SASKATCHEWAN RN ASSOCIATION

SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
DECEMBER 1, 2016

GASTROESOPHAGEAL REFLUX DISEASE (GERD) ADULT

DEFINITION

Reflux of gastric contents into the esophagus, which results in esophageal irritation or inflammation.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

- Dysphagia (solid food, progressive)
- Odynophagia (painful swallowing)
- Bleeding/anemia
- Weight loss
- Persistent vomiting
- Gastroesophageal Reflux Disease (GERD) symptoms that could be cardiac in origin
- Respiratory symptoms secondary to reflux
- No response to 8 weeks of medical therapy

CAUSES

- Reflux of acidic stomach contents in the esophagus due to laxity of the lower esophageal sphincter.

PREDISPOSING AND RISK FACTORS

- Obesity
- Pregnancy
- Estrogen therapy
- Medications (nitrates, anticholinergics, calcium channel blockers)
- Tobacco use
- Alcohol use
- Genetic factors
- Defective esophageal clearance
- Hypersecretion of gastric acid
- High-fat diet
- Hiatus hernia
- Diabetes
- Delayed gastric emptying
- High adrenergic drive (e.g., stress, anxiety)

GASTROESOPHAGEAL REFLUX DISEASE (GERD) ADULT

HISTORY

- Heartburn, most often after eating
- Retrosternal burning sensation radiating upward (may radiate as far up as the throat)
- Acidic stomach contents may be regurgitated
- Disturbed sleep from symptoms
- Dry cough at night
- Associated symptoms may include:
  - Cough, sore throat, hoarseness, wheezing
  - Difficulty swallowing (from erosive esophagitis or narrowing of esophagus)
  - Painful swallowing (from esophageal ulcer)
  - Nausea
  - Hypersalivation (water brash)
  - Night cough, night awakenings due to pain
  - Globus sensation (feeling of something stuck in throat)
- Aggravating factors may include:
  - Large meals
  - Lying down and bending over
  - Certain foods (common irritants include caffeine, chocolate, alcohol, peppermint, fatty foods)
  - Tight-fitting clothes
  - Increased perception of symptoms with stress
- Alleviating factors may include:
  - Relief with antacids, gum chewing
  - Sitting up, lifting head of bed
  - Avoidance of certain foods or beverages to limit symptoms

PHYSICAL FINDINGS

- Assess weight
- Mild epigastric tenderness may be present

DIFFERENTIAL DIAGNOSIS

- Peptic ulcer disease
- Esophageal motility disorder

- Gastrointestinal (GI) bleeding
- Esophageal tumour
- Esophagitis (pill esophagitis, infectious esophagitis, eosinophilic esophagitis)
- Anginal/cardiac pain
- Medication-induced epigastric pain
- Biliary pain
- Pancreatitis
- Gastritis

COMPLICATIONS

- Barrett esophagus (pre-malignant mucosal changes due to chronic GERD, most common > 50 years of age)
- Esophagitis/esophageal ulcer
- Esophageal stricture
- Nocturnal aspiration (choking, cough, asthma, recurrent pneumonitis)
- Posterior laryngitis, chronic hoarseness
- Dental erosions
- Chronic sinusitis
- Pharyngitis
- Subglottic stenosis
- Laryngeal/esophageal cancer

INVESTIGATIONS AND DIAGNOSTIC TESTS

- Diagnosis is usually made on clinical exam and further investigations are usually not required unless the client fails to respond to treatment within 8 weeks. Referral for further investigations should be made.
- Clients with alarm features of GERD, as listed in the Immediate Consultation Required in the Following Situations section, require prompt referral and investigation (endoscopy is the preferred diagnostic test).

MAKING THE DIAGNOSIS

- Diagnosis of GERD can usually be established on the basis of a careful history and physical examination.

- Clients who complain about heartburn and/or regurgitation at least twice weekly are considered to have GERD, unless they have additional symptoms, or a trial of therapy for GERD has failed.
- GERD is not caused by *Helicobacter pylori* infection and eradication of *H. pylori* is not known to affect the disease or its management.

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Relieve symptoms, especially heartburn
- Promote healing of the esophagus
- Prevent complications such as stricture, bleeding, Barrett esophagus
- Prevent recurrence

Appropriate Consultation

- Symptoms/presentations in the Immediate Consultation Required in the Following Situations section.
- Any symptoms of dysphagia need urgent consultation and investigation.
- Clients who have not responded to 8 weeks of treatment should be referred for further investigations.
- Consult with a physician/RN(NP) if client is taking medications that impair esophageal motility and lower esophageal sphincter tone (e.g., calcium channel blockers, beta-blockers, tricyclic antidepressants, anticholinergics, theophyllines), to determine if any adjustments are required.

Non-Pharmacological Interventions

- Weight loss
- 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

- Caffeine

Pharmacological Interventions

- Initial Management
  - If symptoms occur less than 3 times per week
    - Lifestyle modifications
    - Antacids as needed to control symptoms
      - Aluminum hydroxide/magnesium hydroxide 30 mL orally after meals and before bed

    Or
    - Histamine H_2-receptor antagonists
      - Ranitidine (Zantac) 150 mg orally bid
- If client fails to respond to initial management strategies after 4 weeks add:
  - Proton pump inhibitor (PPI) once daily for 4-8 weeks
    - Pantoprazole (Pantoloc) 40 mg orally once daily

      Or
    - Pantoprazole magnesium (Tecta) 40 mg orally once daily

      Or
    - Omeprazole (Losec) 20 mg orally once daily

      Or
    - RABEprazole (Pariet) 20 mg orally once daily

      Or
    - Lansoprazole (Prevacid) 30 mg orally once daily
- If symptoms are not resolved by treatment or if symptoms recur, consultation with a physician/RN(NP) is required.

Client and Caregiver Education

- Elevate the head of the bed 15 cm (6 in) using wooden blocks
- Encourage weight loss (if weight > 20% of ideal body weight for age and sex)
- Counsel client/caregiver about appropriate use of medications (dose, frequency, compliance, etc.).
- Recommend:
  - Dietary modifications (decrease or eliminate coffee, tea, chocolate, nicotine, alcohol and fatty foods)

- Smoking cessation (decreases salivation)
- Small, frequent meals to prevent over-distension of the stomach
- Avoidance of eating large meals/snacks 2-3 hours before bedtime
- Postural modifications (daytime and nocturnal) to prevent acid from entering the esophagus (elevate head of bed 15 cm [6 in] using blocks)
- Avoid bending at the waist (especially after meals), as well as lying down immediately, and within 2 hours after a meal
- Avoidance of tight-fitting clothing

Monitoring and Follow-Up

- Monitor every 4 weeks
- Continue therapy to which client is responding for 8-12 weeks
- Reassess for symptom relapse in 4-8 weeks when therapy complete. If symptoms recur, resume previous therapeutic regimen and refer client to a physician/RN(NP).

Referral

- Presentation consistent with those in the Immediate Consultation Required in the Following Situations section.
- Client who fails to respond to pharmacological treatment in 8 weeks.
- Client whose symptoms return after completing 8 week treatment regime.

DOCUMENTATION

- As per employer policy

REFERENCES

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