GLOSSARY

RADIOFREQUENCY
ABLATION (RFA)

A technology that converts radiofrequency waves into thermal energy, causing coagulation necrosis of treated tissues

Costs saved by *Helicobacter pylori* community screening program

Helicobacter pylori infection has been identified as the main cause of peptic ulcer disease, is strongly associated with gastric cancer, and might account for a proportion of functional dyspepsia. No countries have yet implemented a population-wide screening and treatment program for *H. pylori*, despite the potential for such a program to reduce morbidity, mortality, and health-care costs. Ford and colleagues have followed patients previously enrolled in a randomized, controlled trial, in order to assess the economic outcome of an *H. pylori* screening and treatment program on the incidence of dyspepsia and the use of dyspepsia-related resources over 10 years.

The original trial screened 8,407 individuals for *H. pylori* and randomly allocated the 2,324 *H. pylori*-positive individuals to receive eradication therapy or placebo. This follow-up study included 914 of these 2,324 individuals, who agreed to complete a validated dyspepsia questionnaire and had primary-care records available for re-examination.

The results demonstrated that eradication therapy for *H. pylori* markedly reduces dyspepsia-related health-care costs over 10 years by a mean of US\$117 per person compared with placebo; the savings resulted mainly from fewer dyspepsia-related prescriptions in the eradication group. In addition, there was a trend towards the resolution of symptoms at 10 years in those who were symptomatic at baseline and who received eradication therapy.

The authors speculate that the reduction in long-term dyspepsia-related costs achieved by a 'search and eradicate' strategy for *H. pylori* infection might be sufficient to cover initial costs of population-wide screening.

Katy Cherry

Original article Ford AC *et al.* (2005) A community screening program for *Helicobacter pylori* saves money: 10-year follow-up of a randomized controlled trial. *Gastroenterology* 129: 1910–1917

Vitamin A supplementation and childhood morbidity and mortality

Vitamin A supplementation has been shown to reduce childhood mortality in low-income countries. The WHO recommends

supplementation at the time of vaccination, at a dose of 100,000 IU in children aged 6–11 months, and 200,000 IU in those aged 12 months or more; however, there is a lack of evidence supporting the concept that these high doses are more beneficial than smaller doses. Two earlier studies suggested that a lower dose than that recommended by the WHO might reduce childhood mortality more than the recommended dose. Benn and colleagues have, therefore, carried out a randomized study to compare the effects on childhood mortality of supplementation with the WHO-recommended dose of vitamin A (full dose), or half of this amount (half dose).

Children aged 6 months to 5 years from Guinea-Bissau, Africa, were randomly allocated to receive either the full dose ($n=2,525$) or a half dose ($n=2,458$) of vitamin A at the time of their polio vaccination. On evaluation at 6 and 9 months, there was a trend for childhood mortality to be lower in the half-dose group, compared with the full-dose group. Interestingly, there was a substantial reduction in the childhood mortality among girls, but not boys, who received the half dose.

The authors conclude that, despite the results not reaching statistical significance, their study suggests that supplementation with half of the WHO recommended dose of vitamin A might be at least equally as effective as the recommended dose for reducing childhood mortality in girls.

Katy Cherry

Original article Benn CS *et al.* (2006) Randomised study of effect of different doses of vitamin A on childhood morbidity and mortality. *BMJ* 331: 1428–1432

Animal study supports bile-duct cooling during hepatic radiofrequency ablation

RADIOFREQUENCY ABLATION (RFA) is gaining acceptance as a potential first-line, local, palliative treatment for unresectable liver tumors. Bile ducts are heat-sensitive, however, and a minimum safe distance of 1.5–2.0 cm between the electrode and a proximal intrahepatic bile duct is recommended. It has been estimated that bile-duct lesions account for 1% of RFA complications, and patients can present with such biliary lesions up to 4 months after the procedure. These concerns have driven