

ANMC *Helicobacter pylori* Adult Treatment Guideline

Background Information¹

- 75% of the AN/Al population is colonized with *H. pylori* (range: 61-84%, by region)
- Screening or testing for *H. pylori* for routine evaluation of dyspepsia or other GI symptoms is **not** clinically useful or supported by clinical evidence for high prevalence populations
- For routine clinical practice, there is **insufficient evidence-based data** to support community-wide treatment eradication as a mechanism for gastric cancer prevention.
- Current literature **DO NOT** support a test and treat method

Local Antimicrobial Resistance Patterns⁵

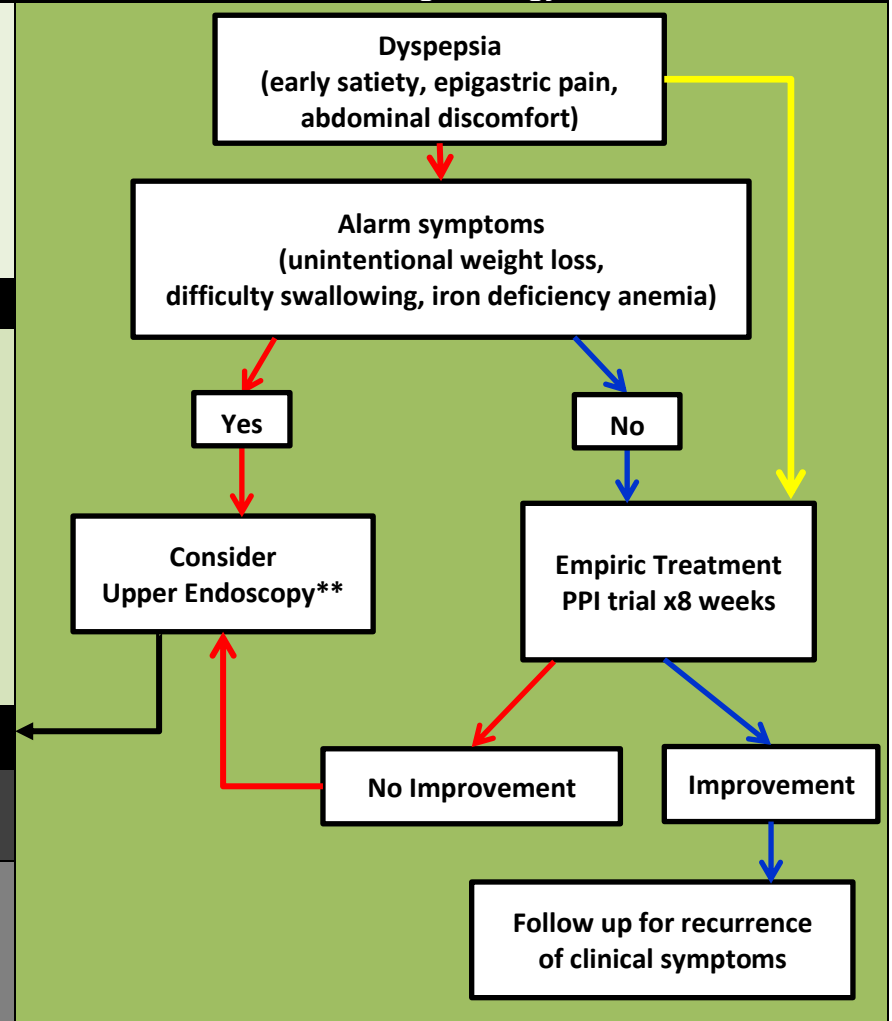
Quadruple therapy is recommended over triple therapy in the AN/Al population due to resistance

- **22-30% resistance** rate to **clarithromycin** with no significant differences between age groups or urban vs. rural setting, but higher in females
- **37-44% resistance** to **metronidazole** with no difference between urban or rural settings and patients aged 30-49 years of age (ie, prior metronidazole exposure)
- **0-2% resistance** to **amoxicillin**
- **7.5-18.6% resistance** to **levofloxacin** with higher rates in urban vs rural setting, and patients >60 years of age
- **0.1% resistance** to **tetracycline**
- No local surveillance data for **rifabutin**

When *H. pylori* is identified by histology and/or CLOtest from EGD, should treatment occur?¹

| Yes | No <i>(Many causes of dyspepsia exist where antibiotics would not help)</i> |
|--|--|
| <ul style="list-style-type: none"> ❖ Family history of first degree relative with gastric cancer ❖ Endoscopy reveals the following: <ul style="list-style-type: none"> ❖ Duodenal ulcers ❖ Gastric ulcers ❖ Gastric MALT lymphoma ❖ Gastric intestinal metaplasia | <ul style="list-style-type: none"> ❖ Gastroesophageal reflux disease (GERD) ❖ Irritable bowel syndrome (IBS) ❖ Mild/moderate gastritis w/wo anemia ❖ Excessive/chronic NSAID use ❖ Heavy alcohol use ❖ Gastritis regardless of <i>H. pylori</i> status ❖ Poor gastric motility (<i>bezoars or conditions predisposing to GI motility disorders such as scleroderma or diabetes</i>) |

Testing Strategy¹



****Further evaluation and treatment are dependent on findings of pathology found on endoscopy**

Antimicrobial Stewardship Program Approved Nov 2016; Updated February 21, 2024

REFERENCES: 1. McMahon et al, *Epidemiol Infect.* 2016 Jan;144(2):225-33. 2. Koletzko et al, *JPGN.* 2011 Aug; 53(2):230-244. 3. Mahadevan U et al, *Gastroenterology.* 2006;131(1):283. 4. Goldberg D et al, *Obstet Gynecol.* 2007;110(3):695. 5. Mosites et al. *J of Global Antimicrobial Resistance.* 2018;15:148-1536. 6. Fallone et al, *Gastroenterology* 2016 Jul;151(51-69. 7. Cardaropoli et al, *World J Gastroenterol* 2014; 20(3):654-664. 8. Bruce et al, *Epidemiol. Infect.* (2015), 143, 1236-1246. 9. Carothers JJ et al, *Clin Infect Dis.* 2007 Jan 15;44(2):e5-8. 10. Tveit AH, Bruce MG, Bruden DL, Morris J, Reasonover A, Hurlburt DA, Hennessy TW, McMahon B. Alaska sentinel surveillance study of *Helicobacter pylori* isolates from Alaska Native persons from 2000 to 2008. *J Clin Microbiol.* 2011 Oct;49(10):3638-43. doi: 10.1128/JCM.01067-11. Epub 2011 Aug 3. PMID: 21813726; PMCID: PMC3187320.

CONSIDERATIONS

| CONSIDERATIONS | | |
|---|--|----------|
| Gastric Cancer Family History | Pregnancy & Lactation^{3,4,7} | |
| <p>Starting in 2019, gastric cancer screening (H. pylori testing and EGD) is being offered to patients with first degree relatives (mother, father, sibling, son/daughter) with gastric cancer. Treatment and test of cure is recommended for positive <i>H. pylori</i> tests in these patients.</p> | <ul style="list-style-type: none"> ▪ Delay treatment until after pregnancy <p style="color: red; margin-top: 10px;">Do not use in PREGNANCY: <i>bismuth</i> and <i>tetracycline</i> Do not use with LACTATION: <i>bismuth</i> and <i>levofloxacin</i> Use with caution with LACTATION: <i>metronidazole</i> and <i>tetracycline</i></p> | |
| Symptomatic Relief Medications | Eradication Testing⁸ | |
| Adults | ≥ 2 months after treatment completion | |
| <ul style="list-style-type: none"> ▪ Omeprazole 20mg PO BID or 40mg PO daily | <ul style="list-style-type: none"> ▪ Urea Breath Test (UBT) for test of cure is necessary to determine eradication and need for retreatment. Patient must be off PPI ≥ 2 weeks prior to UBT. ▪ Stool antigen test can be used for test of cure as well. ▪ 10-35% of individuals will fail treatment ▪ Serologic testing is not recommended due to prolonged antibody persistence beyond date of cure and false positive results | |
| Antibiotic Selection ^{1,6,9} | | |
| | Adults | Duration |
| Preferred Treatment (4 drug regimen) | <ul style="list-style-type: none"> • Metronidazole 500mg PO QID • Amoxicillin 1000mg PO BID • Omeprazole 20mg PO BID • Bismuth subsalicylate 524mg PO QID | 14 days |
| Penicillin allergic (4 drug regimen) | <ul style="list-style-type: none"> • Metronidazole 500mg PO QID • Doxycycline 100mg PO BID • Omeprazole 20mg PO BID • Bismuth subsalicylate 524mg PO QID | 14 days |
| Recurrence/Failure | <ul style="list-style-type: none"> • Metronidazole 500mg PO QID • Doxycycline 100mg PO BID • Omeprazole 20mg PO BID • Bismuth subsalicylate 524mg PO QID <p style="text-align: center; margin: 5px 0;">--OR--</p> <ul style="list-style-type: none"> • Amoxicillin 1000mg PO BID • Levofloxacin 500mg PO Daily • Omeprazole 20mg PO BID | 14 days |
| If ≥ 1 treatment failure occurs or a different combination of antibiotics are needed, consider consultation with a <i>clinical pharmacy or infectious diseases specialist.</i> | | |
| ANMC Associated Powerplan: AMB <i>H. pylori</i> Therapy | | |

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