GI CENTRAL
Access & Triage

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Secure Fax: 1-888-398-7091

CONFIRMATION: Referral Received

TRIAGE CATEGORY: Enhanced Primary Care Pathway

REFERRAL STATUS: **CLOSED**

DYSPEPSIA

Dear Colleague,

The clinical and diagnostic information you have provided for the above-named patient is consistent with dyspepsia. Based on full review of your referral, it has been determined that **management of this patient within an Enhanced Primary Care Pathway is appropriate, without need for specialist consultation at this time.**

This clinical pathway has been developed by the Division of Gastroenterology in partnership with the South Island and Victoria Divisions of Family Practice. These local guidelines are based on best available clinical evidence, and are practical in the primary care setting. This package includes:

1. Focused summary of dyspepsia relevant to primary care
2. Checklist to guide your in-clinic patient review
3. Links to additional resources for this specific condition
4. Clinical flow diagram with expanded detail

This referral is CLOSED.

If you would like to discuss this referral, one of our Gastroenterologists is available for phone advice via the South Island RACE program 08:00-17:00 weekdays. This service is accessible by downloading the RACEApp+ on your smart phone.

If your patient completes the Enhanced Primary Care Pathway and remains symptomatic or if your patient's status or symptoms change, a new referral indicating 'completed care pathway' or 'new information' should be faxed to 1-888-398-7091.

Thank you.

Kevin Rioux, MD PhD FRCPC
Medical Lead, Victoria GI Central Access and Triage
Division of Gastroenterology

Enhanced Primary Care Pathway: DYSPEPSIA

1. Focused summary of dyspepsia relevant to primary care

Dyspepsia refers to a symptom complex of gastroduodenal origin, characterized by epigastric pain or discomfort that may be triggered by eating and may be accompanied by a sense of abdominal distention or "bloating" and loss of appetite. The Rome III committee on functional GI disorders defines dyspepsia as one or more of the following symptoms:

- Postprandial fullness (postprandial distress syndrome)
- Epigastric pain or burning (epigastric pain syndrome)
- Early satiety

Other symptoms such as belching and nausea may occur. There is frequent overlap between dyspepsia and heartburn, which typifies gastroesophageal reflux (GERD). Irritable bowel syndrome also overlaps with functional dyspepsia, where the predominant symptom complex includes bloating and relief after defecation. See Enhanced Primary Care Pathways for GERD or IBS available at Pathways BC https://pathwaysbc.ca.

Biliary tract pain should also be considered, the classic symptom description being post-prandial (worse with fatty meals) deep-seated right upper quadrant pain that builds over several hours and then dissipates.

Dyspeptic symptoms in the general population are common: estimates as high as 30% of individuals experience dyspeptic symptoms, while few seek medical care. **Although the causes of dyspepsia include esophagitis, peptic ulcer disease, *Helicobacter pylori* infection, celiac disease, and rarely neoplasia, most patients with dyspepsia have no organic disease, with a normal battery of investigations including endoscopy**.

The mechanism of this symptom complex is incompletely understood, but likely involves visceral hypersensitivity, alterations in gastric accommodation and emptying and altered central pain processing.

2. Checklist to guide your in-clinic review of this patient with dyspepsia symptoms

☐ Absence of red flag features (weight loss, anemia, iron deficiency, dysphagia, vomiting, age >50y with new symptoms)
☐ Negative urea breath test or Hp stool antigen test (must be done off PPI, H_2-receptor antagonists, antacids for minimum of 7 days, and off all antibiotics for minimum of 4 weeks)
☐ Lifestyle modifications have been discussed and patient has incorporated these into their initial treatment plan (smaller meals, avoidance of identified food triggers, appropriate weight loss, elevation of head of bed, smoking cessation)
☐ Patient adherent to trial of PPI (can start once daily then escalate to twice daily, 30 minutes before breakfast and supper for minimum of 8 weeks)

Enhanced Primary Care Pathway: DYSPEPSIA

3. Links to additional resources for physicians and patients

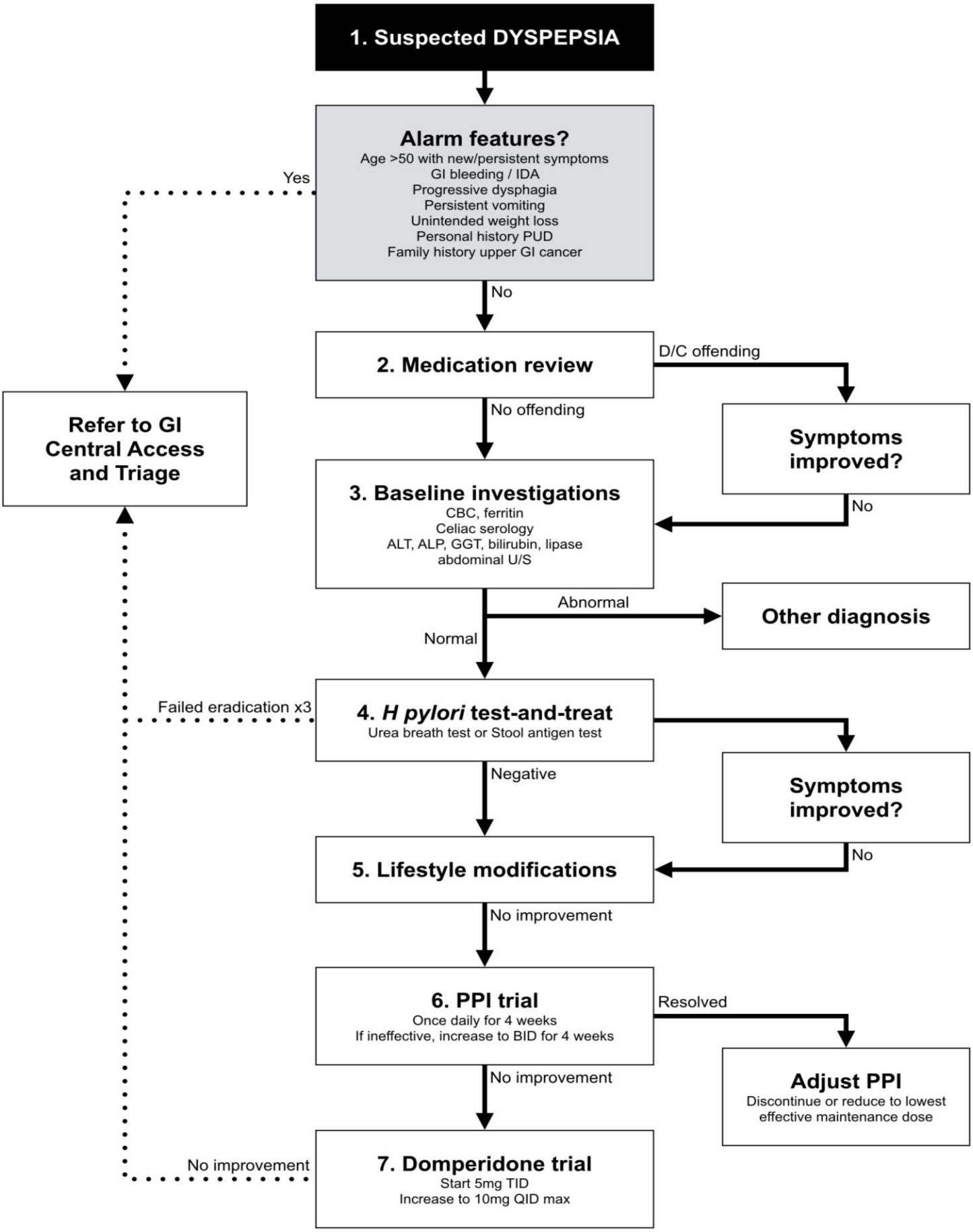
Canadian Digestive Health Foundation http://www.cdhf.ca/en/disorders/details/id/20
UpToDate® – *Beyond the Basics* Patient Information (freely accessible) http://www.uptodate.com/contents/upset-stomach-functional-dyspepsia-in-adults-beyond-the-basics?source=search_result&search=dyspepsia+patient+info&selectedTitle=2~150

4. Clinical flow diagram with expanded detail

This pathway incorporates the most current evidence-based clinical guidelines for diagnosis and management of dyspepsia, from both Gastroenterology and Primary Care literature.

Miwa *et al.* Evidence-based clinical practice guidelines for functional dyspepsia. J Gastroenterol. 50:125-39, 2015
Ansari *et al.* Initial management of dyspepsia in primary care: an evidence-based approach. Br J Gen Pract. 63:498-9, 2013
American Society of Gastrointestinal Endoscopy. The role of endoscopy in dyspepsia. Gastrointest Endosc 66:1071-5, 2007

The following is a best-practice clinical pathway for management of dyspepsia in the primary care medical home, which includes a flow diagram and expanded explanation of treatment options:


1. Suspected DYSPEPSIA
Alarm features?
Age >50 with new/persistent symptoms
GI bleeding / IDA
Progressive dysphagia
Persistent vomiting
Unintended weight loss
Personal history PUD
Family history upper GI cancer
Yes
No
Refer to GI Central Access and Triage
2. Medication review
D/C offending
No offending
Symptoms improved?
No
3. Baseline investigations
CBC, ferritin
Celiac serology
ALT, ALP, GGT, bilirubin, lipase
abdominal U/S
Abnormal
Other diagnosis
Normal
Failed eradication x3
4. H pylori test-and-treat
Urea breath test or Stool antigen test
Negative
Symptoms improved?
No
5. Lifestyle modifications
No improvement
6. PPI trial
Once daily for 4 weeks
If ineffective, increase to BID for 4 weeks
Resolved
Adjust PPI
Discontinue or reduce to lowest effective maintenance dose
No improvement
No improvement
7. Domperidone trial
Start 5mg TID
Increase to 10mg QID max

Flow Diagram: DYSPEPSIA Diagnosis and Management - Expanded Detail

1. **Establish the diagnosis of dyspepsia** as defined above through history and physical examination, excluding worrisome features or red flags. In the presence of any red flags, referral to Gastroenterology for consideration of urgent endoscopic investigation is recommended, even though the predictive value of these features is somewhat limited.

2. **Review of the patient's medication profile** should be undertaken to try to identify obvious culprits such as ASA/NSAIDs/COX-2 inhibitors, steroids, bisphosphonates, calcium channel blockers, antibiotics, iron or magnesium supplements. Any new or recently prescribed medication, over the counter or herbal/natural product may be implicated as virtually all medications can cause GI upset in some patients.

3. **Baseline Investigations** aimed at identifying concerning features or clear etiologies:
    - CBC and ferritin
    - Anti-tissue transglutaminase has >95% sensitivity to rule out celiac disease
    - ALT, ALP, GGT, and lipase, aimed at identifying a hepatobiliary or pancreatic source of pain
    - If pain is consistent with biliary colic or liver enzymes or lipase are abnormal or there is a palpable abdominal mass, obtain a trans-abdominal ultrasound.
    - Upper GI series may be considered, but is low yield for relevant findings, as is endoscopy

4. **Test and treat *Helicobacter pylori*** by urea breath test (UBT) or Hp stool antigen test. This strategy is based on evidence that some dyspeptic patients are colonized by *H. pylori* and will have underlying peptic ulcer disease or gastritis.
    - If the UBT is positive, the latest Canadian consensus guidelines recommend quadruple therapy regimens (see table below).
    - **Triple therapy (PPI + clarithromycin + amoxicillin or metronidazole) is no longer recommended**, as studies of Hp isolates in Canada suggest 25-30% are resistant to metronidazole and 15-20% are resistant to clarithromycin.
    - With the exception of the rifabutin-based regimen, **all treatments for Hp should be 14 days duration**.
    - **ALWAYS discuss with your patient the possible minor or serious adverse effects of antibiotics.** See *Enhanced Primary Care Pathway H. Pylori* for additional detail, which includes useful patient information handouts.
    - If fails third line therapy, consider referral to Gastroenterology or discussion via GI RACE App before proceeding to Rifabutin-based treatment.

5. **Lifestyle modification.** There are few studies to support specific dietary recommendations, but a trial of various dietary exclusions under the guidance of a nutritionist or registered dietician may be helpful, including avoidance of lactose and foods high in fructose (FODMAPs).

6. **Empiric anti-secretory medication trial.** In the absence *H. pylori* infection or continued symptoms despite successful *H. pylori* eradication, a trial of standard dose PPI for 4-8 weeks may benefit some patients. PPIs are favoured over H2-receptor antagonists. Initial therapy should be once daily, 30min before breakfast. If there is no significant symptomatic improvement after 4 weeks, step up to BID

dosing or switch to another PPI. If symptoms are then controlled, it is advisable to titrate down to the lowest effective dose. See Choosing Wisely Canada *Bye Bye PPI Toolkit* at:

https://choosingwiselycanada.org/wp-content/uploads/2017/07/CWC_PPI_Toolkit_v1.2_2017-07-12.pdf

7. **Trial of motility agents.** Although delayed gastric emptying can be demonstrated in 30-80% of patients with dyspepsia, gastric emptying studies are not part of routine investigation of dyspepsia. Prokinetic agents improve gastric emptying, and some patients may find clinical benefit. Domperidone can be used in escalating doses, starting at 5mg TID before meals and titrating up to 10mg PO QID as a 2-4 week trial.

   There are insufficient data to recommend the routine use of bismuth, antacids, simethicone, misoprostol, anti-cholinergics, anti-spasmodics, TCAs, SSRIs, herbal therapies, probiotics or psychological therapies in functional dyspepsia. However, these therapies may be of benefit in some patients, and thus a trial with assessment of response is reasonable and is unlikely to cause harm.

Canadian Association of Gastroenterology Guidelines for Treatment of *H. pylori*

<table>
<tr><th colspan="3">First Round</th></tr>
<tr><td>CLAMET Quad for 14 days
PPI standard dose BID
Clarithromycin 500mg BID
Amoxicillin 1000mg BID
Metronidazole 500mg BID</td><td>OR</td><td>BMT Quad for 14 days
PPI standard dose BID
Bismuth subsalicylate 524mg QID
Metronidazole 375mg QID
Tetracycline 500mg QID</td></tr>
<tr><th colspan="3">Second Round</th></tr>
<tr><td colspan="3">If CLAMET Quad was used as initial treatment, then use BMT Quad for second round
If BMT Quad was used as initial treatment, then use CLAMET Quad or consider Levo-Amox</td></tr>
<tr><th>Third Round</th><th colspan="2">Fourth Round</th></tr>
<tr><td>Levo-Amox for 14 days
PPI standard dose BID
Amoxicillin 1000mg BID
Levofloxacin 250 mg BID</td><td>Rif-Amox for 10 days
PPI standard dose BID
Rifabutin 150mg BID
Amoxicillin 1000mg BID</td><td>IMPORTANT: Rif-Amox should only be considered after failure or intolerance of other regimens. Rifabutin has rarely been associated with potentially serious myelotoxicity. The pros and cons of giving fourth-line therapy should be decided on a case-by-case basis.</td></tr>
<tr><td colspan="3">Standard doses of PPIs are: omeprazole 20mg, rabeprazole 20mg, lansoprazole 30mg, pantoprazole 40mg, esomeprazole 40mg, and dexlansoprazole 30mg</td></tr>
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