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NEWS

Speed cameras "do reduce injuries and deaths" on roads

Helen Mooney LONDON

Speed cameras reduce numbers of road traffic crashes and deaths, finds new research carried out by a team based at Australia's Queensland University.

The findings, published by the Cochrane Library (*Cochrane Database of Systematic Reviews* 2010;(10):CD004607), show that when speed cameras are in place the number of vehicles that exceed local speed limits is lower, and the number of collisions and the number of people killed or injured are also reduced.

The results are topical because the UK's coalition government has claimed that local authorities have relied too heavily on speed cameras to reduce road crashes. Earlier this year the government announced that it would be cutting the road safety budgets it gives to English and Welsh local authorities by £38m (€44m; $60m) and cutting central funding for speed cameras as part of its wider efforts to reduce public spending.

Announcing the funding cuts, the road safety minister, Mike Penning, said, "In the coalition agreement the government made clear it would end central funding for fixed speed cameras. Local authorities have relied too heavily on safety cameras for far too long."

However, the study's lead researcher, Cecilia Wilson, said that speed cameras do consistently help to reduce the risk of collisions and road traffic injuries. "The consistency in the way that vehicle speeds, crashes, road traffic injuries, and deaths [were] all reduced in places where speed cameras were operating shows that these cameras do a good job," she said.

"While there is variation in the results, the overall finding is clear: speed cameras do reduce injuries and deaths," she added.

The research team found that, in comparison with speed control signs only, the relative reduction in average speed in areas where speed cameras were in place ranged from 1% to 15% and the reduction in the proportion of vehicles speeding ranged from 14% to 65%. It also found that in the vicinity of speed camera sites the reduction in the number of vehicles that crashed ranged from 8% to 49% and from 11% to 44% for crashes involving fatal and serious injury.

Cite this as: *BMJ* 2010;341:c5489

CORBIN O'GRADY STUDIO/SPL

Dr Robert Edwards with photos of IVF babies at the Bourn Hall Clinic, Cambridgeshire, in 1989

IVF pioneer Robert Edwards wins Nobel prize for medicine

Geoff Watts LONDON

The 2010 Nobel prize for physiology or medicine was awarded this week to Robert Edwards for the development of in vitro fertilisation (IVF).

The formal announcement of the first birth from IVF came modestly enough in a letter to the *Lancet*. "We wish to report," wrote Mr Steptoe and Professor Edwards, "that one of our patients, a 30 year old nulliparous woman, was safely delivered by caesarean section on July 25, 1978, of a normal infant girl weighing 2700 g." The girl, as the world rapidly learnt, was Louise Brown.

The work that led to her birth began in the 1950s when Professor Edwards was working at the National Institute for Medical Research in London. Studies of fertilisation in non-mammalian animals had already been proceeding for well over a century. By 1959 Min Chueh Chang, working in the United States, had managed to carry out IVF in rabbits. But achieving its human counterpart proved an altogether trickier proposition.

With a long track record of research into animal reproduction, Professor Edwards was well placed to overcome the succession of technical hurdles he faced. One of his key insights was the realisation that he might achieve not only fertilisation but subsequent development if he used oocytes that had completed their maturation inside the ovary. But how to get at them without surgery?

It was in the late 1960s, and now based at Cambridge University, that he read of Patrick Steptoe's experience in using the then novel technique of laparoscopy. Mr Steptoe, working at Oldham and District General Hospital, had shown that it was possible to remove oocytes using a laparoscope. Professor Edwards made contact, and their collaboration began.

The first 100 or so attempts ended in failure, with the embryo dying early on in the pregnancy. A change in the hormone treatment given to the women to induce maturation of the oocytes solved the problem.

The decision to award the prize to Professor Edwards was applauded by Martin Johnson, Cambridge University's professor of reproductive sciences. He said: "He was a real visionary and always ahead of his time on so many issues—not just IVF but also on PGD [preimplantation genetic diagnosis] in the 1960s, and stem cells in the 1970s."

Cite this as: *BMJ* 2010;341:c5533

Tobacco giant fails to prevent Scottish ban on display in shops

Bryan Christie EDINBURGH

One of the world's leading tobacco companies has failed in a legal attempt to prevent a ban being introduced in Scotland on displaying tobacco products in shops.

Imperial Tobacco challenged the right of the Scottish parliament to introduce legislation to ban the open display of tobacco products in shops and end the sale of cigarettes from vending machines. It said that this move amounted to the regulation of the sale and supply of goods, which is a power that is reserved to the Westminster parliament.

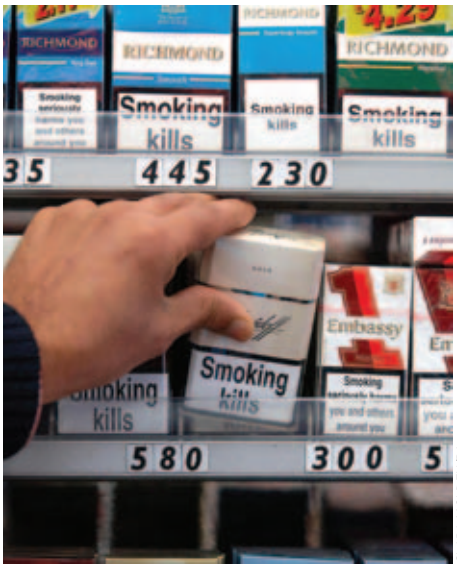
That argument was rejected by Lord Bracadale in the Court of Session in Edinburgh, who did not accept a connection between a ban on displaying products and selling them. He said that the measure, contained in the Tobacco and Private Medical Services (Scotland) Act 2010, "does not prevent a sale being made, nor does it affect the terms of sale between the business selling tobacco products and the consumer purchasing them."

He accepted that the purpose behind the legislation was to reduce the prevalence of smoking among children and young people and to improve public health. As such, it was within the powers of the Scottish parliament, and he ruled that none of Imperial Tobacco's challenges to the planned new legislation was well founded.

Similar legislation is being introduced in England and Wales, and the intention is to bring the measures in at the same time in all three countries. This is expected to happen in autumn 2011.

Scotland's health minister, Nicola Sturgeon, said she was pleased that the court had found in favour of the legislation. "We robustly defended our proposals in court. Banning the display of tobacco products in shops will help to discourage a future generation of smokers."

The decision was also welcomed by Sheila Duffy, chief executive of the antitobacco group ASH Scotland. "Whenever and wherever the tobacco industry is threatened, it always seeks to dilute, derail, or delay legislation in whatever way it can, and it uses the vast profits it makes at the expense of people's lives to pursue its day in court," she said.



CLARA MOLDEN/PA

The display ban is opposed by small retailers and corner shops, and their representatives were disappointed at the ruling. They have questioned whether a ban will help to reduce smoking and have warned that it will burden small businesses with excessive and unnecessary costs at the worst possible time.

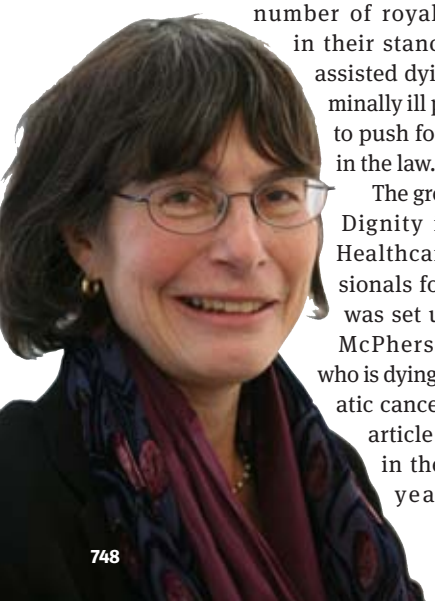
A spokesman for Imperial Tobacco said it would be reviewing the court ruling and may consider an appeal.

Cite this as: *BMJ* 2010;341:c5473

New doctors' group challenges medical bodies' opposition to assisted dying

Zosia Kmietowicz LONDON

UK doctors have set up a new group for health professionals to challenge the BMA and a number of royal colleges in their stance against assisted dying for terminally ill people and to push for a change in the law.



The group, called Dignity in Dying: Healthcare Professionals for Change, was set up by Ann McPherson (left), who is dying of pancreatic cancer, after an article she wrote in the *BMJ* last year generated interest in giving people who are dying the option of help to end their lives when they chose (*BMJ* 2009;339:b2827).

Dr McPherson, who is a fellow of the Royal College of General Practitioners, said she wants the royal colleges to have a more informed debate about assisted suicide.

Currently the BMA, the Royal College of Anaesthetists, the Royal College of General Practitioners, the Royal Society of Medicine, and the Royal College of Physicians have all adopted policies against changing the 1961 Suicide Act, which forbids any assistance.

Although the Royal College of Psychiatrists and the Royal College of Pathologists veer towards a neutral stance on the issue, both colleges expressed concern about Joel Joffe's private member's bill to enable assisted dying for people with unbearable suffering before it was thrown out of the House of Lords in 2006 (*BMJ* 2006;332:1169). Only the Royal College of Nursing currently holds a neutral stance, changed from one of opposition after consulting its members in 2009.

Dr McPherson said, "By taking a hostile approach to a change in the law on assisted dying, medical bodies such as the BMA and the Royal College of Physicians are failing to adequately reflect the views of all their members. Many of us believe that dying patients should not have to suffer against their wishes at the end of life. Alongside access to good quality end of life care, we believe that terminally ill, mentally competent patients should be able to choose an assisted death, subject to safeguards."

The group is supported by Dignity in Dying, which campaigns for greater choice, control, and access to services for patients at the end of life and has over 25 000 supporters. This year's British social attitudes survey found that 82% of people support assisted dying.

Raymond Tallis, a philosopher and former geriatrician who changed his mind in 2003 to support a change in the law after studying the evidence, said that there is "total frustration" among doctors, whose professional bodies no longer represent the views of 60-70% of their membership on this issue.

Professor Tallis said he was "strongly in favour of assisted dying, partly as a result of thinking much harder about it." He said that many assumptions about legislation to support assisted dying are simple not borne out by experience.

To contact the group email office@healthcareprofessionalsforchange.org.uk.

Cite this as: *BMJ* 2010;341:c5498

Six in 10 heart attack patients in England were treated with primary angioplasty in 2009-10

Zosia Kmietowicz BMJ

For the first time, patients in England who have had a heart attack are more likely to be treated with primary angioplasty than with thrombolysis, show results from a national audit.

Figures from the ninth annual MINAP (myocardial ischaemia national audit project) audit show that 63% (12 459 of 19 638) of eligible patients had primary angioplasty in 2009-10, compared with 44% (8107 of 18 497) in 2008-9. In Wales the use of primary angioplasty increased from 11% in 2008/9 to 22% last year.

Researchers analysed treatment provided by all hospitals and ambulance services in England and Wales that cared for patients with suspected heart attack from April 2009 to March 2010.

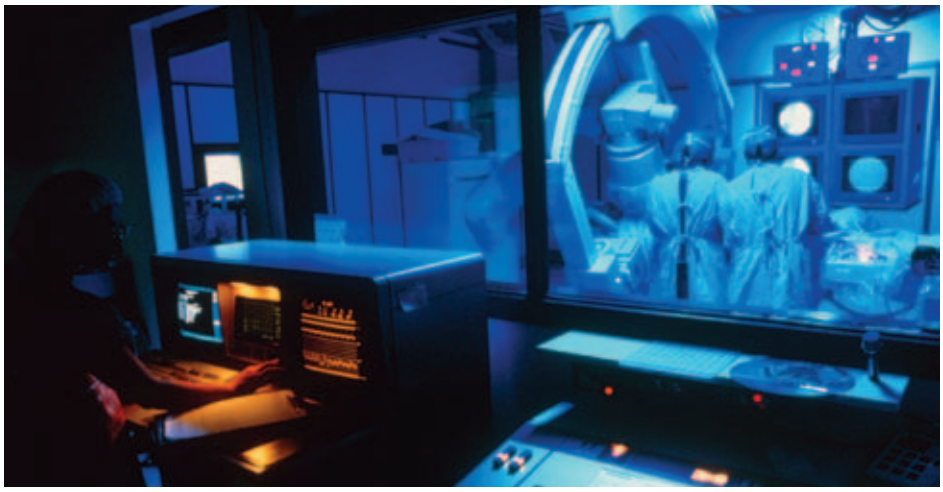
The results show a shift in focus from treating patients with thrombolytic drugs in the ambulance on the way to smaller hospitals or accident and emergency departments to taking them directly to catheter laboratories or heart attack centres. Of the patients who had an angioplasty in England last year three quarters were treated in a heart attack centre.

Commenting on the figures, Roger Boyle, national director for heart disease and stroke, said, "This treatment is a clear example of how the NHS can improve outcomes for patients through more efficient services—it is associated with shorter hospital stays and better patient outcomes."

Findings from the audit also showed that 89% of eligible patients in England and 71% in Wales were treated with primary angioplasty within 90 minutes of arrival at the heart attack centre and that 79% of eligible patients in England and 76% in Wales were treated with primary angioplasty within 150 minutes of calling for professional help.

How the NHS Cares for Patients with Heart Attack **can be seen at www.rcplondon.ac.uk.**

Cite this as: *BMJ* 2010;341:c5402



MAURO FERMARIELLO/SPL

79% of heart attack patients in England had primary angioplasty within 150 minutes of calling for help

Stem cell therapy doctor is struck off by the GMC

Clare Dyer BMJ

A Dutch doctor who exploited vulnerable people with multiple sclerosis by charging them thousands of pounds for unproved stem cell treatments has been banned from practice in the UK by the General Medical Council.

Robert Trossel, 56, who practised in London and Rotterdam, gave "false hope and made unsubstantiated and exaggerated claims to patients suffering from degenerative and devastating illnesses," said the GMC fitness to practise panel chairman, Brian Gomes da Costa.

The panel held that Dr Trossel's misconduct was "fundamentally incompatible with being a doctor" and ordered that his name be erased from the UK medical register with immediate effect.

"Your conduct has unquestionably done lasting harm, if not physically then mentally and financially, to these patients and also to their families and supporters. It is, therefore, undeniable that you have abused the position of trust afforded to you. You continue to advocate untested and unproved treatments, using your status as a registered doctor to reinforce your personal beliefs," Professor Gomes da Costa told him.

Dr Trossel saw UK patients at his consulting rooms in London's Wimpole Street and referred them to his Rotterdam clinic for treatment, for which he charged around £10 000 (€11 600; $15 800). At the time, between 2004 and 2006, stem cell treatment was illegal without a licence in the UK but legal in the Netherlands.

He was suspended from practice by the GMC in 2007, after a BBC TV *Newsnight* programme exposed unregulated stem cell treatments.

The GMC's counsel Tom Kark told the panel that Dr Trossel had failed to give the patients refunds for the treatment, which was "not only expensive but pointless." He said the patients were all vulnerable and had already "found themselves failed by the medical profession in this country and as a result were searching, some with desperation, for a cure or relief elsewhere, which is why and how they ended up in Dr Trossel's hands."

PAUL O'DRISCOLL/GUARDIAN

Dr Robert Trossel: his conduct did "lasting harm"

The panel found that Dr Trossel had injected five multiple sclerosis patients with a substance said to contain stem cells between August 2004 and August 2006. He was also found to have offered "aqua tilis" therapy, involving a steam room with a "therapeutic" MRI machine, to two of the five and another patient with multiple sclerosis, and to an undercover journalist posing as a patient with Hodgkin's disease.

His actions in offering both therapies were "unjustifiable" and "exploitative", the panel said. But it accepted that he believed his misleading claims and was not therefore dishonest in making them.

Cite this as: *BMJ* 2010;341:c5410

IN BRIEF

Angola starts mass polio vaccination campaign: Angola is carrying out a three day national polio vaccination campaign with the support of the World Health Organization, Unicef, and Rotary International, to be repeated at the end of October. It aims to reach 5.6 million children under 5 years old in a bid to stop a current outbreak in which 24 cases have been recorded this year. The neighbouring Democratic Republic of Congo has reported 12 cases so far this year.

Drug shortage delays US executions: A shortage of thiopental sodium, used with pancuronium bromide and potassium chloride in executions by lethal injection, has delayed or postponed executions in several US states. The three drug combination is used by 33 states. The sole US manufacturer, Hospira, which opposes the use of the drug for executions, said that the shortage was caused by problems with suppliers of raw materials.

Ireland extends prescription charges: The Irish government has extended prescription charges to large numbers of previously exempt citizens, including homeless people, residents of nursing homes and disability centres, terminally ill patients receiving palliative care, and psychiatric patients in the community. Most of the country's 1.5 million people affected start paying for their drugs from 1 October in the form of a 50% charge per prescribed item. There is a cap of €10 (£9; $14) a month for each family.

Japan imposes large tax hike on tobacco: The Japanese government has introduced tax rises of 35% on the price of cigarettes, increasing the price of a packet of a typical domestic brand from ¥300 to ¥410 (£3.1; €3.6; $4.9). The proportion of men who smoke has fallen from 54% in 2000 to 37% in 2010. Among women it has remained unchanged at around 12%.

New bowel cancer screen is promised for UK: Pilots of a programme to use flexible sigmoidoscopy to screen for bowel cancer will start next spring, subject to approval by the UK National Screening Committee, the prime minister, David Cameron, has announced. The £60m (€70m; $95m) service aims to close the gap in cancer survival between the UK and the European average and potentially save 3000 lives a year.

Cite this as: *BMJ* 2010;341:c5502

PETE SOUZA/THE WHITE HOUSE

President Obama apologises to Guatemala over syphilis study

Janice Hopkins Tanne NEW YORK

President Barack Obama has expressed his deep regret to Álvaro Colon, president of Guatemala, about a 1940s study in which 696 Guatemalans were deliberately infected with syphilis. The president extended his apologies to President Colon and to all those who had been affected.

The US secretary of state, Hillary Clinton, and the secretary of health and human services, Kathleen Sebelius, issued a joint public statement saying that the study was "clearly unethical." Participants had been infected with syphilis to see whether penicillin could be used immediately after sex to prevent infection.

In their statement Ms Clinton and Ms Sebelius said, "Although these events occurred more than 64 years ago, we are outraged that such reprehensible research could have occurred under the guise of public health. We deeply regret that it happened, and we apologize to all the individuals who were affected by such abhorrent research practices." Both they and the president said that current US regulations on medical research prohibit such practices.

The Guatemala study was uncovered by Susan Reverby, a medical historian at Wellesley College, in Massachusetts, and the author of two books on the Tuskegee experiment in the United States. In that experiment public health officials followed poor black farmers with syphilis from 1932 to 1972 in Alabama but did not offer them treatment when penicillin became available in the 1940s.

Professor Reverby was researching the life of John Cutler, who was involved in the Tuskegee experiment. She found his papers in the archive of the University of Pittsburgh, where he was later a respected professor.

"The only papers he left behind were about Guatemala," she told the *BMJ*. The US Public Health Service was working to improve public health services in Guatemala. The study was funded by Public Health Service, the National Institutes of Health, the Pan American Health Sanitary Bureau (which became the Pan American Health Organization), and the Guatemalan government.

Unlike in the Tuskegee experiment, the participants in the Guatemala study were deliberately infected with syphilis. The study, from 1946 to 1948, was conducted in hopes of finding whether the new drug, penicillin, could be used immediately after sex to prevent infection with several sexually transmitted diseases, especially syphilis.

The participants were not told of the study's purpose and did not give informed consent. They included female sex workers, soldiers, prison inmates, and mental hospital patients. In her paper, to be published in the *Journal of Policy History*, Professor Reverby reports that prostitutes were used to pass the disease to prisoners during permitted visits.

Later, attempts were made to infect study participants by syphilis bacteria poured onto men's penises or on to forearms or faces that had been lightly abraded and in a few cases through spinal punctures. Participants were given penicillin injections in an attempt to prevent infection.

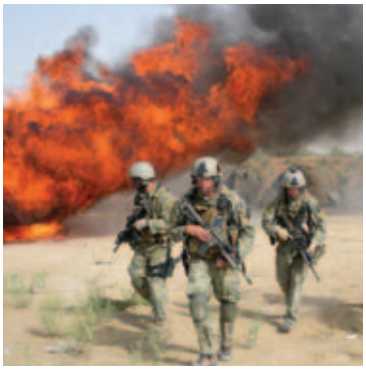
Cite this as: *BMJ* 2010;341:c5494

Countries should consider legalising cannabis in light of futility of bans

Zosia Kmietowicz LONDON

The United States and other countries need urgently to consider ways of legalising the sale of cannabis, as attempts to stop its supply have resulted in all-out failure and led to major harms, says a group of leading scientists.

A report from the International Centre for Science in Drug Policy, a global network of scientists and academic doctors committed to reducing the harmful effects of illicit drugs, says that despite "aggressive criminal justice measures" in the US cannabis is widespread and readily available.



DEA

US drug enforcement agents destroy hashish bunkers in Afghanistan

Federal funding for combating drugs in the US rose by more than 600% (after adjustment for inflation) between 1981 and 2002, from about $1.5bn (£1bn; €1.1bn) to more than $18bn, says the report. Although only some of this money was spent on controlling cannabis, seizures of cannabis and arrests for possession, sales, or production rose hugely. At the same time the potency of cannabis has increased and prices have plummeted—the opposite of what regulation set out to achieve.

There is also evidence that making cannabis illegal has failed to reduce its supply, says the report. It cites a separate survey report from the US National Institutes of Health saying that cannabis remained "almost universally available to American 12th graders" between 1975 and 2005.

The new report adds: "Interestingly, rates of cannabis use among American youth do not inversely correlate with levels of funding for cannabis prohibition. Instead, the estimated annual prevalence of cannabis use among US grade 12 students [17-18 year olds] rose from 27% in 1990 to 32% in 2008, whereas among 19- to 28-year-olds it went from 26% in 1990 to 29% in 2008."

The report concludes: "It may be incorrect to assume that the legal regulation of cannabis production supply and use—if responsibly developed, implemented and enforced by appropriate authorities—will result in increased cannabis use."

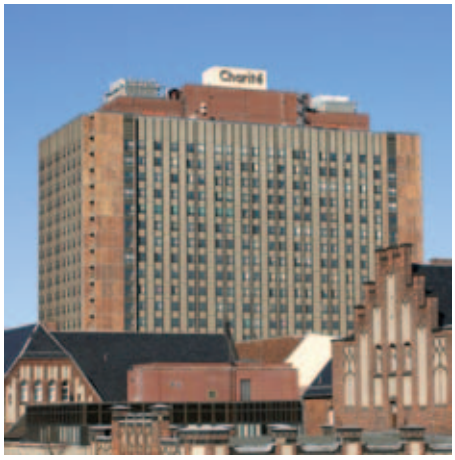
Regulating the market for cannabis has many potential benefits, such as controlling availability, reducing violence among drug suppliers, and slashing revenue for organised crime groups, it says.

It would also save an estimated $44.1bn a year in enforcement expenditures alone and create new sources of tax revenue. In California, which is currently considering legalising cannabis, the potential tax revenue has been estimated at between $990m and $1.4bn annually.

A range of mechanisms could be introduced into a regulated market to reduce harms from cannabis, such as making lower strengths available, implementing age restrictions, and limiting bulk sales, the report says.

The report is at www.icsdp.org. See also Editorial, p 744

Cite this as: *BMJ* 2010;341:c5471



Protests by staff save Charité hospital from demolition

Annette Tuffs HEIDELBERG

Europe's largest university hospital, the Charité in Berlin, has been saved from demolition. Plans to tear it down and replace it with a smaller new building have now been abandoned, after protests by members of staff. The hospital, whose present building was put up in East Berlin in the 1960s and dominates the city's skyline, is in urgent need of renovation.

The Charité is celebrating its 300th anniversary this year. It was founded in 1710 as a quarantine facility for plague victims. Robert Koch, the Nobel prize winning Prussian physician who isolated the tuberculosis bacillus and developed Koch's postulates, worked at the Charité at the end of the 19th century. It is now part of a group of Berlin hospitals that employ 13 200 staff. As part of an economy drive the Charité's managers have agreed to close 500 of the hospital's 3200 beds.

Cite this as: *BMJ* 2010;341:c5486

NIH puts first antiretroviral patent into worldwide drug pool

John Zarocostas GENEVA

The US National Institutes of Health (NIH) has become the first holder of a patent on an HIV drug to grant a royalty free licence to a new patent pool, which has been set up to boost access to affordable HIV treatments. The move is expected to increase pressure on major drug companies to follow suit, experts have said.

The Medicines Patent Pool was established in July with support from UNITAID, a global health financing facility cofounded by Brazil, Chile, France, Norway, and the United Kingdom in 2006 and funded by a levy on airline tickets.

The patent licensed by NIH relates to darunavir, an antiretroviral drug first approved in the US in 2006. The drug belongs to the class of antiretrovirals called protease inhibitors, which are an important treatment option for people infected with HIV who have developed resistance to earlier treatments.

Tido von Schoen-Angerer, director of the campaign for essential medicines at Médecins Sans Frontières (MSF), said that although the action by NIH demonstrates "serious political backing" for the pool, the NIH patent will not free the way for generic versions of darunavir, because additional patents are held by Tibotec (a subsidiary of Johnson & Johnson).

"If companies are genuine about wanting to boost access to newer medicines, then they must license the patents that are actually blocking generic production and will actually make a difference to people's lives," Dr Schoen-Angerer said.

Michel Sidibé, chief of UNAIDS, commended the NIH for its action and urged all public and private partners and especially drug companies and research institutions to follow suit.

Cite this as: *BMJ* 2010;341:c5514

Do drugs have a role in turning indifference into passion?

Nigel Hawkes LONDON

There's nothing new about medicalising relationship problems. From Donizetti's opera *L'Elisir d'Amore* to Leiber and Stoller's song "Love Potion No 9," romantics have long been in search of a magic pill to turn indifference into passion.

But is this a proper objective for a drug company? In a debate on 4 October organised by the *BMJ*, many objections were raised to the idea that female sexual difficulties could be treated with a pill, and the drug companies that are trying to achieve such a drug were given only muted and minority support.

Held to coincide with the publication of Ray Moynihan's new book, *Sex, Lies and Pharmaceuticals*, and the development by Boehringer Ingelheim of a drug, flibanserin, for female sexual dysfunction, the debate plunged into murky waters almost from the start.

It is not clear, Mr Moynihan argued, just what the dysfunction is, how it should be defined, and whether it needs treatment. He accused drug companies of defining a disorder and exaggerating its prevalence to create a market for their products.

John Dean, president of the International Society for Sexual Medicine, acknowledged the weakness of the disorder's definition but not its reality. "Most people do have sexual concerns and difficulties, but they are not usually dysfunctions," he said. He ridiculed the claim by one company that 43% of women were affected by hypoactive sexual desire disorder; in his experience it was nearer 6%, perhaps lower.

"But to suggest it is a myth is to deny thousands of women access to interventions that improve the quality of their lives," said Dr Dean. Among those interventions might be drugs, though they should never be used as the sole treatment.

Sandy Goldbeck-Wood, a specialist in psychosexual medicine, complained that where sex was concerned "everyone is struggling to get control of the narrative," while not listening to the patient's voice. "Patients with problems turn to their doctors, who feel out of their depth," she said. "I don't have any easy answers. If there were one in the form of a pill or a patch, I wouldn't withhold it—but treating complex relationship problems like that is like treating an abscess with antibiotics."

Measuring outcomes of any treatment for sexual problems is difficult. Challenged over whether they had any evidence that their differing approaches worked, Drs Dean and Goldbeck-Wood said they had some but admitted it was not sufficient.

Iona Heath, president of the Royal College of General Practitioners, said that the sexual experience of far too many women was marred by coercion and violence. "The problem is not in women but in relationships," she said.

Though invited, no drug company appeared for the debate, but the industry's case did not go entirely unargued. The role of drugs in enabling those with problems to find their voice should not be ignored, said Mike Kirby, a GP for 36 years and a professor at the University of Hertfordshire. Sildenafil (Viagra) had enabled men to come forward and share their problems with a GP; a female pill might do the same for women.

And Geoff Hackett, a consultant in sexual health medicine at Good Hope Hospital in Birmingham, argued that while a multidisciplinary approach to treatment was no doubt desirable, a cost ceiling of £85 (€98; $135) per patient and an average of only 1.4 follow-up visits per patient permitted by his primary care trust made it hardly practicable.

The clearest division of the evening was, in fact, between those who believed that the industry had a role to play—in treatment and in educating doctors—and those who rejected any such role. But that is another, even older argument.

Cite this as: *BMJ* 2010;341:c5532

MARK THOMAS

Speakers Dr John Dean (left) and Ray Moynihan agreed that the definition of female sexual dysfunction was unsatisfactory but disagreed about possible treatments

Study comes up with 41 definitions of what "having sex" means

Janice Hopkins Tanne NEW YORK

A major survey of sexual behaviour among Americans has shown that while most men said they had an orgasm during their last sexual encounter and 85% believed that their partner had also had an orgasm, only 64% of women said they had experienced an orgasm.

The study of nearly 6000 men and women aged between 14 and 94 also found that penetrative sex was most common among men aged 25 to 39 years and women aged 20 to 29 and declined progressively among older age groups. However, between 20% and 30% of men and women remained sexually active well into their 80s.

Masturbation was common throughout life, and during adolescence and over the age of 70 it was more common than sexual activity with a partner. Oral sex was practised by more than half the men and women aged 18 to 49 in the past year, either giving, receiving, or both, show the findings. But same sex sexual behaviour was relatively uncommon among men and women, show the results, which were published in nine papers in a supplement to the *Journal of Sexual Medicine* (www.nationalsexstudy.indiana.edu/).

The researchers, who were mainly from the University of Indiana, source of the Kinsey reports on sexual behaviour in 1948 and 1953, said it was necessary to document sexual behaviour in the population because much has changed since the last such survey in 1992.

Oral and anal sex have become more widely practised; the internet has influenced sexual behaviour; abstinence only sex education has received more than $1.5bn (£0.9bn; €1.1bn) in federal funding, with "equivocal evidence of efficacy"; oral drugs for erectile dysfunction have become widely prescribed; and attitudes towards same sex relationships have become more liberal.

Debra Herbenick, one of the researchers, said that people's definition of "having sex" varies. "Some people consider sex to be vaginal intercourse, and some people consider anal sex or oral sex to be sex," she said. "We found there were a total of 41 combinations."

The study was funded by Church & Dwight Company, the maker of Trojan condoms, although the researchers said that scientific integrity has been maintained throughout the research.

Cite this as: *BMJ* 2010;341:c5491

EVERETT COLLECTION/REX

Meg Ryan shows how to fake an orgasm in the film *When Harry Met Sally*

Ig Nobel awards honour salutary effects of cursing, socks, roller coasters, and bat fellatio

Jeanne Lenzer BOSTON

Researchers who investigated the analgesic effects of cursing, the effects of roller coaster rides in people with asthma, and the health benefits that accrued to fruit bats that perform fellatio were among the winners of this year's Ig Nobel awards, an annual spoof on the Nobel prize awards (News, p 747).

The Ig Nobels honour zany but genuine research that "first makes people laugh, then makes them think." The awards were handed out on 30 September by actual Nobel laureates at Harvard University's Sanders auditorium. This year's ceremonial theme was "Bacteria!" and the audience cheered noisily during an opera about the trillions of germs that inhabit our bodies and far outnumber our own cells.

This year's physics prize was awarded for research on the anti-skid properties of wearing socks over shoes. Lianne Parkin, a public health physician and senior lecturer in epidemiology at the University of Otago, Dunedin, New Zealand, was stirred to action when Dunedin's city council recommended that citizens wear socks over their shoes to prevent the high number of slips and falls experienced by many residents on the city's steep, icy streets.

"There was no evidence for this off-label use of socks," declared Dr Parkin. To put the recommendation to the test, she and her colleagues conducted a randomised controlled trial, and using an intention to treat analysis they found that wearers of socks over shoes walked with greater ease than those with their socks only inside their shoes.

The medicine award went to two Dutch researchers who turned asthma science upside down when they took 25 young women with severe asthma and 15 matched controls on a roller coaster ride and found that perceived dyspnoea correlated poorly with lung function.

The researchers, Simon Rietveld and Ilja van Beest of the University of Amsterdam and Tilburg University, found that negative stress just before the ride and positive emotions at the end of the ride were both associated with breathlessness.

However, during the period of post-ride exhilaration, young women with objective decreases in lung function did not perceive themselves as dyspnoeic. The researchers told the *BMJ* that their findings may have implications about how patients treat their symptoms. They hypothesise that negative emotions may cause some patients to overtreat, while positive emotions could lead to undertreatment.

Lianne Parkin won the Ig Nobel physics prize for research into the off-label use of socks

To the delight of the audience the peace prize went to Richard Stephens for his discovery that swearing has analgesic effects. Dr Stephens, a lecturer in psychology at Britain's Keele University, quantified his finding (confirmed by occasionally impressive P values) that cursing test participants were able to keep their hands submerged in icy water longer than those who were not allowed to curse. The effect held true for men and women, although women seemed to find the greatest relief from swearing. Dr Stephens confided that his research was triggered in part when he bashed his thumb with a hammer and cursed without restraint and in part by observing his wife letting out a stream of profanity during childbirth.

A team of biologists at the Guangdong Entomological Institute in Guangzhou, China, won the biology prize for their study of fellating fruit bats. Gareth Jones, professor of biological sciences at the University of Bristol, who worked with the Chinese researchers, told the *BMJ* that the benefits that accrued to the bats who performed fellatio went beyond the reported 6 second increase in copulation time caused by pre-copulation fellatio and may include sanitary benefits, as bat saliva has antimicrobial properties. Despite the salutary effects of bat fellatio, it appears that male fruit bats do not provide reciprocal services to female fruit bats, said Dr Jones.

The management prize went to a group of Italian researchers who used computational analysis to counter organisational dysfunction associated with the famed "Peter principle," which posits that institutions promote otherwise competent people to a higher level of incompetence. "Good doctors should remain doctors and not become administrators," explained one of the researchers. Evoking wild cheers from the audience, the researchers said that their "counterintuitive" but mathematically proved solution to the problem is to promote people at random.

Other winners included Karina Acebedo-Whitehouse and colleagues, who won a prize for creating a helicopter drone to obtain samples of whale snot in order to monitor the health of whales. The BP oil company and several US researchers were awarded an Ig for their 2005 paper that disproved the claim that water and oil don't mix. Japanese researchers won an award for their work in revealing the basic principles guiding the spread of slime mould and applying those principles to the creation of railway networks. And the chief executive officers of Goldman Sachs, Bear Stearns, AIG, Lehman Brothers, Merrill Lynch, and Magnetar won an award for promoting new ways to invest money.

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