All you need to read in the other general medical journals
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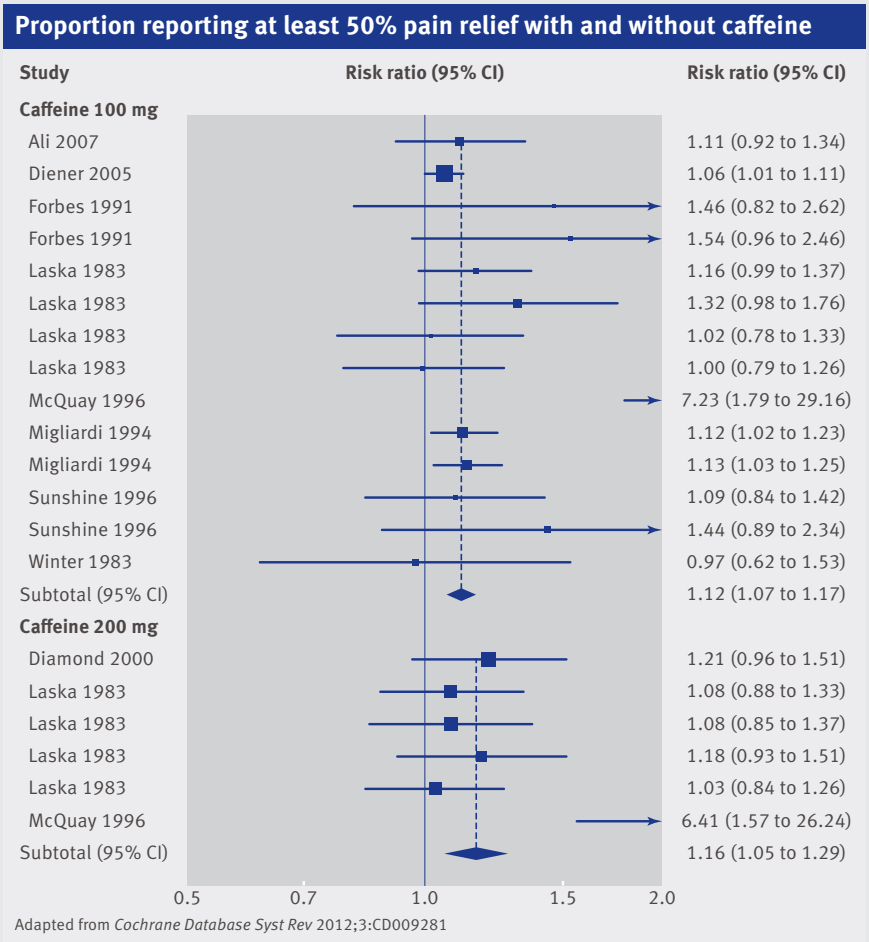
"Almost two and a half million people in the United States die every year, making death the most common health event in the United States"
Richard Lehman's blog at www.bmj.com/blogs

Caffeine gives small boost to popular analgesics



Adapted from *Cochrane Database Syst Rev* 2012;3:CD009281

Many popular analgesics are combined with caffeine, an additive that boosts effectiveness by around 10%, according to a meta-analysis. All 19 trials in the analysis compared a single dose of a popular analgesic with and without caffeine in adults with acute pain—usually headache, pain after a dental extraction, or postpartum pain.

Overall, 67% (1803/2678) of adults reported at least 50% pain relief after an analgesic containing caffeine, compared with 61% (1617/2656) after the same dose without caffeine (risk ratio 1.1, 95% CI 1.08 to 1.2) The caffeine helped one extra person achieve adequate pain relief for every 16 treated (number needed to treat 16, 95% CI 11 to 27), say the authors. This is a modest effect, but one that probably justifies giving consumers the choice. None of the trials reported any serious side effects of caffeine, although they only evaluated a single dose so safety cannot be established.

Most of the trials in this review tested caffeine added to paracetamol or ibuprofen. Caffeine improved the effectiveness of both drugs and seemed to work best at doses of at least 100 mg.

The trials were old but reasonably well done. The only threat to the validity of the pooled results was the large number of unpublished studies that the authors knew about but were unable to access. All would have to be negative to overturn these results. Caffeine probably does work, say the authors. We don't yet know how.
Cochrane Database Syst Rev 2012;3:CD009281

Women can deliver safely without controlled traction on the cord

Controlled traction on the umbilical cord helps deliver the placenta, but it has little impact on a woman's risk of postpartum haemorrhage, say researchers. Cord traction can be omitted safely in women who deliver without the help of properly trained birth attendants.

Their large trial compared active management of the third stage of labour with and without cord traction in more than 24 000 women having a single vaginal delivery. Roughly 2% of women in both groups lost a litre or more of blood (239/11 621 *v* 219/11 621; risk ratio 1.09, 95% CI 0.91 to 1.31).

Management without cord traction wasn't conclusively "non inferior" (primary results just missed a prespecified threshold), but women managed this way lost just 10 mL more blood than controls (3.9 to 16.4). Cord traction shortened the third stage by an average of 6.5 minutes (6.2 to 6.8). The practice seemed safe in this trial but may not be so safe in poorly trained hands, says an editorial (doi:10.1016/S0140-6736(12)60354-7). Uterine inversion is rare but can be life threatening.

A uterotonic such as oxytocin, not controlled traction on the cord, is the most important component of a managed third stage, says the editorial. Women in this trial had 10 IU of oxytocin immediately after delivery of the baby, and overall rates of bleeding were low.

Administration of a uterotonic is relatively easy with disposable syringes prefilled with oxytocin and easier still with tablets of misoprostol. International agencies trying to reduce maternal mortality now have a better idea where to direct scarce resources.
Lancet 2012; doi:10.1016/S0140-6736(12)60206-2

Screening for colorectal cancer should start at 50 years for most adults

There are many guidelines on colorectal cancer screening and they don't always agree. To avoid adding to the confusion, the American College of Physicians recently harmonised existing guidance from the US instead of developing its own from scratch. The resulting statement recommends screening all average risk adults from the age of 50 years (except African-Americans, who should be screened from 45) to the age of 75. The choice of test, which determines the screening interval, should be left to the individual after informed

discussions about benefits and harms, availability, and costs. For average risk adults the options are stool based tests every year, sigmoidoscopy every five years, or colonoscopy every 10 years. The statement recommends colonoscopy every five years for high risk adults and colonoscopy as a follow-up test for anyone with a positive result from another test.

The statement's authors had four US guidelines to work from. The only consistent message from all four was a starting age of 50 years for most adults. Although screening in general is supported by the available evidence, the specifics (Which test? When? How often?) have yet to filled in. Only guaiac based faecal occult blood tests and flexible sigmoidoscopy have been shown to reduce cancer related mortality in randomised trials.

Ann Intern Med 2012;156:378-86

Tight control of rheumatoid arthritis works better with prednisolone

Tight control strategies for rheumatoid arthritis use escalating doses of disease modifying drugs in an attempt to halt the disease process before it causes irreversible joint damage. Drugs such as methotrexate are titrated monthly against ambitious targets for symptom control. These strategies can work well, and a new trial suggests they may work even better with a small extra dose of prednisolone.

Two hundred and thirty six adults with early rheumatoid arthritis were managed intensively with monthly assessments and escalating doses of methotrexate, followed by biological agents if needed. Half the participants also received 10 mg a day of oral prednisolone. Two years later, 78% of those given prednisolone and 67% of controls still had no joint erosion, and absolute differences in erosion scores were small but significant. Measures of disease activity fell faster for at least the first few months among adults given prednisolone. They were also less likely to need biological agents, and overall response rates were significantly higher in some, but not all, analyses.

Prednisolone is an effective addition to a tight control strategy using methotrexate, says a linked editorial (p 390). Intelligent early use of glucocorticoids is already an evidence based treatment for rheumatoid arthritis, and this trial is a further endorsement. At 10 mg a day, prednisolone was not associated with any more side effects than the tight control strategy alone.

Ann Intern Med 2012;156:329-39

Vaginal misoprostol before a surgical abortion reduces complications

The prostaglandin analogue misoprostol softens and dilates the cervix in women having early abortions by vacuum aspiration. A placebo controlled trial confirms that vaginal misoprostol also reduces the risk of complications (2% (50/2427) *v* 3% (74/2431); relative risk 0.68, 95% CI 0.47 to 0.96), particularly incomplete abortions (<1% (19/2427) *v* 2% (55/2431); 0.35, 0.21 to 0.58).

Misoprostol is cheap, widely available, and easy to administer. Women could even administer it themselves, says a linked comment (doi:10.1016/S0140-6736(12)60037-3). We now know that pharmaceutical preparation of the cervix before an early abortion helps surgeons and protects women. Guidelines should recommend it routinely, if they don't already.

Close to 5000 women from nine countries took part in the trial, the largest so far, and the only one big enough to look for differences in the risk of rare complications. All participants were no more than 11 weeks pregnant and received 400 µg misoprostol or placebo vaginally three hours before a scheduled vacuum aspiration. As expected, women given misoprostol had a greater cervical diameter at the start of the procedure and were less likely than controls to need mechanical dilatation (60% *v* 78%; 0.76, 0.73 to 0.79). Three women in each group had a cervical tear or a uterine perforation.

In the brief period between treatment and surgery, misoprostol caused more abdominal cramps (55% *v* 22%), vaginal bleeding (37% *v* 7%), and nausea (7% *v* 4%) than the placebo.

Lancet 2012; doi:10.1016/S0140-6736(11)61937-5

Higher spending hospitals have lower mortality rates

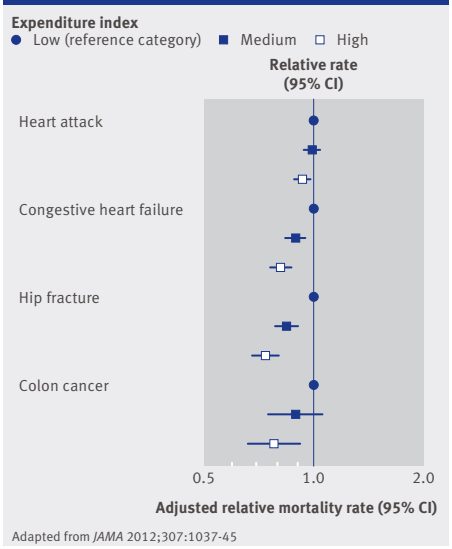
The link between health spending and health is complex and dynamic, but researchers from Canada recently managed to find a clear signal that more money for hospitals can be associated with significantly better outcomes for patients. In a system with universal access to acute care, people treated in the highest spending hospitals were significantly less likely to die or to be readmitted than similar people treated in low spending hospitals.

The authors used six databases to construct models that isolated the effects of hospital spending from dozens of other factors that might influence deaths and readmissions, including the clinical and social profile of patients. People who were admitted acutely for hip fracture, heart failure, colon cancer, and myocardial infarction all did better in high spending hospitals (fully adjusted 30 day mortality 0.93, 95% CI 0.89 to 0.98 for adults with myocardial infarction; 0.81, 0.76 to 0.86 for heart failure; 0.74 0.68 to 0.80 for hip fracture; and 0.78, 0.66 to 0.91 for colon cancer). Why? Because these hospitals had more nurses, more specialists, and better facilities, say the authors. Patients seemed to get faster and higher quality care.

The findings challenge a prevailing (and politically convenient) wisdom that cutting hospital budgets improves efficiency, drives innovation, and benefits populations, says a linked editorial (p 1082). The amount of money that goes into health systems is less important than what you spend it on. When hospitals spend more on the right things—nurses, specialists, evidence based treatments—patients probably do feel the benefit.

JAMA 2012;307:1037-45

Expenditure index and mortality at 30 days



Adapted from *JAMA* 2012;307:1037-45

Trainees say they are more efficient with an iPad

Trainee hospital doctors often complain that they spend more time looking for a computer than they do with patients. So one hospital department in the US tried giving them all an iPad, a popular tablet computer, that gave the trainees immediate access to patient records, publications, and paging systems.

The 115 trainees in internal medicine liked their new iPads and 100 reported using them regularly for clinical duties. Three quarters of the trainees said the iPads made them more efficient, saved them about an hour a day, and reduced delays in patient care. More objective measures corroborated their reports. In a before and after study, on-call teams with iPads placed more care orders before the postcall ward round (38% *v* 33%) and before they handed over and went home (64% *v* 56%) than did similar teams working without iPads the year before. Both improvements were significant.

The authors couldn't tell whether patients got better any faster. But at least one observer believes the new technology is a force for good, and that it encourages doctors to spend more time with patients and possibly even protects confidentiality (p 438).

Arch Intern Med 2012;172:437

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