GUIDELINES & PROTOCOLS
ADVISORY COMMITTEE

Gastroesophageal Reflux Disease – Clinical Approach in Adults

Effective Date: January 30, 2009

Scope

This guideline outlines the clinical approach to the diagnosis and treatment of gastroesophageal reflux disease (GERD) in adult patients. Treatment of Helicobacter pylori (*H. pylori*) infection is not part of the management of GERD (see Dyspepsia with or without *H. pylori* Infection guideline).

Diagnostic Codes: 536 Dyspepsia; 535 or 537 Gastritis and Duodenitis

Prevention and Risk Factors

Obesity is a major risk factor.[1,2] Symptoms may be aggravated by spicy or fatty foods, caffeine, alcohol, citrus fruits, recumbency or bending forward.[3,4] GERD may also be provoked by certain medications such as calcium channel blockers and may be mimicked by other drugs such as bisphosphonates and non-steroidal anti-inflammatory drugs (NSAIDs).[5] GERD is frequently worse during pregnancy (see Management of GERD in pregnancy).

Diagnosis/Investigation

GERD is usually diagnosed by history. Symptoms typically include retrosternal burning and may also include sour or bilious regurgitation, belching, hypersalivation, and epigastric or chest pain.[6] Increasingly recognized are extraesophageal symptoms such as chronic cough, laryngeal irritation and wheezing, particularly when they occur at night.[7,4] Certain symptoms ('alarm features') require prompt endoscopy. These include dysphagia, weight loss, gastrointestinal blood loss (acute or chronic), persistent vomiting or failure to respond to an adequate trial of therapy.[6,8] Differential diagnoses to consider include cardiac and musculoskeletal disorders.

Management

Initial Management of GERD:

In the absence of alarm features, the initial management should consist of diet and lifestyle modifications, antacids, alginates or histamine$_2$ receptor antagonists (H_2RA) (see Appendix A).[6,9] Under these circumstances barium X-rays and endoscopy results are frequently normal and are generally not recommended.[6] Antacids and alginates may be effective in patients with intermittent or sporadic symptoms.

Management of severe symptoms or poor response:

In the absence of improvement with the above management strategy, H_2RA or proton pump inhibitors (PPI) may be tried (see Appendix A). It may take 4-8 weeks to see a response. GERD is a chronic disease and patients may require prolonged or intermittent therapy.[10] H_2RAs and PPIs are more effective in patients with chronic symptoms.

Management of refractory symptoms:

Absence of response to the above regimens justifies specialist consultation and/or further investigation. Endoscopy is the investigation of choice.

Management of GERD in pregnancy:

Traditional antacids and alginates are generally considered safe in pregnancy and lactation, and can be considered first-line in these settings. Studies on H_2RA and PPI in pregnancy do not demonstrate an increased risk of malformations; these are appropriate second line agents.[11,12] In lactation, cimetidine is recognized as safe whereas other H_2RA and PPI have not been adequately studied.[13] For the latest information on drug safety in pregnancy and lactation, please refer to recognized database sources such as www.motherisk.org

Rationale

GERD is a common chronic recurrent problem. Most individuals with GERD experience only occasional heartburn, which is usually responsive to simple measures. GERD and hiatus hernia are not synonymous and do not imply each other's presence.

More severe reflux can cause esophageal mucosal injury (esophagitis) and its complications. Respiratory symptoms (chronic cough, hoarseness, bronchospasm, recurrent aspiration) may occur in the absence of typical heartburn. Patients with extraesophageal symptoms such as chronic cough may not respond well or quickly to standard antireflux therapy.[4]

Chronic longstanding GERD may be complicated by Barrett's esophagus (intestinal metaplasia in the lower esophagus) in up to 10% of individuals.[13] Barrett's esophagus predisposes to adenocarcinoma, with an incidence of 0.5-1% per year.[15] This risk for cancer is higher in caucasians, males, individuals aged > 50 years, smokers, and people with more than 10 years of symptoms occurring more than 3 times per week.[4] Patients with the above risk factors may be offered endoscopy on one occasion to rule out Barrett's esophagus; if not present, it will generally not develop later.

Endoscopy is not necessary or universally effective in making a diagnosis of GERD, but is considered the investigation of choice to identify esophagitis, assess its severity and rule out complications including strictures and Barrett's esophagus. Barium studies are not adequate to assess the mucosa or diagnose reflux disease.[4]

Patients with complicated GERD (Barrett's esophagus, ulceration, bleeding, peptic stricture) may require long-term PPI therapy.[10,16] The efficacy of prokinetic agents (domperidone and metaclopramide) has not been established.

Anti-reflux surgery could be considered in patients who respond well to PPI therapy, but who are intolerant or reluctant to take medications. Outcomes are highly dependent on individual factors.[10]

References

Resources

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www.motherisk.org

List of Abbreviations

GERD	Gastroesophageal reflux disease
NSAID	Non-steroidal anti-inflammatory drugs
H_2RA	$Histamine_2$ receptor antagonist
PPI	Proton pump inhibitor

This guideline is based on scientific evidence current as of the Effective Date.

This guideline was developed by the Guidelines and Protocols Advisory Committee, approved by the British Columbia Medical Associaton, and adopted by the Medical Services Commission.

Appendices

Appendix A – Prescription Medication Table for Gastroesophageal Reflux Disease

Contact Information

Guidelines and Protocols Advisory Committee
PO Box 9642 STN PROV GOVT
Victoria BC V8W 9P1

Telephone: 250 952-1347
Fax: 250 952-1417
E-mail: hlth.guidelines@gov.bc.ca
Web site: www.BCGuidelines.ca

The principles of the Guidelines and Protocols Advisory Committee are to:

- encourage appropriate responses to common medical situations
- recommend actions that are sufficient and efficient, neither excessive nor deficient
- permit exceptions when justified by clinical circumstances

Appendix A – Prescription Medication table for Gastroesophageal reflux disease

Drug	Standard Rx Dose	Approximate cost per day (March 2009) generic $ (brand $)	PharmaCare Coverage
H_2-receptor antagonists (H_2RA)			
ranitidine (Zantac®)	150 mg twice a day x 8 weeks*	$0.40 ($0.40)	regular benefit, LCA
cimetidine (Tagamet®)	1200 mg per day in divide doses x 8-12 weeks	$ 0.40 ($1.50)	regular benefit, LCA
nizatidine (Axid®)	150 mg twice a day x 12 weeks	$1.15 (1.80)	limited coverage, LCA, RDP
famotidine (Pepcid®)	20 mg twice a day *	$ 1.25 ($2.30)	limited coverage, LCA, RDP
Proton Pump inhibitors (PPI)			
rabeprazole (Pariet®)	20 mg per day x 4 weeks	$0.98 ($1.40)	limited coverage
omeprazole (Losec®)	20 mg per day x 4 weeks	$1.15 ($2.40)	limited coverage
pantoprazole (Pantaloc®)	40 mg qd x 4 weeks	$1.40 ($2.15)	limited coverage
lansoprazole (Prevacid®)	15-30 mg per day x 4-8 weeks	$1.08-2.15	limited coverage
esomeprazole (Nexium®)	20-40 mg per day x 4-8 weeks	$2.25-4.50	limited coverage

Nb: Please review product monographs and regularly review current listings of Health Canada advisories, warnings and recalls at: http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/index_e.html

G: indicates that generics are available

* available with or without a prescription, but non-prescription medications are not reimbursed by PharmaCare or most private drug plans

Regular benefit drugs: do not require Special Authority. Patients may receive full or partial coverage, since some of these drugs are included in the Low Cost Alternative (LCA) program or Reference Drug Program (RDP).

LCA: When multiple medications contain the same active ingredient (usually generic products), patients receive full coverage for the drug with the lowest average PharmaCare claimed price. The remaining products are partial benefits.

RDP: When a number of products contain different active ingredients but are in the same therapeutic class, patients receive full coverage for the drug that is medically effective and the most cost-effective. This drug is designated as the Reference Drug. The remaining products are partial benefits.

Limited coverage drugs: require Special Authority. These drugs are not normally regarded as first-line therapies or there are drugs for which a more cost-effective alternative exists.

In all cases: coverage is subject to drug price limits set by PharmaCare and to the patient's PharmaCare plan rules and deductibles.