Management of Helicobacter pylori infection the Maastricht IV/ Florence Consensus Report

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A test-and-treat strategy is appropriate for uninvestigated dyspepsia in populations where the H pylori prevalence is high ($20%). This approach is subject to local coste benefit considerations and is not applicable to patients with alarm symptoms, or older patients (age to be determined locally according to cancer risk) **Evidence level: 1a Grade of recommendation: A**

Statement 2: The main non-invasive tests that can be used for the test-and-treat strategy are the UBT and monoclonal stool antigen tests. Certain validated serological tests can also be used. **Evidence level: 2a Grade of recommendation: B**

Statement 3: H pylori eradication produces long-term relief of dyspepsia in one of 12 patients with H pylori and functional dyspepsia; this is better than any other treatment. **Evidence level: 1a Grade of recommendation: A**

Statement 4: H pylori can increase or decrease acid secretion depending on the intragastric distribution of inflammation. **Evidence level: 2b Grade of recommendation: B**

Statement 5: On average, H pylori status has no effect on symptom severity, symptom recurrence and treatment efficacy in GORD. H pylori eradication does not exacerbate pre-existing GORD or affect treatment efficacy. **Evidence level: 1a Grade of recommendation: A**

Statement 6: Epidemiological studies show a negative association between the prevalence of H pylori and the severity of GORD and incidence of esophageal adenocarcinoma. **Evidence level: 2a Grade of recommendation: B**

Statement 10a: Long-term treatment with PPIs in H pylori-positive patients is associated with the development of a corpus-predominant gastritis. This accelerates the process of loss of specialised glands, leading to atrophic gastritis. **Evidence level: 1c Grade of recommendation: A**

Statement 7: H pylori infection is associated with an increased risk of uncomplicatedand complicated gastroduodenal ulcers in NSAID and low-dose aspirin (acetosalicylic acid (ASA)) users.**Evidence level: 2a Grade of recommendation: B**

Eradication reduces the risk of complicated and uncomplicated gastroduodenal ulcersassociated with either NSAID or low-dose ASA use.**Evidence level: 1b Grade of recommendation: A**

Statement 8: H pylori eradication is beneficial before starting NSAID treatment. It ismandatory in patients with a peptic ulcer history.**Evidence level: 1b Grade of recommendation: A**

However, H pylori eradication alone does not reduce the incidence of Gastroduodenal ulcers in patients already receiving long-term NSAID treatment. They require continuedPPI treatment as well as eradication treatment.**Evidence level: 1b Grade of recommendation: A**

Statement 9: Testing for H pylori should be performed in ASA users with a history of gastroduodenal **ulcer. The long-term incidence of peptic ulcer bleeding is low in these patients after receiving** eradication even in the absence of gastroprotective treatment.**Evidence level: 2b Grade of recommendation: B**

There is no evidence that H pylori eradication can lead to regression of intestinal metaplasia.**Evidence level: 2a Grade of recommendation: B**

H pylori eradication is the first-line treatment for low-grade gastric marginal zone (MALT) lymphoma.**Evidence level: 1a Grade of recommendation: A**

There is evidence linking H pylori to the aetiology of otherwise unexplained iron-deficiency anaemia, idiopathic thrombocytopenic purpura (ITP) and vitamin B12 deficiency. In these disorders, H pylori should be sought and eradicated. **Iron-deficiency anaemiaEvidence level: 1a Grade of recommendation: A**,**ITPEvidence level: 1b Grade of recommendation: A**, **Vitamin B12 deficiency :Evidence level: 3b Grade of recommendation: B**

The serological tests are not all equivalent. Only validated IgG serology tests should be used owing to variability in the accuracy of different commercial tests. **Evidence level: 1b Grade of recommendation: B**

A validated IgG serology may be used in the setting of recent use ofantimicrobial* and antisecretory drugs, or ulcer bleeding, atrophy and gastricmalignancies. **Evidence level: 1b Grade of recommendation: B**

It is important to perform culture and standard susceptibility testing to antimicrobial agents in a region or population of high clarithromycin resistance before prescription of the first-line treatment if the standard clarithromycin-containing triple therapy is being considered. Furthermore, culture and standard susceptibility testing should be considered in all regions before second-line treatment if endoscopy is carried out for another reason and generally when a second-line treatment has failed.**Evidence level: 5 Grade of recommendation: D**

If standard susceptibility testing is not possible, molecular tests can be used to detect H pylori and clarithromycin and/or fluoroquinolone resistance directly on gastric biopsies. **Evidence level: 1b Grade of recommendation: A**

In patients treated with PPIs: (1) if possible, PPI should be stopped for 2 weeks before testing by culture, histology, rapid urease test, UBT or stool test. **Evidence level: 1b Grade of recommendation: A**.

Statement 7: PPI-clarithromycin-containing triple therapy without prior susceptibility testing should be abandoned when the clarithromycin resistance rate in the region is more than 15-20%. **Evidence level: 5 Grade of recommendation: D**

In areas of low clarithromycin resistance, clarithromycin- containing treatments are recommended for first-line empirical treatment. Bismuth-containing quadruple treatment is also an alternative**1a/ A**

In areas of high clarithromycin resistance, bismuth-containing quadruple treatments are recommended for first-line empiricaltreatment. If this regimen is not available sequential treatment or a non-bismuth quadruple treatment is recommended **1a/ A**

The use of high-dose (twice a day) PPI increases the efficacy of triple therapy **1b/ A**

Extending the duration of PPI-clarithromycin-containing triple treatment from 7 to 10e14 days improves the eradication success by approximately 5% and may be considered **1a/ A**

PPI-clarithromycin-metronidazole (PCM) and PPI-clarithromycin-amoxicillin (PCA) regimens are equivalent **1a /A**

After failure of a PPI-clarithromycin containing therapy, either a bismuth containing quadruple therapy or Levofloxacin containing triple therapy(lap) are recommended. **1a / A**

After failure of second-line treatment, treatment should be guided by antimicrobial susceptibility testing whenever possible **4/ A**

The urea breath test or a laboratory based validated monoclonal stool test are both recommended as non-invasive tests for determining the success of eradication treatment. There is no role for serology**1a /A**

The time for testing the success of H pylori eradication after the end of treatment should be at least 4 weeks. **Evidence level: 2b Grade of recommendation: B**

In uncomplicated duodenal ulcer (DU), prolonging acid inhibition with PPI is not recommended after H pylori treatment. **Level: 1a Grade of recommendation: A**

In gastric ulcers (GUs) and complicated DUs, prolonging PPI is recommended. **Level: 1b Grade of recommendation: A**

H pylori eradication treatment should be started at reintroduction of oral feeding in cases of bleeding ulcer. **Evidence level: 1b Grade of recommendation: A**