MANAGEMENT OF DYSPEPSIA AND GASTRO-OESOPHAGEAL REFUX DISEASE (GORD)

- Routine endoscopic investigation of patients of any age, presenting with dyspepsia and without ALARM signs, is not necessary. Alarm signs and signals are the major determinant of the need for endoscopy, not age on its own.

- Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) to assess for oesophago-gastric cancer in people:
  - with dysphagia or
  - aged 55 and over with weight loss and any of the following:
    - upper abdominal pain
    - reflux
    - dyspepsia

- Consider non-urgent upper gastrointestinal endoscopy to assess for oesophago-gastric cancer in people with haematemesis.

- Consider non-urgent upper gastrointestinal endoscopy to assess for oesophago-gastric cancer in people aged 55 or over with:
  - treatment-resistant dyspepsia or
  - upper abdominal pain with low haemoglobin levels or
  - raised platelet count with any of the following:
    - nausea
    - vomiting
    - weight loss
    - reflux
    - dyspepsia
    - upper abdominal pain, or
  - nausea or vomiting with any of the following:
    - weight loss
    - reflux
    - upper abdominal pain

- For the management of un-investigated dyspepsia use clinical judgement to offer either H. pylori “test-and-treat” or full dose PPI for one month. The stool antigen test is the preferred H pylori test across Derbyshire.

- Consider a referral to a specialist service for people of any age with gastro-oesophageal symptoms where H pylori that has not responded to second-line eradication therapy

- Patients should receive an annual review of their condition. Patients on a long-term PPI for GORD should be encouraged to either step-down to the lowest effective dose to control symptoms, continue treatment on a when needed bases or stop treatment

- Long-term use of PPIs is associated with adverse effects eg. hip fractures, hypomagnesaemia and Clostridium difficile. See local PPI guideline.
Dyspepsia
The British Society of Gastroenterologists (BSG) defines dyspepsia as a group of symptoms that alert doctors to consider disease of the upper GI tract, and states that dyspepsia itself is not a diagnosis. These symptoms, which typically are present for 4 weeks or more, include upper abdominal pain or discomfort, heartburn, gastric reflux, nausea or vomiting. Some of the costs associated with treating dyspepsia are decreasing, but the overall use of treatment is increasing. As a result, the management of dyspepsia continues to have potentially significant costs to the NHS.

Management of symptoms in primary care is appropriate for most patients rather than routinely seeking a pathological diagnosis. Long-term care should emphasise patient empowerment, for example by promoting 'on demand' use of the lowest effective dose.

Alarm signals and signs are the major determinant of the need for endoscopy, not age on its own.

Functional dyspepsia
Functional dyspepsia refers to patients whose endoscopic investigation has excluded gastric or duodenal ulcer, malignancy or oesophagitis.

Gastro-oesophageal reflux disease (GORD)
GORD is a chronic condition where gastric juices from the stomach (usually acidic) flow back up to the oesophagus. It can be severe or frequent enough to cause symptoms, or damage the oesophagus or both. There are several risk factors for GORD including hiatus hernia, certain foods, heavy alcohol use, smoking, pregnancy.

Helicobacter pylori
Helicobacter pylori infection is associated with up to 95% of duodenal and 70% of gastric ulcers, and with the development of gastric cancer and gastric mucosa-associated lymphoid tissue (MALT) lymphoma. H. pylori infection may also be associated with functional dyspepsia, though its role in this condition is less clear. No causative association with GORD and oesophagitis has been demonstrated.

Test for H. pylori using a stool antigen test. Near-patient H. pylori serology tests cannot be recommended as they are not accurate enough.

Self-care
Include life style changes (healthy eating, weight reduction, stop smoking) or using over the counter antacid and/or alginate therapy. However, long-term, frequent dose, continuous antacid therapy is not recommended.
Management of dyspepsia and GORD

New episode of dyspepsia

2WW referral criteria met*

Yes

Suspend NSAID use and review medication for possible causes of dyspepsia**

No

Endoscopy findings

Normal/minor abnormalities

Upper GI malignancy

GORD

PUD

Refer to upper GI MDT

Treat as un-investigated dyspepsia Page 4

Treat as functional dyspepsia Page 5

Treat as gastro-oesophageal reflux disease (GORD) Page 6

Treat as peptic ulcer disease (PUD) Page 7 (duodenal ulcer) Page 8 (gastric ulcer)

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*ALARM FEATURES REQUIRING REFERRAL VIA 2 WEEK WAIT SYSTEM

- Dysphagia or
- Aged 55 and over with weight loss and any of the following:
  - upper abdominal pain
  - reflux
  - dyspepsia
- Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for people with an upper abdominal mass consistent with stomach cancer.

Consider non urgent upper gastrointestinal endoscopy:

- to assess for oesophago-gastric cancer in people with haematemesis
- to assess for oesophago-gastric cancer in people aged 55 or over with
  - treatment-resistant dyspepsia or
  - upper abdominal pain with low haemoglobin levels or
  - raised platelet count with any of the following:
    - nausea
    - vomiting
    - weight loss
    - reflux
    - dyspepsia
    - upper abdominal pain, or
  - nausea or vomiting with any of the following:
    - weight loss
    - reflux
    - dyspepsia
    - upper abdominal pain

** Review medication for possible causes of dyspepsia e.g.:
Calcium antagonists, nitrates, theophylline, bisphosphonates, steroids, NSAIDs and SSRIs
Interventions of un-investigated dyspepsia

Dyspepsia not needing referral

Review medication for possible cause of dyspepsia e.g. calcium antagonists, nitrates, theophylline's, bisphosphonates, steroids, SSRIs, and NSAIDs

Lifestyle advice:
- Healthy eating
- Weight reduction
- Smoking cessation
Promote self-care (which may include OTC PPIs)

Offer one of the following strategies to depending on clinical judgement

Test and treat for H. Pylori infection if the person’s status is not known or Full dose PPI for 1 month

No response or relapse

Test and treat, leave a 2-week washout period after PPI use before testing for Helicobacter pylori

No response

Low-dose treatment as required

Response

H2RA for 1 month

No response

Response

Review1

Return to self-care

1 In some patients with an inadequate response to therapy it may become appropriate to refer to a specialist for a second opinion. Emphasise the benign nature of dyspepsia. Review long-term patient care at least annually to discuss medication and symptoms

For full and double doses of PPI see appendix 1
Management of functional dyspepsia

1 In some patients with an inadequate response to therapy or new emergent symptoms it may become appropriate to refer to a specialist for a second opinion.
Management of gastro-oesophageal reflux disease (GORD) post endoscopy

Confirmed endoscopy diagnosis of GORD

Oesophagitis

Yes

Severe grade?

No

Full dose PPI for 8 weeks

No response or relapse

Double-dose PPI for 1 month

Low dose treatment as required

Response

H2RA for 1 month

Response

Review at least annually ¹

No response

Low dose PPI for 8 weeks

No response

Low dose treatment as required

Discuss patient preferences and risk factors for endoscopy to exclude Barrett’s oesophagus

Manage as uninvestigated dyspepsia – see page 4

N.b. do not ‘test & treat for GORD– there is currently no evidence that H pylori should be investigated in patients with GORD. Treating H Pylori in GORD may actually worsen it due to rebound hyperacidity

Full/ double dose PPI for 8 weeks

Symptoms persist

No response or relapse

Return to self-care

Review at least annually ¹

Symptoms resolved

Refer to specialist

Discuss patient preferences and risk factors for endoscopy to exclude Barrett’s oesophagus

Symptoms resolved

Continue full-dose PPI

Symptoms persist

Full dose PPI for 4 or 8 weeks

Response

Symptoms persist

Endoscopic negative reflux disease

¹ review long term patient care at least annually to discuss medication and symptoms. In some patients with an inadequate response to therapy or new emergent symptoms, it may be appropriate to refer to a specialist for a second opinion
Management of peptic ulcer disease post endoscopy - Duodenal ulcer

Duodenal ulcer

Stop NSAID if used

Full dose PPI for 8 weeks

1st line eradication therapy – see page

Test for H pylori

Test positive, ulcer associated with NSAID use

Test negative

Response

No response or relapse

Re-test for H pylori

Positive

2nd line eradication therapy – see page 10

Response

Low dose treatment as required

No response

Full dose PPI or H2RA for 4 to 8

No response

Exclude other cases of duodenal ulcer

Return to self-care

Review annually

1 If NSAID use is necessary, after ulcer healing offer long-term gastric protection
2 Consider:
   • Non-compliance with treatment
   • Possible malignancy
   • Failure to detect H pylori infection due to recent PPI or antibiotic use
   • Inadequate testing
   • Inadvertent use of aspirin or NSAID use
   • Ulceration due to ingestion of other drugs
   • Zollinger-Ellison syndrome
   • Crohn’s disease
3 Review care annually, to discuss symptoms, promote stepwise withdrawal of therapy when appropriate and provide lifestyle advice
Management of peptic ulcer disease post endoscopy—Gastric ulcer

Gastric ulcer

Stop NSAID if used

Full dose PPI for 8 weeks

Eradication therapy – see page 10

Endoscopy and test for H pylori

Test positive, ulcer associated with NSAID use

Test negative

Full dose PPI or H2RA for 4 to 8

Test positive, ulcer not associated with NSAID use

Test for H pylori

Low dose treatment as required

Healed

Endoscopy

Not healed

Refer to specialist

Periodic review

Return to self-care

Ulcer healed, test negative

Refer to specialist

Ulcer not healed, test negative

Ulcet not healed, test negative

Eradication therapy – see page 10

1 If NSAID use is necessary, after ulcer healing offer long-term gastric protection

2 Perform endoscopy usually 6-8 weeks after treatment

3 Review care annually to discuss symptoms, promote stepwise withdrawal of therapy when appropriate and provide lifestyle advice. In some patients with an inadequate response to therapy it may become appropriate to refer to a specialist.
Management strategy for Helicobacter pylori

Advise the person to arrange a follow-up appointment if there are refractory or recurrent symptoms following initial management.

Assess or review for
- New alarm symptoms
- Alternative diagnosis
- Alternative antacids
- Reducing dose of NSAIDs if possible and or long term gastro-protection is necessary

If the person has received first-line Helicobacter pylori eradication therapy, do not routinely offer H. pylori re-testing (use clinical judgement considering poor compliance to first-line eradication therapy, whether the initial test was performed within 2 weeks of proton pump inhibitor (PPI) or 4 weeks of antibiotic therapy, family history of gastric malignancy, severe, persistent, or recurrent symptoms.

If H. pylori re-testing is indicated, arrange this at least four weeks (ideally 8 weeks) after initial eradication therapy (if this was needed)

Consider referral from primary care if there are refractory or recurrent symptoms despite optimal management in primary care.
- If endoscopy is planned, ensure the person stops any acid suppression therapy for at least two weeks before the procedure date, and suggest self-treatment with antacid and/or alginate therapy if needed.
- Treatment with a second-line H. pylori eradication regimen has been unsuccessful

Testing

The H.pylori stool antigen test can be used both for diagnosis and post-eradication confirmation (if this is appropriate). If the patient is taking antibiotics, PPIs or bismuth, then a period of 2 weeks treatment free should elapse before testing or false negatives may occur.

To request a test, send a stool sample with a standard microbiology request form asking for H.pylori antigen test and stating whether for diagnosis or eradication confirmation.

Treatment – H.pylori eradication regimens (as recommended by NICE CG 184)

All courses are for 7 days unless stated otherwise.

If the ulcer is large or complicated by haemorrhage or perforation then the PPI should be continued for at least another 3 weeks.

First-line

Choose the treatment regimen with the lowest acquisition cost, and take into account previous exposure to clarithromycin or metronidazole

<table>
<thead>
<tr>
<th>NICE</th>
<th>RDH</th>
<th>CRH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-line treatment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lansoprazole 30mg BD or omeprazole 20 to 40mg BD</td>
<td>Omeprazole 20mg BD</td>
<td>Lansoprazole 30mg BD</td>
</tr>
<tr>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
</tr>
<tr>
<td>Either clarithromycin 500mg BD or metronidazole 400mg BD</td>
<td>Either clarithromycin 500mg BD or metronidazole 400mg BD</td>
<td>Clarithromycin 500mg BD</td>
</tr>
</tbody>
</table>

*If allergic to penicillin*

<table>
<thead>
<tr>
<th>NICE</th>
<th>RDH</th>
<th>CRH</th>
</tr>
</thead>
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<td>Clarithromycin 250mg BD</td>
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<td>Clarithromycin 250mg BD</td>
</tr>
<tr>
<td>Metronidazole 400mg BD</td>
<td>Metronidazole 400mg BD</td>
<td>Metronidazole 400mg BD</td>
</tr>
</tbody>
</table>
Second-line treatment
Offer second-line treatment to people who still have symptoms after first-line eradication treatment

<table>
<thead>
<tr>
<th>NICE</th>
<th>RDH</th>
<th>CRH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second-line treatment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lansoprazole 30mg BD or omeprazole 20 to 40mg BD</td>
<td>Omeprazole 20mg BD</td>
<td></td>
</tr>
<tr>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
<td></td>
</tr>
<tr>
<td>Either clarithromycin 500mg BD or metronidazole 400mg BD (whichever was not used first line)</td>
<td>Either clarithromycin 500mg BD or metronidazole 400mg BD (whichever was not used first line)</td>
<td>AS PER NICE/BNF</td>
</tr>
</tbody>
</table>
| **Previous exposure to clarithromycin and metronidazole**
NICE recommend 7 days, RDH recommend 10 days | | |
| Lansoprazole 30mg BD or omeprazole 20 to 40mg BD | Omeprazole 20mg BD | AS PER NICE/BNF |
| Amoxicillin 1gram BD | Amoxicillin 1gram BD |  |
| A quinolone or tetracycline 500mg BD | Levofloxacin 250mg BD (unlicensed) |  |
| **If allergic to penicillin (and no previous exposure to a quinolone)**
NICE recommend 7 days, RDH recommend 10 days | | |
| Lansoprazole 30mg BD or omeprazole 20 to 40mg BD | Omeprazole 20mg BD | AS PER NICE/BNF |
| Metronidazole 400mg BD | Metronidazole 400mg BD |  |
| Levofloxacin 250mg BD | Levofloxacin 250mg BD (unlicensed) |  |

Seek advice or consider referral to a specialist service if eradication of H pylori is not successful with second-line treatment

Reviewing patient care
Patients who need long-term management of dyspepsia symptoms should be offered an annual review of their condition. Patients should be encouraged to step down or stop treatment. It may be appropriate to advise patients to return to self-treatment with antacid and/or alginate therapy.

References
- NICE clinical guideline 184: Dyspepsia and gastro-oesophageal reflux disease, September 2014
- [www.guidelines.co.uk/nice_dyspepsia_2014](http://www.guidelines.co.uk/nice_dyspepsia_2014) – Dyspepsia and gastro-oesophageal reflux disease (accessed: November 2014)

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Dr Hal Spencer, Consultant Gastroenterologist, Chesterfield Royal Hospital NHS Foundation Trust
### Appendix 1 – Dosage information on PPIs

#### Table 1 – PPI doses

<table>
<thead>
<tr>
<th>Proton pump inhibitor</th>
<th>Full/standard dose</th>
<th>Low dose (on-demand dose)</th>
<th>Double dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lansoprazole</td>
<td>30mg once a day</td>
<td>15mg once a day</td>
<td>30mg(^1) twice a day</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>20mg once a day</td>
<td>10mg(^1) once a day</td>
<td>40mg once a day</td>
</tr>
<tr>
<td>Pantoprazole</td>
<td>40mg once a day</td>
<td>20mg once a day</td>
<td>40mg(^1) twice a day</td>
</tr>
</tbody>
</table>

\(^1\) Off-label dose for GORD

#### Table 2 – PPI doses for severe oesophagitis

<table>
<thead>
<tr>
<th>Proton pump inhibitor</th>
<th>Full/standard dose</th>
<th>Low dose (on-demand dose)</th>
<th>Double dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lansoprazole</td>
<td>30mg once a day</td>
<td>15mg once a day</td>
<td>30mg(^2) twice a day</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>40mg(^1) once a day</td>
<td>20mg(^1) once a day</td>
<td>40mg(^1) twice a day</td>
</tr>
<tr>
<td>Pantoprazole</td>
<td>40mg once a day</td>
<td>20mg once a day</td>
<td>40mg(^2) twice a day</td>
</tr>
</tbody>
</table>

\(^1\) NICE CG184 updated dosing specifically for severe oesophagitis  
\(^2\) Off-label dose for GORD