

## Abstracts

### When to use beta-blockers

Beta-blockers are recommended for heart failure and for secondary prevention after a recent myocardial infarction (MI). Doctors should think twice before prescribing these drugs to other high-risk groups, say researchers. Adults with a remote history of MI, those with cardiovascular disease but no history of MI, and those with just cardiovascular risk factors did not seem to benefit from beta-blockers in a large observational study ( $N=21\,860$ ). Treatment was not associated with a lower risk of cardiovascular death, non-fatal MI or stroke in fully adjusted analyses, and the authors found no evidence of cardiovascular benefit over four years in any of the three patient groups. They did confirm a lower risk of all cardiovascular events combined in a subgroup of adults with a recent MI.

Current practice is underpinned by old evidence that accumulated before modern reperfusion therapies and cardioprotective drug protocols, say the authors. Beta-blockers may not be as effective for many patients as



was previously thought. International guidelines are already being revised.

Bangalore S, et al. JAMA 2012;308(13):1340-1349. [<http://dx.doi.org/10.1001/jama.2012.12559>]

### Sports and haemophilia

Some sports are associated with a moderately increased risk of bleeding in boys with haemophilia. An observational study from Australia reports odds ratios of 2.7 (95% CI 1.7 - 4.8) for team sports, such as basketball and football, and 3.7 (2.3 - 7.3) for collision sports such as wrestling, when compared with inactivity or low-risk sports such as swimming.

Absolute risks looked low, however. Most bleeds reported by 104 boys aged 4 - 18 years were not preceded by sports activities. The authors implicate sports in one bleed per year for a boy doing vigorous sports three times a week who usually has five bleeds a year.

Children with haemophilia can, and probably should, participate in vigorous sports, says a linked editorial (p. 1480), providing they and their parents are fully informed about the risks, which look manageable. Most of the boys in this study were treated with prophylactic infusions of clotting factors, and tailoring treatment protocols to sports timetables might protect them further. The incidence of bleeding fell by 2% (1 - 3%) for every 1% increase in clotting factor concentration.

The boys all had moderate or severe haemophilia A or B. They reported all bleeds requiring extra infusions of clotting factor during one year, then answered questions about what they had been doing during the eight hours before the bleed. The authors compared exposure to sports in that time window with exposure to sports in two 8-hour control windows in the 24 hours and 48 hours before each bleed.

The boys reported 336 new bleeds during the year, most often in or around a knee (15%), ankle (14%), or elbow (10%).

Broderick CR, et al. JAMA 2012;308(14):1452-1459.  
[<http://dx.doi.org/10.1001/jama.2012.12727>]

### Discourage general health checks

In 2009, the UK's NHS began offering general health checks to adults aged 40 - 74 years. The initiative is unlikely to save any lives, say researchers. In a meta-analysis of 16 large trials, they found that health checks didn't reduce mortality or prevent disease. In addition, they found no evidence that health checks prevent hospital admissions, disability, or anxiety, although these outcomes were poorly reported.

All the trials tested multicomponent checks, but the content changed over time, from more invasive multiphase screening that included imaging and blood tests in earlier trials, to less invasive estimates of cardiovascular risk and lifestyle advice in more recent trials. Taken together, the health checks had no effect on mortality from all causes (risk ratio 0.99, 95% CI 0.95 - 1.03), cancer (1.01, 0.92 - 1.12), or cardiovascular disease (1.03, 0.91 - 1.17). Follow-up ranged from 4 to 22 years.

The researchers were surprised by the lack of data on investigations, drugs and procedures prompted by health checks. Risk of harm, including over-diagnosis, was impossible to assess.

Although there are still gaps, and some of the trials were old, the evidence against important benefits is consistent, they write. Public health initiatives such as the NHS health check should be discouraged, at least until ongoing trials report their mortality data - this is expected soon. Private companies and workplaces offering multiple screening tests to unselected adults are also acting outside the evidence.

Cochrane Database Syst Rev 2012;10:CD009009.



### No antibiotics for adults with sinusitis

Adults with symptoms of sinusitis get better slightly faster when given antibiotics, but the difference isn't big enough to justify routine treatment, according to a new review. Pooled analyses from 10 placebo-controlled trials suggest that antibiotics speed the recovery of one adult for every 18 treated (number needed to treat 18, 95% CI 10 - 115). Conversely, doctors need to treat only 8 (6 - 13) to cause one extra adverse event, most commonly nausea, vomiting, abdominal pain, or diarrhoea. That unfavourable trade-off, coupled with the well-known threat of antibiotic resistance, means antibiotics aren't justified for unselected adults presenting to primary care, say the authors.

The 2 450 participants in the review went to their doctor with a cold and symptoms such as facial pain, dental pain, postnasal drip, or purulent nasal discharge for more than a week but less than a month. They had no investigations. Almost half

were better within a week, whatever treatment they had (47%). Just over 70% were better within a fortnight. Those given antibiotics such as amoxicillin took just as many analgesics as controls and used just as many nasal decongestants. The only serious complication, a brain abscess, occurred in an adult treated with antibiotics.

Antibiotics seemed to work better for the subgroup with purulent nasal discharge, but again the risk of side-effects outweighed the benefits of treatment (11 more patients recovering faster versus 12 more with side-effects for every 100 patients given antibiotics).

Cochrane Database Syst Rev 2012;10:CD006089.