

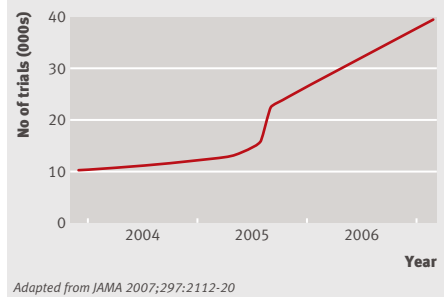
SHORT CUTS

WHAT'S NEW IN THE OTHER GENERAL JOURNALS

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Trialists should register their results

TRIALS REGISTERED ON CLINICALTRIALS.GOV



Many clinical trials are never published and effectively disappear without trace, leaving doctors, patients, and policy makers with incomplete evidence on which to base their decisions. Registering trials on publicly available databases is one solution, and in 2005 the International Committee of Medical Journal Editors decided to make public registration a condition of publication in peer reviewed journals. Since then, entries on ClinicalTrials.gov, the world's largest register, have soared from an average of 30 new trials a week to more than 200. The records have also improved in quality and completeness, writes a team from the US National Library of Medicine, which is responsible for ClinicalTrials.gov. Drug companies are no longer coy about naming the compound under study, for example. Until recently, about one in 10 industry sponsored trials on the register referred only to "an investigational drug."

Public registers contain lots of useful information, but as yet there is no imperative for researchers to record their results. Unpublished findings still disappear or languish without external scrutiny on drug company databases, says the article. Finding a way to register results that are accurate, trustworthy, and accessible to the public won't be easy, but it's the next logical step.

JAMA 2007;297:2112-20

US health care no longer "best in the world"

A fundamental change has occurred in the way US citizens view their health service, writes one bioethicist. The public has finally accepted that health care in the US is no longer "the best in the world," and politicians, journalists, or anyone else who repeats

that now historical phrase is more likely to be laughed at than applauded for their patriotism. The deficiencies are so widespread that even the rich can no longer buy protection from medical errors, iatrogenic infections, or system failures.

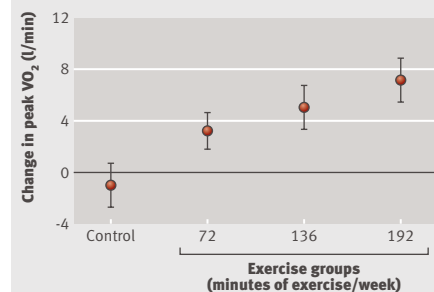
Other previously cherished notions have also been abandoned, he writes. Firstly, few people still believe that health care is so special that it is exempt from all consideration of cost. Spending on health care means less money for other essentials such as food, heating, and education. Health care, just like other social goods, must represent good value.

Secondly, Americans are ending their longstanding love affair with new drugs and technologies. It may still be possible to say "new is better" on television without risking ridicule, but high profile failures such as rofecoxib, hormone replacement therapy, and megadose antioxidants mean that plenty of viewers will disagree.

JAMA 2007;297:2131-3

Even a little exercise improves fitness

EFFECT OF 6 MONTHS' EXERCISE ON PEAK OXYGEN UPTAKE



Physical activity improves fitness, which in turn reduces mortality. But does a dose-response relation exist? The question is important to doctors who want to encourage inactive people to exercise more but don't want to demotivate them by being unrealistic. A large trial in sedentary postmenopausal women found a significant dose-response relation between moderate intensity exercise and fitness over six months. Women who did just 72 minutes a week of walking or cycling improved their fitness (peak oxygen consumption) by 4.2% compared with controls who did no extra exercise. Women who

did 136 minutes or 192 minutes improved their fitness by 6.0% and 8.2% (P for trend <0.001).

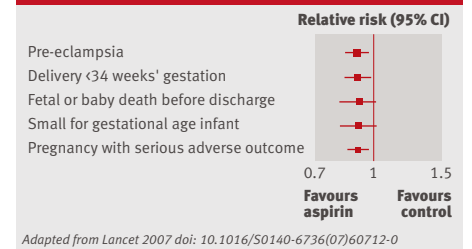
None of the women changed their diet or lost weight. Their cardiovascular risk factors did not improve, although women in the exercise groups did lose about 2 cm off their waistlines compared with controls.

The researchers say their findings should encourage people to get moving, even if they can't manage the 150 minutes a week recommended by the US National Institutes of Health (30 minutes on most days). A linked editorial (pp 2137-9) agrees: "Even a little is good; more is better."

JAMA 2007;297:2081-91, 2137-9

Aspirin slightly reduces risk of pre-eclampsia

EFFECTS OF ASPIRIN ON PREGNANCY OUTCOMES



A meta-analysis of 31 randomised trials reports that taking low dose aspirin during pregnancy reduces the risk of pre-eclampsia by 10% compared with taking placebo (relative risk 0.90, 95% CI 0.84 to 0.97). The authors found a similar reduction in the risk of preterm birth (0.90, 0.83 to 0.98) but not in risk of perinatal death or the infant being small for gestational age. Aspirin reduced the risk of any serious adverse outcome by 10% overall (0.90, 0.85 to 0.96). The authors estimate that 51 women would need treatment to prevent one serious adverse outcome. Aspirin seemed safe in the short term for both mother and baby.

The trials included more than 32 000 women, most of whom had a low or moderate risk of pre-eclampsia. Despite these numbers, the authors could not pinpoint any subgroup most likely to benefit. Even those with risk factors such as diabetes or hypertension were no more likely to benefit than other women.

So who should doctors treat? A linked

editorial (doi: 10.1016/S0140-6736(07)60713-2) says aspirin is justified only for pregnant women who are almost certain to get pre-eclampsia, including those who have had it at least twice before. The judgment is much harder for women at lower risk. We simply don't know enough about aspirin's long term effects on the unborn child.

Lancet 2007 doi: 10.1016/S0140-6736(07)60712-0, 60713-2

Better primary care may prolong survival in elderly people with depression

Depression care managers in primary care practices help doctors take better care of depressed patients and may even save lives, according to a reanalysis of data from a published randomised trial. In 20 US practices, having a depression manager was associated with a significant survival advantage for elderly people with major depression; risk of death was reduced by 45% (hazard ratio 0.55, 95% CI 0.36 to 0.84) over five years. Gains were mostly due to a reduced risk of death from cancer (8.9 *v* 20.6 deaths per 1000 person years). Among elderly people with minor depression, however, depression care managers had no impact on mortality (from cancer or anything else). The study included 1226 people with a mean age of 71.

The authors aren't sure why improving care for depression at a practice level might prevent deaths from cancer. It's possible that having an extra person around improves care in a non-specific way for everyone, although the authors found no evidence for a non-specific effect in this study: elderly people without depression died at about the same rate in intervention and control practices.

Ann Intern Med 2007;146:689-98

Preterm babies face metabolic challenges later in life

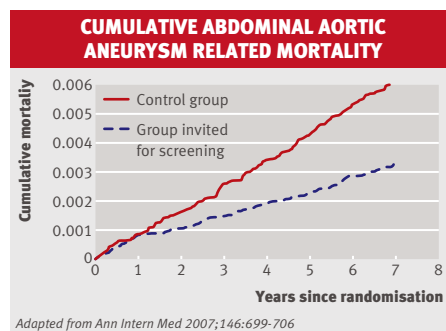
For babies born at term, low birth weight is associated with metabolic disadvantages that can lead to obesity, type 2 diabetes, and cardiovascular disease later in life. Researchers now confirm that premature babies with very low birth weight face the same kind of metabolic challenges.

In a comparative study from Finland, young adults born at an average gestational age of 29 weeks and weighing less than 1500 g had worse insulin resistance, higher serum concentrations of glucose two hours after a glucose load, and higher blood pressure than similar young adults who had been born at term. The differences were significant, potentially important clinically, and not explained by differences in body mass index or body composition. The cohort with very low birth weight had a mean systolic blood pressure nearly 5 mm Hg higher than controls (95% CI 2.1 to 7.4). They were also significantly shorter (by 5.3 cm in women and 5.9 cm in men).

These adults were born 20 years ago. Improvements in neonatal care mean that an increasing proportion of very low birth-weight babies will survive to adulthood. They may well benefit from early lifestyle advice to help them avoid the consequences of glucose dysregulation and insulin resistance, say the authors.

N Engl J Med 2007;356:2053-63

Abdominal aortic aneurysm screening is cost effective in elderly men



Screening elderly men for abdominal aortic aneurysms saves lives and is cost effective over at least seven years, according to long term data from a large randomised trial in the UK. Men aged 65-74 who were offered screening with ultrasonography were significantly less likely to have an aneurysm related death than controls (hazard ratio 0.53, 95% CI 0.42 to 0.68). Screening also reduced mortality from all causes (0.96, 0.93 to 1.00). Screened men had surgery on all aneurysms measuring at least 5.5 cm in diameter. Men

with smaller aneurysms were rescanned at regular intervals. Each extra quality adjusted life year gained by screening cost between \$7600 (£3830; €5598) and \$19 500, well below the traditional threshold for cost effectiveness.

US guidelines already recommend screening and treatment for men in this age group, but only those with a history of smoking, says an editorial (pp 749-50). These findings support their position. But the picture is different for women. With few decent trials and little prospect of more, doctors must fall back on the pragmatic decision making of old and screen only women with strong risk factors, such as family history and hypertension.

Ann Intern Med 2007;146:699-706,749-50

Blood transfusions don't transmit cancer

A large database study from Scandinavia has laid to rest fears that cancer might be transmitted in blood transfusions. The authors studied 354 094 people who had received blood products between 1968 and 2002. The 12 012 (3%) who received products from donors who later developed cancer were no more likely to develop cancer themselves than other recipients (adjusted relative risk 1.00, 95% CI 0.94 to 1.07), over a median follow-up of seven years. These reassuring findings survived several sensitivity analyses, held firm for all types of cancer, and were derived from reliable national data on all transfusions and donations in both Sweden and Denmark. The authors are fairly sure that the risks of cancer remain negligible even 20 years after transfusion of products from an affected donor. Donors were said to have preclinical cancer if they developed disease less than five years after donating blood.

This study was not designed to assess the overall risks of cancer associated with transfusion, say the authors. It's still possible that blood products alter immune surveillance in a way that could increase a recipient's risk of cancer. But it does suggest that blood from donors who go on to develop cancer is no more risky than blood from donors who don't.

Lancet 2007;369:1724-30

SHORT CUTS EXTRA

WHAT'S NEW IN *BMJ* JOURNALS

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Use of anabolic steroids alters myocardial function

Body builders who are long term users of anabolic androgenic steroids have sub-clinical impairment of myocardial function, with a strong dose dependent effect. Italian researchers investigated 45 top level competitive athletes who had trained intensively for 15-20 hours a week for more than five years. Twenty had used anabolic androgenic steroids for at least five years; the rest (plus 25 healthy, age matched sedentary controls) were non-users.

Standard Doppler echocardiography, colour Doppler imaging, and strain rate imaging disclosed that the users of anabolic androgenic steroids had lower early diastolic peak velocities and impaired systolic deformation indices of the left ventricular lateral wall muscle and the intraventricular septum, despite the subjects being asymptomatic. The number of weeks' use of steroids annually and the weekly dose were determinants of the impaired strain rate.

The implications for cardiac events are unknown, but other studies have suggested a fourfold rise in 12 year mortality in power lifters who use anabolic androgenic steroids, compared with controls.

Br J Sports Med 2007;41:149-155

Meningitis in infancy affects exam results at age 16

Children who survived bacterial meningitis in the first year of life performed less well in academic examinations at age 16, even when they had been in mainstream schooling. A national cohort in England and Wales of 739 such children and 480 matched controls were recruited in 1985-7 and reviewed at age 5 years and 13 years. At age 16-17 years, 461 of the meningitis group and 289 of the controls responded to a questionnaire about education. Thirty six (8%) of the meningitis pupils attended special schools compared with none of the controls (but 1.7% of the national population), and a further 20 meningitis pupils and 10 controls had been identified at their mainstream (comprehensive) schools as having special educational needs.

Participants were asked about their grades in the GCSE examinations (the system used in England and Wales to assess pupils at the end of compulsory secondary education). Of those attending comprehensive schools, 184/385 (48%) of the meningitis group and 59/232 (25%) of the controls failed to achieve the national yardstick of passes at grade C or above in five subjects. Over a quarter of cases but only 7% of the controls (and 3.7% nationally) failed to gain any passes at this level. Cases who had seemed unscathed at age 5 scored just as badly.

The authors recommend continuing follow-up throughout their school years and educational support for all children who have meningitis in infancy.

Arch Dis Child March 2007, doi: 10.1136/adc.2006.105916

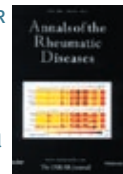
Burning sugar cane for harvesting may provoke asthma



Air quality in Brazilian cities has improved with the substitution of ethanol (refined from sugar cane) for petrol (gasoline) but at the expense of those living in rural areas. Daily measurements were made of total suspended particles for 16 months in an area of the country that grows sugar cane, and these measurements were analysed against daily asthma admissions and whether cane was being burned before harvest. The mean concentration of total suspended particles during 318 days of burning was over twice that observed during the 175 days of non-burning. Asthma admissions were correlated with the particle concentrations, rising one day after the concentrations rose and continuing for almost one week.

Brazil is the world's largest producer of sugar and alcohol, the cane being burned before harvesting to reduce the costs of production. The

Annals of the Rheumatic Diseases, The EULAR Journal, is a peer review journal for health professionals in the rheumatic diseases. On 1 June 2007 we release our online archive of content dating back to 1939, from volume 1, issue 1. All content older than 12 months will be available FREE online. www.ard.bmj.com



authors claim that areas where sugar cane is harvested have paid a high price in terms of public health, so that cities with heavy use of road vehicles can have less polluted air.

J Epidemiol Community Health 2007;61:395-400

Honey, I glued the kid



A child's father glued his son's facial laceration with domestic "superglue" after being told previously at an accident and emergency department that his own forearm laceration was being repaired with superglue. His son's wound extended to periosteum and was inflamed, with glue present throughout, necessitating removal and irrigation under general anaesthesia. Staff in emergency departments need to know that tissue adhesive is not synonymous with superglue and should not be referred to as such.

Emerg Med J 2007;24:228-9

One week of triple therapy usually eradicates *H pylori*

One week of treatment with omeprazole, clarithromycin, and amoxicillin is as effective as two weeks of this treatment in eradicating *Helicobacter pylori* in patients with duodenal ulcer. This is clear from a double blind, placebo controlled study in more than 900 consecutive patients, based both on intention to treat and per protocol analyses. This triple therapy eradicated the organism in about 80% of patients (compared with just over 40% of those who took only omeprazole and amoxicillin). The one week and two week treatments were similar for safety and compliance.

Gut 2007;56:475-9