ACG Clinical Guideline: Diagnosis and Management of GERD
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Definition

- The condition in which the reflux of gastric contents into the esophagus results in symptoms and/or complications and is defined as presence of characteristic mucosal injury seen at endoscopy and/or abnormal esophageal acid exposure demonstrated on a reflux monitoring study.
- No gold standard for diagnosis
- ***Pathophysiology:*** poorly functioning esophagogastric junction, impaired esophageal clearance and mucosal integrity

Presentation

- ***Typical symptoms***
  - Heartburn
  - Regurgitation
  - Acidic/bitter taste
  - Chest pain
- ***Extraesophageal symptoms***
  - Cough
  - Hoarseness
  - Throat clearing

Medical Management

Lifestyle Modifications

- Weight loss in overweight and obese patients
- Avoiding meals 2-3hrs before bedtime
- Avoiding tobacco products
- Avoiding trigger foods
- Elevating the head of the bed

Pharmacologic Therapy

- PPI over H2RA in healing and maintenance of erosive esophagitis (EE)
- PPI 30-60min before a meal
- In patients without EE or BE whose symptoms have resolved with PPI, an attempt should be made to discontinue or continue at lowest effective dose
- Indefinite PPI therapy or antireflux surgery in patients with LA grade C or D esophagitis
- Do not recommend baclofen without objective evidence of GERD
- Do not recommend sucralfate for GERD except for pregnancy
- Intermittent PPI therapy okay for heartburn control in patients with NERD

Extraesophageal Symptoms

- Recommend evaluation of non-GERD causes before ascribing symptoms to GERD
  - Evaluation of other causes in patients with laryngeal symptoms, chronic cough, asthma
- ***Extraesophageal symptoms + no typical GERD symptoms ->*** recommend reflux testing before PPI therapy
- ***Extraesophageal + typical GERD symptoms ->*** trial PPI BID for 8-12wks before additional testing
- ***Extraesophageal symptoms not responding to PPI BID ->*** recommend EGD off PPIs for 2–4 wks.
  - If normal, consider reflux monitoring.
  - If EGD shows EE, that does not confirm that the extraesophageal symptoms are from GERD. Patients still may need pH-impedance testing

Long-term PPI Issues

- **Most common side effects listed by the FDA:** headache, abdominal pain, nausea, vomiting, diarrhea, constipation, and flatulence
  - *Switching PPIs can be considered in patients with these minor side effects*
- High quality studies have found that ***PPIs do not significantly increase the risk of pneumonia, stomach cancer, osteoporosis, CKD, vitamin/mineral deficiencies, heart attacks, strokes, or dementia*** (cannot exclude the possibility of a small increased risk)
- ***PPIs can increase the risk of intestinal infections.***
- Do not recommend routine monitoring of B12, creatinine, or bone mineral density in patients without risk factors. If known renal insufficiency, closely monitor renal function or consult nephrology
- In patients with GERD on Clopidogrel who have severe esophagitis or uncontrolled GERD with alternative therapies, the benefits of PPI treatment outweigh their proposed but highly questionable cardiovascular risks

Gupta, et al. ACG Clinical Guideline for the Diagnosis and Management of Gastroesophageal Reflux Disease.
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Diagnosis

Heartburn and/or regurgitation w/out alarm symptoms
Symptoms with sufficient frequency and intensity to impair QOL

→ 8-week once before meal daily PPI trial

- Complete relief / GERD likely → Discontinue PPI → Symptoms recur → EGD off PPI 2-4 weeks
- Incomplete relief → EGD off PPI 2-4 weeks

EGD off PPI 2-4 weeks:

- LA Grade B/C/D / Barrett's >3 cm → **GERD confirmed**
- Normal EGD or LA Grade A → Reflux monitoring off therapy
  - *Abnormal* → **GERD confirmed**
  - *Normal* → Consider other causes for symptoms

Presence of extraesophageal GERD symptoms

→
- Detailed medical history to identify other potential causes
- Refer to other specialists for evaluation if history suggests non-GERD cause is likely

Typical GERD + Extraesophageal symptoms → PPI Trial BID up to 12 weeks → Extraesophageal symptoms

- Improve → **Treat as GERD**
- No improvement → Reflux monitoring off PPI

Extraesophageal symptoms only → Reflux monitoring off PPI

Reflux monitoring off PPI:

- Abnormal → **Treat as GERD**
- Normal → Consider pH-impedance monitoring

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Key Points

- In patients with chest pain and no heartburn with negative cardiac testing, EGD and/or reflux testing can be considered
- In patients with alarm symptoms such as dysphagia, weight loss, or GI bleeding, EGD is recommended.
- Do not recommend high resolution manometry or barium swallow as a diagnostic test for GERD
- For patients who have not responded to one PPI, more than one switch to another PPI is not supported

Refractory GERD

- ***Diagnostic EGD*** with esophageal biopsies off PPI therapy for 2 to 4 wk
- ***Esophageal manometry*** if normal endoscopy and pH monitoring study and for those being considered for surgical or endoscopic treatment
- ***Optimization of PPI therapy*** in refractory GERD
- ***Esophageal pH monitoring*** *(Bravo, catheter-based, or combined pH-impedence monitoring)* ***OFF PPIs*** if the diagnosis of GERD has not been established.
- ***Esophageal impedence-pH monitoring ON PPIs*** for patients with an established GERD dx whose sx have not improved with PPI BID
- ***Antireflux surgery or TIF (transoral incisionless fundoplication)*** in pts with PPI refractory regurgitation and objective GERD
- Stop PPI therapy if off-therapy reflux testing is negative

Surgical & Endoscopic Therapy

- ***Antireflux surgery:*** recommended for patients as a long-term treatment for GERD, especially those with severe reflux esophagitis, large hiatal hernias, or persistent GERD sx
  - High-Resolution Manometry before antireflux surgery to r/o achalaisa or absent contractility.
- ***Magnetic sphincter augmentation (MSA) with LINX:*** consider as an alternative to laparoscopic fundoplication
  - No head to head trials, however greater technical ease, shorter hospital stay, and shorter operative time
  - Cannot have MRI with LINX
- ***Roux-en-Y gastric bypass:*** consider in obese patients with GERD. Prevalence of GERD in patients with BMI >35 is 6-fold higher
  - Obese patients have increased surgical complications (fundoplication disruption and herniation) and poor outcomes with fundoplication
- ***Endoscopic antireflux therapies:***
  - ***Stretta:*** its efficacy as an antireflux treatment is inconsistent/variable so it's use is not recommended
  - ***TIF (transoral incisionless fundoplication):*** consider in patients with regurgitation or heartburn who are unwilling to undergo antireflux surgery and do not have severe esophagitis or hiatal hernias >2cm