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An unusual cause of agranulocytosis and a fine piece of investigative epidemiology. In April 2008, a clinical reference laboratory in New Mexico notified the Department of Health of a cluster of cases during the preceding 2 months with unexplained agranulocytosis confirmed by bone marrow histopathology. With the assistance of the Centers for Disease Control (CDC), USA, several cases of agranulocytosis were then linked to the use of cocaine that was adulterated with the antihelminthic drug, levamisole. Cocaine exposure by itself has not been associated previously with agranulocytosis but levamisole does cause this complication. As of July 2009, almost 70% of cocaine seized at the borders of the USA contained levamisole, although the reason why levamisole was added to cocaine remains unclear (*MMWR Morb Mortal Wkly Rep* 2009;**58**:1381–5).

Yet another U-turn has resulted from a study on the treatment of diabetes. A retrospective assessment of 'real world' use of oral agents for type 2 diabetes was done using a UK general practice database. The researchers examined prescribed drugs and subsequent outcomes among 90 000 patients, who were followed for a mean of 7 years. The outcomes examined included incident myocardial infarction, heart failure and all-cause mortality. Using metformin monotherapy as the reference group, first- and second-generation sulphonylureas carried a significantly higher risk of mortality, heart failure and myocardial infarction. Surprisingly, no excess risk of myocardial infarction was ascribed to the use of rosiglitazone and pioglitazone, which in fact was associated with lower mortality (*BMJ* 2009; **339**:b4731).

We now have more evidence against too-intensive glucose control in type 2 diabetes. In a database comprising some 48 000 subjects, 2 cohorts were identified whose treatments had been intensified for better blood glucose control. One cohort started treatment with oral monotherapy and switched to combination therapy using a sulphonylurea with metformin. The other cohort switched from oral agents alone to insulin with or without oral agents. Over 5 years of follow up, a U-shaped curve was seen in both cohorts with respect to all-cause mortality and levels of glycated haemoglobin—patients in the lowest decile of glycated haemoglobin (median HbA1c 6.4%) and the highest (10.6%) had significantly higher mortality rates than those in the reference decile (7.5%) (*Lancet* 2010;**375**:481–9).

Obesity might nullify the improvements in the health of society. A recent study forecasted the effects of obesity and smoking on the US life expectancy (*N Engl J Med* 2009;**361**:2252–60). Over the past few decades, smoking has been on the decline and obesity on the rise. The authors forecasted life expectancy and quality-adjusted life expectancy for a representative 18-year-old from the year 2005 through 2020, assuming a continuation of past trends from national surveys (1970s to 2006) in smoking and obesity. The negative effects of increasing body-mass index (BMI) overwhelmed the positive effects of declines in smoking. In the base case, increases in the remaining life expectancy of a typical 18-year-old was held back by 0.71 years or 0.91 quality-adjusted years. If all American adults became non-smokers of normal weight by 2020, the authors

forecasted that the life expectancy of an 18-year-old would increase by 3.76 life-years or 5.16 quality-adjusted years.

If a continued increase in obesity could result in an erosion of the steady gains in health observed since the early twentieth century, we need to act 'early'. This was highlighted in the recent US Preventive Services Task Force recommendation in paediatrics. It stated that children 6 years of age and older should be routinely screened for obesity and referred for intensive counselling and behavioural programmes. This was based on good-quality evidence that the use of moderate-to-high intensity programmes is likely to improve weight status (*Pediatrics* 18 January 2010, epub).

Two recent studies demonstrated the efficacy of two approaches to surgical preparation in reducing postoperative infections. In both studies chlorhexidine proved its worth. In one study, over 900 patients who screened positive for intranasal carriage of *Staphylococcus aureus* on hospital admission were randomized to 5 days' treatment with either mupirocin nasal ointment and chlorhexidine soap or placebo. The rates of hospital-acquired infection with *S. aureus* were 60% lower in the treatment group (*N Engl J Med* 2010;**362**:9–17). In the other study, about 850 patients were randomized to skin preparation with either chlorhexidine-alcohol or povidone-iodine scrub. Those who had skin preparation with chlorhexidine-alcohol were about 40% less likely to have any surgical-site infection (*N Engl J Med* 2010;**362**:18–26).

Cellphones might just be good for the brain! Despite numerous studies, there is no definitive evidence that exposure to high-frequency electromagnetic field (EMF) is a risk to human health. In a first of its kind, this recent study suggested that long term EMF exposure directly associated with cellphone use might provide cognitive benefits. Normal mice and AD-transgenic mice were exposed to EMFs for 2 hours each day, for 7–9 months, at frequencies equivalent to typical cellphone use. EMF exposure protected against cognitive impairment and reversed Alzheimer-like neuropathology in transgenic mice, as well as improved cognitive performance in normal mice (*J Alzheimers Dis* 2010; **19**:191–210). Several potential interrelated mechanisms of EMF action include increased amyloid A clearance, increased neuronal activity and increased cerebral blood flow.

Saving lives of hospitalized patients using rapid response teams (RRT)—do they really deliver? An RRT (also known as medical emergency team) is a team of clinicians who bring critical care expertise to the bedside. Essentially, it consists of intensive care unit (ICU) personnel who can be summoned to assess and treat any patient outside the ICU who shows signs of deterioration and who may be at risk for cardiac arrest or death. The make-up of the team varies but often includes one or more ICU nurses, a respiratory therapist and a physician who can be called upon when needed. A systematic review and meta-analysis based on 20 studies encompassing some 1.3 million admissions showed that RRTs lowered rates of cardiopulmonary arrest outside an ICU by about one-third, but did not lower the hospital mortality (*Arch Intern Med* 2010; **170**:18–26).