

Masala

Aspirin for preventing cancer

A systematic review examined the effect of aspirin use on incidence and mortality of site-specific cancer and cardiovascular events. The effects of aspirin on incidence of cancer were not apparent during the first 3 years of use. No differences were found between low- (75 mg) and high-dose (325 mg) aspirin in terms of incidence of cancer but higher doses led to higher toxicity, primarily bleeding. For average-risk individuals aged 50–65 years taking aspirin for 10 years, there was a relative reduction of 7% to 9% in the number of cancers, myocardial infarctions or stroke events over a 15-year period and an overall 4% relative reduction in all deaths over a 20-year period. The reduction in cancer was mostly in oesophageal, gastric and colorectal malignancies (*Ann Oncol* 2014; doi:10.1093/annonc/mdu225).

Emergence of drug resistance during treatment of multidrug-resistant (MDR) tuberculosis

In 2000, WHO set up the international Green Light Committee (GLC) initiative. It specified manpower, treatment protocol and infrastructure-related standards for centres treating patients with MDR tuberculosis. A multicentric study assessed the GLC's impact by following 832 adults with pulmonary MDR tuberculosis during treatment with monthly sputum cultures, drug susceptibility testing and genotyping. Centres compared were in 5 countries meeting GLC norms, 4 countries that did not apply to the GLC and 9 countries that volunteered to participate. Of those without baseline resistance to specific second-line drugs, 8.9% acquired extensively drug-resistant (XDR) tuberculosis, 11.2% acquired fluoroquinolone resistance, and 7.8% acquired resistance to second-line injectable drugs. The relative risk of acquired resistance was lower at GLC-approved sites. The risk of acquiring resistance increased in proportion to the number of drugs to which resistance was present at baseline (*Clin Infect Dis* 2014; **59**:1049–63).

Guidelines on myocardial revascularization

The European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS) have published new guidelines on myocardial revascularization. The important recommendations are: coronary artery bypass grafting (CABG) is recommended for patients with significant left main (LM) stenosis and LM equivalent with proximal stenosis of both left anterior descending (LAD) and left circumflex arteries; for patients with significant LAD artery stenosis and multivessel disease; is the revascularization modality of choice among diabetic patients with multivessel CAD; percutaneous coronary intervention (PCI) can be considered a treatment alternative among diabetic patients with multivessel disease and low SYNTAX score (≤ 22); a P2Y12 inhibitor such as prasugrel, ticagrelor or clopidogrel is recommended in addition to aspirin in patients undergoing PCI for an acute coronary syndrome and should be continued over 12 months (*Eur Heart J* 2014; **35**:2541–619).

Warning bells: The prevalence of overweight and obesity

As part of the Global Burden of Disease study, researchers compared the prevalence of overweight and obesity (body mass index [BMI] ≥ 25 kg/m²) in 1980 and 2013. The authors systematically identified 1769 publications that included data for height and weight. Data were obtained for prevalence of obesity

and overweight by age, sex, country and year ($n=19\,244$). Globally, the proportion of adults with a BMI ≥ 25 kg/m² increased between 1980 and 2013 from 28.8% to 36.9% among men, and from 29.8% to 38.0% among women. In developed countries, 23.8% of boys and 22.6% of girls were overweight or obese in 2013. The prevalence of overweight and obesity also increased among children and adolescents in developing countries, from 8.1% to 12.9% in 2013 among boys and from 8.4% to 13.4% among girls (*Lancet* 2014; **384**:766–81).

Knee replacement: Total versus unicompartmental

Total knee replacement (TKR) or unicompartmental knee replacement (UKR) are alternatives for end-stage osteoarthritis. Researchers in the UK compared adverse outcomes for each procedure in matched patients drawn from the National Joint Registry for England and Wales. A total of 25 334 UKRs were matched to 75 996 TKRs on the basis of propensity score. UKRs had worse implant survival both for revision and for revision/reoperation than TKRs at 8 years. Mortality was significantly higher for TKR at all time-points (30 day: hazard ratio 0.23; 8 year: 0.85). Length of stay, complications (including thromboembolism, myocardial infarction and stroke) and rate of re-admission were all higher for TKR than for UKR. Currently, UKRs constitute only 8% of all knee joint replacements done in the UK (*Lancet* 2014; **384**:1437–45).

A new 'paradigm' in the treatment of heart failure

A new agent LCZ696 combines an angiotensin receptor blocker (valsartan) with an inhibitor of neprilysin (sacubitril). Neprilysin, a neutral endopeptidase, degrades several endogenous vasoactive peptides. In a multicentric, double-blind trial (PARADIGM-HF) 8442 patients with heart failure were randomized to receive either LCZ696 (200 mg twice daily) or enalapril (10 mg twice daily), in addition to recommended therapy. The primary outcome was a composite of death from cardiovascular causes or hospitalization for heart failure. Having shown overwhelming benefit with LCZ696, the trial was stopped prematurely after 27 months of follow-up. Compared to enalapril, LCZ696 reduced the risk of hospitalization for heart failure by 21%. Hypotension and non-serious angioedema were more common in the LCZ696 group while renal impairment, hyperkalaemia and cough were more common in the enalapril group (*N Engl J Med* 2014; **371**:993–1004).

Varicose veins? Laser beats foam, surgery

In a randomized trial, researchers compared the outcomes of foam sclerotherapy, endovenous laser ablation and surgical treatments in 798 participants with primary varicose veins at 11 centres in the UK. At 6 months, the mean disease-specific quality of life was slightly worse after treatment with foam than after surgery but was similar in the laser and surgery groups. There were no significant differences between the three groups in measures of generic quality of life. Procedural complications were similar in the foam group (6%) and the surgery group (7%) but were lower in the laser group (1%). The frequency of serious adverse events (approximately 3%) was similar among the groups. Measures of clinical success were similar among the groups (*N Engl J Med* 2014; **371**:1218–27).