# 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?

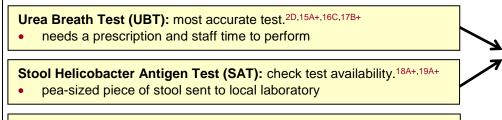
- Patients with uncomplicated dyspepsia unresponsive to lifestyle change and antacids, following a single one month course of proton pump inhibitor (PPI), without alarm symptoms. 2D,3A-,4A-,5A-,6A-Note: Options should be discussed with patients, as the prevalence of HP in developed countries is falling, 7B+,8B-,9B+ 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 gastrooesophageal 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)<sup>15A+,16C,17B+</sup> and stool antigen tests (SATs) are the preferred tests.<sup>11A+</sup>



DO NOT perform UBT or SAT within two weeks of PPI,20B+,21B+ or four weeks of antibiotics, 19A+,22A+ as these drugs supress bacteria and can lead to false negatives.

Serology: whole blood in plain bottle; low cost, lower accuracy. 2D,16A-,23A+

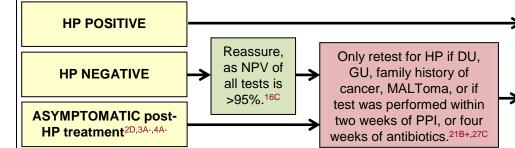
- not recommended for most patients, and positives should be confirmed by a second test such as UBT, SAT<sup>24D</sup> or biopsy<sup>11D,15A+</sup>
- has very good negative predictive value at current; low prevalence in the developed countries 7B+,8B-,9B+,10B+,11D
- most useful in patients with acute gastrointestinal bleed, to confirm negative UBT or SAT, when blood and PPI use interacts with tests 19A+
- detects IgG antibody; 25A+ does not differentiate active from past infection<sup>19A+</sup>

DO NOT use near patient serology tests, as they are not accurate.2D,11D,16A-

DO NOT use serology posttreatment.

DO NOT use serology in the elderly or in children. 13A+,14A+

# WHEN SHOULD I TREAT HELICOBACTER PYLORI?



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

If *H. pylori* negative, treat as functional dyspepsia. Step down to lowest dose PPI or H<sub>2</sub>A needed to control symptoms. Review annually, including PPI need.<sup>2D,28D</sup>

Produced: 2004 - Latest Review: July 2017 Updated: Feb 2019 - Next Full Review: October 2019







# TREATMENT REGIMENS FOR HELICOBACTER PYLORI

□ Check antibiotic history as each additional course of clarithromycin, metronidazole or quinolone increases resistance risk. 11D,22A+,29B-,30A-,31A+,32A- Stress the importance of compliance. 2A-,27C,32A-

# **NO PENICILLIN ALLERGY**

# FIRST-LINE: 7 days, PPI twice daily<sup>2A-,30A-,31A+</sup> 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<sup>2A-,30A-,31A+</sup> 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<sup>2A-,30A-,31A+</sup> PLUS amoxicillin 1g BD

PLUS second antibiotic, either tetracycline hydrochloride 500mg QDS OR levofloxacin 250mg BD<sup>30A-,31A+,33A+,34A+</sup>

# **PENICILLIN ALLERGY**

FIRST-LINE: 7 days, PPI twice daily<sup>2A-,30A+,31A+</sup>
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<sup>2A-,30A+,31A+</sup>

PLUS bismuth subsalicylate 525mg QDS<sup>35A+,36A+,37A+,38D</sup>
OR tripotassium dicitratobismuthate 240mg QDS<sup>39D</sup>
PLUS tetracycline hydrochloride 500mg QDS<sup>2A-</sup>
PLUS metronidazole 400mg BD<sup>2A-</sup>

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

SECOND-LINE: 7 days, PPI twice daily<sup>2A-,30A+,31A+,33A+</sup>
PLUS metronidazole 400mg BD<sup>2A-</sup>
PLUS levofloxacin 250mg BD<sup>31A+,33A+,34A+</sup>

- PPI medication: lansoprazole 30mg BD, omeprazole 20-40mg BD, pantoprazole 40mg BD, esomeprazole 20mg BD, rabeprazole 20mg BD.<sup>38D</sup>
- ☐ 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.<sup>2D</sup> 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.<sup>31A+,33A+,41A-,42A+,43D</sup>

# 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.<sup>2D</sup>
  - if compliance poor, or high local resistance rates<sup>11D,29B</sup>-
  - persistent symptoms, and HP test performed within two weeks of taking PPI, or within four weeks of taking antibiotics<sup>19A+,20B+,21B+,22C</sup>
  - patients with an associated peptic ulcer, after resection of an early gastric carcinoma or MALT lymphoma<sup>2D,11D,26C</sup>
  - patients requiring aspirin, where PPI is not co-prescribed<sup>2D</sup>
  - patients with severe persistent or recurrent symptoms, particularly if not typical of GORD<sup>11D,26C</sup>

DO NOT use serology for re-testing<sup>2D,15A+,16C</sup>

UBT is most accurate<sup>15A+,16C</sup>
 SAT is an alternative<sup>15A+,18A+</sup>

Wait at least four weeks (ideally eight weeks) after treatment. 11D,19A+ If acid suppression needed use H<sub>2</sub> antagonist. 39D

Use second-line treatment if UBT or SAT remains positive<sup>2D</sup>

# WHAT SHOULD I DO IN ERADICATION FAILURE?

■ Reassess need for eradication.<sup>2D</sup> In patients with GORD or non-ulcer dyspepsia, with no family history of cancer or peptic ulcer disease, a maintenance PPI may be appropriate.<sup>2D,26C</sup>

# 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. <sup>2A-,11D,28D</sup>
- □ Patients who have received two courses of antibiotic treatment, and remain HP positive. <sup>2D,11D,28D</sup>
- ☐ For any advice, speak to your local microbiologist, or the *Helicobacter* Reference Laboratory.

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