ANMC *Helicobacter pylori* Treatment Guideline

Background Information[1]

- 75% of the AN/AI 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 Patterns[5]

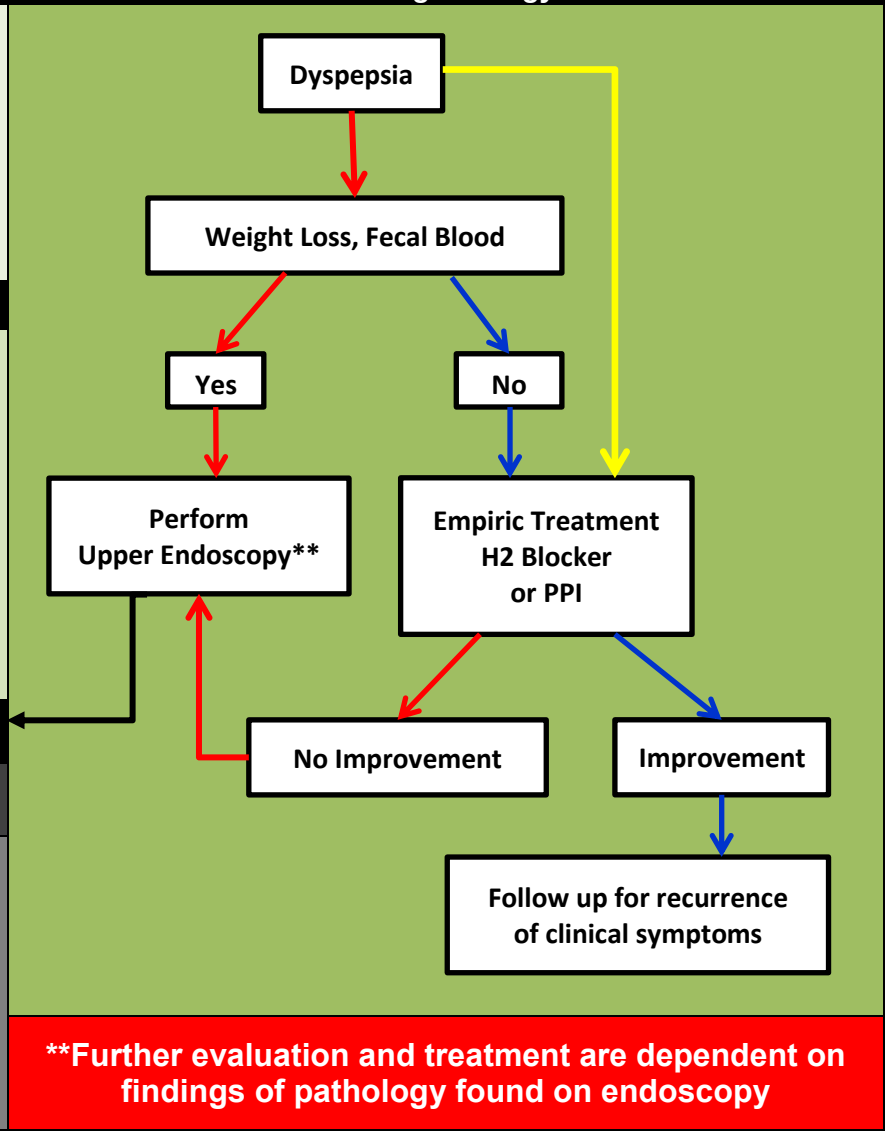
Quadruple therapy is recommended over triple therapy in the AN/AI population due to resistance

- **30-36% resistance** rate to **clarithromycin** with no significant differences between age groups or urban vs. rural setting
- **42- 65% resistance** to **metronidazole** with no difference between urban or rural settings but higher in females and patients aged 30-40 years of age (ie, prior metronidazole exposure)
- **0-5% resistance** to **amoxicillin**
- **19- 26% resistance** to **levofloxacin** with higher rates in urban vs rural setting
- No 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 *(Many causes of dyspepsia exist where antibiotics would not help)*
❖ Endoscopy reveals the following: ❖ Duodenal ulcers ❖ Gastric ulcers ❖ MALT lymphoma ❖ Intestinal metaplasia	❖ Gastroesophageal reflux disease (GERD) ❖ Irritable bowel syndrome (IBS) ❖ Mild/moderate gastritis w/wo anemia ❖ Excessive/chronic NSAID use ❖ Heavy alcohol use ❖ Gastritis regardless of *H. pylori* status ❖ Poor gastric motility *(bezoars or conditions predisposing to GI motility disorders such as scleroderma or diabetes)*

Testing Strategy[1]



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

Antimicrobial Stewardship Program Approved Nov 2016; Updated June 19, 2019

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. Tveit et al, *J Clin Microbiol*. 2011 Oct;49(10):3638-43. 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.

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CONSIDERATIONS

Pediatrics[2]

- Goal is to <u>determine underlying cause</u> of symptoms, not solely the presence of *H. pylori* infection
- Diagnostic testing is NOT recommended with functional abdominal pain
- Consider formal consult with Gastroenterology

Pregnancy & Lactation[3,4,7]

- Delay treatment until after pregnancy

<u>Do not use in PREGNANCY</u>: *bismuth* and *tetracycline*
<u>Do not use with LACTATION</u>: *bismuth*, *metronidazole*, *levofloxacin*

Symptomatic Relief Medications

Adults	Children
▪ **Ranitidine** 150mg PO BID **<u>OR</u>** ▪ **Omeprazole** 20mg PO BID	▪ **Ranitidine** 2.5-5mg/kg PO BID (max 150mg/dose)

Eradication Testing[8]

≥ 2 months after treatment completion

- UBT for test of cure is necessary to determine need for retreatment
- 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
- Must be off PPI **≥ 2 weeks prior to UBT**

Antibiotic Selection[1,6,9]

	Adults	Duration
Preferred Treatment (4 drug regimen)	• **Metronidazole** 500mg PO QID • **Amoxicillin** 1000mg PO BID • **Omeprazole** 20mg PO BID • **Bismuth subsalicylate** 524mg PO QID	14 days
PCN allergic (4 drug regimen)	• **Metronidazole** 500mg PO QID • **Doxycycline** 100mg PO BID • **Omeprazole** 20mg PO BID • **Bismuth subsalicylate** 524mg PO QID	14 days
Recurrence/Failure	• **Metronidazole** 500mg PO QID • **Doxycycline** 100mg PO BID • **Omeprazole** 20mg PO BID • **Bismuth subsalicylate** 524mg PO QID **--OR--** • **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 *clinical pharmacy or infectious diseases specialist*.

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