GERD DIAGNOSIS AND MANAGEMENT GUIDELINES (Part 1 of 2)

DIAGNOSIS

Diagnosis is made using combination of symptom presentation, objective testing with endoscopy, ambulatory reflux monitoring, and response to antisecretory therapy.

Symptoms include heartburn, regurgitation, chest pain, dysphagia, extraesophageal symptoms, and atypical symptoms (eg, dyspepsia, epigastric pain, nausea, bloating, and belching).

Indication	Diagnostic Test	Recommendations
Heartburn and regurgitation	PPI trial or empiric PPI therapy recommended	• These typical symptoms are most reliable in making a presumptive diagnosis • Negative trial does not rule out GERD
• Non-cardiac chest pain • Alarm symptoms • Screening of high risk patients[1]	Upper endoscopy[2]	• Cardiac cause should be excluded in patients with chest pain before GI evaluation • Consider early for elderly, those at risk for Barrett's esophagus, patients unresponsive to PPI
• Preoperative or pre-endoscopy for non-erosive disease • Refractory GERD symptoms • GERD diagnosis in question	Ambulatory reflux monitoring (pH or impedance-pH)	• Only test that can correlate symptoms with reflux • Can determine presence of abnormal esophageal acid exposure, reflux frequency, and symptom association with reflux episodes • Not required in the presence of short or long-segment Barrett's esophagus to establish GERD diagnosis
Dysphagia (considered an alarm symptom or warning sign)	Barium swallow	Barium radiographs should not be used for GERD diagnosis without dysphagia
Exclude non-GERD causes for symptoms	Esophageal biopsy	Not indicated for GERD diagnosis
Preoperative evaluation for surgery	Esophageal manometry	• Not recommended for GERD diagnosis • Recommended before consideration of antireflux surgery to rule out achalasia or severe hypomotility (scleroderma-like esophagus)
Helicobacter pylori	—	• Screening for *H. pylori* infection is not recommended in GERD patients • Treatment of *H. pylori* is not routinely required as part of antireflux therapy
Extraesophageal presentations of GERD (asthma, chronic cough, or laryngitis)[3]	• PPI trial[4] • Reflux monitoring[5]	• Upper endoscopy is not recommended to establish a diagnosis of GERD-related asthma, chronic cough, or laryngitis • Diagnosis of reflux laryngitis should not be made based solely on laryngoscopy findings

MANAGEMENT

Treatment	Recommendations
Lifestyle interventions[6]	• Weight loss recommended for overweight patients or who have had recent weight gain • Elevate head of bed for nocturnal GERD • Avoid late evening meals (esp. meals with high fat content) 2–3hrs before bedtime for nocturnal symptoms
PPI therapy[7]	• 8-week course is therapy of choice for symptom relief and healing of erosive esophagitis • No major differences in efficacy between different PPIs, but switching PPIs can be considered in response to issues with side-effects • Give 30–60mins before first meal of the day[8] and at once a day dosing for maximal pH control • Partial responders to once daily therapy may increase dose to twice daily, adjust dose timing, or switch to a different PPI for additional symptom relief • Non-responders should be referred for evaluation • Maintenance therapy should be given to patients who continue to have symptoms after PPI discontinuation, and in patients with complications (eg, erosive esophagitis and Barrett's esophagus[9]) • Safe in pregnancy if clinically indicated

(continued)

GERD DIAGNOSIS AND MANAGEMENT GUIDELINES (Part 2 of 2)

MANAGEMENT (continued)

Treatment	Recommendations
GERD refractory to PPI	• First step is optimization of PPI therapy by confirming compliance and appropriate dosing • Upper endoscopy should be performed in patients with typical or dyspeptic symptoms primarily to exclude non-GERD etiologies • Referral to ENT, pulmonary, or allergic specialists for patients with extraesophageal symptoms that persist despite PPI optimization • Ambulatory reflux monitoring[10] should be performed in patients with negative evaluation by endoscopy or by ENT, pulmonary, and allergy specialists • Patients with negative testing are unlikely to have GERD and PPI therapy should be discontinued
H_2-receptor antagonist therapy	• Can be used as maintenance option in patients without erosive disease if patients experience heartburn relief • Bedtime H2RA therapy can be added to daytime PPI in select patients with objective evidence of night-time reflux if needed, but may be associated with the development of tachyphylaxis after several weeks of use
Other drug therapies (eg, prokinetics, baclofen, sucralfate)	• Therapy for GERD other than acid suppression should not be used without diagnostic evaluation • No role for sucralfate in the non-pregnant GERD patient
Surgical therapy	• Treatment option for long-term therapy • Generally not recommended for those unresponsive to PPI therapy • As effective as medical therapy for carefully selected patients with chronic GERD when performed by an experienced surgeon • Preoperative ambulatory pH monitoring is mandatory in patients without evidence of erosive esophagitis. All patients should undergo preoperative manometry to rule out achalasia or scleroderma-like esophagus • Obese patients contemplating surgery for GERD should be considered for bariatric surgery (gastric bypass preferred) • Use of current endoscopic therapy or transoral incisionless fundoplication is not recommended as an alternative to medical or traditional surgical therapy

NOTES

Key: **GERD** = gastroesophageal reflux disease; **H2RA** = H_2-receptor antagonist; **PPI** = proton pump inhibitor

[1] Primarily overweight, white males >50yrs, with chronic GERD symptom.

[2] Repeat endoscopy is not indicated in patients without Barrett's esophagus in the absence of new symptoms.

[3] GERD can be considered a potential co-factor. Careful evaluation for non-GERD causes should be undertaken in all of these patients.

[4] Recommended in patients with typical GERD symptoms. Non-responders to PPI therapy should be considered for further diagnostic testing. Surgery should generally not be performed to treat extraesophageal symptoms in those unresponsive to PPIs.

[5] Should be considered before PPI trial in patients with extraesophageal symptoms who do not have typical symptoms.

[6] Tobacco and alcohol cessation is not recommended to improve GERD symptoms. Routine elimination of chocolate, caffeine, spicy foods, citrus, and carbonated beverages is not recommended. Selective elimination could be considered if patients observe correlation with GERD symptoms and improvement with elimination.

[7] Potential risks with PPIs: a) Patients with known osteoporosis can remain on PPI therapy. Concern for hip fractures and osteoporosis should not affect the decision to use PPI long-term, except in patients with other risk factors for hip fracture; b) PPI therapy can be a risk factor for *Clostridium difficile* infection (use with care in patients at risk); c) Short-term PPI use may increase the risk of community-acquired pneumonia; d) Concomitant clopidogrel: does not appear to have an increased risk for adverse cardiovascular events (no adjustment in PPI needed).

[8] Dexlansoprazole and omeprazole/sodium bicarbonate can be dosed regardless of meal timing.

[9] Administer the lowest effective PPI dose, including on demand or intermittent therapy, in patients requiring long-term therapy.

[10] Reflux monitoring *off* medication can be performed by any modality (pH or impedance-pH). Testing *on* medication should be performed with impedance-pH monitoring in order to enable measurement of nonacid reflux.

REFERENCES

Katz PO, Gerson LB, Vela MF. Guidelines for the Diagnosis and Management of Gastroesophageal Reflux Disease. *Am J Gastroenterol.* 2013; 108:308-328; doi:10.1038/ajg.2012.444.

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