

describe the epidemiological link of 51 patients infected directly or indirectly from the index patient, and provide an insight on the special measures introduced to control the outbreak: strict infection control, a good surveillance system, early introduction of isolation procedures, and vigilant healthcare workers.

Hypertensive? See you every six months

Following up patients with controlled hypertension every six months will not affect

blood pressure control, adherence, and patients' satisfaction. Birtwhistle and colleagues (p 204) conducted a randomised equivalence trial on 609 patients receiving medical treatment for essential hypertension, following them up every three or six months for three years. They found that control of blood pressure, patients' satisfaction, and adherence to treatment were similar, but 20% of patients in both groups had poor control of blood pressure during the study. Follow up interval may not be the most important factor in the control of hypertension by family practitioners, the authors say.

POEM*

Lipid lowering is crucial in diabetics

Question What is the relative benefit of lowering lipids in patients with diabetes?

Synopsis This decision analysis used the cardiovascular disease life expectancy model to estimate the annual probability of fatal and non-fatal cardiovascular events. Using the third national health and nutrition examination survey, the authors compared cardiovascular risk factors in adults with diabetes with those in adults with cardiovascular disease but no diabetes. They estimated what would happen if low density lipoprotein levels were lowered by 35% and high density lipoprotein levels were increased by 8%, which is what occurred in the Scandinavian simvastatin survival study. With the model, an estimated 25.4 million person years of life would be saved with lipid control in patients with diabetes and 16 million person years of life saved in patients with cardiovascular disease. On average, this benefit translates into 3 to 3.4 years of life saved in the average patient with diabetes as compared with 2.4 to 2.7 years of life saved in the average patient with heart disease (this latter group is more likely to smoke than patients with diabetes, which is why the benefit is less). In women with diabetes, controlling lipids results in 1.6 to 2.4 years of life saved as compared with 1.6 to 2.1 years in women with heart disease. All of these benefits assume that patients in typical practices will achieve the same degree of lipid control as occurred in the research studies.

Bottom line The benefit of lowering lipids in patients with type 2 diabetes is at least as high as lowering lipids in patients with cardiovascular disease. Cholesterol and blood pressure control in patients with type 2 diabetes are much more important than blood glucose control when it comes to extending life and preventing complications.

Level of evidence 2b (see www.infoPOEMs.com/resources/levels.html). Individual cohort study or low quality randomised controlled trials (< 80% follow up).

Grover SA, Coupal L, Zowall H, Weiss TW, Alexander CM. Evaluating the benefits of treating dyslipidemia: the importance of diabetes as a risk factor. *Am J Med* 2003; 115:122-8.

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* Patient-Oriented Evidence that Matters. See editorial (*BMJ* 2002;325:983)

Editor's choice

"Let food be thy medicine ..."

Mark Lucock ends his review of the science of folic acid by quoting Hippocrates: "Let food be thy medicine and medicine be thy food" (p 211). Although many patients are convinced of the importance of food in both causing and relieving their problems, many doctors' knowledge of nutrition is rudimentary. Most feel much more comfortable with drugs than foods, and the "food as medicine" philosophy of Hippocrates has been largely neglected. That may be about to change. Concern about obesity is rocketing up political agendas, and a growing interest in the science of functional foods is opening up many therapeutic possibilities (p 180).

It was in 1931 that Lucy Wills described how yeast extract could be effective in preventing tropical macrocytic anaemia of late pregnancy. Folate was shown to be the crucial factor. In the 1980s a series of studies showed how periconceptional folate could prevent spina bifida. Then in 1995 came a meta-analysis that established that high homocysteine concentrations were a risk factor for atherosclerosis. Dietary folate reduces homocysteine, raising the possibility that a vitamin might prevent vascular disease. Next, several nucleotide polymorphisms were found to be related to folate, meaning that folate levels might influence the chance of developing cancer.

These discoveries are not surprising as folate metabolism is involved in many of the fundamental processes of life. Lucock describes, for example, how it is important for nucleotide biosynthesis. Thymidylate synthase, an enzyme that helps synthesise DNA, depends on a folate derivative. Low levels of folate may thus lead to breaks in DNA, predisposing to cancer. There are many other ways in which folate can affect gene function, and so folate is central to nutrigenomics—the study of the links between nutrition and gene function.

Folate may thus be a leading contender for panacea of the 21st century. Addition of folate to foods might reduce birth defects, vascular disease, and heart disease—and the Americans favour fortifying bread with folate. But folate being involved in so many of life's fundamental processes not only leads to its possibilities as a panacea but also to the prospect that "messing around with folate" could do extensive harm. The folate used in food fortification is not a natural co-enzyme, and nobody knows the long term effects of exposing whole populations to the unnatural folate.

There is thus great potential for good, some possibility of harm, and much uncertainty. The question of fortifying foods inevitably becomes highly political, and the politics of nutrition are just as complex as the science. Owen Dyer tells how the United States government—lobbied by food manufacturers—is trying to undermine a report by the World Health Organization on *Diet, Nutrition, and the Prevention of Chronic Disease* (p 185). My unadventurous prediction is that we will be hearing much more about the science, medicine, and politics of food. Hippocrates would be pleased.

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