

## Adherence to guidelines for the treatment of dyspepsia

The discovery of *Helicobacter pylori* changed our understanding of dyspepsia and its treatment. For instance, if *H. pylori* infection is present, eradication triple therapy is preferable to antisecretory therapy. In a new, retrospective study, Bennett *et al.* investigated whether *H. pylori* infection has any impact on primary-care decisions relating to dyspepsia treatment in Ireland, and to what extent the published treatment guidelines are followed. Although treatment guidelines are available to Irish physicians, they have not been formally distributed.

The results of  $^{13}\text{C}$  urea breath tests (UBTs) of 805 dyspeptic patients, and data on the patients' subsequent prescriptions, were gathered from two databases. Overall, 374 patients had a positive UBT: 60.4% of these were prescribed eradication triple therapy (as recommended in the guidelines), 24.6% were prescribed nothing at all, and the remaining 15% were prescribed either dual therapy, antimicrobial monotherapy or antisecretory therapy. Less than half (43%) of the patients prescribed triple therapy underwent the recommended posteradication UBT. Of the 431 patients with a negative UBT, 7% were prescribed triple or dual therapy (against the guidelines).

In the year after UBT, prescription of anti-secretory therapy was less common; although the decline was greatest for patients with a positive UBT, there was also a decline for patients with a negative UBT. The reasons for this finding are unknown. Bennett *et al.* suggest that active promotion of the existing guidelines would improve the first-line management of dyspepsia.

**Original article** Bennett K *et al.* (2006) Impact of *Helicobacter pylori* on the management of dyspepsia in primary care. *Aliment Pharmacol Ther* **24**: 637–641

## Non-*H. pylori* bacteria with urease activity identified in the human stomach

*Helicobacter pylori* is the only urease-producing bacteria known to infect the human stomach; however, many other bacteria with urease activity colonize other parts of the gut and human body. The rapid urease test (on gastric biopsy samples) and the  $^{13}\text{C}$ -urea breath test are commonly used to detect *H. pylori* infection, but both are associated with false-negative and false-positive results. False-positive results could be caused by non-*H. pylori* gastric bacteria with urease activity; Brandi *et al.*, therefore, investigated the presence of such organisms in hypochlorhydric patients.

Upper-gastrointestinal endoscopies with biopsies were performed on 35 patients, and samples of gastric juice were obtained from the antrum and corpus. In total, 25 patients were hypochlorhydric and 10 were normochlorhydric (included in the analysis as controls). All gastric samples were evaluated for their bacterial content and isolated strains were screened for urease activity.

Of the 10 control patients, 5 had *H. pylori* infection but no other bacterial strains were identified. In 6 of the hypochlorhydric patients, however, 10 strains of bacteria with urease activity were identified despite the absence of *H. pylori* infection. *Staphylococcus capitis urealiticum* had the highest urease activity of the strains identified; this organism would give a similar result to *H. pylori* on rapid urease testing.

The authors conclude that non-*H. pylori* bacteria with urease activity can be present in hypochlorhydric patients, and might contribute to false-positive results in tests for *H. pylori* infection.

**Original article** Brandi G *et al.* (2006) Urease-positive bacteria other than *Helicobacter pylori* in human gastric juice and mucosa. *Am J Gastroenterol* **101**: 1756–1761