

GUIDELINES & PROTOCOLS

ADVISORY COMMITTEE

Helicobacter pylori Infection – Detection and Treatment in Adult Patients

Effective Date: March 1, 2003

Scope

This guideline applies to adults (age 19 and over) and should be read in conjunction with the guideline, *Clinical Approach to Adult Patients with Dyspepsia*.

RECOMMENDATION 1: Ulcer-like dyspepsia

Adults younger than 50 years who have persistent or recurrent ulcer-like dyspepsia (epigastric pain that is alleviated by eating and that may awaken the patient at night) in the absence of “alarm features” (dysphagia, vomiting, early satiety, anemia, weight loss, etc.) may be tested for *H. pylori* and treated if tests are positive.

Investigations with upper gastrointestinal endoscopy or barium X-rays should be reserved for those who fail to respond to *H. pylori* therapy or whose *H. pylori* test is negative.

Patients 50 years and older, or who have “alarm features”, should be investigated according to the guideline, *Clinical Approach to Adult Patients with Dyspepsia*.

RECOMMENDATION 2: Previous ulcer disease

Individuals who have had an endoscopically or radiographically confirmed duodenal or gastric ulcer within the past five years should be tested for *H. pylori* infection if previously untreated for *H. Pylori*.

If test is positive, treat as per Recommendation 6.

RECOMMENDATION 3: Current ulcer disease

Adults with a proven active peptic ulcer should be tested for *H. pylori* and treated if positive.

RECOMMENDATION 4: To diagnose infection

To diagnose *H. pylori* infection, the C13 urea breath test is currently recommended in BC because of its sensitivity. Serology is used where the C13 urea breath test is not available. Fecal antigen testing can be used where available.

Urine and saliva antigen testing is no longer recommended.

Gastroscopy for the sole purpose of detecting *H. pylori* is not cost-effective. However, the added cost of a gastric biopsy is minimal if endoscopy is being undertaken for other indications.

Table 1: Tests for the diagnosis of active <i>Helicobacter pylori</i> infection			
Tests for <i>H. pylori</i>	Test detects presence of:	Sensitivity	Specificity
C13 urea breath test – nonradioactive	active infection	high	high
Serology – whole blood or serum	antibody – active or past infection*	high	low
Fecal antigen testing	active infection	high	high
Endoscopic gastric biopsy – pathology	active infection	high	high

***Antibody tests will remain positive for at least 1– 2 years following successful eradication.**

RECOMMENDATION 5: Testing not indicated

Screening of healthy asymptomatic individuals (including close contacts of infected patients) for *H. pylori* is not indicated.

The value of testing and treating for *H. pylori* is not proven in the following circumstances:

- a) family history of peptic ulcer disease or gastric malignancy
- b) gastroesophageal reflux
- c) remote partial gastrectomy for gastric cancer
- d) chronic NSAID use without evidence of an ulcer

RECOMMENDATION 6: Treatment

For treatment of *H. pylori* infection, one of the following three regimens is currently recommended, all of which have approximately 80 – 90% efficacy. Ongoing symptoms after an adequate course of therapy are seldom due to persistent *H. pylori* infection and therefore retesting is not usually indicated.

Regimen	Agents used	Dose
P A C	PPI (Proton Pump Inhibitor)* Amoxicillin Clarithromycin	Bid 1 gram bid 500 mg bid } for 1 week†
P M C	PPI* Metronidazole Clarithromycin	Bid 500 mg bid 250 mg bid } for 1 week†
P B M T	PPI* Pepto-Bismol® Metronidazole Tetracycline	Bid 2 tabs qid 250 mg qid 500 mg qid } for 1 week†

*PPI, currently = lansoprazole 30 mg, omeprazole 20 mg, pantoprazole 40 mg, esomeprazole 40mg, or rabeprazole 20 mg.
† According to the Canadian *Helicobacter pylori* Consensus (Hunt et al. 1999)

Note: Because of high rates of metronidazole resistance, PAC is the preferred initial treatment.

RECOMMENDATION 7: Repeat testing

Confirmation of eradication of *H. pylori* is only justified following treatment of a complicated ulcer (i.e., hemorrhage, perforation or gastric outlet obstruction). Confirmation requires gastric biopsy or C13 urea breath test, which should be performed 4 weeks after stopping therapy. Because of persistent antibodies, positive serology does not indicate ongoing infection. If *H. pylori* persists after treatment, an alternative regimen should be used. PBMT is recommended as the second regimen if not used initially (see Table 2). The risk of re-infection is very low after a completed course of therapy, hence repeat testing is generally unnecessary.

Rationale

Infection with *H. pylori* is generally a chronic indolent process causing asymptomatic gastritis. *H. pylori* is the major cause of both duodenal and gastric ulcers. Although NSAIDs are the second leading cause of both types of ulcers and may be copathogenic with *H. pylori*, the role of testing and treating in this situation is controversial. Eradication of *H. pylori* reduces the rate of ulcer recurrence from over 90% to less than 10%.

Gastric ulcers are potentially malignant and require endoscopic biopsy. *H. pylori* is a risk factor for the development of gastric carcinoma and MALT-type gastric lymphoma (Mucosa Associated Lymphoid Tissue). However, the rarity of such malignancies does not justify population screening for *H. pylori*.

H. pylori does not play a role in gastroesophageal reflux disease. The role of *H. pylori* in functional or nonulcer dyspepsia (NUD) is controversial as outlined in *Clinical Approach to Adult Patients with Dyspepsia*.

The association between *H. pylori* and NUD is weak, but up to 15% of patients may improve after treatment.

Treatment entails certain risks including *Clostridium difficile* colitis, allergic reactions, gastrointestinal disturbance, and increased antibiotic resistance (including *H. pylori*).

Biopsy and C13 Urea Breath Test will reliably confirm eradication, but only if the patient has not taken any antibiotics, bismuth containing compounds (e.g., Pepto-Bismol®) for 4 weeks or proton pump inhibitors for 2 weeks preceding the test. Dyspepsia following treatment of *H. pylori* is more likely the result of causes other than persistent *H. pylori* infection (e.g., gastroesophageal reflux or non-ulcer dyspepsia).

References

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Sponsors

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This guideline is based on scientific evidence current as of the effective date.

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