ALBERTA CLINICAL PRACTICE GUIDELINES

2007 Update

Administered by the Alberta Medical Association

Guideline for Treatment of Gastroesophageal Reflux Disease (GERD) in Adults

This guideline has been adapted from the Canadian Consensus Conference on the Management of Patients with Gastroesophageal Reflux Disease.[1]

GOALS

To position health care professionals in Alberta to optimize the management of Gastroesophageal Reflux Disease (GERD) in Adults.

DEFINITION

GERD is defined as a condition that develops when the reflux of stomach contents causes troublesome symptoms and/or complications.[b]

EXCLUSIONS

The recommendations contained in this guideline do not apply to:

- Pregnant or lactating women
- Patients under the age of 18 years

RECOMMENDATIONS

Investigation

- ♦ Diagnosis of GERD can usually be established on the basis of a careful history and physical examination. Further investigation is generally not required[1]
- ♦ Patients with GERD symptoms and alarm features (Table 1) require prompt investigation: endoscopy is preferred.[1]
- ♦ GERD is **not** caused by H. *pylori* infection and eradication of H. *pylori* is not known to effect the disease or its management.[1]

Table 1
Alarm Features for GERD

- Dysphagia (solid food, progressive)
- Odynophagia (painful swallowing)
- Bleeding/anemia
- Weight loss

Other Indications for Further Investigation

- Potentially cardiac chest discomfort
- Respiratory symptoms secondary to reflux
- Consider if failure to respond to 8 weeks of medical therapy (some may take 16 weeks to respond)[1]

Management of Uncomplicated GERD
(see Algorithm)

The Role of lifestyle modification:

- ♦ Lifestyle modification has limited effectiveness for GERD[1] and is usually ineffective in severe GERD symptoms.[a]
- ♦ Emphasize strategies that have added health benefits (Table 2)

Table 2
Lifestyle Modification

- Weight control
- Reduction of alcohol, tobacco and caffeine intake
- Avoid lying down within 2 hours of eating
- Elevation of the head of the bed
- Avoidance of foods that trigger symptoms:
  - spices
  - peppermint
  - chocolate
  - citrus juices

The above recommendations are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. They should be used as an adjunct to sound clinical decision making.

RECOMMENDATIONS cont.

- Over-the-counter antacid or H2RA's can be recommended if they have not already been tried. These treatments are useful for mild or infrequent symptoms.[1]
- If symptoms are relieved by lifestyle modification and/or over-the-counter medication; continue as necessary
- If patient fails to respond to lifestyle modification and/or over-the-counter medication add antisecretory therapy as a therapeutic trial:

  1. Proton pump inhibitor (PPI) once daily for 4- 8 weeks

- If symptoms are not resolved by treatment or if symptoms recur consider:

  1. Extending therapy to 16 weeks after careful review to determine diagnostic accuracy;[1] or
  2. Consider BID PPI for 4 weeks; or
  3. If previous treatment did not use PPI then, PPI is recommended for 4-8 weeks

- Follow-up at 2 to 4 weeks to review the diagnosis and reassess management.
- Failure to respond to 16 weeks of PPI therapy warrants a careful reassessment of diagnosis and usually further investigation preferably by endoscopy.
- Patients whose symptoms require ongoing use of acid suppression medication for many years should have an endoscopy by 10 years into their condition to search for Barrett's esophagitis.[1]

BACKGROUND

Introduction

Evidence indicates that up to 36% of otherwise healthy persons suffer from heartburn at least once a month, and that 7% experience uncomplicated GERD and symptoms of heartburn as often as once a day. It has been estimated that approximately 2% of the adult population suffers from complicated GERD, associated with macroscopic or histologic damage to the esophagus. The incidence of GERD increases after the age of 40, and it is not uncommon for patients experiencing symptoms to wait years before seeking medical treatment.[2,3]

GERD is believed to be caused by a combination of conditions that increase the presence of gastric content in the esophagus. These conditions include transient lower esophageal sphincter relaxation, decreased lower esophageal sphincter tone, impaired esophageal clearance, delayed gastric emptying, and decreased salivation.

Lifestyle factors can also cause increased risk of reflux. Smoking, large meals, fatty foods, caffeine, pregnancy, obesity, body position, drugs, and hormones may all exacerbate GERD. Hiatus hernia frequently accompanies GERD and may contribute to prolonged gastric content exposure time following reflux. Patients with GERD do not necessarily have a hiatus hernia and, conversely, those with hiatus hernia do not invariably have GERD. The excessive reflux experienced by patients with GERD overwhelms their intrinsic mucosal defense mechanisms, resulting in symptoms and sometimes damage.

The most common symptom of GERD is heartburn. Besides the discomfort of heartburn, reflux may result in regurgitation. This is a sense of sour fluid rising effortlessly into the throat or mouth. There can be other symptoms such as odynophagia (pain on swallowing) and dysphagia (difficult swallowing). The reflux may also cause pulmonary symptoms such as coughing, wheezing, asthma, or aspiration pneumonia. Oral symptoms may also occur such as tooth enamel decay, gingivitis, halitosis, and water-brash (excessive relex salivation); throat symptoms such as a soreness, laryngitis, hoarseness, and a globus sensation. Only a minority of patients with diagnostic GERD symptoms will have reflux esophagitis.[b]

Investigation of GERD

The patient who presents with typical uncomplicated GERD symptoms (heartburn and/ or regurgitation), should be diagnosed by history

and generally does not require other investigations.[1] If a therapeutic trial results in resolution of symptoms, therapy can be prescribed as necessary.[4] If symptoms are not resolved, or there are alarm symptoms investigation and/or referral is recommended.[1]

Endoscopy is highly sensitive in identifying cancer, strictures, ulcers and erosions. Endoscopy will also demonstrate the presence of Barrett's epithelium (where normal epithelium is replaced by abnormal metaplastic columnar cells).

Barrett's epithelial changes are a consequence of prolonged and severe acid reflux in about 2-4% of cases of persistent reflux. As 0.5% of patients diagnosed with Barrett's develop adenocarcinoma of the esophagus each year, patients with biopsy proven Barrett's epithelium require ongoing surveillance.[1,5]

For patients with persistent and recurrent symptoms, the physician should engage in thoughtful discussion regarding the risks and benefits of further investigation.

Barium studies of the esophagus are widely available and well tolerated (with little morbidity). However, barium studies have significant limitations in the evaluation of GERD. While a barium examination of the esophagus will detect strictures it is very insensitive in its ability to detect pathological reflux or mucosal damage, and it cannot detect the presence of Barrett's epithelial changes (which requires obtaining a biopsy specimen and histologic confirmation).

Esophageal manometry can be used to evaluate peristalsis and to assess the function of the lower esophageal sphincter. Therefore, it may be useful in patients who have atypical chest pain or are to undergo anti-reflux surgery.[6]

Ambulatory esophageal pH monitoring is reserved for the investigation of complicated GERD and provides a quantitative determination of the amount of time the esophageal pH is low, indicating persistent acid presence above the sphincter. Ambulatory pH monitoring is most useful in patients with atypical reflux symptoms such as chest pain, asthma, cough or hoarseness. In these patients it may be the only diagnostic test that can provide objective evidence of the problem.

Ambulatory esophageal pH monitoring is also useful in evaluating patients with an incomplete response to medical therapy to document that their GERD-like symptoms are indeed reflux related.

Therapy for GERD

Lifestyle modifications such as elevating the head of the bed can be helpful.[1] Patients should also be advised to avoid bedtime snacks, eat low fat foods, quit smoking, and reduce alcohol consumption. These strategies may have other health benefits in addition to any improvement in GERD. Patients whose symptoms are not completely controlled by lifestyle modification may be advised to use over-the-counter medications including antacids or antisecretory agents. Response to medication should be reassessed periodically.

If the patient reports troublesome symptoms occurring 3 or more times in a week that are not controlled by over-the-counter therapy and lifestyle modification, therapy may be initiated with a regular dose of a PPI once a day for 4 weeks.[1b]

Numerous trials have shown that short term treatment with acid suppression agents can effectively relieve the symptoms of uncomplicated GERD.

Patients whose symptoms are resolved after a course of therapy need no further investigation or therapy. Therapy may be repeated if symptoms recur. For those few patients who fail therapy with a PPI for 8 weeks, a trial of twice-daily PPI for 4 weeks may be tried.[1] Subsequent treatment failures may require further investigation and referral.

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Additional references

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b. Vakil N, van Zanten SV, Kahrilas P, Dent J, Jones R; Global Consensus Group. The Montreal definition and classification of gastroesophageal reflux disease: a global evidence-based consensus.Am J Gastroenterol. 2006 Aug;101(8):1900-20.

Toward Optimized Practice (TOP) Program

Arising out of the 2003 Master Agreement, TOP succeeds the former Alberta Clinical Practice Guidelines program, and maintains and distributes Alberta CPGs. TOP is a health quality improvement initiative that fits within the broader health system focus on quality and complements other strategies such as Primary Care Initiative and the Physician Office System Program.

The TOP program supports physician practices, and the teams they work with, by fostering the use of evidence-based best practices and quality initiatives in medical care in Alberta. The program offers a variety of tools and out-reach services to help physicians and their colleagues meet the challenge of keeping practices current in an environment of continually emerging evidence.

To Provide Feedback

The Alberta CPG Working Group for Dyspepsia is a multidisciplinary team composed of family physicians, general practitioners, gastroenterologists, pediatric gastroenterologists, a pathologist, radiologist, radiation oncologist, an infectious disease specialist, and representatives from the public and the Alberta Pharmaceutical Association. The team encourages your feedback. If you have difficulty applying this guideline, if you find the recommendations problematic, or if you need more information on this guideline, please contact:

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Algorithm: Management of Uncomplicated GERD