ISSUE 14

The Bottom Line

Vaughan Endoscopy Clinic (VEC) is a **state of the art** out-of-hospital endoscopy clinic providing **Screening colonoscopy and endoscopy** for the work up of mild gastrointestinal disorders. It is staffed by **gastroenterologists.**

In addition to the endoscopic services, they will provide all the necessary **GI follow-up** and make all the appropriate referrals required due to findings at the endoscopy.

The Medical Director has been an active participant at the CPSO in the development of **standards for out-of-hospital clinics**, all of which VECs adheres to.

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In addition to high quality and convenient access to endoscopy, the doctors at VEC will provide you with supplemental practical GI advice through this periodic newsletter. This article is written by Dr. Michael Ostro (a gastroenterologist from Credit Valley Hospital).

GERD – Gastro-esophageal Reflux Disease

The term gastroesophageal reflux (GER) is used to describe the consequences of reflux of acidic gastric contents into the esophagus. Symptomatic GER is very common. It is estimated that at least 7% of the Canadian population have heartburn on a daily basis, and at least 40% of the population will have heartburn at least once monthly.

There are many risk factors for GERD. The more common ones include:

- **Obesity**
- **Hiatus hernia**
- **Smoking**
- **Delayed gastric emptying** – gastroparesis
- **Medications** (see below)
- **Pregnancy**
- **Alcohol**
- **Hypercalcemia**
- **Scleroderma** and mixed connective tissue diseases

Medications can precipitate or aggravate heartburn and gastroesophageal reflux by decreasing esophageal motility, relaxing the lower esophageal sphincter and/or increasing gastric acid secretion. The following lists the drugs that most commonly produce GER, but there are many other drugs that can also cause GER.

- **Anticholinegics**
- **Bronchodilators**
- **Sedatives**
- **Dopaminergic drugs** (used especially for Parkinson's disease)
- **Beta-blockers**
- **Calcium channel blockers**
- **Tricyclic antidepressants**
- **Hormones**, including birth control pills

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Symptoms Caused by GER (can be either esophageal or extra-esophageal):

- **Heartburn**
- **Odynophagia**
- **Reflux** (sensation of food or fluid moving up from stomach into the esophagus)
- **Globus** (sensation of lump in throat)
- **Sore throat**
- **Nausea**
- **Regurgitation** (food or fluid refluxing right into the mouth)
- **Pulmonary symptoms**: wheezing, nocturnal aspiration, cough
- **Hoarseness**
- **Increased salivation** (water brash)
- **Dysphagia** (due to reflux esophagitis, esophageal stricture or esophageal spasm)

Investigation of GERD:

- **Esophagogastroduodenoscopy** (EGD)
- **Esophageal motility study**
- **Barium swallow**
- **Nuclear scan** to demonstrate reflux (rarely used now)
- **24-hr pH monitoring**

Long-term Complications of GERD:

- **Asthma**
- **Erosion of dental enamel**
- **Esophagitis or esophageal ulceration** which can cause gastrointestinal bleeding
- **Chronic cough**
- **Adenocarcinoma** of esophagus
- **Barrett's epithelium** (potentially pre-malignant change in esophageal mucosa)
- **Chronic hoarseness**
- **Esophageal stricture** which can cause dysphagia

The bottom line is:

Symptomatic GER is very common. There are various treatment options available:

1. Lifestyle modification measures: These measures should be discussed with patients who have GERD, as they may allow the patient to avoid medications. These measures include weight reduction if necessary, avoiding foods that precipitate symptoms, such as citrus fruits, chocolate, fatty and fried foods, mint flavourings, tomato-based foods, spicy foods, onions and caffeinated beverages, decreasing or stopping smoking and alcohol, avoid bending for 2-3 hours after meals, avoid lying down for 2-3 hours after meals and elevation of the head of the bed on blocks 6-8 inches. Patients may also benefit from small, frequent meals and avoiding tight-fitting clothes.

2. Medications: Antacids; Alginic acid (Gaviscon); medications that suppress acid secretion in the stomach (H2 blockers and proton pump inhibitors (PPIs); Prokinetic drugs, such as metochlopropamide and domperidone, (which increase esophageal motility, increase lower esophageal sphincter pressure and increase gastric emptying)

3. Endoscopic or surgical anti-reflux procedures: There are various procedures that can be done endoscopically or surgically to reduce gastroesophgeal reflux. Operations to decrease acid secretion in the stomach are rarely done since the advent of potent acid-suppressing medications.