H PYLORI: ACG GUIDELINE ADVISES NEW APPROACHES TO TREATMENT

DISEASES CAUSED BY H PYLORI

- PEPTIC ULCER DISEASE
- MARGINAL ZONE B-CELL LYMPHOMA
- GASTRIC ADENOCARCINOMA
- DYSPEPSIA
- ASSOCIATIONS WITH IDIOPATHIC THROMBOCYTOPENIC PURPURA AND UNEXPLAINED IRON DEFICIENCY

WHO SHOULD BE TESTED AND TREATED?

- HOUSEHOLD MEMBERS OF PATIENTS WITH A POSITIVE NONSEROLOGIC TEST FOR H PYLORI

- TESTING PERSONS AT AN INCREASED RISK FOR GASTRIC ADENOCARCINOMA :

- AUTOIMMUNE GASTRITIS
- CURRENT/HISTORY OF PREMALIGNANT CONDITIONS
- FIRST-DEGREE RELATIVE WITH GASTRIC CANCER

Table 4. Indications for *H. pylori* testing and treatment

Groups to test and treat for *H. pylori* infection[a]:
• Peptic ulcer disease: prior history or active disease
• Marginal zone B-cell lymphoma, MALT type
• Uninvestigated dyspepsia in patients who are under the age of 60 years
- In high-risk populations for gastric cancer, test and treat at age 45-50 years
• Functional dyspepsia
• Adult household members of individuals who have a positive non-serological test for *H. pylori*
• Patients taking long-term NSAIDs or starting long-term treatment with low-dose aspirin
• Patients with unexplained iron deficiency anemia
• Patients with idiopathic (autoimmune) thrombocytopenic purpura
• Primary and secondary prevention of gastric adenocarcinoma
- Current or history of gastric premalignant conditions (GPMC)[b]
- Current or history of early gastric cancer resection
- Current or prior history of gastric adenocarcinoma
- Patients with gastric adenomas or hyperplastic polyps[c]
- Persons with a first degree relative with gastric cancer[d]
- Individuals at increased risk for gastric cancer including certain non-White racial/ethnic groups, immigrants from high gastric cancer incidence regions/ countries, hereditary cancer syndromes associated with an increased risk for gastric cancer[d]
- Patients with autoimmune gastritis

- Treatment if determined to have an infection (duration of 14 days)

- Post treatment test-of-cure : (at least 4 weeks afterwards)

- Urea breath test
- Fecal antigen test
- Gastric biopsy

Caveats to Treatment

- Clarithromycin and levofloxacin avoided in treatment-naive patients:

unless specifically directed following the results of susceptibility tests (culture-base or a molecular method)

- Maintenance of intragastric acid suppression is key to H pylori eradication

- histamine-2 receptors is not recommended:

Instead the potassium-competitive acid blocker (PCAB) vonoprazan (20 mg) or a high-dose proton pump inhibitor (PPI) is effective

- no high-quality data support probiotic therapy

TREATMENT-NAIVE PATIENTS

- WITHOUT PENICILLIN ALLERGY (AND FOR WHOM ANTIBIOTIC SUSCEPTIBILITY TESTING HAS NOT BEEN OBTAINED):

STRONGEST RECOMMENDATION FOR BISMUTH QUADRUPLE THERAPY

- WITH A PENICILLIN ALLERGY :

BISMUTH QUADRUPLE THERAPY IS ALSO THE PRIMARY TREATMENT CHOICE

REFERRED TO AN ALLERGIST FOR POSSIBLE PENICILLIN DESENSITIZATION (GIVEN THAT LESS THAN 1% OF THE POPULATION IS THOUGHT TO PRESENT WITH A "TRUE" ALLERGY)

- Bismuth quadruple regimen

PPI, bismuth, tetracycline, and metronidazole

- Rifabutin-based triple regimen

Omeprazole standard to double dose, amoxicillin, and rifabutin (Talicia)

- PCAB-based dual regimen

vonoprazan and amoxicillin

- PCAB-based triple regimen

vonoprazan, clarithromycin, and amoxicillin

Recommendations for treatment-naive patients with *Helicobacter pylori* infection
1. In treatment-naive patients with *H. pylori* infection, optimized BQT is recommended as a first-line treatment option (strong recommendation; moderate quality evidence)
2. In treatment-naive patients with *H. pylori* infection, rifabutin triple therapy is suggested as a first-line treatment option (conditional recommendation; low quality evidence)
3. In treatment-naive patients with *H. pylori* infection, dual therapy with a PCAB and amoxicillin is suggested as a first-line treatment option (conditional recommendation; moderate quality evidence)
4. In treatment-naive patients with *H. pylori* infection and unknown clarithromycin susceptibility, PCAB-clarithromycin triple therapy is suggested over PPI-clarithromycin triple therapy (conditional recommendation; moderate quality evidence)
5. In treatment-naive patients with *H. pylori* infection, concomitant therapy is not suggested over bismuth quadruple therapy (conditional recommendation; low quality evidence)

TREATMENT-EXPERIENCED PATIENTS

- QUADRUPLE BISMUTH THERAPY IS THE OPTIMAL APPROACH AMONG TREATMENT-EXPERIENCED PATIENTS WHO HAVE NOT PREVIOUSLY RECEIVED THIS THERAPY

- OTHER RECOMMENDATIONS FOR TREATMENT-EXPERIENCED WHO HAD RECEIVED BISMUTH QUADRUPLE THERAPY

- RIFABUTIN-BASED TRIPLE THERAPY
- LEVOFLOXACIN-BASED TRIPLE THERAPY

A PPI STANDARD DOSE, LEVOFLOXACIN, AND AMOXICILLIN OR METRONIDAZOLE

- PCAB-BASED TRIPLE THERAPY
- HIGH-DOSE DUAL THERAPY OF EITHER VONOPRAZAN (20 MG) OR PPI (DOUBLE DOSE) AND AMOXICILLIN

Recommendations for treatment-experienced patients with persistent *H. pylori* infection
6. In treatment-experienced patients with persistent *H. pylori* infection who have not previously received bismuth quadruple therapy, optimized bismuth quadruple therapy is suggested (conditional recommendation; very low quality of evidence)
7. In treatment-experienced patients with persistent *H. pylori* infection who have previously received PPI-clarithromycin triple therapy, optimized bismuth quadruple therapy is suggested (conditional recommendation; low quality of evidence)
8. In treatment-experienced patients with persistent *H. pylori* infection who have received bismuth quadruple therapy, rifabutin triple therapy is suggested (conditional recommendation; low quality of evidence)
9. In treatment-experienced patients with persistent *H. pylori* infection who have not previously received optimized bismuth quadruple therapy, optimized bismuth quadruple therapy is suggested over quinolone-based therapy (conditional recommendation; low quality of evidence)
10. In treatment-experienced patients with persistent *H. pylori* infection, levofloxacin triple therapy is suggested in patients with known levofloxacin-sensitive *H. pylori* strains and when optimized bismuth quadruple or rifabutin triple therapies have previously been used or are unavailable (conditional recommendation, low quality of evidence)
11. In treatment-experienced patients with persistent *H. pylori* infection, there is insufficient evidence from North America to recommend high-dose PPI or PCAB dual therapy (no recommendation; evidence gap)

ACG Clinical Practice Guideline

Treatment of *H. pylori* Infection in North America

	Treatment Naïve	***Treatment-Experienced (Salvage)***		***Penicillin Allergy***
Regimen		Empiric	Proven antibiotic sensitivity	
Optimized Bismuth Quadruple	☑☑☑	☑☑	☑☑	☑☑☑ *
Rifabutin Triple	☑☑	☑☑	☑☑	
Vonoprazan Dual	☑☑	?	?	
Vonoprazan Triple			☑☑	
Levofloxacin Triple			☑☑	

☑☑☑ Recommended ☑☑ Suggested ? May be considered when other treatments are not options

* When Bismuth Quadruple Therapy not an option, consider referral for formal penicillin allergy testing and/or desensitization