



# Are We Following Guidelines for H. Pylori Treatment and Follow-up?

Amanda Walker MD, Yanet Ravelo MD, Ravi Upadhyay MD, Vincent Wong MD, Nicole Reynoso-Vasquez MD, Anjella Manoharan MD, Karishma Khetani MD, Kristen Wong MD, and Alan Tso MD  
 Departments of Internal Medicine and Pediatrics, Rutgers New Jersey Medical School

## Background

According to American College of Gastroenterology (ACG) guidelines, testing for *Helicobacter pylori* (*H. pylori*) should be performed only if the clinician plans to offer treatment for positive results. Eradication confirmatory testing or re-testing should occur at least 4 weeks after the completion of antibiotic therapy and after proton-pump inhibitor therapy has been withheld for 1–2 weeks.<sup>1</sup> Stool antigen testing has comparable accuracy to other testing modalities.<sup>2</sup>

## ACG Guidelines

Recommendation	Grade
Since all patients with a positive test of active infection with <i>H. pylori</i> should be offered treatment, the critical issue is which patients should be tested for the infection	Strong
All patients with active peptic ulcer disease (PUD), a past history of PUD (unless previous cure of <i>H. pylori</i> infection has been documented), low-grade gastric mucosa-associated lymphoid tissue (MALT) lymphoma, or a history of endoscopic resection of early gastric cancer should be tested for <i>H. pylori</i> infection.	Strong
In patients with uninvestigated dyspepsia who are under the age of 60 years and without alarm feature, non-endoscopic testing for <i>H. pylori</i> infection is a consideration.	Conditional
In patients taking long-term, low-dose aspirin, or initiating chronic treatment with NSAID testing for <i>H. pylori</i> infection could be considered to reduce the risk of ulcer bleeding.	Conditional
Patients with unexplained iron deficiency anemia despite appropriate evaluation and adults with ITP should be tested for <i>H. pylori</i> .	Conditional

## Aim

Our aim is to evaluate if our clinic follows the ACG guidelines for testing, retesting and treatment of patients with *H. pylori*. Trends and gaps in testing, treatment and retesting will be investigated. This data will be utilized to implement alterations to current practice to improve quality of care provided to these patients.

## Methods

A retrospective chart review of patients with diagnoses of dyspepsia or gastroesophageal reflux disease (GERD) who were seen in our clinic from January 1, 2020 to December 31, 2020 was performed. We identified the frequency of screening for *H. pylori*, retesting and the mode of testing.

## Results

A total of 124 patients were diagnosed with GERD or dyspepsia. Sixty percent (74/124) were tested for *H. pylori*; 73% (54/74) by endoscopy and 27% (20/74) by stool antigen. Thirty percent (22/74) tested positive for *H. Pylori* and 100% of those patients were treated. Eradication confirmatory testing rate was 78% (18/22). The majority of retesting was performed by stool antigen (67%; 12/18). Twenty-two percent (4/18) were re-tested by endoscopy and 11% (2/18) were re-tested by urea breath test. Seventeen percent (3/18) of patients who were retested were found to be positive.

124 MedPeds clinic patient charts evaluated

1. Seen by a resident Jan 1, 2020 through Dec 31, 2020 with documented diagnosis of GERD or dyspepsia
2. Evaluated for testing for H. Pylori
3. If tested positive, evaluated for treatment. If treated, evaluated for re-testing

74 (60%) Tested for *H. pylori* — 50 not tested

Age (years)	Mode of Initial Testing, n (n/74 x 100%)		(+ ) result, n
	Median	Range	
Age: 18-30	4 (5%)	51-60	Endoscopy, 54 (73%)
Age: 31-40	4 (5%)		Stool Ag, 20 (27%)
Age: 41-50	10 (7%)		Urea Breath Test, 0 (0%)
Age: 51-60	22 (30%)		<b>Mode of Repeat Testing, n (n/18 x 100%)</b>
Age: 61-70	21 (28%)		Endoscopy, 4 (22%)
Age: 71-80	12 (16%)		Stool Ag, 12 (67%)
Age: 81-90	1 (1%)		Urea Breath Test, 2 (11%)
Black/African American	33 (45%)		
Hispanic	34 (46%)		
Non-white	3 (4%)		
Caucasian	1 (1%)		
Unknown Ethnicity	3 (4%)		

## References

1. Chey, W. D., Leontiadis, G. I., Howden, C. W., & Moss, S. F. (2017). ACG Clinical Guideline: Treatment of Helicobacter pylori Infection. *Official journal of the American College of Gastroenterology | ACG*, 112(2), 212-239. <https://doi.org/10.1038/ajg.2016.563>
2. Choi, J., Kim, C. H., Kim, D., Chung, S. J., Song, J. H., Kang, J. M., Yang, J. I., Park, M. J., Kim, Y. S., Yim, J. Y., Lim, S. H., Kim, J. S., Jung, H. C., & Song, I. S. (2011). Prospective evaluation of a new stool antigen test for the detection of Helicobacter pylori, in comparison with histology, rapid urease test, (13)C-urea breath test, and serology. *J Gastroenterol Hepatol*, 26(6), 1053-1059. <https://doi.org/10.1111/j.1440-1746.2011.06705.x>
3. Everhart, J. E., Kruszon-Moran, D., Perez-Perez, G. I., Tralka, T. S., & McQuillan, G. (2000). Seroprevalence and ethnic differences in Helicobacter pylori infection among adults in the United States. *J Infect Dis*, 181(4), 1359-1363. <https://doi.org/10.1086/315384>

## Conclusions

In 2000, Everhart et al found 32.5% in their cohort were seropositive for *H. pylori*<sup>3</sup>, which was consistent with our findings. Our clinic follows ACG guidelines for initial testing and treatment, but eradication confirmatory testing rate was identified as an area of improvement. Endoscopy was the preferred mode of initial testing; however, stool antigen and urea breath test may be a more cost effective alternative and a more patient-friendly way of both initial and re-testing.