Blood-pressure and cholesterol lowering in persons without cardiovascular disease

Elevated blood pressure and elevated low-density lipoprotein (LDL) cholesterol increase the risk of cardiovascular disease. Lowering both should reduce the risk of cardiovascular events substantially.

This proposition is examined in this randomised trial in which patients without cardiovascular disease were randomised to receive such treatments compared with placebos.

The combination of rosuvastatin (10mg per day), candesartan (16mg per day), and hydrochlorothiazide (12.5mg per day) was associated with a significantly lower rate of cardiovascular events than dual placebo among persons at intermediate risk who did not have cardiovascular disease. Muscle weakness and dizziness were more common in the combined therapy group, but the rate of discontinuation was similar in the two groups.


Antidepressant use and risk of cardiovascular outcomes in people aged 20 to 64

This report concerns a cohort study of 238,963 patients aged 20 to 64 years with a first diagnosis of depression.

Antidepressant class, dose and duration, and individual antidepressant drugs used were noted. Outcomes sought were myocardial infarction, stroke or transient ischaemic attack, and arrhythmia. The incidence of these outcomes were compared with a matched cohort of subjects not taking antidepressants.

No significant associations were seen between antidepressant class and myocardial infarction, stroke/transient ischaemic attack, or arrhythmia over 5 years' follow-up. Some indication of a reduced risk of myocardial infarction was noted in those taking selective serotonin reuptake inhibitors.

BMJ 2016; 352:i1350

Effectiveness of non-steroidal anti-inflammatory drugs for the treatment of pain in the knee and hip osteoarthritis

In this network meta-analysis, the researchers considered randomised trials comparing any of the following interventions: NSAIDs, paracetamol, or placebo, for the treatment of osteoarthritis pain.

Seventy-four randomised trials involving more than 58,000 patients were included in the analysis. The data suggests that paracetamol is ineffective, irrespective of the dose. Conversely, diclofenac at the minimum daily dose of 150mg/day is most effective for the treatment of pain and physical disability in osteoarthritis, and superior to the maximum dose of frequently used NSAIDs, including ibuprofen, naproxen, and celecoxib.

The researchers conclude that diclofenac 150mg/day is the most effective option for improving both pain and function in knee and hip osteoarthritis. They suggest that intermittent, short-term use is preferable to long-term fixed doses in view of the potential gastrointestinal and cardiovascular harms.

Lancet 2016;387:2093-105