

# SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

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**“It was 1969, or am I dreaming? The Labour government then was intent on abolishing private schools and nationalising the pharmaceutical industry”**

Read Richard Lehman's journal blog at [bmj.com/blogs](http://bmj.com/blogs)

## Prenatal or postnatal surgery for myelomeningocele?

Myelomeningocele is the most common form of spina bifida. Highly specialised surgeons can repair the defect in utero, and a trial from the US reports some significant benefits, including a better chance of walking unaided at the age of 3 when compared with repair soon after birth (42% (26/62) v 21% (14/67); relative risk 2.01, 95% CI 1.16 to 3.48). Children who had prenatal surgery were less likely to need a ventriculo-peritoneal shunt at the age of 1 year (40% (31/78) v 82% (66/80); 0.48, 0.36 to 0.64).

There were problems, however. Babies repaired in utero were born earlier than controls (34.1 v 37.3 weeks) and had a higher risk of respiratory distress syndrome (21% (16/77) v 6% (5/80);  $P=0.008$ ). Their mothers had complications including oligohydramnios (21% (16/78) v 4% (3/80);  $P=0.001$ ), uterine dehiscence at the site of the hysterotomy (8/76), and haemorrhage (risk of blood transfusion at delivery (9% (7/78) v 1% (1/80);  $P=0.03$ ).

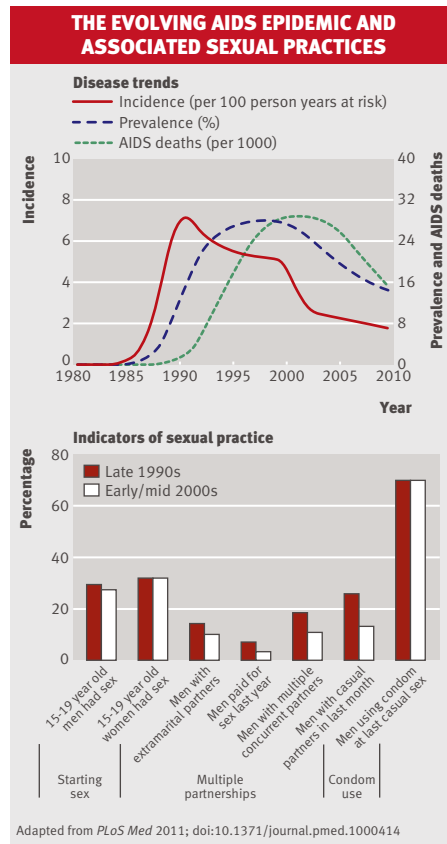
Women considering fetal surgery need detailed counselling about risks, says an editorial (doi:10.1056/mejme1101228). They also need accurate information about their surgeon's expertise. The 183 women in this trial were carefully selected and treated at three specialist centres. All other centres nationwide agreed to suspend fetal surgery for myelomeningocele for the duration of recruitment, which took seven years. Results may be worse in less experienced hands.

*N Engl J Med* 2011; doi:10.1056/nejmoa1014379

## Change in sexual behaviour helps curb HIV in Zimbabwe

The prevalence of HIV has fallen faster in Zimbabwe than in other countries in southern Africa, driven largely by changes in sexual attitudes and practices. During the 10 years spanning the turn of the millennium, extramarital relationships declined, as did casual sex, commercial sex, and the proportion of men reporting multiple concurrent partners. Why?

After a careful review of all available evidence from published research and new in



depth qualitative work, observers agreed that the main reason was fear. People die at home in Zimbabwe. As AIDS mortality accelerated during the 1990s, more and more men and women came face to face with the ultimate consequences of HIV infection. Zimbabwe has a literate and well educated adult population, who understood the link between sex, HIV, and death; they also understood what they could do to protect themselves. Sexual behaviour began to change, particularly among men. A strong culture of marriage and the multiple prevention programmes run by church, state, and schools probably helped, say the observers, but not as much as the catastrophic economic decline that overtook most of the country after 1999. Average incomes fell by 90%, leaving men with no money to pay for extramarital sex, commercial sex, or the drinking that often precedes both.

By 2007, the prevalence of HIV among adults in Zimbabwe had fallen to around 16%, from a peak of 29% in 1997.

*PLoS Med* 2011; doi:10.1371/journal.pmed.1000414

## Reviewers find limited evidence to guide policy on teenage drinking

Teenage drinking can have immediate consequences including accidents, injury, violence, and arrest. Long term consequences are much less clear. The only near certainty to emerge from a recent systematic review was that adolescents who drink tend to become adults who drink. Heavy drinking between the ages of 15 and 19 predicted heavy drinking and dependence up to early middle age in some cohorts, even after reasonable adjustments for confounding factors such as social circumstances. Concrete evidence of a link between adolescent drinking and alcohol related disease, death, or social disadvantage later in life was harder to find, partly because the 54 cohort studies in the review were generally weak and prone to bias and confounding.

Alcohol is responsible for an estimated 11% of all deaths among men in Europe, say the authors. We need to know if killer drinking starts in adolescence. If it does, public health policy should take a long term perspective and try to change teenagers' relationship with alcohol for good, with the intention of protecting them from disease and death as adults. If it doesn't, we can safely concentrate instead on protecting teenagers from the immediate risks associated with drinking too much.

The authors take the pragmatic view that because teenage drinking turns into adult drinking and adult drinking is a serious risk to health, it would be reasonable to intervene earlier rather than later, while we wait for better evidence.

*PLoS Med* 2011; doi:10.1371/journal.pmed.1000413

## Bilirubin concentration linked to risk of lung disease

Bilirubin has antioxidant and anti-inflammatory properties. It is biologically plausible that high normal concentrations might protect against some chronic diseases and cancer. Researchers from the UK recently explored this theory in more than half a million healthy adults using data from a research network of 371 primary care practices. Everyone in the cohort had bilirubin concentrations within the normal range. Adults at the lower end of the distribution were significantly more likely

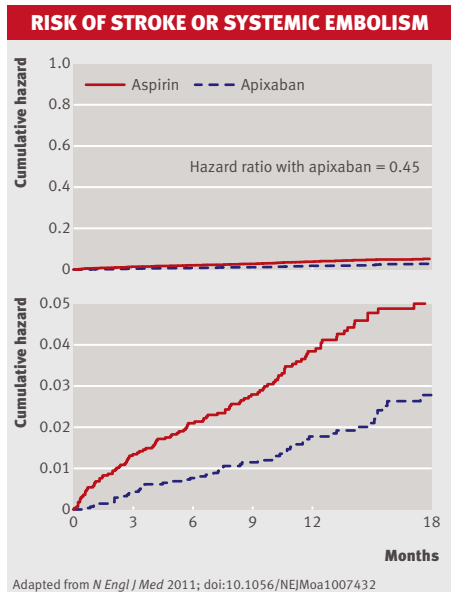
to develop chronic obstructive lung disease or lung cancer than those at the higher end of the distribution. They were also more likely to die during a mean follow-up of eight years.

The inverse association was linear and survived multiple adjustments to control for confounding. Among men, each 0.1 mg/dL (1.7 μmol/L) increase in bilirubin concentration was associated with a significant 8% drop in the incidence of lung cancer (95% CI 5% to 11%), a 6% drop in the incidence of chronic obstructive lung disease (5% to 7%), and a 3% drop in risk of death from any cause (2% to 3%). Women's results were comparable. The analyses excluded all adults with a history of liver disease or haemolytic diseases.

This isn't the first study to suggest a link between normal bilirubin concentrations and human health, say the researchers. But it is the biggest study of lung cancer and the only one so far to look at chronic obstructive pulmonary disease. Genetic studies that try to establish cause and effect should be next.

*JAMA* 2011;305:691-7

## Apixaban works better than aspirin for adults with atrial fibrillation who can't take warfarin



Apixaban is a new anticoagulant being developed by Pfizer and Bristol-Myers Squibb. Like other factor Xa inhibitors, apixaban is taken by mouth, works quickly, and has the kind of predictable pharmacokinetics that allow treatment without regular monitoring. So could it be useful for people with atrial fibrillation who can't or won't take warfarin? The manufacturers hope so after their large trial comparing apixaban with aspirin reported a 55% lower

risk of stroke or systemic embolism in adults given apixaban (1.6% (51/2808) v 3.7% (113/2791); hazard ratio 0.45, 95% CI 0.32 to 0.62).

The authors recruited 5599 older adults with atrial fibrillation or a recent history of atrial fibrillation. Participants had at least one other risk factor for stroke, such as a previous stroke or treated hypertension, heart failure, or diabetes. Forty percent had tried a vitamin K antagonist without success, often because of an unstable international normalised ratio. The rest were judged unsuitable for a vitamin K antagonist by their doctor. Participants took aspirin (usually one or two 81 mg tablets a day) or apixaban (usually 5 mg twice daily) for a mean of one year.

Apixaban caused no more major bleeds than aspirin (1.4% (44/2808) v 1.2% (39/2791); 1.13, 0.74 to 1.75). The new drug was associated with a slight but significant excess of minor bleeds (6.3% (188/2808) v 5.0% (153/2791); 1.24, 1.00 to 5.3).

*N Engl J Med* 2011; doi:10.1056/NEJMoa1007432

## Drug use is still the most common risk factor for symptomatic hepatitis C in US

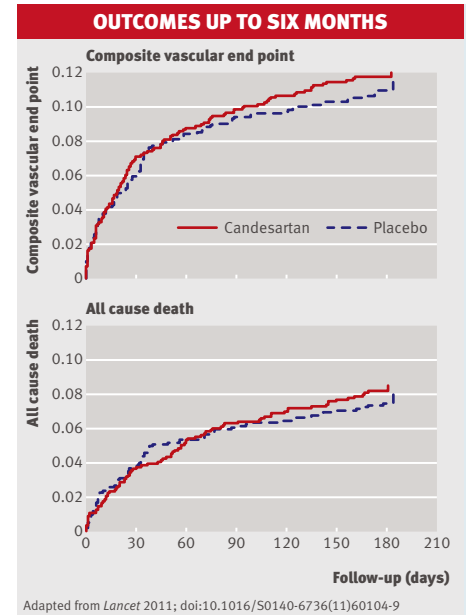
The incidence of symptomatic hepatitis C in six US counties has fallen dramatically since 1982, when active surveillance began. A study of all reported cases from diverse counties across the country shows a sharp fall of around 90% between 1989 and 1994. Incidence then stabilised and remained low for the next 12 years, averaging 0.7 cases per 100 000 population. Surveillance finally ended in 2006 when the money needed to recruit new county health departments failed to materialise.

The authors identified 2075 new symptomatic infections over the 25 year study period. The patients were young, with a median age under 40, both before and after 1989. Three quarters of infected people had jaundice, around a fifth were admitted to hospital, and 1.2% (24/2047) died. Previous infections with other hepatitis viruses were common.

Drug use was the most common risk factor by far among the 1748 people interviewed, accounting for 31.8% (402/1266) of cases before 1989, 33.5% (71/212) of cases between 1990 and 1993, and 45.6% (103/226) of cases between 1994 and 2006. Presumed infection from blood transfusion was rare after transfusion authorities began screening donors. These authors identified five possible cases presenting after 1994. Two of the affected people also had other risk factors. Donor tracing failed to find the source of infection for the other three.

*Arch Intern Med* 2011;171:242-8

## No need to treat the high blood pressure that follows acute stroke



High blood pressure is common in the immediate aftermath of a stroke. Doctors can safely ignore it, according to a large placebo controlled trial of candesartan. A week of treatment with the angiotensin receptor blocker had no effect on patients' risk of death from vascular disease, heart attack, or stroke over six months (12% (120/1017) v 11% (111/1012); hazard ratio 1.09 (95% CI 0.84 to 1.41). If anything, patients given candesartan ended the trial slightly more disabled than controls, although the difference wasn't significant.

This is the latest in a long list of trials trying to establish the risks and benefits of treating poststroke hypertension. Taken together, the evidence against treatment looks fairly convincing, says a linked comment (doi:10.1016/S0140-6736(11)60163-3). Routine lowering of blood pressure does not seem to improve outcomes in the long run. The candesartan trial ended early when the money ran out, but it was still powerful enough to look for particular groups of patients who might benefit. The authors found none. Gentle lowering of blood pressure during the first week did not help patients with ischaemic or haemorrhagic stroke, or those with higher or lower blood pressure. It did not help patients with a previous history of hypertension. Participants began the trial with a mean blood pressure of 171/90 mm Hg. Candesartan lowered systolic blood pressure by 5 mm Hg (95% CI 3 to 7) and diastolic blood pressure by 2 mm Hg (1 to 3) relative to placebo.

*Lancet* 2011; doi:10.1016/S0140-6736(11)60104-9

Cite this as: *BMJ* 2011;342:d972