**H pylori testing and eradication for adults**

**When should I test for Helicobacter pylori (HP)?**

- Patients with uncomplicated dyspepsia unresponsive to lifestyle change and antacids, following a single one month course of proton pump inhibitor (PPI), without alarm symptoms. A trial of PPI should usually be prescribed before testing, unless the likelihood of HP is likely to be higher than 20% (older people, people of North African ethnicity, those living in a known high risk area); in which case the patient should have a test for *H. pylori* first, or in parallel with a course of PPI.
- Patients with a history of gastric or duodenal ulcer or bleed, if they have not previously been tested.
- Before starting or taking NSAIDs, if there is a history of gastro-duodenal ulcers or bleeds. Note that HP and NSAIDs are independent risk factors for peptic ulcers, so eradication will not remove all risk.
- Patients with unexplained iron-deficiency anaemia, after negative endoscopic investigation has excluded gastric and colonic malignancy, and investigations have been carried out for other causes, including: cancer, idiopathic thrombocytopenic purpura, vitamin B12 deficiency.
- Before stool antigen testing for *H pylori*, patients should have stopped bismuth or PPI for at least 2 weeks; antibiotics for 4 weeks; and H2 Receptor Antagonist (H2RA) at least 1 day before, or results may be unreliable.

**When is a test for Helicobacter pylori not required?**

- Patients with proven oesophagitis, or predominant symptoms of reflux, suggesting GORD (gastro-oesophageal reflux disease).

**When should I treat Helicobacter pylori?**

<table>
<thead>
<tr>
<th>H pylori Positive</th>
<th>Reassure, as negative predictive value (NPV) of all tests is &gt;95%</th>
<th>Only retest for HP if DU, GU, family history of cancer, MALToma or if test was performed within two weeks of PPI or four weeks of antibiotics</th>
<th>Treat H pylori</th>
</tr>
</thead>
<tbody>
<tr>
<td>H pylori Negative</td>
<td>ASYMPTOMATIC post-HP treatment</td>
<td></td>
<td>If H pylori negative treat as functional dyspepsia. Step down to lowest dose of PPI or H2RA needed to control symptoms. Review annually, including PPI need.</td>
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</tbody>
</table>

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Eradication therapy is much more likely to succeed if the patient fully understands the reason for their treatment and is given full information and counselling to encourage excellent adherence.

- Macrolide and quinolone resistance is an important risk factor for treatment failure. Metronidazole or tetracycline resistance is less important.
- To reduce the emergence of resistance and *Clostridioides difficile* infection (CDI), avoid levofloxacin regimes unless no other options available.
- Doses detailed below assume non pregnant adults with normal renal and hepatic function.
- If post gastro-duodenal bleed, only start HP treatment when patient can take oral medication
- If diarrhoea develops, consider CDI and review need for treatment

- * PPI regimes as per NHS Tayside formulary/PHE 2019 (omeprazole 20mg – 40mg bd or lansoprazole 30mg bd)
- **Consider quinolone warnings and interactions and prolonged QT with clarithromycin

### NO PENICILLIN ALLERGY

**FIRST LINE:** 7 days
- PPI bd*
- PLUS amoxicillin 1g bd
- PLUS either metronidazole 400mg bd
- OR clarithromycin 500mg bd**

**ONGOING SYMPTOMS after first line – SECOND LINE:** 7 days
- PPI twice daily*
- PLUS amoxicillin 1g bd
- PLUS second antibiotic not used in first line, either clarithromycin 500mg bd** or metronidazole 400mg bd

### PENICILLIN ALLERGY

**FIRST LINE:** 7 days
- PPI bd*
- PLUS metronidazole 400mg bd
- PLUS clarithromycin 500mg bd**

**FIRST LINE WITH PREVIOUS MACROLIDE EXPOSURE (in last 12 months) OR SECOND LINE WITH PREVIOUS QUINOLONE EXPOSURE (in last 12 months): 7 days**
- PPI twice daily*
- PLUS bismuth subsalicylate 525mg qds
- OR Tripotassium dicitratroblemuthate 240mg qds
- PLUS tetracycline hydrochloride 500mg qds
- PLUS metronidazole 400mg bd

**ONGOING SYMPTOMS AFTER FIRST LINE AND PREVIOUS EXPOSURE TO METRONIDAZOLE AND CLARITHROMYCIN – SECOND LINE:** 7 days
- PPI bd*
- PLUS amoxicillin 1g bd
- PLUS tetracycline 500mg qds OR levofloxacin** 250mg bd

**ONGOING SYMPTOMS AFTER FIRST LINE AND NO PREVIOUS EXPOSURE TO LEVOFLOXACIN:** 7 days
- PPI bd*
- PLUS metronidazole 400mg bd
- PLUS levofloxacin** 250mg bd

**THIRD LINE:** Only offer longer duration or third line therapy on advice from specialist
When should I retest for *Helicobacter pylori*?

- Re-testing after eradication should not routinely be offered – 64% of patients with functional dyspepsia will have recurrent symptoms
- Offer if:
  - Compliance poor, or high local resistance rates
  - Persistent symptoms and HP test performed within 2 weeks of taking PPI, or within 4 weeks of taking antibiotics
  - Patients with an associated peptic ulcer, after resection of an early gastric carcinoma or MALT lymphoma
  - Patients requiring aspirin, where PPI is not co-prescribed
  - Patients with severe persistent or recurrent symptoms, particularly if not typical of GORD
- Wait at least 4 weeks (ideally 8 weeks) after treatment. If acid suppression needed use H$_2$RA
- Use second line treatment if test remains positive

What should I do in eradication failure?

- Reassess need for eradication
- In patients with GORD or non-ulcer dyspepsia, with no family history of cancer or peptic ulcer disease, a maintenance PPI may be appropriate

What should I refer for endoscopy, culture and susceptibility testing?

- Patients in whom the choice of antibiotic is reduced due to hypersensitivity, known local high resistance rates or previous exposure to clarithromycin, metronidazole and a quinolone.
- Patients who have received two courses of eradication treatment and remain HP positive

References:


Tayside Area Formulary


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