KAISER PERMANENTE OHIO
ACID-PEPTIC DISEASE

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Champion: GI Dept.	Most Recent Update:	4-10, 4-12
Key Stakeholders: GI, IM Depts.	Next Update:	4-14

The following guidelines have been developed to assist Primary Care physicians and other health care professionals in the management of uncomplicated dyspepsia, nonsteroidal anti-inflammatory drug (NSAID)-induced dyspepsia, and gastroesophageal reflux disease (GERD). It does not address the management of irritable bowel syndrome, pancreatic disease, biliary tract disease, or other serious gastrointestinal disorders

Initial Evaluation

- A clinical evaluation is recommended to identify the etiology of dyspeptic symptoms and determine appropriate management.

- Referral to endoscopy is recommended for patients presenting with "alarm symptoms" suggestive of a serious gastrointestinal disorder**.**

- **Helicobacter pylori (H. pylori) serum antibody testing is recommended for patients with uncomplicated and NSAID-induced dyspepsia not associated with GERD or alarm symptoms.**

Test patients for *H. pylori* only after ruling out a diagnosis of GERD, biliary symptoms, or alarm symptoms suggestive of an underlying serious gastrointestinal disease (e.g., gastric cancer, pancreatitis, etc.).

Alarm symptoms include:
- recurrent vomiting
- unexplained weight loss
- dysphagia
- gastrointestinal bleeding and/or blood loss anemia
- jaundice
- palpable mass
- new onset of dyspeptic symptoms at age 55 or older

If there is a documented history of peptic ulcer disease by upper GI or endoscopy, but the patient does not present with alarm symptoms, then management for dyspepsia is appropriate (see Figure 1).

Lifestyle Modification and Withdrawal from NSAIDs and Aspirin

- Lifestyle modification is recommended for all patients with symptoms of dyspepsia.

- Withdrawal from NSAIDs and aspirin (if no history of heart disease and/or stroke) is recommended for all patients with symptoms of dyspepsia.

Dyspepsia is frequently caused by lifestyle factors or chronic use of NSAIDs and aspirin. Symptoms typically subside after lifestyle modification and, as needed, short-term pharmacotherapy. Lifestyle modifications include:

- Discontinuing nicotine; caffeine; alcohol; chocolate
- Losing weight
- Eating frequent smaller meals and a low-fat diet to avoid postprandial discomfort
- Eating at least 2 hours before bedtime
- Taking antacids after meals and at bedtime
- Avoiding tight belts or clothing

Pharmacotherapy

UNINVESTIGATED DYSPEPSIA (see Figure 1)
(with or without history of ulcer)

- **Initiation of treatment with high-dose H_2-receptor antagonists at time of *H. pylori* testing is recommended.**

- **If *H. pylori* test results are positive, then treatment with antibiotics and a proton pump inhibitor is recommended.**

- **If *H. pylori* test results are negative and symptoms persist, then treatment with a proton pump inhibitor is recommended.**

TREATMENT OF *H. PYLORI*

- **The following 3-drug regimen is first-line therapy for eradication of H. pylori:**
  - Amoxicillin 1 gm BID for 10 days, *plus*
  - Clarithromycin 500 mg BID for 10 days, *plus*
  - Omeprazole 20 mg BID for 10 days

Metronidazole 500 mg BID is recommended as an alternative if amoxicillin is not tolerated.

TREATMENT OF DYSPEPTIC SYMPTOMS NOT ASSOCIATED WITH NSAID USE

■ **If symptoms persist after high-dose H_2-receptor antagonist treatment, H. pylori treatment and lifestyle modification, treatment with a proton pump inhibitor, i.e., omeprazole (Prilosec®) 20 mg daily for 14 days, is recommended.**

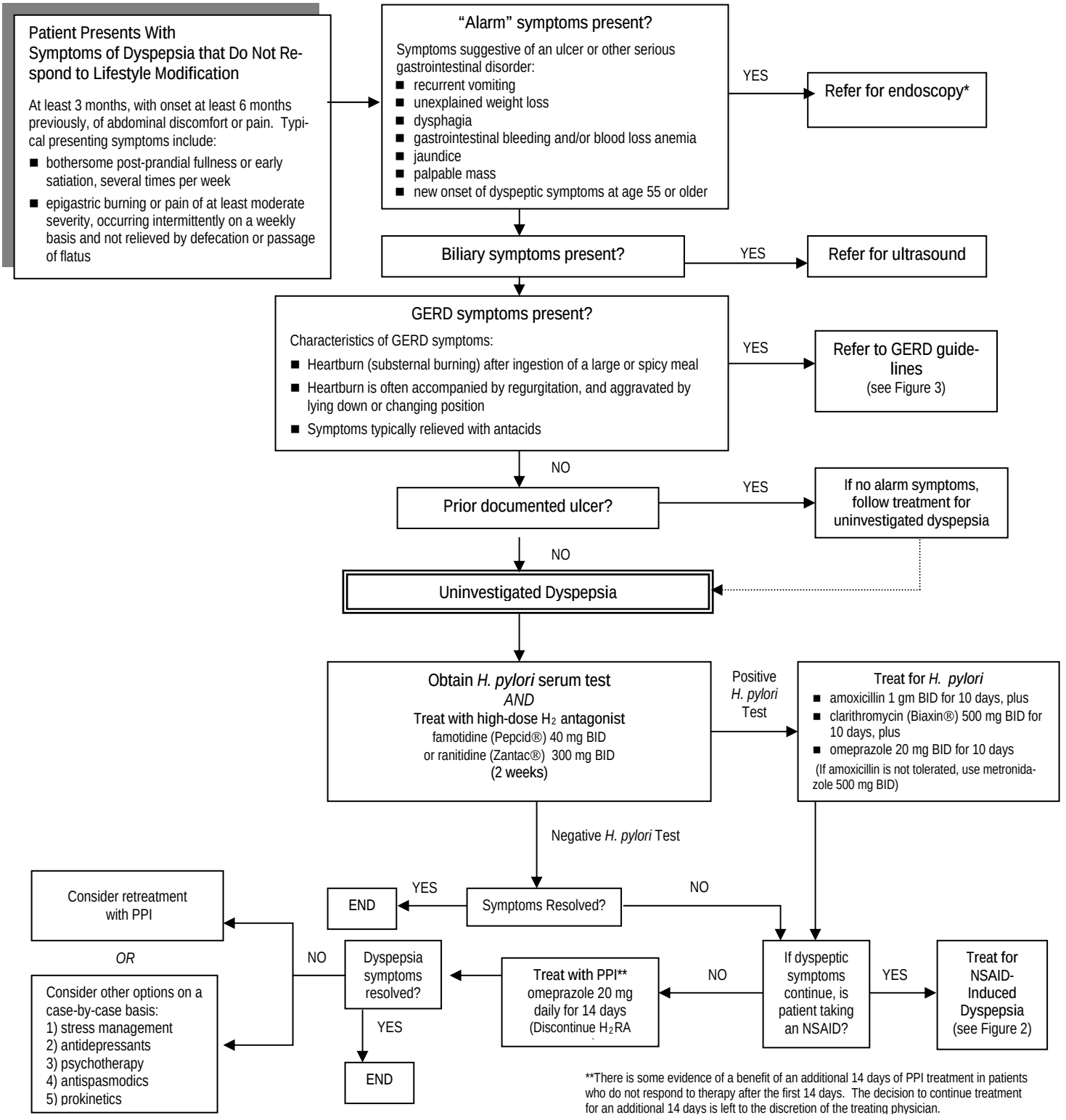
Discontinue use of H_2-receptor antagonists prior to initiation of PPI treatment. Patients who present with dysmotility-like functional dyspepsia (nausea and bloating) may not benefit from PPI treatment.

■ **If symptoms recur after initial treatment, consider retreatment or other options on a case-by-case basis.**

Functional dyspepsia is a chronic condition. Even though ideal pharmacological therapy should be short term (no more than one month) and symptom directed, retreatment may be indicated when symptoms recur at some interval after treatment has been discontinued. The use of prokinetics, antispasmodics, or tricyclic antidepressants; and/or referral to stress management, psychotherapy, or a support group, may also be appropriate for some patients. Unless alarm symptoms are present, ***endoscopy is highly unlikely to produce a positive finding*** for most patients whose symptoms continue after an adequate course of therapy.

*Stool testing for H. Pylori is currently being evaluated.

FIGURE 1: MANAGEMENT OF PATIENTS WITH SYMPTOMS OF DYSPEPSIA



**There is some evidence of a benefit of an additional 14 days of PPI treatment in patients who do not respond to therapy after the first 14 days. The decision to continue treatment for an additional 14 days is left to the discretion of the treating physician.

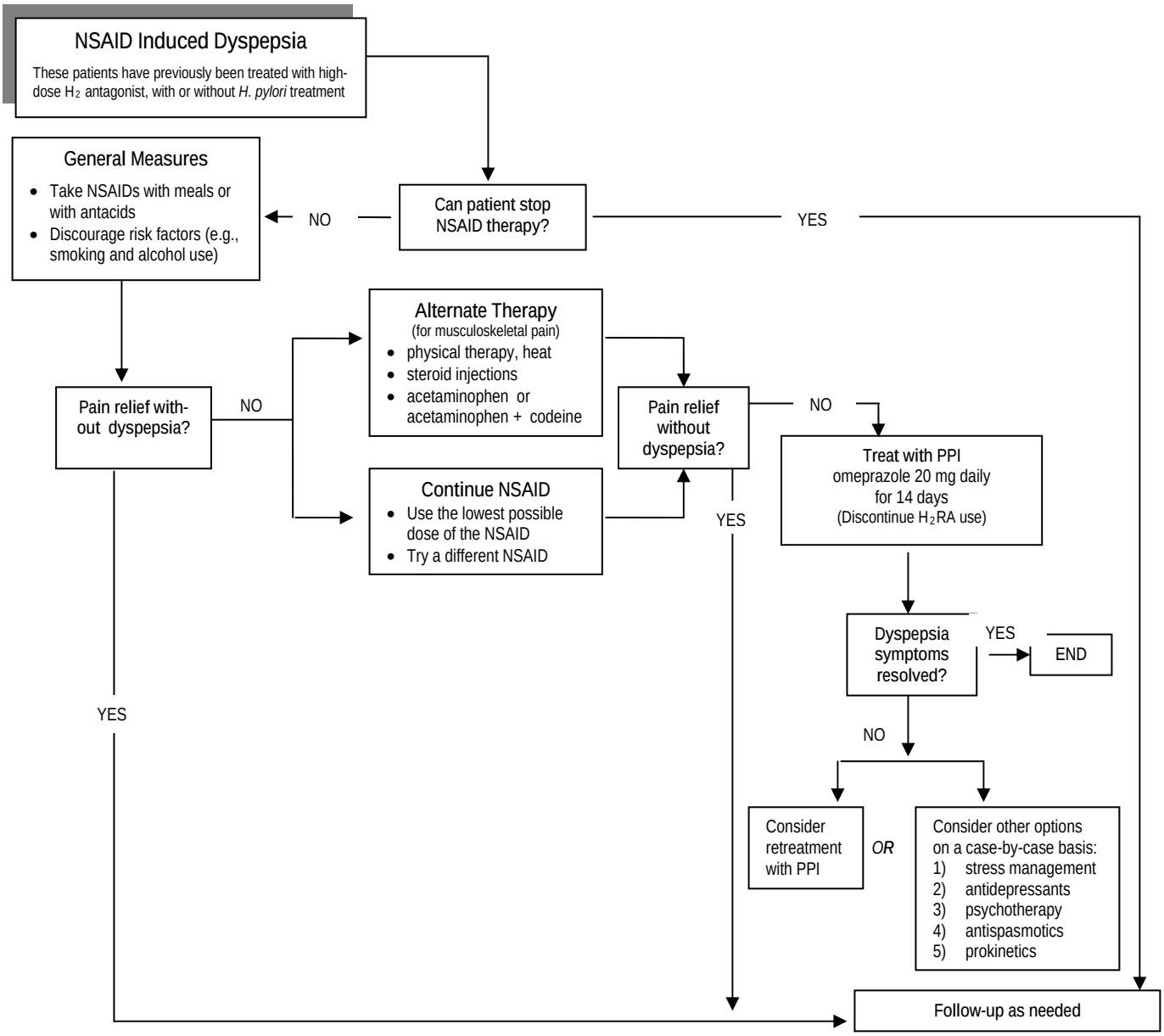
*Conditions for Which Diagnostic Endoscopy Is Generally Not Indicated:

NOTE: There are occasional exceptions in which an endoscopic examination may be done once to rule out organic disease, especially if symptoms are unresponsive to therapy.

- Distress which is chronic, nonprogressive, atypical for known organic disease, and considered functional in origin
- X-ray findings of: Asymptomatic or uncomplicated sliding hiatus hernia, uncomplicated duodenal bulb ulcer which has responded to therapy, or deformed duodenal bulb when symptoms are absent or respond adequately to ulcer therapy
- Uncomplicated heartburn responding to medical therapy
- Metastatic adenocarcinoma of unknown primary site when the results will not alter management
- Patients without current gastrointestinal symptoms about to undergo elective surgery for non-upper gastrointestinal disease

Source: American Society for Gastrointestinal Endoscopy

FIGURE 2: MANAGEMENT OF PATIENTS WITH NSAID-INDUCED DYSPEPSIA



TREATMENT OF NSAID-INDUCED DYSPEPTIC SYMPTOMS

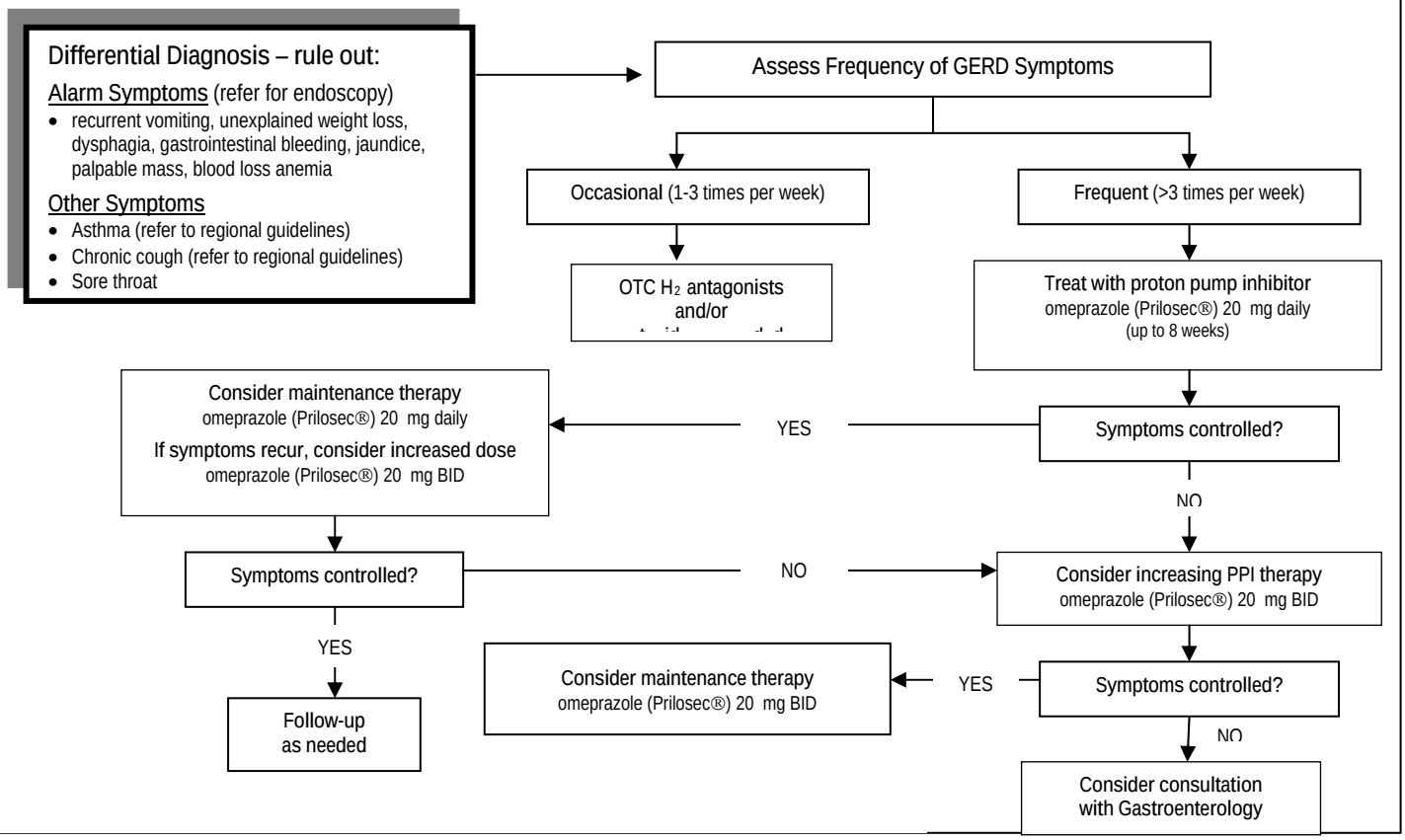
- **If *H. pylori* test results are positive, then treatment with antibiotics and a proton pump inhibitor is recommended** (see Figure 1)**.**
- **If *H. pylori* test results are negative, then empiric management of NSAID-induced GI symptoms is recommended** (see Figure 2)**.**

In general, the following options should be considered for empiric management:

- Discontinue the NSAID.
- Discourage smoking, alcohol use, and concurrent aspirin (if no history of heart disease and/or stroke) or multiple NSAID use.
- Consider local therapies such as physical therapy, corticosteroid injections, or heat.
- Use acetaminophen or acetaminophen with codeine (short-term therapy) for analgesia, if anti-inflammatory effects are not needed. Acetaminophen with hydrocodone may be an option for patients intolerant of codeine. Maximum acetaminophen dose is 4 grams per day.
- Consider alternative anti-inflammatory agents (e.g., salsalate, nabumetone or etodolac).
- Use shorter half-life agents (e.g., ibuprofen) at the lowest effective dose. Note: NSAID/COX-2 inhibitors have not been shown to be more effective than NSAIDs.

While H_2-antagonists are effective at relieving the gastrointestinal discomfort associated with NSAID use, they do not protect against NSAID-induced gastric ulceration. For older patients with multiple comorbidities, physicians can consult the SCPMG NSAID GI Risk Strategizer and NSAID GI Risk SCORE Card. (Available at http://pharmacy.kp.org/ by searching for "score card.")

FIGURE 3: MANAGEMENT OF GASTROESOPHAGEAL REFLUX DISEASE (GERD)



ALTERNATIVE THERAPIES

- For patients **whose dyspeptic symptoms are not controlled by H2RAs or PPIs, and who have no alarm symptoms, the following alternative therapies are options:**
  - Referral to stress management
  - Antidepressants and/or psychotherapy
  - Antispasmodics
  - Prokinetics

Gastroesophageal Reflux Disease

- For occasional heartburn (1-3 times a week), over-the-counter (OTC) H_2-antagonists and/or antacids, with or without alginic acid, as needed, is recommended.
- For frequent heartburn (>3 times a week) or when OTC agents are ineffective, PPI therapy up to 8 weeks is recommended.

Because the long-term effects of PPI-induced achlorhydria remain unknown, patients should have a careful discussion with their physician about the benefits and risks of PPI therapy.

Note: Antibiotic therapy is not indicated because *H. pylori* infection is not associated with GERD.

GERD MAINTENANCE THERAPY

- For **occasional heartburn**, maintenance therapy is not generally indicated, because symptoms may never recur or intermittent use of antacids or OTC H_2-antagonists may control symptoms.
- For **frequent symptoms**, maintenance therapy should be considered after the initial course of acute therapy.
- For **severely symptomatic patients**, maintenance therapy should begin after the initial course of acute therapy, because symptom recurrence in these patients is frequently associated with severe discomfort and decreased quality of life.

SURGERY

Advances in surgical techniques, such as laparoscopic Nissen fundoplication, may be an appropriate option for younger GERD patients. Advances in endoscopic treatment are currently being evaluated in clinical trials. Patients who are interested in discussing the option of surgery should be referred to Gastroenterology.

ENDOSCOPY

There is no evidence that screening endoscopy for Barrett's esophagus improves health outcomes in patients with chronic GERD. Because of the relatively low incidence of adenocarcinoma of the esophagus in patients with GERD, endoscopy for Barrett's esophagus should be limited to patients at highest risk (i.e., men greater than age 55 with chronic GERD symptoms for at least 5 years) who have not previously undergone endoscopy.