Toward Optimized Practice

DIAGNOSIS AND TREATMENT OF CHRONIC UNDIAGNOSED DYSPEPSIA IN ADULTS

Clinical Practice Guideline | January 2009

OBJECTIVE

For Alberta clinicians to understand the approach to patients with dyspepsia, including non-invasive and invasive testing, alarm features suggesting significant pathology, and the role of *Helicobactor pylori* .

TARGET POPULATION

Adults

EXCLUSIONS

Pregnant or breastfeeding women

Children under 18 years of age

Dyspepsia is a symptom complex often associated with diseases of the upper gastrointestinal tract.[1] Dyspepsia symptoms include but are not limited to upper abdominal (epigastric) pain or discomfort, nausea, upper abdominal bloating, fullness, excessive burping or belching and early satiety.

Heartburn and regurgitation are symptoms most commonly associated with gastroesophageal reflux disease (GERD) but these symptoms can occur in dyspepsia together with the other listed upper GI symptoms.

RECOMMENDATIONS

✓ Inquire about precipitating factors (see Table 1) and attempt to correct (see Algorithm).

PRECIPITATING FACTORS
• NSAID/ASA use and other prescription medications (i.e., calcium channel blockers, bisphosphonates) • Smoking and excessive alcohol use • Dietary indiscretion (high fat meals)

Table 1: Precipitating Factors

✓ Assess with timely investigation* – preferably including endoscopy – for patients with:

- New onset persistent dyspepsia in patients (> 50 years of age)
- No response or limited response to acid-suppression treatment
- Dyspepsia and any alarm features

**Consider imaging (barium swallow or CT scanning) if gastroscopy is not readily available.*

- Alarm Features can be recalled by the mnemonic **VBAD**.

PRACTICE POINT

Patients ≥50 years of age with new onset of dyspepsia and/or those with evidence of alarm features should usually be investigated with endoscopy

These 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.

- ✓ If symptoms (dominant heartburn, retrosternal burning, regurgitation) suggest GERD, refer to the Toward Optimized Practice (TOP) clinical practice guideline (CPG) for Treatment of Gastroesophageal Reflux Disease (GERD)

- ✓ **Consider testing for Helicobacter pylori with urea breath test (UBT) for dyspeptic patients:**
  - <50 years of age without alarm features and with symptoms that do not suggest GERD

  NOTE: Prior to testing for H. pylori with UBT, a three-day washout period is recommended following proton pump inhibitor (PPI) use and four weeks following antibiotic use (as per Dynalife or CLS instructions).

  If UBT is positive refer to TOP's CPG Treatment of Helicobacter Pylori Infection in Adults

  - ✓ If UBT is negative, consider trial of empiric acid suppression therapy (see Empiric Therapy below).

EMPIRIC ACID SUPPRESSION THERAPY

- ✓ PPI (first line) **or** H_2 receptor antagonist (H_2HR) (alternate)
- ✓ Reassess therapy in four to eight weeks
  - Symptoms resolved: stop treatment (or use medications as needed)
    - Symptoms improved: repeat treatment or consider twice daily PPI for another four to eight weeks
  - NO change in symptoms: consider further investigation or referral to gastroenterologist/endoscopist

> **PRACTICE POINT**
>
> *Always consider pathologies other than upper gastrointestinal (UGI) tract (i.e., cardiac, hepatobiliary, colonic, musculoskeletal) in the differential diagnosis and investigate and treat accordingly*

BACKGROUND

INTRODUCTION

Dyspepsia is a common complaint seen in primary care[2] and includes symptoms of upper abdominal discomfort or pain, retrosternal pain, nausea, bloating, fullness, excessive burping or belching, early satiety and heartburn amongst others. A definitive clinical diagnosis can be difficult to make based on these symptoms because few symptoms are discriminatory.

Many diseases can cause dyspepsia, including peptic ulcers (duodenal or gastric ulcers), GERD, cancer of the stomach and pancreas, and gallstones. However, many patients with dyspepsia will not have evidence of underlying organic disease – this is referred to as functional dyspepsia.[3] Clinicians

can detect serious disease by identifying alarm features, testing selected patients for H. pylori and if necessary, investigations such as gastroscopy or diagnostic imaging can be performed.

DISEASE PREVALENCE

Dyspepsia is one of the most common symptoms that trigger a patient visit to a health care provider.[4] Surveys in western societies have reported prevalence between 21 to 45%.[5-7] In the United Kingdom, it has been estimated that approximately 40% of the population will experience dyspepsia at some point, about 20% used medications for symptom relief and 2% lost time from work because of dyspepsia.

The Canadian Adult Dyspepsia Empiric Treatment – Prompt Endoscopy (CADET–PE) study reported prevalence of significant endoscopic findings in patients presenting with uninvestigated dyspepsia in primary care. Clinically significant endoscopic findings from this study are as follows:[8]

Clinically significant endoscopic findings	Patient participants (all ages) N=1040
Erosive esophagitis	43%
Gastric or duodenal ulcers	5.3%
Malignancies (only found in patients over 50 with no alarm features)	(0.2%)

Table 2: Prevalence of significant endoscopic findings in patients presenting with uninvestigated dyspepsia

PATIENT HISTORY

If heartburn and regurgitation are the dominant symptoms, the patient should be treated as having GERD. However, many dyspepsia patients often present with non-specific symptoms, which may make diagnosis challenging. Consideration should be given to non-UGI causes (such as cardiac, hepatobiliary, colonic, musculoskeletal) and other organic pathologies.[9]

Patient history and physical examination should focus on detecting clinical alarm symptoms including (pneumonic 'VBAD') **V**omiting, **B**leeding, Anemia, Abdominal mass/anorexia/weight loss, **D**ysphagia/odynophagia). Other important features in the patient's history include:

- Past or family history of relevant diseases (peptic ulcer disease, gastric cancer, cholilithiasis)
- Medication use: NSAID/ASA, calcium channel blockers, bisphosphonates
- Smoking, excessive alcohol intake
- Dietary indiscretion (high fat meals)

IDENTIFYING PATIENTS WHO DO REQUIRE EARLY ENDOSCOPY

As the incidence of gastric cancer begins to increase at the age of 50 years, it is reasonable to discuss endoscopy with patients over 50 years of age with new-onset dyspepsia.[1,10] In addition, patients whose symptoms have failed to respond to empiric therapy should undergo gastroscopy.[11]

Anecdotally, most patients with an upper gastrointestinal malignancy likely will have alarm features when they present for investigation and should have prompt gastroscopy.

NSAIDs/ASA

NSAID induced ulcer disease is a major epidemiologic problem.[11] As up to 10% of individuals using NSAIDs/ASA longer than 12 weeks have endoscopic evidence of ulceration, it is important to determine if the dyspeptic patient has a history of NSAID/ASA use. If there are no alarm symptoms and the patient is on NSAIDs/ASA, try to discontinue the NSAID/ASA.[12] If symptoms resolve, no further treatment is indicated. If NSAIDs/ASA cannot be discontinued consider lowest possible dose and/or initiate PPIs.[13–15] If the symptoms persist despite treatment, further investigation and possible endoscopy is indicated.

There is a synergistic effect association between *H. pylori* infection and NSAIDs/ASA in causing peptic ulceration, and its complications.[16,17] For this reason, patients in whom you anticipate requiring long term NSAIDs may benefit from searching for and eradicating *H. pylori.* (See TOP's Treatment of Helicobacter Pylori Infection in Adults CPG.)

Lifestyle Modifications

Patients should be advised to stop smoking and reduce alcohol intake. Obvious dietary indiscretions should be addressed. However, there is no evidence that completely avoiding coffee, tea and/or chocolate is necessary.

GERD

Once patients with reflux-like symptoms are identified, they can be managed as per TOP's CPG for Treatment of GERD.

Test for H. pylori and Treat

The "test for *H. pylori* and treat" approach to dyspepsia is based on the knowledge that some dyspepsia patients have symptoms associated with duodenal or gastric ulcers, while a small proportion of other patients with non-ulcer dyspepsia have symptom improvement when their *H. pylori* infection is cured.[18,19] One study reported that in Canadians with uninvestigated dyspepsia, using the test and treat approach resulted in more pain-free patients in one year than those patients treated with empiric acid suppression alone (50% vs 36%, ARD=14, NNT=7).[18] If there are no alarm symptoms, a UBT should be performed and, if positive, the infection should be treated. (See TOP's clinical practice guideline Treatment of Helicobacter Pylori Infection in Adults)

For those patients with dyspepsia who are *H. pylori* negative, evidence supports acid suppression therapy with PPIs or H2RAs.[19] Patients who test negative for H. *pylori* should be treated with a PPI or H_2RA for four weeks and then reassessed to determine whether their symptoms improved.[11] The evidence for effectiveness of prokinetic agents is limited and concerns exist about potential adverse events (including tardive dyskinesia[20] and prolonged QT syndrome[21] and they are generally not recommended.[22]

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SUGGESTED CITATION

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GUIDELINE COMMITTEE

The committee consisted of representatives of family medicine, general practice, gastroenterology, pediatric gastroenterology, pathology, radiology, radiation oncology, infectious disease, the public and the Alberta Pharmaceutical Association.

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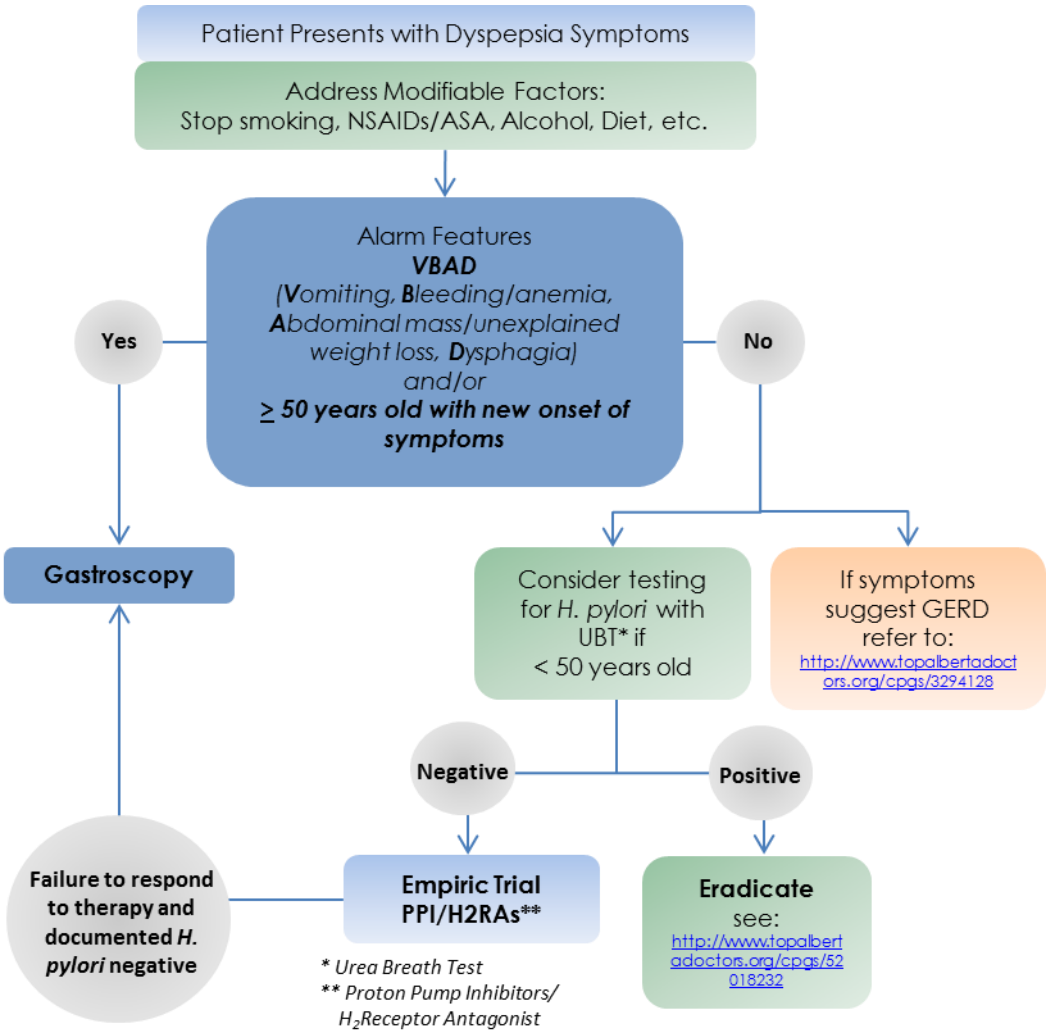
ALGORITHM

DIAGNOSIS AND TREATMENT OF CHRONIC UNDIAGNOSED DYSPEPSIA IN ADULTS †



† Excluding pregnant or breastfeeding women and children under 18 years