New guidelines for HIV prevention among healthcare workers
The US Public Health Service has updated its guidelines on the use of post-exposure prophylaxis to prevent transmission of HIV following exposure to blood or body fluids. The new recommendations include the use of a combination of three antiretroviral drugs among all healthcare personnel exposed to HIV-positive fluids. The preferred regimen, to be given for a 4-week period, consists of raltegravir, tenofovir and emtricitabine. Using a newer fourth-generation combination HIV p24 antigen–HIV antibody test for follow-up, HIV testing may be concluded 4 months after exposure. Conventionally, follow-up HIV testing is concluded 6 months after an HIV exposure (Infect Control Hosp Epidemiol 2013;34:875–92).

Caution on using fluoroquinolones in diabetes
A population-based cohort study was conducted in Taiwan on patients with diabetes. Outpatient new users of oral levofloxacin, ciprofloxacin, moxifloxacin, cephalosporins and macrolides were identified (n=78 433). Study events were defined as visits to the emergency department or hospitalization for dysglycaemia within 30 days following the initiation of antibiotic therapy. The absolute risk of hyperglycaemia per 1000 persons was 6.9 for moxifloxacin and 1.6 for macrolides. The relative risk of hypoglycaemia was 10.0 for moxifloxacin and 3.7 for macrolides. Levofloxacin and ciprofloxacin caused dysglycaemia more often than did macrolides. These findings mandate caution in the use of fluoroquinolones, especially moxifloxacin, in patients with diabetes (Clin Infect Dis 2013;57:971–80).

Safety features in insulin pumps
Researchers in the USA evaluated the threshold-suspend feature of sensor-augmented insulin pumps. This safety feature interrupts insulin delivery at a pre-set sensed glucose level to avert hypoglycaemic episodes. A total of 247 patients with type 1 diabetes were randomized to receive sensor-augmented insulin-pump therapy with or without the threshold-suspend feature for 3 months. The changes in glycated haemoglobin values were similar in the two groups. The mean area under the curve (AUC) for nocturnal hypoglycaemic events was 37.5% lower in the threshold-suspend group than in the control group. Nocturnal hypoglycaemic events occurred 31.8% less frequently in the threshold-suspend group. Four patients (all in the control group) had a severe hypoglycaemic event; no patient had diabetic ketoacidosis. Adding this safety feature to insulin pumps could protect patients from the risk of hypoglycaemia without compromising on blood glucose control (N Engl J Med 2013;369:224–32).

Antivirals for Bell palsy
Researchers in Korea randomized patients with severe-to-complete Bell palsy to receive either oral methylprednisolone for 10 days (n=107) or a combination of oral methylprednisolone and famciclovir (n=99). Two weeks later, patients were assessed clinically and with an electromyogram of the facial muscles. Final follow-up assessment of recovery was done at 6 months. Recovery was seen in 66.4% of patients in the methylprednisolone group and in 82.8% of those in the combination therapy group. The probability of complete recovery was 2.6 times higher in the combination group compared to the group given methylprednisolone alone. These results suggest that the addition of an antiviral agent in patients with severe Bell palsy may improve outcomes (Am J Med 2013;126:336–41).

Calf compression after stroke
CLOTS3, a multicentre, randomized trial in the UK, assessed the efficacy of intermittent pneumatic compression (IPC) in preventing deep venous thrombosis (DVT) after a stroke. Patients immobilized after a stroke were randomized to receive either IPC or no IPC. A compression duplex ultrasound (CDU) of both legs was done at 7–10 days and, wherever practical, at 25–30 days after enrolment. Patients were followed up for 6 months. The primary outcome was DVT in the proximal veins within 30 days of randomization. Over a 4-year period, a total of 2876 patients were enrolled, with a median age of 76 years. The primary outcome occurred in 8.5% of patients allocated IPC and 12.1% of patients allocated no IPC; an absolute risk reduction of 3.6%. The number of deaths did not differ in the two groups (Lancet 2014;382:516–24).

Comparing apples to oranges?
Data were analysed from three large prospective cohort studies on health professionals in the USA—the Nurses’ Health Study (n=66 105), the Nurses’ Health Study II (n=85 104) and the Health Professionals Follow-up Study (n=36 173). The main outcome measure was incident cases of type 2 diabetes. There was a weak protective effect of overall consumption of fruits on the risk for diabetes. The pooled hazard ratios of type 2 diabetes were 0.74 for blueberries, 0.88 for grapes and raisins, 0.89 for prunes, 0.93 for apples and pears, 0.95 for bananas and grapefruit, 0.97 for peaches, plums and apricots, 0.99 for oranges, 1.03 for strawberries, and 1.10 for cantaloupe. The pooled hazard ratio for the same increment in fruit juice consumption was 1.08. The lesson is clear—eat blueberries, grapes and apples, and avoid fruit juices (BMJ 2013;347:f5001).

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