Aspirin for venous ulcers
In a prospective trial, 51 patients with a mean age of 60 years, who had ulcers > 2 cm associated with chronic venous insufficiency, were recruited. They were randomly assigned to compression therapy along with 300 mg of aspirin or placebo. Ulcer healing and recurrence were assessed weekly. Healing occurred in a mean of 12 weeks in those given aspirin and in 22 weeks in those given placebo, a 46% reduction in healing time. The main prognostic variable for ulcer healing was the initial size of the ulcer. Aspirin therapy could cut ulcer healing time by half (Ann Vasc Surg 2012;26:620–9).

Pioglitazone and the risk of urinary bladder cancer
Pioglitazone, an insulin sensitizer, has been reported to increase the risk of urinary bladder cancer. The UK general practice research database was used to collect data on a retrospective cohort of 115 727 patients with type 2 diabetes who were not treated with oral hypoglycaemic agents over a 21-year period. Incident cases of bladder cancer in these patients were identified, and each was matched to up to 20 controls. During follow-up, 470 patients were diagnosed to have cancer of the urinary bladder (89.4 per 100 000 person years). Pioglitazone was associated with a 1.83-times higher rate of bladder cancer. The highest rates were seen in patients who had taken the drug for more than 2 years (1.99-times higher rates) with a longer duration of use associated with higher rates (BMJ 2012;344:e3645. doi: 10.1136/bmj.e3645).

Zinc in infants with serious infections
In a randomized trial conducted at three hospitals in Delhi, investigators recruited infants aged 7 to 120 days with clinical signs of serious bacterial infections and a raised C-reactive protein (CRP) level. Of these, 352 were randomized to zinc and 348 to placebo, in addition to standard antibiotic therapy. The primary outcome was treatment failure defined as a need to change antibiotics within 7 days of randomization, or a need for intensive care, or death at any time within 21 days. Treatment failure rate was 10% in the zinc group compared to 17% in those given placebo (p=0.011). The groups did not differ in overall mortality. The addition of zinc could improve the treatment of infants with serious bacterial infections (Lancet 2012;379:2072–8).

Prolonged sitting and glucose metabolism
Sitting for prolonged periods has been linked to increased cardiovascular and all-cause morbidity. Researchers randomized 22 overweight/obese adults to three groups: uninterrupted sitting for 5 hours, sitting for 5 hours with 2-minute bouts of light-intensity walking every 20 minutes or 2-minute bouts of moderate intensity walking every 20 minutes. A 200 ml test carbohydrate and fat drink was administered 2 hours before the start of the experiment. Levels of blood glucose and insulin were both significantly lower in the two groups who exercised during the study period. Even such short bursts of exercise improve insulin sensitivity and could lower cardiovascular risk (Diabetes Care 2012;35:976–83).

Azithromycin and the risk of cardiac events
Macrolide antibiotics such as azithromycin have been reported to be pro-arrhythmic. Using data from a Tennessee Medicaid cohort, researchers compared cardiovascular and all-cause mortality among 347 795 patients who took azithromycin, 1 391 180 persons who took no antibiotics, 1 348 672 patients who took amoxicillin, 264 626 who took ciprofloxacin and 193 906 who took levofloxacin. During 5 days of treatment, patients who took azithromycin had an increased risk of cardiovascular death (hazard ratio [HR] 2.88) and all-cause mortality (HR 1.85) compared to those who had not taken any antibiotics. Excess risk was also found in patients who took azithromycin as compared to patients taking amoxicillin and ciprofloxacin but not as compared to those taking levofloxacin. Caution needs to be exercised in prescribing azithromycin, especially in those at risk for cardiac events (N Engl J Med 2012;366:1881–90).

Neuropsychiatric adverse effects of glucocorticoids
Using data obtained from UK general practices from 1990 to 2008, investigators compared the incidence rate of neuropsychiatric adverse effects in patients treated with glucocorticoids with patients not prescribed these drugs. Overall, 786 868 courses of oral glucocorticoids were prescribed for 372 696 patients. The overall incidence of suicide, suicide attempts and severe neuropsychiatric disorders was 22.2 per 100 person-years at risk. The hazard ratio for suicide or suicide attempt in exposed patients was 6.89; for depression, 1.83; for mania, 4.35; for delirium, confusion or disorientation, 5.14; and for panic disorder, 1.45. Close clinical monitoring for these disorders is a must in patients on treatment with glucocorticoids (Am J Psychiatry 2012;169:491–7).

Prescribing drugs to the elderly: The Beers criteria
Lack of awareness of the way a drug may adversely affect an older patient may lead to the prescription of potentially inappropriate medications (PIMs). To help avoid such errors, Beers et al. published a comprehensive list of PIMs in 1991 (Arch Intern Med 1991;151:1825–32). The latest update includes 53 medications under three headings: drugs to be avoided in older adults, drugs which should not be given to older adults with certain diseases and drugs which can be used with caution. This document is freely available and should be read by all doctors (J Am Geriatr Soc 2012;60:616–31).

Aspirin versus warfarin in heart failure
Patients with heart failure and a low ejection fraction are at risk for embolic stroke. Warfarin, the anticoagulant of choice in such patients, often results in major bleeding. A randomized, double-blind trial recruited 2305 patients 18 years of age or older with an ejection fraction ≤35% and in normal sinus rhythm. Patients were randomized to receive either warfarin, with a target international normalized ratio (INR) of 2 to 3.5, or aspirin 325 mg daily. Over a mean follow-up of 3.5 years, the rate of the composite primary end-point of ischaemic stroke, intracerebral bleed or death was 7.47 events per 100 patient years in the warfarin group and 7.93 events per 100 patient years in the aspirin group. Patients given warfarin had lower rates of ischaemic stroke but significantly higher major bleeding. Aspirin appears to be a credible alternative in this patient population (N Engl J Med 2012;366:1859–69).

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