# ANMC Helicobacter pylori Treatment Guideline

## Background Information
- 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
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 (i.e., 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

### H. pylori is identified by histology and/or CLOtest from EGD, when should treatment occur?
- **Yes**
  - (Many causes of dyspepsia exist where antibiotics would not help)
  - Endoscopy reveals the following:
    - 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)
- **No***

## Testing Strategy
- **Dyspepsia**
  - **Weight Loss, Fecal Blood**
    - **Yes**
      - Perform Upper Endoscopy**
    - **No**
      - Empiric Treatment H2 Blocker or PPI
        - No Improvement
        - Improvement
          - Follow up for recurrence of clinical symptoms

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

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## CONSIDERATIONS

### Pediatrics
- Goal is to determine underlying cause 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
- Delay treatment until after pregnancy

### Symptomatic Relief Medications

<table>
<thead>
<tr>
<th>Adults</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ranitidine</strong> 150mg PO BID</td>
<td><strong>Ranitidine</strong> 5-10mg/kg PO divided BID</td>
</tr>
<tr>
<td><strong>Omeprazole</strong> 20mg PO BID</td>
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</tbody>
</table>

### Eradication Testing

- 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

<table>
<thead>
<tr>
<th>Preferred Treatment</th>
<th>Adults</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td><strong>Adults</strong></td>
<td><strong>Children</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PCN allergic</strong> (anaphylactic)</td>
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<td></td>
</tr>
<tr>
<td>Metronidazole 500mg PO QID</td>
<td></td>
<td>14 days</td>
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<tr>
<td>Amoxicillin 1000mg PO BID</td>
<td></td>
<td></td>
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<tr>
<td>Omeprazole 20mg PO BID</td>
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<td></td>
</tr>
<tr>
<td>Bismuth subsalicylate 524mg PO QID</td>
<td></td>
<td></td>
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<tr>
<td><strong>Recurrence/Failure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metronidazole 500mg PO QID</td>
<td></td>
<td>14 days</td>
</tr>
<tr>
<td>Doxycycline 100mg PO BID</td>
<td></td>
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<tr>
<td>Amoxicillin 1000mg PO BID</td>
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<td></td>
</tr>
<tr>
<td><strong>Levofloxacin</strong> 500mg PO Daily</td>
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<td></td>
</tr>
<tr>
<td>Omeprazole 20mg PO BID</td>
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</tbody>
</table>

If > 1 treatment failure occurs or a different combination of antibiotics are needed, consult with a clinical pharmacy or infectious disease specialist

***FDA Black Box Warning:*** Disabling & sometimes permanent damage to tendons, muscles, joints, nerves & CNS. Can be hours to weeks after starting medication, may persist for 14 months to 9 years after discontinuation.

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