Quick reference guide

NICE □ Patients over the age of 55, with recent onset, unexplained and persistent dyspepsia (over 4-6 weeks) should be referred urgently for endoscopy to exclude cancer. 1D

**WHEN SHOULD I TEST FOR HELICOBACTER PYLORI?**

- Patients with uncomplicated dyspepsia unresponsive to lifestyle change and antacids, following a single one month course of proton pump inhibitor (PPI), without alarm symptoms. 2D, 3A, 4A, 5A, 6A.
  
  Note: Options should be discussed with patients, as the prevalence of HP in developed countries is falling, and is lower than 15% in many areas in the UK. 10B, 11D. A trial of PPI should usually be prescribed before testing, unless the likelihood of HP is higher than 20%. 11A (older people; people of North African ethnicity; 8B, 9B; those living in a known high risk area), in which case the patient should have a test for HP first, or in parallel with a course of PPI.

- Patients with a history of gastric or duodenal ulcer/bleed who have not previously been tested. 11C

- Patients before taking NSAIDs, if they have a prior history of gastro-duodenal ulcers/bleeds.
  
  Note: Both HP and NSAIDs are independent risk factors for peptic ulcers, so eradication will not remove all risk. 11A

- 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. 11D

**WHEN SHOULD I NOT TEST FOR HELICOBACTER PYLORI?**

- Patients with proven oesophagitis, or predominant symptoms of reflux, suggesting gastro-oesophageal reflux disease (GORD). 2D, 11D, 12A+

- Children with functional dyspepsia. 13A+, 14A+

**WHICH NON-INVASIVE TEST SHOULD BE USED IN UNCOMPLICATED DYSPEPSIA?**

- Urea breath tests (UBTs) 15A+, 16C, 17B+ and stool antigen tests (SATs) are the preferred tests. 11A+

  **Urea Breath Test (UBT):** most accurate test. 2D, 15A+, 16C, 17B+
  
  • needs a prescription and staff time to perform

  **Stool Helicobacter Antigen Test (SAT):** check test availability. 18A+, 19A+
  
  • pea-sized piece of stool sent to local laboratory

  **Serology:** whole blood in plain bottle; low cost, lower accuracy. 2D, 16A+, 23A+
  
  • not recommended for most patients, and positives should be confirmed by a second test such as UBT, SAT or biopsy. 2D, 11D, 15A+
  
  • has very good negative predictive value at current; low prevalence in the developed countries. 7B, 8B, 9B, 10B+, 11D
  
  • most useful in patients with acute gastrointestinal bleed, to confirm negative UBT or SAT, when blood and PPI use interacts with tests. 19A+
  
  • detects IgG antibody; does not differentiate active from past infection. 19A+

**WHEN SHOULD I TREAT HELICOBACTER PYLORI?**

- **HP POSITIVE**
  
  Reassure, as NPV of all tests is >95%. 16C

  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. 21B+, 27C

  Treat H. pylori. 2D, 11D, 22A+, 26B-

- **HP NEGATIVE**

  If H. pylori negative, treat as functional dyspepsia. Step down to lowest dose PPI or H2A needed to control symptoms. Review annually, including PPI need. 2D, 28D

- **ASYMPTOMATIC post-HP treatment** 2D, 3A, 4A-
# TREATMENT REGIMENS FOR HELICOBACTER PYLORI

**NO PENICILLIN ALLERGY**

**FIRST-LINE:** 7 days, PPI twice daily\(^{2A,30A,31A+}\)
- PLUS amoxicillin 1g BD
- PLUS either clarithromycin 500mg BD OR metronidazole 400mg BD

**ONGOING SYMPTOMS after first-line**

**SECOND-LINE:** 7 days, PPI twice daily\(^{2A,30A,31A+}\)
- PLUS amoxicillin 1g BD
- PLUS second antibiotic not used in first line, either clarithromycin 500mg BD OR metronidazole 400mg BD

**ONGOING SYMPTOMS after first-line AND previous exposure to MZ and CLAR**

**SECOND-LINE:** 7 days, PPI twice daily\(^{2A,30A,31A+}\)
- PLUS amoxicillin 1g BD
- PLUS second antibiotic, either tetracycline hydrochloride 500mg QDS OR levofloxacin 250mg BD\(^{20A,31A+,33A+,34A+}\)

**PENICILLIN ALLERGY**

**FIRST-LINE:** 7 days, PPI twice daily\(^{2A,30A,31A+}\)
- PLUS clarithromycin 500mg BD
- PLUS metronidazole 400mg BD

First-line with previous CLAR exposure
- OR Second-line with previous levofloxacin exposure

**7 days, PPI twice daily\(^{2A,30A,31A+}\)**
- PLUS bismuth subsalicylate 525mg QDS\(^{35A+,37A+,38D}\)
- OR triptasium dicitratobumithate 240mg QDS\(^{39D}\)
- PLUS tetracycline hydrochloride 500mg QDS\(^{2A}\)
- PLUS metronidazole 400mg BD\(^{2A}\)

**ONGOING SYMPTOMS after first-line and NO previous exposure to levofloxacin**

**SECOND-LINE:** 7 days, PPI twice daily\(^{2A,30A,31A+,33A+}\)
- PLUS metronidazole 400mg BD\(^{2A}\)
- PLUS levofloxacin 250mg BD

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- **PPI medication:** lansoprazole 30mg BD, omeprazole 20-40mg BD, pantoprazole 40mg BD, esomeprazole 20mg BD, rabeprazole 20mg BD.\(^{38D}\)
- If post gastro-duodenal bleed, start HP treatment only when patient can take oral medication.\(^{40A+}\)
- If diarrhoea develops, consider *Clostridium difficile* and review need for treatment.
- Only offer longer duration or third-line eradication on advice from a specialist.\(^{2D}\)

**Third line:** 10 days of PPI twice daily, PLUS bismuth subsalicylate 525mg QDS, PLUS 2 antibiotics as above not previously used, OR rifabutin 150mg BD, OR furazolidone 200mg BD, OR azithromycin 500mg BD, OR levofloxacin 250mg BD, OR clarithromycin 500mg BD.\(^{2A}\)

- **WHEN SHOULD I RETEST FOR HELICOBACTER PYLORI?**
  - As 64% of patients with functional dyspepsia will have persistent recurrent symptoms, do not routinely offer re-testing after eradication.\(^{2D}\)
  - **DO NOT use serology for re-testing**\(^{2D,15A+,16C}\)
  - If compliance poor, or high local resistance rates\(^{11D,29B-}\)
  - Persistent symptoms, and HP test performed within two weeks of taking PPI, or within four weeks of taking antibiotics\(^{19A+,20B+,21B+,22C}\)
  - Patients with an associated peptic ulcer, after resection of an early gastric carcinoma or MALT lymphoma\(^{2D,11D,26C}\)
  - Patients requiring aspirin, where PPI is not co-prescribed\(^{2D}\)
  - Patients with severe persistent or recurrent symptoms, particularly if not typical of GORD\(^{11D,26C}\)
  - **UBT is most accurate**\(^{15A+,16C}\)
  - **SAT is an alternative**\(^{15A+,18A+}\)
  - **Wait at least four weeks (ideally eight weeks) after treatment.**\(^{11D,19A+}\)
  - If acid suppression needed use H2 antagonist.\(^{99D}\)
  - Use second-line treatment if UBT or SAT remains positive\(^{2D}\)

**WHAT SHOULD I DO IN ERADICATION FAILURE?**

- **Reassess need for eradication.**\(^{2D}\) In patients with GORD or non-ulcer dyspepsia, with no family history of cancer or peptic ulcer disease, a maintenance PPI may be appropriate.\(^{2D,26C}\)

**WHEN 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 use of clarithromycin, metronidazole, and a quinolone.\(^{2A+,11D,28D}\)
- Patients who have received two courses of antibiotic treatment, and remain HP positive.\(^{2D,11D,28D}\)
- For any advice, speak to your local microbiologist, or the [Helicobacter Reference Laboratory](#).

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Test and treat for *Helicobacter pylori* (HP) in dyspepsia
Quick reference guide for primary care: For consultation and local adaptation

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