

# Enhanced Primary Care Pathway: GERD

## 1. Focused summary of GERD relevant to primary care

The reflux of gastric contents into the esophagus is a normal physiological phenomenon. Reflux is deemed pathological when it causes esophageal injury or produces symptoms that are troublesome to the patient, typically heartburn and regurgitation, a condition known as gastroesophageal reflux disease. GERD is very common in primary care practice and easy to recognize in its typical form, generally requiring no initial investigations. Treatment at the primary care level is focused on lifestyle and dietary modifications to avoid GERD triggers and achieve healthy body weight, and optimal use of proton pump inhibitor.

If heartburn is a dominant symptom, the differential diagnosis includes various causes of esophagitis (infectious, pill-induced, eosinophilic), peptic ulcer disease, non-ulcer dyspepsia, coronary artery disease, biliary and pancreatic disease.

In some patients, GERD has a wider spectrum of symptoms including chest pain, dysphagia, globus sensation, odynophagia, nausea and waterbrash. As reflux tends to occur after eating, there is often overlap of GERD and dyspepsia, which refers to postprandial epigastric discomfort.

A presumptive diagnosis of GERD can be made in patients with any of the clinical symptoms described above, and generally no investigations are required as part of initial workup. Screening for *H. pylori* is not recommended in GERD. Most patients with GERD will have improvement or resolution of symptoms when treated with PPI.

Endoscopy is warranted in patients presenting with dysphagia or other alarm features, and in those refractory to adequate initial and optimized PPI treatments. Esophageal pH or impedance-pH reflux monitoring studies are sometimes arranged by GI after endoscopy.

GERD can be complicated by Barrett's esophagus, esophageal stricture and, rarely, esophageal cancer. Screening for Barrett's esophagus is another indication for endoscopy, but specific criteria must be met:

- Chronic GERD ( $\geq 10$  years) plus two or more risk factors:**
  - >50 years of age
  - Male gender
  - Caucasian
  - BMI  $\geq 30$
  - Waist circumference >35" for females or >40" for males
  - Hiatal hernia (demonstrated radiographically)
  - Family history of esophageal cancer or Barrett's
- GERD is well controlled with once or twice daily PPI**

## 2. Checklist to guide your in-clinic review of this patient with GERD symptoms

- Symptoms of GERD without alarm features
- If dyspepsia overlaps with GERD, follow Enhanced Primary Care Pathway: DYSPEPSIA, available at [pathways.bc.ca](http://pathways.bc.ca)
- Lifestyle factors that contribute to GERD have been identified and discussed with your patient. If applicable, weight loss is essential to management of GERD, and your patient should be guided and monitored to achieve specific goals.
- Patient adherent to initial trial of PPI for 8 weeks, followed by review and optimization

## 3. Links to additional resources for physicians and patients

Canadian Digestive Health Foundation  
<http://www.cdhf.ca/en/disorders/details/id/11>

UpToDate® – *Beyond the Basics* Patient Information (freely accessible)  
[http://www.uptodate.com/contents/acid-reflux-gastroesophageal-reflux-disease-in-adults-beyond-the-basics?source=search\\_result&search=GERD+beyond+the+basics&selectedTitle=2~150](http://www.uptodate.com/contents/acid-reflux-gastroesophageal-reflux-disease-in-adults-beyond-the-basics?source=search_result&search=GERD+beyond+the+basics&selectedTitle=2~150)

## 4. Clinical flow diagram with expanded detail

This pathway incorporates the most current evidence-based clinical guidelines for diagnosis and management of GERD from both Gastroenterology and Primary Care literature:

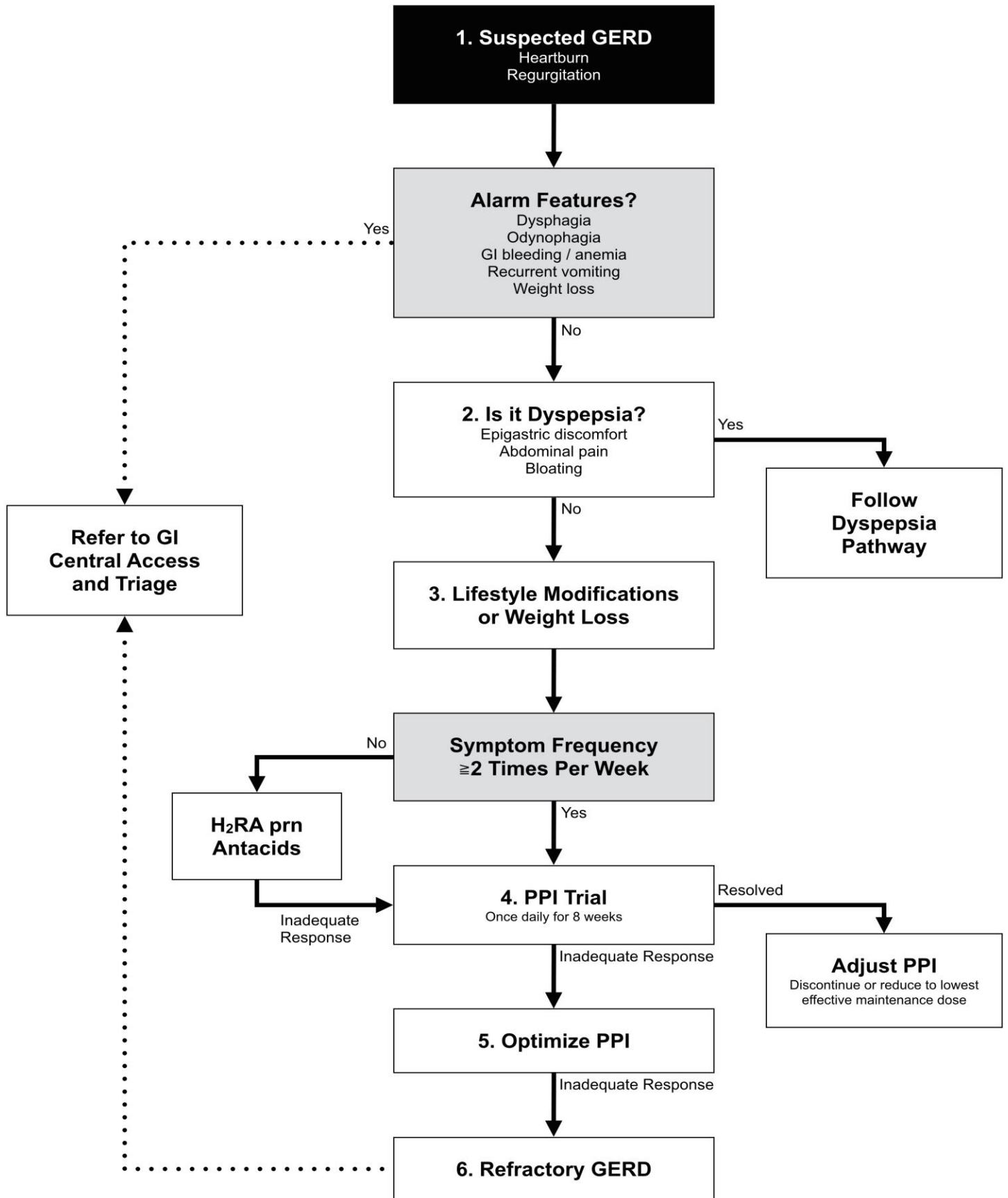
Katz *et al.* Guidelines for the diagnosis and management of gastroesophageal reflux disease.  
Am J Gastroenterol. 108:308-28, 2013

Flook *et al.* Approach to gastroesophageal reflux disease in primary care: Putting the Montreal definition into practice.  
Can Fam Physician. 54:701-5, 2008

Kahrilas *et al.* American Gastroenterological Association Institute technical review on the management of gastroesophageal reflux disease. Gastroenterology 135:1392-1413, 2008.

Armstrong *et al.* Canadian consensus conference on the management of gastroesophageal reflux disease in adults.  
Can J Gastroenterol. 19:15-35, 2005

**The following is a best-practice clinical pathway for management of GERD in the primary care medical home, which includes a flow diagram and expanded explanation of treatment options:**



# Flow Diagram: GERD Diagnosis and Management - Expanded Detail

- 1. A presumptive diagnosis of GERD can be made in patients with typical symptoms of heartburn and regurgitation.** The presence of these symptoms is quite specific for GERD. If patients with suspected GERD have chest pain as a dominant feature, cardiac causes should first be excluded. In the presence of any red flags, referral to Gastroenterology for consideration of urgent endoscopic investigation is recommended, even though the predictive value of some of these features is somewhat limited.
- 2. Features of dyspepsia should be sought.** If the patient's dominant symptom is postprandial epigastric pain and bloating, please refer to the Enhanced Primary Care DYSPEPSIA pathway (available at Pathways BC <https://pathwaysbc.ca>). GERD and dyspepsia clinical pathways are sufficiently distinct and, in particular, the initial assessment of dyspepsia involves testing for *H. pylori* and other laboratory investigations, which are not required in patients with GERD.
- 3. Non-pharmacological principles of GERD management.**
  - Weight loss in patients who are overweight, or in those who have recently gained weight even if normal body mass index
  - Head of bed elevation (blocks or foam wedges) and avoid meals 3h before bedtime if nocturnal GERD
  - Elimination of prototypic GERD triggers (smoking, alcohol, caffeine, carbonated beverages, spicy/fatty/acidic foods, chocolate and mint) is reasonable, but is not supported by clear evidence of physiological or clinical improvement of GERD. Rather than food triggers, it is likely higher yield to provide dietary counseling to GERD patients to affect weight loss.
- 4. Trial of proton pump inhibitor**
  - Although PPIs are the mainstay of GERD therapy, there remains a role for H<sub>2</sub>RA or antacids (alginates, Ca/Mg/Al salts) in patients with mild, infrequent, episodic symptoms. These provide rapid on-demand relief of heartburn and avoid prematurely committing some patients to long-term use of PPI.
  - For patients with more troublesome symptoms, PPI provides more effective long-term relief.
  - An 8-week trial of standard once-daily PPI is recommended (omeprazole 20mg, rabeprazole 20mg, lansoprazole 30mg, pantoprazole 40mg, esomeprazole 40mg, dexlansoprazole 30mg). There are no major differences in efficacy between these agents. All PPI should be administered 30-60 minutes before breakfast with the exception of dexlansoprazole, which is a dual delayed release formulation that can be taken at any time of day regardless of food intake.
  - If symptoms are resolved, PPI should be titrated to lowest effective maintenance dose (there are half-standard doses of most PPI available e.g. lansoprazole 15mg) or even attempt to discontinue, especially if weight reduction has been achieved. See Choosing Wisely Canada *Bye Bye PPI Toolkit* at [https://choosingwiselycanada.org/wp-content/uploads/2017/07/CWC\\_PPI\\_Toolkit\\_v1.2\\_2017-07-12.pdf](https://choosingwiselycanada.org/wp-content/uploads/2017/07/CWC_PPI_Toolkit_v1.2_2017-07-12.pdf)
  - Potential side effects of PPI include headache and diarrhea, which may not occur when switched to a different PPI. There is some evidence that PPI use is associated with *C. difficile* colitis and other enteric infections, and should be used with caution in certain patients at risk.
- 5. Optimize PPI**
  - It is estimated that one-third of patients with typical GERD will not adequately respond to PPI. Factors that predict PPI failure are obesity and poor adherence to PPI treatment.
  - Patient non-adherence to treatment with PPI is common. Confirm that the patient has taken the intended dose of PPI on a daily basis, 30 minutes before breakfast for 8 weeks.
  - If suboptimal response, switch to another once daily PPI (e.g. esomeprazole) or try high-dose PPI (standard dose PPI twice daily 30 minutes before breakfast and supper or dexlansoprazole 60mg once daily) for an additional 8 weeks. The clinical and pharmacodynamic data to support this is actually fairly limited, however.
- 6. Refractory GERD.** Patients with persistent troublesome GERD symptoms can be referred to GI Central Access and Triage for diagnostic evaluation (endoscopy ± pH/impedance reflux monitoring) to discern GERD from non-GERD etiologies.