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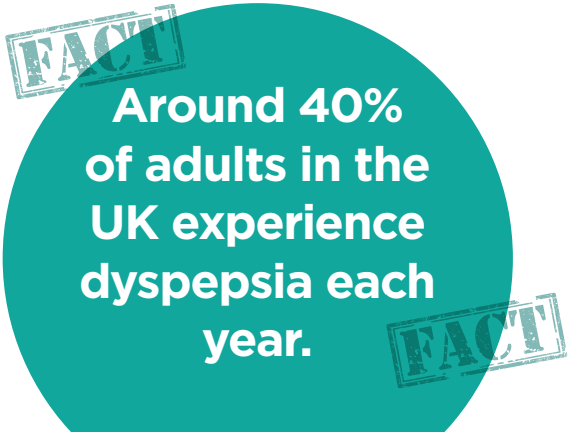
Dyspepsia - A Clinical Review

Around 40% of adults in the UK experience dyspepsia each year. It accounts for 4% of GP consultations and is estimated to cost the NHS approximately £1 billion pounds annually. Whilst it is not associated with increased mortality it often has a significant impact on quality of life and therefore is important to both patients and doctors.

What is Dyspepsia?

Although most of us know what dyspepsia means, formulating a definition is more difficult. NICE use a very broad definition of "a group of symptoms that alert to the UGI tract. These include upper abdominal pain or discomfort, heartburn, gastric reflux, nausea or vomiting." More often dyspepsia is thought of as having upper abdominal pain as its predominant feature, whereas in gastro-oesophageal reflux it is substernal burning or regurgitation.



Common Differentials

1. **Biliary Pain**
   The pain of cholecystitis and biliary colic, together with dyspepsia, are the commonest differentials of upper adnominal pain and although classically right sided, can often be epigastric. A useful clue can sometimes be that biliary pain is usually more intense (8/10 compared to 3-4/10 for dyspepsia) and intermittent, with periodic attacks lasting several hours with completely pain free periods in between. In contrast dyspepsia is usually more constant and chronic.

2. **Pancreatic Pain**
   Pancreatic pain like dyspepsia is usually epigastric and chronic, often with radiation to the back. Ultrasound is frequently inadequate at visualising the pancreas which is why referral should be considered for patients with upper abdominal pain not responding to treatment.

3. **Mesenteric Angina**
   This causes a severe post prandial pain and is more common in patients with pre-existing vascular disease or risk factors. It is often sufficiently intense to cause a fear of eating leading to weight loss.

4. **Cardiac Pain**
   Atypical cardiac pain should always be considered and actively excluded.

Who to Refer

Same Day Referral

NICE recommend same day referral for patients with evidence of significant acute GI bleeding. However, in my opinion, determining the significance of GI bleeding can be clinically difficult so I would broaden this to recommend same day referral for all patients with acute GI bleeding.

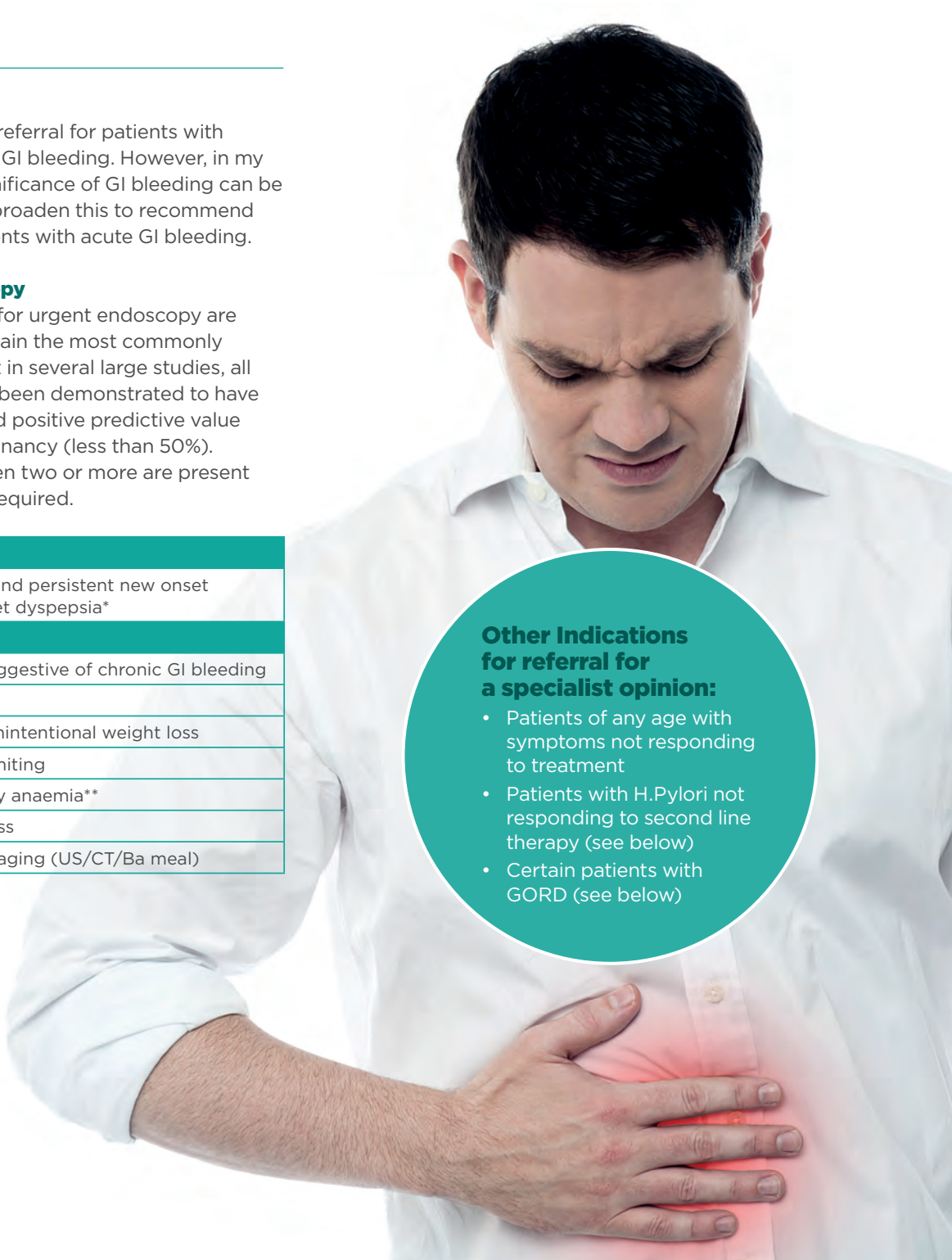
Referral for Urgent Endoscopy

The NICE criteria for referral for urgent endoscopy are shown below and rightly remain the most commonly applied. The challenge is that in several large studies, all of these alarm features have been demonstrated to have a relatively low sensitivity and positive predictive value for predicting upper GI malignancy (less than 50%). Their reliability increases when two or more are present and therefore clinical skill is required.

Age over 55	
	Unexplained and persistent new onset or recent onset dyspepsia*
Any Age	
	Symptoms suggestive of chronic GI bleeding
	Dysphagia
	Progressive unintentional weight loss
	Persistent vomiting
	Iron deficiency anaemia**
	Epigastric mass
	Suspicious imaging (US/CT/Ba meal)

*In the context of this recommendation, the primary care professional should confirm that the dyspepsia is new rather than a recurrent episode and exclude common precipitants of dyspepsia such as NSAIDS

**Current British Society of Gastroenterology guidance suggests only men and post-menopausal women should be referred.



Other Indications for referral for a specialist opinion:

- Patients of any age with symptoms not responding to treatment
- Patients with H.Pylori not responding to second line therapy (see below)
- Certain patients with GORD (see below)

Treatment of Univestigated Dyspepsia

It is worthwhile reviewing other prescribed medications for contributing factors (calcium antagonists, bishphosponates, nitrates, NSAIDS, corticosteroids).

Life style factors (smoking, alcohol, excessive caffiene, being overweight, elevating the head of the bed, and avoiding large meals especially late in the evening) should also be discussed.

"Test and Treat" or "Treat and Test"

NICE suggest that patients should be offered either a four week course of PPI or be tested for H.Pylori with eradication therapy if positive. However, as the prevalence of H.Pylori is now less than 15% in most areas of the UK, I would agree with the HPA who suggest a month course of PPI should be usual first line.

Helicobacter Pylori

Serology is no longer recommended to test for helicobacter, but rather stool antigen or urea breath test. Stool antigen is now widely available and therefore most commonly used. A 2 week washout for PPI and a 4 week washout period for antibiotics is required and, although the evidence is less certain, probably a similar period for ranitidine. As patients with severe symptoms often find this difficult to manage, in my experience, it is often more practical to test for H.Pylori before starting PPI although obviously there is an extra cost incurred.

Standard first line therapy is a seven day treatment course with BD PPI, amoxicillin 1g bd and either clarithromycin 500mg bd or metronidazole 400mg bd. For patients who are penicillin allergic or still symptomatic, a second seven day course of treatment can be offered using an alternative combination of antibiotics (see NICE Dyspepsia guidance 2014).

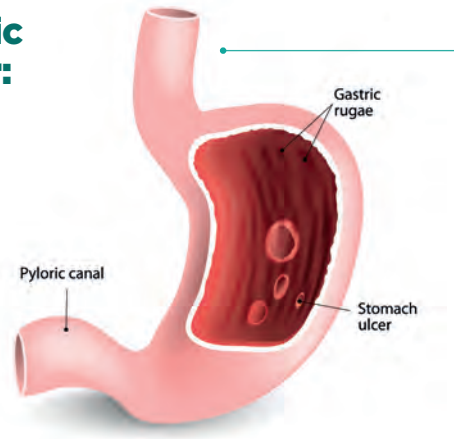
Medical bacteria illustration of the Helicobacter Pyloris.

Gastroeosophageal Reflux and Barretts

In general it is impractical to consider endoscoping every patient with reflux and so, as per NICE recommendations, patients with GORD symptoms without criteria for urgent referral should initially be treated symptomatically. H.Pylori eradication is less likely to be of benefit so a 4-8 week course of PPI is the usual initial approach. If symptoms recur patients can be stepped down to the lowest dose of PPI either continuously or intermittently to control symptoms.

The clinical challenge is trying to identify the patients within this cohort who might have Barrett's oesophagus, a premalignant condition for oesophageal cancer, where the lining of the distal oesophagus changes to columnar mucosa. These patients benefit from endoscopic surveillance and recently developed endoscopic techniques, such as HALO ablation therapy and enodmucosal resection, can now be used to treat any areas of high grade dysplasia which develop avoiding the previous need for oesophagectomy. This is recognised in the NICE 2014 Dyspepsia guidelines which state endoscopy "should be considered in patients with GORD symptoms". Risk factors for the development of Barrett's oesophagus are being overweight, male and smoking and having longstanding symptoms or requiring continuous medication. I would therefore suggest that these might be the sort of patient with whom referral should be discussed.

Peptic Ulcer:



Treatment of Certain Specific Conditions Post Endoscopy

Functional Dyspepsia

The majority of patients with dyspepsia will have a normal endoscopy. However these patients do benefit from H.Pylori eradication (Number Needed to Treat (NNT) 16) and so this should be tested for and treated, although retesting for successful eradication is usually best avoided. As before the principle of addressing lifestyle and other factors as well as reducing PPI and H2 antagonist to the lowest and least frequently used dosing regime possible should be applied.

Peptic Ulcers

All patients with proven gastric or duodenal ulcers should be tested for H.Pylori and have eradication therapy if positive in combination with a six week course of PPI. As the NNT to prevent ulcer recurrence is low at 2-3 they should be retested after eight weeks and treated again if still positive. Future long term NSAID use is best avoided or a COX-II inhibitor used if this is not possible.

Severe or Complicated Oesophagitis

Patients with severe oesophagitis or any of the long term consequences of GORD such as Barrett's or stricturing should be given long term PPI at adequate dose to give good symptom control.

FACT

The majority of patients with dyspepsia will have a normal endoscopy.