

## ACG Clinical Guideline: Management of Dyspepsia

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### **Abstract**

Dyspepsia is a chronic or recurrent pain or discomfort centered in the upper abdomen; patients with predominant or frequent (more than once a week) heartburn or acid regurgitation, should be considered to have gastroesophageal reflux disease (GERD) until proven otherwise. Dyspeptic patients over 55 yr of age, or those with alarm features should undergo prompt esophagogastroduodenoscopy (EGD). In all other patients, there are two approximately equivalent options: (i) test and treat for *Helicobacter pylori* (*H. pylori*) using a validated noninvasive test and a trial of acid suppression if eradication is successful but symptoms do not resolve or (ii) an empiric trial of acid suppression with a proton pump inhibitor (PPI) for 4–8 wk. The test-and-treat option is preferable in populations with a moderate to high prevalence of *H. pylori* infection ( $\geq 10\%$ ); empirical PPI is an initial option in low prevalence situations. If initial acid suppression fails after 2–4 wk, it is reasonable to consider changing drug class or dosing. If the patient fails to respond or relapses rapidly on stopping antisecretory therapy, then the test-and-treat strategy is best applied before consideration of referral for EGD. Prokinetics are not currently recommended as first-line therapy for uninvestigated dyspepsia. EGD is not mandatory in those who remain symptomatic as the yield is low; the decision to endoscope or not must be based on clinical judgement. In patients who do respond to initial therapy, stop treatment after 4–8 wk; if symptoms recur, another course of the same treatment is justified. The management of functional dyspepsia is challenging when initial antisecretory therapy and *H. pylori* eradication fails. There are very limited data to support the use of low-dose tricyclic antidepressants or psychological treatments in functional dyspepsia.

### **Introduction**

These and the previous guidelines were developed under the auspices of the American College of Gastroenterology and its Practice Parameters Committee and approved by the Board of Trustees. The world literature was reviewed extensively using the National Library of Medicine database. Appropriate studies were reviewed and any additional studies found in the reference list of these papers were obtained and reviewed. Evidence was evaluated along a hierarchy, with randomized, controlled trials given the greatest weight. Abstracts presented at national and international meetings were only used when unique data from ongoing trials were presented. When scientific data were lacking, recommendations were based on expert consensus obtained from both the literature and the experience of the authors and the Practice Parameters Committee. Each guideline was evaluated by the committee and the strength of evidence to guide clinical practice was assessed using established criteria (Table 1).

<b>Table 1. Levels of Evidence</b>	
<b>Level</b>	
I	Evidence from RCTs with low false positive rates (i.e., significant <i>p</i> values), adequate sample sizes (low likelihood of type II errors) and appropriate methodology (low likelihood of type I errors)
II	Evidence from RCTs with high false positive rates, inadequate sample sizes, or inappropriate methodology
III	Evidence from nonrandomized trials using a contemporaneous cohort of controls
IV	Evidence from nonrandomized trials using a historical cohort of controls
V	Evidence from case series without controls
Note: Adapted from Cook D <i>et al.</i> Chest 1992;102:305S.	

<b>Table 2. Graded Recommendations for Clinical Practice</b>	
<b>Grade</b>	<b>Strength of Evidence to Guide Clinical Practice</b>
A	Supported by two or more level I studies without conflicting evidence from other level I studies
B	Supported by two or more level I studies with conflicting evidence from other level I studies or supported by only one level I or two or more level II studies
C	Supported by level III–V evidence
Note: Adapted from Guyatt GH <i>et al.</i> JAMA 1995;274:1800–1804; Users Guides to the Medical Literature, JAMA Press 2001; and Cook D <i>et al.</i> Chest 1992;102:305S.	

### **Definitions**

Dyspepsia is defined as chronic or recurrent pain or discomfort centered in the upper abdomen. Discomfort is defined as a subjective negative feeling that is nonpainful, and can incorporate a variety of symptoms including early satiety or upper abdominal fullness. Patients presenting with predominant or frequent (more than once a week) heartburn or acid regurgitation should be considered to have gastroesophageal reflux disease (GERD) until proven otherwise.

## **Diagnostic Testing**

### **Recommendations**

1. Dyspeptic patients more than 55 yr old, or those with alarm features (bleeding, anemia, early satiety, unexplained weight loss (>10% body weight), progressive dysphagia, odynophagia, persistent vomiting, a family history of gastrointestinal cancer, previous esophagogastric malignancy, previous documented peptic ulcer, lymphadenopathy, or an abdominal mass) should undergo prompt endoscopy to rule out peptic ulcer disease, esophagogastric malignancy, and other rare upper gastrointestinal tract disease.

In patients aged 55 yr or younger with no alarm features, the clinician may consider two approximately equivalent management options: (i) test and treat for *H. pylori* using a validated noninvasive test and a trial of acid suppression if eradication is successful but symptoms do not resolve or (ii) an empiric trial of acid suppression with a proton pump inhibitor (PPI) for 4–8 wk. The test-and-treat option is preferable in populations with a moderate to high prevalence of *H. pylori* infection (>=10%), whereas the empirical PPI strategy is preferable in low prevalence situations.

Some anxious patients may need the reassurance afforded by endoscopy. On the other hand, repeat EGD is not recommended once a firm diagnosis of functional dyspepsia has been made, unless completely new symptoms or alarm features develop. Repeat EGD is otherwise unlikely to ever be cost-effective.

Grades of evidence:

Early endoscopy for alarm symptoms: C

Test-and-treat strategy for *H. pylori*: A

Acid suppression therapy: A

Reassurance after endoscopy: C

## **Alarm Features and Identification of Structural Disease in Uninvestigated Dyspepsia**

### **Recommendation**

1. The risk of malignancy increases with age and therefore empirical therapy is not currently recommended in individuals over 55 yr of age who develop new dyspeptic symptoms.

Grade of evidence: C

## **Test-and-Treat *H. pylori***

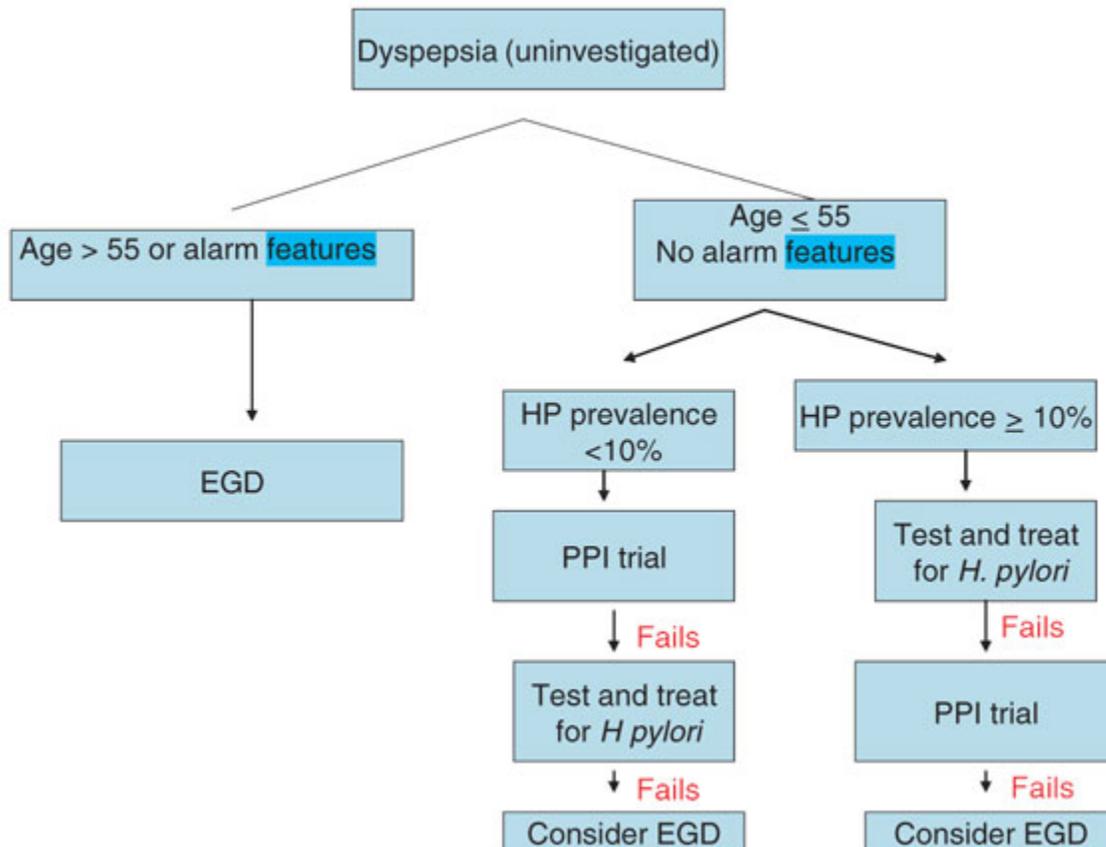
### **Recommendations**

1. The application of a test-and-treat strategy for *H. pylori* should be based on the practice setting (Fig. 1). High-prevalence populations in the United States (e.g., recent immigrants from developing countries) should undergo test-and-treat as the preferable nonendoscopic strategy. Conversely, in communities where gastric or esophageal cancer has a high incidence, prompt endoscopy should be considered early but this would not apply to most of the country. In low-prevalence populations (e.g., high socioeconomic areas, where the background prevalence of ulcer or *H. pylori* infection is low), an alternative strategy is to prescribe first a course of antisecretory therapy empirically for 4–8 wk. If the patient fails to respond or relapses rapidly on stopping antisecretory therapy, then the test-and-treat strategy is best applied before consideration of referral for EGD. EGD is not mandatory in those who remain symptomatic as the yield is low; the decision to endoscope or not must be based on clinical judgment.

Grades of evidence:

Test-and-treat or acid suppression: A

An *H. pylori* prevalence of less than 10% in the local community as the cutoff for deciding to use empiric acid suppression rather than test-and-treat: C



**Figure 1.** Algorithm for the management of uninvestigated dyspepsia

### **Empiric Antisecretory Therapy in Uninvestigated Dyspepsia**

#### **Recommendations**

1. In *H. pylori*-negative cases with uninvestigated dyspepsia and no alarm features, an empiric trial of acid suppression for 4–8 wk is recommended first-line therapy (Fig. 1).

Grade of evidence: A

2. If initial acid suppression fails after 2–4 wk, it is reasonable to step up therapy, although this is based on expert opinion only; this may require changing drug class or dosing. In the absence of established prokinetic drugs for dyspepsia in the United States, this drug class is not currently recommended as first-line therapy for dyspepsia in the United States.

Grade of evidence: C

3. In patients who do respond to initial therapy, it is recommended that treatment be stopped after 4–8 wk and if symptoms recur, another course of the same treatment is justified. There are no data on long-term self-directed therapy in this condition, although this may be worth considering in some patients.

Grade of evidence: C

### **Endoscopy-Negative Dyspepsia (Functional Dyspepsia, Nonulcer Dyspepsia)**

#### **Recommendations**

1. The management of endoscopy-proven functional dyspepsia is particularly challenging when initial antisecretory therapy and H. pylori eradication fails. Patients who fail to respond to simple measures need to have their diagnosis reconsidered. Dietary therapy has no established efficacy but may help some individuals. There are very limited data to support the use of herbal preparations, simethicone, and low-dose tricyclic antidepressants in functional dyspepsia. Bismuth, sucralfate, and antispasmodics are not established to be of benefit over placebo in functional dyspepsia. Hypnotherapy, psychotherapy, and cognitive-behavioral therapy are supported by limited studies but cannot be generally recommended at the present time.

Grades of evidence:

Dietary modification: C

Simethicone: B

Hypnotherapy, Psychotherapy, Cognitive-behavioral therapy: B

### **Additional Diagnoses and Testing in Refractory Cases**

#### **Recommendation**

1. In patients with resistant symptoms, it is worth reevaluating the diagnosis.

Grade of evidence: C