New guidelines on the treatment of blood cholesterol

The American College of Cardiology/American Heart Association (ACC/AHA) has published guidelines on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults. In a marked departure from previous guidelines, low-density lipoprotein (LDL) cholesterol levels are no longer the primary target of therapy. Treatment with a statin has been recommended for four specific groups: (i) individuals with atherosclerotic cardiovascular disease (ASCVD); (ii) primary elevation of LDL cholesterol ≥190 mg/dl; (iii) individuals 40–75 years of age with diabetes and LDL cholesterol 70–189 mg/dl without clinical ASCVD; and (iv) individuals 40–75 years of age without diabetes or clinical ASCVD, with LDL cholesterol 70–189 mg/dl and an estimated 10-year risk of ASCVD ≥7.5%. These guidelines would bring a much larger number of individuals under treatment with statins (Circulation online 12 Nov 2013. doi: 10.1161/01.cir.0000437738.63853.7a).

Aspirin for prevention of postoperative venous thromboembolism

In a multicentre, randomized controlled trial, 778 patients undergoing elective total hip replacement were postoperatively given 10 days of dalteparin to prevent venous thromboembolism (VTE). They were then randomized to receive either aspirin or dalteparin for 4 weeks. Five of 398 (1.3%) patients given dalteparin and 1 of 380 (0.3%) given aspirin had an episode of VTE, with aspirin being shown to be non-inferior to dalteparin in the prevention of VTE. Clinically significant bleeding occurred in 5 patients (1.3%) receiving dalteparin and 2 (0.5%) receiving aspirin. Given the low cost and ease of administration and monitoring, aspirin may be an alternative for thromboprophylaxis after hip replacement (Ann Intern Med 2013;158:800–6).

E-cigarettes for smoking cessation: All smoke and no fire?

An electronic cigarette (e-cigarette) is a battery-powered device which simulates tobacco smoking by producing a vapour (with or without nicotine) that resembles smoke. A randomized, controlled trial was done in Auckland, New Zealand on 657 smokers wanting to quit. Along with telephone counselling, 289 were given 16 mg nicotine e-cigarettes, 295 were given nicotine patches and 73 were given placebo e-cigarettes. At 6 months, verified abstinence rates were 7.3%, 5.8% and 4.1% in the three groups, respectively. There were no significant differences in adverse events. E-cigarettes were only modestly effective in helping smokers to quit and their place in tobacco control remains uncertain (Lancet 2013;382:1629–37).

Anastrozole for prevention of breast cancer

The International Breast Cancer Intervention Study-II (IBIS-II) was a double-blind, randomized, placebo-controlled trial to assess the efficacy and safety of the aromatase-inhibitor anastrozole for prevention of breast cancer in post-menopausal women at high risk of the disease. The aromatase enzyme converts androgens to oestrogens which are a key factor in breast cancer carcinogenesis. A total of 1920 women, 40–70 years of age from 18 countries were randomly assigned to receive anastrozole and 1944 to receive placebo. All were at increased risk of breast cancer judged on the basis of specific criteria. After a median follow-up of 5 years, 40 women in the anastrozole group and 85 in the placebo group had developed breast cancer, indicating that the drug effectively reduces the incidence of the disease. The predicted cumulative incidence of all breast cancers after 7 years was 5.6% in the placebo group and 2.8% in the anastrozole group (Lancet online 12 Dec 2013 doi.org/10.1016/S0140-6736(13)62292-8).

JNC8: Too little, too late?

The long-awaited guidelines on the management of hypertension—Joint National Committee (JNC 8)—were finally released in December 2013. Important changes from the previous JNC 7 guidelines include the following: In patients 60 years or older who do not have diabetes or chronic kidney disease (CKD), the blood pressure level to be aimed for is now <150/90 mmHg; in patients 18–59 years of age and those 60 years or older who have diabetes, CKD or both, the new blood pressure level to be aimed for is <140/90 mmHg; first-line and later-line treatments should now be limited to four classes of medications: thiazide-type diuretics, calcium channel blockers, angiotensin-converting enzyme inhibitors and angiotensin receptor blockers. The guidelines have been a long time in coming and it remains to be seen how acceptable they will be given the debatable changes in blood pressure goals (JAMA online 18 Dec 2013 doi: 10.1001/jama.2013.284427).

Grow old along with me, the best is yet to be?

Researchers in Denmark compared the physical and cognitive function of two cohorts of Danish people older than 90 years who were born 10 years apart. The first cohort had people born in 1905 and assessed at age 93 years (n=2262). The second cohort had people born in 1915 and assessed at age 95 years (n=1584). The same survey design was used for both and response rates were almost identical (63%). Cognitive functioning was assessed by mini-mental state examination and a composite of five cognitive tests. Physical functioning was assessed by activities of daily living score and physical performance tests. The 1915 cohort, despite being 2 years older at assessment, scored significantly better than the 1905 cohort on both the cognitive tests and the activities of daily living. Nonagenarians born later seem to be doing better than those born earlier (Lancet 2013;382:1507–13).

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