Primary Care Management Pathway
Dyspepsia

Background

Primary care management pathways are being developed by specialist and primary care groups to support the management of common, non-urgent conditions for which long wait times to specialty care currently exist. The pathways will help identify patients with high-risk features and facilitate early referral to specialists as needed.

Dyspeptic symptoms in the general population are common. Estimates are that as many as 30% of the population experience these symptoms, though not all seek medical treatment. It can be caused by peptic ulcer disease, celiac disease, H. pylori and rarely neoplasia. The majority have no organic cause identified for their symptoms.

The majority of these patients can be managed in the primary care home. The goal of this pathway is to provide guidance on helping patients to manage their symptoms and identify those who have signs or symptoms that may require more urgent GI assessment or endoscopic evaluation.

Defining condition and/or other important definitions

Dyspepsia is characterized by epigastric pain or upper abdominal discomfort. It may be accompanied by a sensation of bloating or distention, early satiety, belching, nausea, and/or loss of appetite. Definitions vary, but the symptoms most commonly classified as part of dyspepsia are:

- Postprandial fullness
- Early satiety
- Epigastric pain
- Epigastric burning

Some classifications consider more prominent nausea/vomiting a separate entity, while others include this as part of the dyspepsia spectrum. There is frequent overlap between GERD and dyspepsia. If the patient has predominantly heartburn symptoms, refer to the GERD pathway.

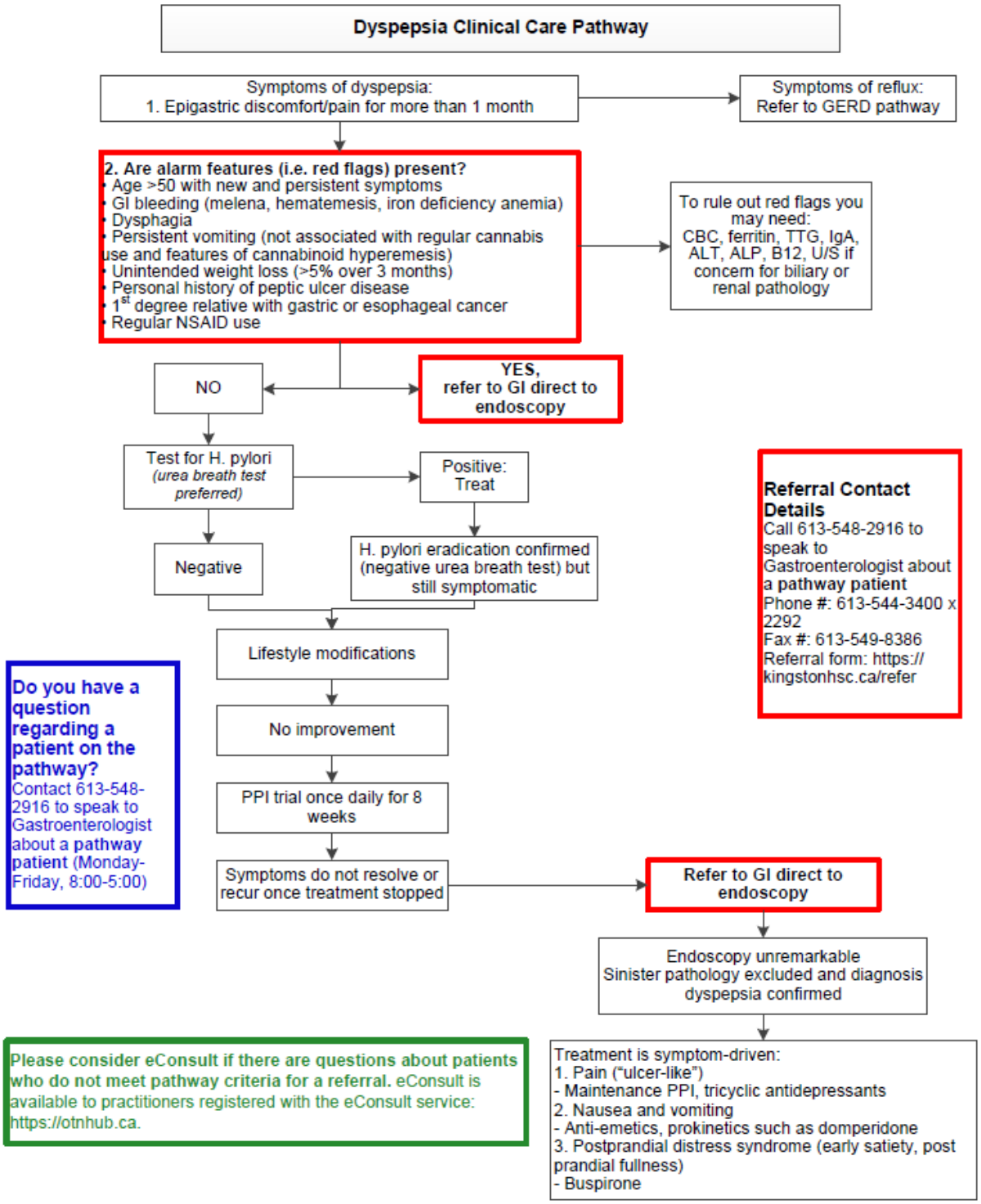
Dyspepsia tends to overlap with irritable bowel syndrome (IBS). In IBS the predominant symptoms tend to be bloating with relief after defecation.

Biliary tract pain should also be considered if pain occurs after eating, especially after a fatty meal. The pain is predominantly right upper quadrant that builds over several hours and then dissipates. It may radiate to the scapula and be associated with nausea and vomiting.

Patient information

It is possible that your patient and/or their family member may express a desire for additional information about the primary care management pathway and their role or experience throughout the process of being on a pathway. Additional information for patient education has been provided in “Appendix B – Patient Information”.

Primary Care Management Pathway – Clinical Flow Diagram
Dyspepsia



Appendix A – Expanded Detail

Are Alarm Features Present?

If any of the following features are present, patients should be referred direct to endoscopy using the dyspepsia "Direct to Procedure Upper Endoscopy" form, which can be found at https://kingstonhsc.ca/refer/gastroenterology-1.

- Age >50 with new or persistent symptoms
- GI bleeding (melena, hematemesis, iron deficiency anemia)—if yes do CBC, INR, urea and ferritin as part of referral
- Dysphagia
- Persistent vomiting (not associated with regular cannabis use and/or features of cannabinoid hyperemesis)
- Unintended weight loss (>5% over 3 months)
- Personal history of peptic ulcer disease
- Family history of gastric or esophageal cancer in a first degree relative
- Regular NSAID use

Non-Pharmacologic Therapy/Lifestyle Modifications

- Smoking cessation
- Weight loss if indicated
- Elimination of food triggers
    - Coffee
    - Caffeinated beverages
    - Alcohol
    - Fatty/greasy foods
- Heavy cannabis use can be associated with persistent vomiting or GI symptoms and its use should be reviewed and consider discontinuing
- Medication review
    - Common culprits: ASA/NSAIDs, Cox-2 inhibitors, corticosteroids, bisphosphonate, antibiotics, dabigatran, metformin, iron or magnesium supplements
    - Any new or recently prescribed medication or over the counter herbal supplements.

Baseline Investigations

CBC, ferritin, urea, creatinine and celiac disease screen to identify concerning etiologies. Upper GI series is not recommended due to high rate of false positive and false negatives. If

hepatobiliary or pancreatic disease is suspected recommend checking ALT, ALP, bilirubin, lipase and an abdominal ultrasound.

In patients with dyspepsia and weight loss pancreatic cancer should be on the differential, especially in patient who are jaundiced. If this is a concern, then an urgent CT should be arranged.

To rule out celiac disease, TTG-IgA testing may need to be ordered. To ensure that testing costs are not a barrier to patient care, **Kingston Health Sciences Centre has developed a unique laboratory requisition** to access TTG-IgA testing for patients who are on the pathway.

The unique laboratory requisition is meant to be completed by referring primary care physicians for patients who are following the dyspepsia pathway and would prefer to have this test completed at KHSC (KGH: Armstrong 1 or HDH: Jeanne Mance 5) at no cost to the patient. Patients may still prefer to have this testing completed at a community medical laboratory and pay for the associated costs.

The requisition can be accessed and downloaded by primary care physicians at: https://kingstonhsc.ca/refer/gastroenterology-1.

H. pylori

Test for and treat H pylori. If patients have never been treated before this can be checked with an H pylori serology. Alternatively a urea breath test can be ordered if available. If positive they should be treated with quadruple therapy for 14 days. A follow up urea breath test should be done at least 4 weeks after finishing treatment to assess for eradication.

Pharmacologic Treatment

Proton Pump Inhibitors	• If H. pylori is negative, or symptoms persist after H. pylori treatment, some patients may benefit from PPI therapy • Mechanism of action: Inhibits the parietal cell H+/K+ ATP pump which suppresses gastric acid secretion • Initial treatment should be once daily, 30 min before breakfast • If response is inadequate after 8 weeks, step up treatment to twice daily or switch to a different PPI • If symptoms are controlled, then recommend titrating dose down to lowest effective dose. Should attempt to either taper or stop PPI use once per year.

	• Agents available:
	  ○ Pantoprazole 40mg
	  ○ Rabeprazole 20mg
	  ○ Omeprazole 20mg
	  ○ Esomeprazole 40mg
	  ○ Lansoprazole 30mg
	  ○ Dexlansoprazole 30mg
	
	• Nonadherence to PPI use is common. If ongoing symptoms, confirm they are taking on a daily basis, at least 30 minutes before breakfast. If on twice daily dosing, second dose should be at least 30 minutes before supper meal.

Patients who are not responsive to PPI therapy, or if symptoms recur when PPI is stopped, should be referred for endoscopy to exclude a more sinister cause of symptoms.

If endoscopy is normal and dyspepsia is confirmed, proceed with optimizing medical management. Treatment is symptom-driven.

"Ulcer-like" Pain	
PPI	• If symptoms are responsive to PPI therapy recommend continuing for maintenance
Tricyclic antidepressant	• Has been shown to reduce dyspeptic symptoms in clinical trials • Mechanism of action: thought to be beyond serotonin and norepinephrine, and as a result of blocking voltage-gated ion channels, opioid receptor activation and potential neuro-immunologic anti-inflammatory effects • If symptoms do not respond to PPI then they may benefit from a trial of a TCA • Adverse effects: anticholinergic and antihistaminic (constipation, urinary retention, drowsiness/insomnia, weight gain, dry mouth) • Use with caution in patients with a prolonged QT • It can take 2-3 months to reach full effect. Lowest effective dose should be used. • If not effective should be gradually withdrawn (tapered) Recommended medications: Amitriptyline: 10-25mg qhs. Increase by 10-25mg every 3-4 weeks based on response and tolerability. May need target of 25-75mg/day.

	Nortriptyline: 10-25mg qhs. Increase by 10-25mg every 3-4 weeks based on response and tolerability. May need target of 25-75mg/day. Desipramine: 25mg qhs. Increase based on response and tolerability.
Post-prandial distress syndrome (bloating, early satiety)	
Prokinetic	• Domperidone: increases esophageal peristalsis, increases lower esophageal sphincter pressure, improves gastric emptying and peristalsis. • In patients who have not responded to PPI or TCA, domperidone could be considered. Ensure there is no prolonged QT on baseline EKG. • Withhold treatment if QTc is >470ms in males and >450ms in females • Starting dose is 5mg tid 30-60min before meals, can titrate up to 10mg tid before meals as a 2-4 week trial.
Gastric accommodation	• Buspirone: agonist of serotonin receptor 5HT-1A. Relaxes proximal stomach (fundus) and increases gastric accommodation • Has been shown to improve symptoms of postprandial fullness, upper abdominal bloating and early satiety • Recommended dose is 10mg tid for a 4 week trial (in studies given 15min before meals)

When Should I Refer my Patient to a Specialist?

1. **If alarm features are present**
2. **If patient has inadequate response to PPI therapy, after compliance and adherence has been confirmed**
3. **Responsive to PPI but symptoms recur when PPI is discontinued**
4. **Unsatisfactory response to pharmacologic therapy**

Appendix B – Patient Information

Please note: This information is intended to be given to the patient, either as a handout or in the form of a conversation with their primary care provider.

What is dyspepsia?

- Dyspepsia refers to a collection of symptoms more commonly referred to as "indigestion"
- Symptoms can include upper abdominal discomfort, nausea, vomiting, bloating, belching, and feeling uncomfortably full after meals
- The symptoms tend to come and go and may be worse after eating large meals, eating too quickly or eating late at night.

What lifestyle changes can I make to help my symptoms?

- Identify foods that may cause symptoms and try to eliminate or avoid them
    - Spicy foods, fatty foods, acidic foods, coffee, mint, chocolate are common triggers
- Eat smaller meals throughout the day
- Avoid lying down 2-3 hours after eating
- Weight loss, if needed
- Stop or reduce alcohol, tobacco and cannabis
- Avoid wearing tight fitting clothing around your midsection
- Avoid NSAIDS (example: ibuprofen)—review current prescription and over the counter medications with your primary care physician to determine if any could be contributing to your symptoms

What tests may need to be done?

- You may require blood tests or a breath test to rule out H. pylori as a cause of your symptoms
- Other investigations are rarely needed

Tell your health care provider if you have the following symptoms:

- Trouble swallowing or painful swallowing
- Black, tarry stool
- Vomiting that doesn't stop
- Vomiting with blood
- Unintentional weight loss

Medication that may be tried

- Many different medications can be used to lower the amount of acid in your stomach, help with stomach emptying, or help to decrease stomach pain. This should be discussed further with your primary care physician.

Additional Resources

General information on Dyspepsia
https://cdhf.ca/digestive-disorders/dyspepsia/what-is-dyspepsia/

Patient Education: Upset Stomach (functional dyspepsia) in Adults (Beyond the Basics)
https://www.uptodate.com/contents/upset-stomach-functional-dyspepsia-in-adults-beyond-the-basics

Appendix C – Endnotes

Dyspepsia Primary Care Pathway. Alberta Health Services and Primary Care Networks. 2021. https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-dh-pathway-dyspepsia.pdf

Moayyedi P et al. ACG and CAG clinical guideline: Management of dyspepsia. *American Journal of Gastroenterology.* (2017) 112:988-1013.

Tack J. et al. Efficacy of Buspirone, a fundus-relaxing drug, in patients with functional dyspepsia. *Journal of Clinical Gastroenterology.* (2012) 10:1239-45.