

ASP-031 ANMC *Helicobacter pylori* Pediatric Testing & Treatment Guideline

Background Information

- 75% of the AN/Al population is colonized with *H. pylori* (range: 61-84%, by region)
- Prevalence is highest in rural residents, people living in crowded homes, and people without access to in-home running water
- Increasing seropositivity with age:
0-4yo: 32% | 5-9yo: 66.9% | 10-14yo: 77.7%

There is insufficient evidence-based data to support community-wide treatment eradication as a mechanism for gastric cancer prevention.

Indications for Testing

When to Test

- Clinical suspicion for gastric or duodenal peptic ulcer disease (PUD)
- Abdominal pain with alarm signs, ex. occult blood in stool, weight loss
- Consider in:
 - Iron deficiency that is refractory to treatment, after other possible causes ruled out
 - Chronic immune thrombocytopenia (ITP)

When NOT to Test

- Chronic abdominal pain without alarm signs
- Nausea/Vomiting
- Diarrhea
- Halitosis
- Flatulence
- Constipation
- Short Stature
- Initial work up of iron deficiency anemia

Diagnostic Testing

Gold standard for diagnosis of *H. pylori* in children is endoscopy with biopsy and culture or histopathology.

- Refer to Pediatric GI for evaluation and consideration of endoscopy (specifically note "endoscopy eval for *H. pylori*" on referral)
 - If wait time for endoscopy with pediatric GI is prolonged, can refer to pediatric surgery for endoscopy (if scope by peds surgery, follow up/treatment must be managed by the primary care team)

Current evidence **DOES NOT** support using a non-invasive test (stool antigen or urea breath test) for diagnosis/treatment initiation without endoscopy. The incidence of asymptomatic positive *H. pylori* stool or breath test is high in the AN/Al population. If concern is high for PUD or another condition mentioned above, endoscopy is the correct diagnostic step. Only refer for testing when concern is high enough for an upper GI process that an endoscopy is necessary to visualize the gut and obtain biopsies.

- Non-invasive testing *may* be considered in the evaluation of chronic ITP when visualization of the stomach is otherwise not indicated (weak recommendation)

Therapy Selection

Testing to Confirm Eradication

	Medications	Weight 15-24 kg	Weight 25-34 kg	Weight 35+ kg	Duration	Non-invasive testing (stool antigen or urea breath test) is recommended to confirm for eradication four weeks after the end of treatment. <i>Non-invasive testing is unreliable if <2 weeks since stopped PPI or <4 weeks since stopping antibiotics</i> - If negative, there is low risk of relapse, and does not require repeat testing unless symptoms return - If positive discuss with Pediatric ID Specialist
Preferred Therapy	Omeprazole Amoxicillin Metronidazole Bismuth subsalicylate	20 mg PO BID 500 mg PO BID 250 mg PO BID <i>See below</i>	30 mg PO BID 750 mg PO BID 375 mg PO BID <i>See below</i>	40 mg PO BID 1000 mg PO BID 500 mg PO BID <i>See below</i>	14 days	
Beta-Lactam Allergy*	Omeprazole Metronidazole Doxycycline Bismuth subsalicylate	20 mg PO BID 250 mg PO BID 2.2 mg/kg/dose PO BID <i>See below</i>	30 mg PO BID 375 mg PO BID 2.2 mg/kg/dose PO BID <i>See below</i>	40 mg PO BID 500 mg PO BID 2.2 mg/kg/dose PO BID (max 100 mg/dose) <i>See below</i>		
	Bismuth subsalicylate	<10yo: 262 mg PO 4x daily >10yo: 524 mg PO 4x daily				

Considerations

*If non-type I beta-lactam allergy refer for allergy testing or complete in-office beta-lactam challenge. If allergy can be resolved amoxicillin regimen is the preferred regimen in children. Doxycycline was traditionally avoided in ages <8 years, but use has more recently been accepted for short courses (<21 days) for all ages when necessary

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