Short cuts

What's new in the other general journals

Harm reduction helps heroin addicts

Harm reduction programmes have been criticised for giving a false impression to adolescents that heroin use doesn't have to be associated with as much harm to the individual as is traditionally thought. Switzerland has had a liberal policy towards harm reduction. And a recent study shows that the incidence of heroin misuse has been falling under an extensive harm reduction programme, which includes methadone substitution with low threshold of illicit use.

The researchers analysed an anonymised treatment register of almost 80% of the heroin addicts treated between 1991 and March 2005 in the canton of Zurich, which included more than 7000 people. Using the conditional lag time distribution, they estimated the proportion of addicts not yet in substitution treatment programmes and modelled the overall prevalence of heroin misuse as a function of incidence and cessation rate.

After its all time peak in 1990, the incidence of regular heroin use declined fourfold in the next decade, more than in any other country with data permitting such analysis. The data showed a decline, by 4% a year, in the population of problematic heroin addicts, defined as people who sought and entered treatment. However, the rates of cessation (leaving the substitution programme and not re-entering within a decade) in Switzerland are among the lowest recorded.

Lancet 2006;367:1830-4

Ventricular fibrillation or tachycardia are not "good" cardiac arrest rhythms in children

Children who had ventricular fibrillation or tachycardia before the onset of cardiac

arrest have better prognosis than children in cardiac arrest who develop ventricular fibrillation or tachycardia during cardiopulmonary resuscitation. This finding is from a multicentre register study of more than 1000 consecutive children with cardiac arrest. It contradicts previous evidence, which was based on studies from single institutions with small sample sizes, and the traditional view that ventricular fibrillation and tachycardia are "good" cardiac arrest rhythms.

Children who develop ventricular fibrillation or tachycardia during cardiopulmonary resuscitation were thought to have better prognosis than children with asystole or pulseless electrical activity. The present study seems to refute this. Children with asystole or pulseless electrical activity were almost four times more likely to survive to discharge from hospital than children who developed ventricular fibrillation or tachycardia during resuscitation. These results call for early electrocardiographic monitoring during resuscitation, say the authors, and timely appropriate treatment.

N Engl J Med 2006;354:2328-39

Female genital mutilation harms mother and baby at delivery

Women who have had genital mutilation and their babies are at increased risk of obstetric and neonatal complications at delivery. And the more extensive the mutilation the worse the outcomes.

A prospective study of almost 30 000 women who gave birth to singletons between 2001 and 2003 in Burkina Faso, Ghana, Kenya, Nigeria, Senegal, and Sudan showed that women who had had genital mutilation were at greater risk of having a delivery by caesarean section and bleeding after delivery. They stayed in hospital longer, and their babies were more likely to need resuscitation or to die during delivery or soon after. Worse complications tended to accompany more extensive mutilation.

The World Health Organization groups female genital mutilations into three classes: excision of the prepuce, with or without excision of part or all of the clitoris; excision of the clitoris with partial or total removal of the labia minora; and excision of part or all of the external genitalia and stitching or narrowing of the vaginal opening (infibulation). Adjusted relative

risks of stillbirth or early neonatal death, for example, compared with women who had not undergone genital mutilation, were 1.15 (95% confidence interval 0.94 to 1.41), 1.32 (1.08 to 1.62), and 1.55 (1.12 to 2.16), for these three classes.

Lancet 2006;367:1835-41

Benznidazole may help treat chronic Chagas' disease

Benznidazole could be effective in treating intermediate and chronic stages of Chagas' disease, and a randomised controlled trial is needed to assess its efficacy in these patients. Caused by the protozoan parasite *Trypanosoma cruzi*, Chagas' disease is the most common cause of infectious myocarditis. Benznidazole is an effective cure in the acute stage of the disease, but evidence is lacking on its effectiveness in the later stages, primarily because of the need for a long term follow-up and the lack of tests to confirm elimination of the parasite.

A non-randomised open trial of 566 seropositive adult patients without heart failure at baseline showed that significantly fewer patients treated with benznidazole, compared with those who did not receive treatment, had progression of disease or developed abnormalities on electrocardiography (adjusted hazard ratio 0.24 and 0.27, respectively). Seroconversion was also more common in treated patients (15% v 6%) and so was mortality (1% v 4%).

The trial was non-randomised (patients were assigned to groups by using an alternating sequence) and had a follow-up of 80% over a median of nine years. We need a randomised double blinded controlled trial to confirm or dispute these promising results.

Ann Intern Med 2006;144:724-34

Weight worsens gastro-oesophageal reflux

Increase in weight is associated with an increase in the risk of gastro-oesophageal reflux in people of normal weight as well as overweight and obese people. Weight loss is associated with lower risk. A study published last week showed a dose-response relation between body mass index (BMI) and frequency and severity of the symptoms of gastro-oesophageal reflux. Previous studies had established the association only in overweight and obese people.

The nurses' health study has been following a cohort of US female nurses since 1976. Initially, 121 700 nurses completed the questionnaire, and additional questionnaires are sent every two years. In 2000, 10 545 nurses (response rate 86%) self reported on the symptoms of gastro-oesophageal reflux, defined as the presence of heartburn, acid regurgitation, or both. Almost two thirds of the women reported ever having symptoms, and one in five reported having symptoms at least once a week.

Multivariate analyses showed that weight gain was always associated with increased risk of reflux. For example, women with a BMI between 22.5 and 24.9 (the upper half of the normal range) were on average 40% more likely to report having symptoms once a week or more than women with a BMI between 20 and 22.4 (the lower half of the normal range). Overweight and obese women were on average two to three times as likely to report frequent symptoms.

N Engl J Med 2006;354:2340-8

Information technology improves quality of care

A systematic review looking into the evidence of effectiveness of health information technology to improve the quality, efficiency, and utility of medical care found more than 250 studies. A quarter came from four institutions, and only nine studies evaluated commercially developed systems. Most published research studied decision support systems and patients' electronic records.

The four institutions (the Regenstrief Institute, Brigham and Women's Hospital/Partners Health Care, the Department of Veterans Affairs, and LDS Hospital/Intermountain Health Care) developed and use their own systems, which are not easily transferable to other settings. Studies from these institutions showed the systems' effectiveness in increasing adherence to care based on guidelines; improving surveillance and monitoring; reducing medical errors; and reducing use of health care. The data on time utilisation were equivocal and on empirical costs were limited.

The authors argue against generalisability of these findings to commercially developed and available systems. The accompanying editorial (pp 775-6) disagrees and draws on a comparison with a *BMJ* paper from 2003 (327:1459-61)—a systematic review of randomised trials of parachutes for preventing death and major trauma related to gravitational challenge. The author argues that enough evidence supports a widespread implementation of health information technology in the United States. Potential benefits are huge and information technology could transform health care.

Ann Intern Med 2006;144:742-52

Beneficial effect of spinal stimulation wears off

Chronic reflex sympathetic dystrophy is a condition of unknown pathophysiology that usually starts after trauma or surgery to a limb. Its chronic form is coupled with great pain and loss of function and severely reduces quality of life in the patient and their family. Spinal stimulation in addition to physical treatment has been shown to reduce pain after six months and after two years, compared with physical treatment alone. A randomised controlled trial of 54 patients had found that adding spinal stimulation to physical treatment more than halved the pain, measured on a visual analogue scale, on average, but had no effect on allodynia, hypoesthesia, or function.

A recent research letter reporting on the long term follow-up showed that the beneficial effect on pain wore off after three years and remained non-significant until the end of year five of follow-up.

Reductions from baseline in mean scores on the visual analogue scale measuring pain in centimetres in the intervention and the control group after three, four, and five years were 1.6 v 0.7, 1.7 v 1.0, and 1.7 v 1.0, respectively.

N Engl J Med 2006;354:2394-6

Socioeconomic inequalities related to obesity increased in US adolescents

There is no doubt that the prevalence of overweight and obesity increased in the United States in the past three decades, but whether socioeconomic

disparities increased, decreased, or remained the same over the period was unknown.

A group of researchers used a series of four cross sectional surveys of nationally representative samples of adolescents spanning 1971 to 2004 (the national health and nutrition examination survey (NHANES) programme of the Centers for Disease Control and Prevention) to answer the question. The surveys included more than 10 000 adolescents of different ethnicities. It seems that adolescents aged 12 to 14 years were largely spared the unfavourable trends—the only rise in socioeconomic disparity seen was in non-Hispanic young black adolescents living in a family above the poverty line, associated with an increased risk of becoming overweight or obese. Older adolescents, however, showed a trend of rising disparities across all ethnic groups: living below the poverty line was associated with a rising risk of overweight and obesity.

The researchers also pinpointed opportunities for intervention. It seems that the increase in disparities is to a degree due to rising trends in three risk factors for obesity: lack of physical activity, consumption of sweetened beverages, and skipping breakfast.

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