



Q / Should you test for *H pylori* in patients with nonulcer dyspepsia?

EVIDENCE-BASED ANSWER

A | **POSSIBLY.** *Helicobacter pylori* increases the risk of developing peptic ulcer disease (strength of recommendation [SOR]: **B**, cohort study), but there is no evidence that treating *H pylori* reduces that risk.

Treating *H pylori* in patients with nonulcer dyspepsia reduces symptoms, but doesn't improve quality of life in the short

term (SOR: **B**, systematic review of randomized controlled trials [RCTs] with inconsistent results), but may alleviate symptoms in the long term (SOR: **B**, RCT with methodological flaws).

Eradicating *H pylori* is relatively inexpensive (SOR: **A**, systematic review of economic analyses).

Evidence summary

Nonulcer dyspepsia is defined by upper abdominal symptoms (nausea, bloating, and abdominal pain) in the absence of an ulcer.¹ A prospective study evaluating the natural history of 209 Taiwanese patients with nonulcer dyspepsia found a 45% prevalence of *H pylori*. The patients presented with dyspeptic symptoms and had no history of peptic ulcer disease or treatment for *H pylori*. Investigators performed an initial endoscopy to establish a diagnosis of nonulcer dyspepsia and followed the patients for 24 months. Patients with *H pylori* infection were more likely to develop peptic ulcer disease (odds ratio [OR]=3.59; 95% confidence interval [CI], 1.07-12.05; *P*=.039).²

In addition, a prospective cohort study of Japanese patients with nonulcer dyspepsia found that 4.7% of patients infected with *H pylori* developed gastric cancer after 10 years.³

Eradicating *H pylori* doesn't prevent peptic ulcer disease

A prospective, placebo-controlled trial found that therapy to eradicate *H pylori* didn't re-

duce peptic ulcer disease in patients with functional dyspepsia. Investigators recruited 161 patients with *H pylori* infection who had had functional dyspepsia symptoms for 3 months and no peptic ulcer disease at baseline. They gave lansoprazole, metronidazole, and tetracycline for 1 week to the treatment group and placebo antibiotics and lansoprazole to the placebo group. Fewer of the treated patients developed peptic ulcers by 12 months, but the difference wasn't significant (2.5% treatment vs 7.5% placebo; *P*=.167).⁴

Eradication improves symptoms, but not quality of life

A Cochrane systematic review of 17 RCTs (total N=3566) compared drugs known to eradicate *H pylori* with placebo or drugs known to be ineffective against *H pylori* for patients with nonulcer dyspepsia. Investigators evaluated individual and global dyspeptic symptom scores and quality-of-life measures. At 3 to 12 months of follow-up, treated patients reported improved symptom scores (number needed to treat=14; 95% CI, 10-25). Three studies that evaluated quality-of-life indica-

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tors found no significant benefit with *H pylori* eradication.⁵

Evidence for outcomes beyond 12 months is limited. An RCT evaluated 100 patients with nonulcer dyspepsia who received bismuth subcitrate for 4 weeks or metronidazole and tetracycline for 7 days or placebo. At 5 years, investigators performed urea breath testing on 64 patients and found that 67% were negative for *H pylori*. More *H pylori*-negative patients reported complete symptom resolution than patients who were still infected (34% vs 8.3%; chi-square <0.001). However, investigators grouped patients at 5-year follow-up according to their *H pylori* status at that time and not by their original treatment group.⁶

H pylori eradication is low cost

A 2000 systematic review with economic analysis found that eradicating *H pylori* would cost less than \$50 per patient per year compared with antisecretory therapy alone.⁷

Recommendations

The European Helicobacter Study Group states that treatment of *H pylori* in nonulcer dyspepsia is appropriate.⁸ The American College of Gastroenterology agrees that offering treatment for *H pylori* in nonulcer dyspepsia is acceptable.⁹

The American Gastroenterological Association recommends a “test and treat” strategy for *H pylori* in dyspeptic patients.¹ **JFP**



***H pylori* increases the risk of developing peptic ulcer disease, but no evidence suggests that treatment reduces the risk.**

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