Google offers reassurance in this respect, with links to NAMI. However, Google does not highlight that the PHQ-9 is copyrighted by Pfizer or that NAMI is reported to derive much of its income from the drug industry.

Finally, there is risk of harm. Depression should be diagnosed after a clinical consultation, but recent examples show that disease awareness campaigns (for example, in stroke risk and prostate cancer) and unregulated screening programmes (such as carotid Doppler ultrasonography) present risks of overdiagnosis, supplier induced demand, and inappropriate treatment.

Moreover, treatment will inevitably be sought outside of healthcare systems without proper risk assessment or consideration of benefits versus harms. People will be offered non-evidence supported treatments or purchase powerful psychotropic drugs online without professional oversight. Some online treatment programmes for depression are free to use, but they are often not effective in large scale pragmatic trials.

Google’s initiative has been reported positively and uncritically despite bypassing the usual checks and balances that exist for good reason. It is unlikely it will improve population health and may in fact do harm.

Competing interests: See bmj.com

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Listen to the authors debate the issue in the podcast on bmj.com

PATIENT COMMENTARY, overleaf

standard depression metric, reducing the subjective nature of psychiatric care. If someone calls their doctor to report a PHQ-9 score of 7, or of 17, any professional can triage the person appropriately. They can also assess the patient for a mood disorder, a false positive result, or a medical problem presenting with these symptoms.

Increasing the motivated public’s understanding of this tool could help to empower patients. Informed people may have a better chance of getting the help they need. NAMI and Google remain open to feedback.
When you are in mental and emotional distress, part of the agony is because the mind cannot make sense of what is happening inside or outside. In this situation I have wanted a diagnosis to help explain what I am going through and to give a semblance of choice and control. If what I am feeling is something others regard as real, maybe it becomes more amenable to being fixed. Diagnosis is a key that might unlock the prison cell of suffering.

On the other hand, I have also hated being given a diagnosis. Questions such as whether I’m “really” depressed ignore my wider unhappiness and what matters in my life. Diagnostic labels imprison me as a passive patient rather than consider me as a person.

So, does Google’s offer of the PHQ-9 test help to unlock or lock the prison cell? This diagnostic tool focuses on physiological and biomedical symptoms. It puts firm emphasis on dysfunction and frames distress from the outset as an illness. “Significant” scores position your problems as being amenable to doctors’ treatment. Maybe that’s fair enough, but let’s look at context.

The underpinning belief here—for doctors and other advocates of such tools—is that there is undertreatment of depression in the community and that we should encourage more people to access care.

**Wellbeing versus neurotransmitters**

This is fine if there is an acknowledgment that my wellbeing is as much to do with being loved—having a meaningful life and belonging—as to do with the state of my neurotransmitters, and if there is the right sort of support, control, and choice in what happens next. The default option in my experience, however, has always been to give drugs. It is hard to see this changing.

In effect, the nature of the PHQ-9 test and the restricted range of choices mean that Google is driving people quicker down the path to big pharma. Remember, Pfizer funded the development of the tool.

**Use of biomedically framed diagnostic tools spreads a world view that sees me as a symptomatic patient rather than a whole human being**

What about stigma? If my odd state is deemed to be a real medical condition picked up by an online diagnostic tool, then I should surely feel less shame? This is a misplaced belief, but understandable, in that there seems to be a societal effort to equate mental health problems with physical ones. It fits with a longing by psychiatrists to be seen as more scientific.

But I believe mental health problems are much more bound with psychosocial explanations, uniquely cutting across the boundaries between emotional and physiological causes. This is perhaps why there is a history of ambivalence towards diagnosis among people with mental health problems. Labelling, control, stigma—these are carved deep into the psyche. I am a person with rights, not a defective brain to be normalised.

I am not anti-drugs (I take citalopram and pregabalin). I am pro-choice. Widespread use of biomedically framed diagnostic tools plus a lack of alternatives spreads a world view that sees me as a symptomatic patient rather than a whole human being. This threatens to increase stigma.

Ironically, people for and against tools such as this share similar beliefs: more awareness (of symptoms) is good, better (medical) diagnosis is good, doctors and treatment (mainly drugs) will save us. Google, in effect, is serving up old (paternalistic) wine in new (digital) bottles.

**Wise creatures**

But here’s the good news. People who experience distress are wise creatures. Trauma has damaged them. Sensitivity has left them more permeable than most to the world and its terrors. If they are Googling, curiosity and questioning will take them elsewhere. If they can more easily find alternative sensemaking, access to help to get back on their feet, safe spaces to meet, community based support, and peers who can go on the journey with them, there is hope. We will need patient entrepreneurs, peer support advocates, and community development activists to design tools that will do all this.

However, this change will happen only if service users have power and are equal partners in policy and planning, in design and delivery in the NHS, and with corporations like Google, so that decisions about allocation of resources and information governance are made together. We should be partners for change. Only then will online tools be a key that unlocks sensemaking, choice, and control.

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Service users must be equal partners in creating care with companies like Google, argues **David Gilbert**
Lobbying law is “gagging public debate on health”

Campaigners are pressing for changes to legislation which they claim weakens democracy, writes Adrian O’Dowd

Why are we talking about lobbying legislation?
Because 122 organisations, including health charities, have expressed concerns that it is unfairly preventing them from expressing their opinions and therefore reducing their contribution to civil debate. A joint letter sent to the Department for Digital, Culture, Media and Sport on 29 August says: “The Lobbying Act is a confusing and burdensome piece of legislation that weakens our democracy.” Signatories include the Motor Neurone Disease Association, National AIDS Trust, and National Autistic Society.

What is the lobbying act?
The Transparency of Lobbying, Non-Party Campaigning and Trade Union Administration Act 2014 restricts what organisations that are not political parties can say and how much they can spend on campaigns in the year running up to a general election.

How does it affect charities and trade unions?
The act regulates campaigning activity—including by charities and trade unions—during election periods, if it can be regarded as intended to influence voting behaviour. As well as campaigns for or against political parties or candidates, the act includes campaigns on specific issues if the position being advanced can be associated with one or more parties or categories of candidates.

A BMA spokesperson explains: “You can speak out, you can criticise a particular party or candidate, but if you do that, then you have to account for it, record how much of that you are doing and how much money you are spending on what the act calls controlled activities.”

Greenpeace UK was fined £30 000 in April for refusing to register its campaigning activities under the act.

Why was the act introduced?
To deal with the problem of corporate influence and prevent scandals over lobbyists’ access and influence. One prominent example was the resignation of defence secretary, Liam Fox, in 2011 after revelations about his relationship with an unofficial adviser whose business links may have benefited from his relationship with the minister.

It makes an organisation like the BMA think very carefully about what we would see to be legitimate campaigning

What is the problem with the act?
Critics say the law seems to have done little to tackle corporate lobbying, and therefore it has little effect on the activities of industries such as pharmaceuticals, food, and tobacco.

“The principle of statutory regulation is important, and we won that, but in practice it’s been lacking,” says David Miller, professor of sociology at University of Bath.

However, critics say, the act has hit the nonprofit sector hard. The 29 August letter states: “The Lobbying Act has had a disproportionate impact on civil society campaigning. We are concerned that it caused many organisations, often representing our society’s most marginalised and vulnerable people, not to engage in the run-up to the recent general election, and resulted in important voices being lost from public debate.”

Charities and trade unions may fear running political campaigns in case there is a snap election, since the act would apply retrospectively to those activities that have taken place in the year preceding an election, even if the election had not then been announced. In a briefing document sent to local Age UK branches in the run-up to this year’s general election, the charity said: “The biggest risk is that some charities will be so worried about accidentally breaching the law that they will decide not to do any lobbying at all.”

Is health debate being held back?
Health charities and trade unions say so. A BMA spokesperson says the act “makes it more difficult for organisations to campaign freely.”

The association has had to be cautious of targeting specific parties or politicians on NHS concerns in case this might contravene the act. “Whereas previously we would have asked candidates to publicly sign up to a list of NHS promises and priorities, this is something we didn’t do in the last election,” the spokesperson says. “It makes an organisation like ourselves think very carefully about whether and how to go about what we would see to be legitimate campaigning.”

Is repeal or reform likely?
Possibly, but by no means certain. In March 2016, Conservative peer Lord Hodgson of Astley Abbotts published a review commissioned by the government of part of the act. He concluded that the act failed to get the balance right and proposed several changes. In March this year, the House of Lords select committee on charities called on the government to implement Lord Hodgson’s recommendation in full.

The Cabinet Office has issued a response to the 29 August letter, saying: “The rules on campaigning at elections in the Transparency of Lobbying Act have never prevented charities or others from campaigning on behalf of those they represent.”

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Antimicrobial resistance (AMR) is one of the core political, social, and economic problems of our time, with projections suggesting that by 2050 more people will die of bacterial infections than cancer. The BMJ recently published a collection of articles highlighting the critical situation of AMR in South East Asia. Although the region has made steady social and economic progress, antibiotic stewardship programmes remain underdeveloped.

This collection of 15 articles provides an in-depth look at AMR initiatives in three countries—India, Indonesia, and Thailand. The collection surveys the progress on national action plans, surveillance, infection prevention and control, and spread of antibiotic resistant genes in the environment, while also highlighting priorities for action.

The collection is at bmj.com/anti-microbial-resistance

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Yemen’s forgotten war

This month in BMJ Opinion, public health practitioner Taher Qassim describes the continuing plight of the Yemeni people, who, he fears, “are being left to rot in a forgotten war.” Yemen’s war, he says, is estimated to have so far killed more than 10 000 Yemenis and injured hundreds of thousands. The cholera outbreak has, according to various estimates, infected nearly half a million people and killed 2000.

As the conflict enters its third year, he warns that the world has to be prepared for the potential of other surprise outbreaks of deadly diseases. Many health facilities are either destroyed or closed, health workers are not paid, and the transport of medicine is limited because of tight military control by both sides in the conflict. “The cholera outbreak might improve but, in the absence of a functioning health system, malnutrition, starvation, and deadly infectious diseases will be the norm,” he says.

Read the full article at http://bit.ly/taher_on_yemen

Solving the mystery of malaria transmission

On this day in 1932, Ronald Ross, who discovered that mosquitoes transmitted malaria, died at the Ross Institute and Hospital for Tropical Diseases, which was later incorporated into the London School of Hygiene and Tropical Medicine.

A BMJ article in 1972 (Br Med J 1972;3:464), commemorating the 75th anniversary of Ross’s discovery, explains: “In England the disease was still common in the last century, particularly in the fenlands of the eastern counties . . . In the hot countries of the tropics it was the prime killer . . . Its treatment by quinine had been discovered as long ago as the 16th century, but its cause and nature had remained a mystery until in 1880 [the French military doctor Alphonse] Laveran in Algeria found the parasite in the blood of patients. Now it remained to be discovered how man became infected, and it was not for another 17 years that the mystery yielded to . . . Ronald Ross, a surgeon-major in the Indian Medical Service.”

Ross’s breakthrough—that Anopheles mosquitoes are the vectors that transmit malaria—“marked the beginning of a new era in tropical medicine.”

His discovery was published in The BMJ on 18 December 1897 (Br Med J 1897;2:1786).

The 1972 article details how, as a result of Ross’s finding, “Sanitation and drainage together with the destruction of larvae became the basis of control measures, which soon produced dramatic results wherever they could be applied.”