MANAGEMENT OF DYSPEPSIA AND GASTRO-OESOPHAGEAL REFLUX 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 e.g. 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
H pylori is widely present in the general population, often causing no harm, but is strongly associated with gastric and duodenal ulcers. The eradication of the bacterium is important in the management of peptic ulcer disease. 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

### Endoscopy findings

- 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)

---

### 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 (see appendix 2 for more detail)

No response

Review

Response

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

See page 9 on *H. pylori* eradication

**Functional dyspepsia**

**Yes**

*H. pylori* present

**No**

PPI or H2RA# for 4 weeks if symptoms persist

Response

No response or relapse

PPI or H2RA# at lowest possible dose to control symptoms

Response

Review¹

Discuss using PPI treatment on an ‘as-needed’ basis with people to manage their own symptoms

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

# see appendix 2 for more detail
Management of gastro-oesophageal reflux disease (GORD) post endoscopy

Management of 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

Confirms endoscopy diagnosis of GORD

- Oesophagitis
- Severe grade?
  - Yes
  - Full dose PPI for 8 weeks
  - Full dose PPI for 8 weeks
  - No:
    - Yes
      - Full dose PPI for 4 or 8 weeks
      - Double-dose PPI for 1 month
      - No response
        - Response
          - Response
          - Low dose treatment as required
          - Continue full-dose PPI
          - Review at least annually

- No:
  - Response
    - Response
      - Response
      - Low dose treatment as required
      - Continue full-dose PPI
      - Review at least annually

- No response
  - Continue full-dose PPI
  - Review at least annually

- Endoscopic negative reflex disease

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

- Refer to specialist
- Return to self-care

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

# see appendix 2 for more detail
Management of peptic ulcer disease post endoscopy - Duodenal ulcer

Duodenal ulcer

Stop NSAID if used¹

Full dose PPI for 8 weeks

Test for *H. pylori*

Test positive, ulcer not associated with NSAID use

Test negative

Full dose PPI or H₂RA (see appendix 2) for 4 to 8 weeks

Response

No response or relapse

Re-test for *H. pylori*

Positive

Low dose treatment as required

Test negative

Response

No response

Excluding other cases of duodenal ulcer²

Review annually³

Response

No response or relapse

Return to self-care

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

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

Offer people with gastric ulcer and H Pylori repeat endoscopy 6 to 8 weeks after beginning treatment, depending on the size of the lesion

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:
- compliance to first-line eradication therapy
- whether the initial test was performed within 2 weeks of proton pump inhibitor (PPI) or within 4 weeks of antibiotic therapy
- family history of gastric malignancy
- if patient has 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 PPIs or bismuth, then a period of 2 weeks treatment free should elapse before testing or false negatives may occur. If the patient is taking antibiotics, leave a period of 4 weeks treatment free period before testing.

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/BNF</th>
<th>RDH</th>
<th>CRH</th>
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</thead>
<tbody>
<tr>
<td><strong>First-line treatment</strong></td>
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</tr>
<tr>
<td>Lansoprazole 30mg BD or omeprazole 20 to 40mg BD</td>
<td>Omeprazole 20mg BD</td>
<td>Lansoprazole 30mg BD</td>
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<tr>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
</tr>
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<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>
<tr>
<td><strong>If allergic to penicillin</strong></td>
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<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>Clarithromycin 500mg BD</td>
<td>Clarithromycin 500mg BD</td>
<td>Clarithromycin 500mg BD</td>
</tr>
<tr>
<td>Metronidazole 400mg BD</td>
<td>Metronidazole 400mg BD</td>
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</table>
Second-line
Offer second-line treatment to people who still have symptoms after first-line eradication treatment

<table>
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<tr>
<th>NICE/ BNF</th>
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<th>CRH</th>
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<tr>
<td>Lansoprazole 30mg BD or omeprazole 20 to 40mg BD</td>
<td>Omeprazole 20mg BD</td>
<td>AS PER NICE/BNF</td>
</tr>
<tr>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
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</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></td>
</tr>
<tr>
<td>Lansoprazole 30mg BD or omeprazole 20 to 40mg BD</td>
<td>Omeprazole 20mg BD</td>
<td>AS PER NICE/BNF</td>
</tr>
<tr>
<td>Amoxicillin 1gram BD</td>
<td>Amoxicillin 1gram BD</td>
<td></td>
</tr>
<tr>
<td>A quinolone or tetracycline 500mg QDS</td>
<td>Levofloxacin 250mg BD (unlicensed)</td>
<td></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 QDS         | 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
- Suspected cancer: recognition and referral NICE guideline Published: 23 June 2015 NICE guidelines [NG12]

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Document control

<table>
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<tr>
<td>p.9 correction to state 2 weeks treatment free for PPI; 4 weeks for antibiotics before H.Pylori testing</td>
<td>September 219</td>
</tr>
<tr>
<td>p.9-10 H. Pylori eradication clarithromycin/ tetracycline dose updated following BNF update</td>
<td>February 2020</td>
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<td>Appendix 2 added</td>
<td>August 2020</td>
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Appendix 1 – Dosage information on PPIs

Table 1 – PPI doses

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<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>30mg¹ twice a day</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>20mg once a day</td>
<td>10mg¹ 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>40mg¹ twice a day</td>
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</tbody>
</table>

¹ Off-label dose for GORD

Table 2 – PPI doses for severe oesophagitis

<table>
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<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>30mg² twice a day</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>40mg¹ once a day</td>
<td>20mg¹ once a day</td>
<td>40mg¹ twice a day</td>
</tr>
<tr>
<td>Pantoprazole</td>
<td>40mg once a day</td>
<td>20mg once a day</td>
<td>40mg² twice a day</td>
</tr>
</tbody>
</table>

¹ NICE CG184 updated dosing specifically for severe oesophagitis
² Off-label dose for GORD

Appendix 2 Ranitidine/ H2 receptor antagonist shortage

JAPC has classified ranitidine GREY (May 2020) as per EMA’s human medicines committee (CHMP) recommendation to suspend all ranitidine medicines in the EU due to the presence of low levels of an impurity called N-nitrosodimethylamine (NDMA).

A DHSC disruption alert, October 2019 recommends healthcare professionals to identify current patients prescribed oral ranitidine and review to establish if ongoing treatment is still required.

If so consider switching to an alternative treatment:-
- For patients switching from ranitidine use a PPI where clinically appropriate
- If a PPI is unsuitable then other cost effective H2RA s should be considered.

There are ongoing supply disruptions for ranitidine and all other H2RAs. JAPC advises the types of patients who may require an alternative H2RA to ranitidine include:
1. those needing acid suppression who are genuinely allergic or intolerant or contraindicated to all PPIs, which is rare;
2. those needing acid suppression where low magnesium occurs, which is felt as very rare;
3. those who have needed upward titration for reflux symptoms despite high dose PPIs, where addition of H2RA, generally at night time, helps*;
4. occasionally there seems to be a small number who claim not to do well on PPI yet symptomatically get better on H2RA.

For all cases, those not responding well to PPIs should be investigated to make sure diagnosis correct e.g. to rule out bile reflux, functional pain etc. No particular problems should arise with stopping H2RA as the rebound hyper acid phase tends not to occur (compared to PPIs).

* Patients suitable for antireflux procedures should be referred at this point, but generally the H2RA+PPI combination is used for those not suitable for or who would not do well with antireflux surgery (e.g. elderly frail, or those where there is a functional element to symptoms). Patient may be advised to go back to PPI+ antacid.