

# The Less Expensive Test to Diagnose *Helicobacter Pylori* Eradication

Sir,

I have read with great interest the original article by Butt *et al.*, who reported that in patients with non-malignant gastroduodenal lesions, concomitant therapy permitted a higher *Helicobacter pylori* (*H. pylori*) eradication than triple therapy, based on esomeprazole, amoxicillin, and clarithromycin. The outcome was assessed by histology. The authors explained that this diagnostic strategy should be less expensive than urea breath test (UBT) or fecal antigen test in free endoscopic services dedicated to poor patients.<sup>1</sup>

Regarding the later point, I have a comment. The methods used to diagnose *H. pylori* infection, before or after antibiotic treatment, are defined as invasive or non-invasive. The former is based on endoscopy with biopsy sampling.<sup>2</sup> When endoscopy is not mandatory, UBT should be the best choice, with high cost-effectiveness, if performed in facilities with high burden of tests.<sup>3</sup> When this is not possible, the fecal antigen test could be the most appropriate alternative option.<sup>4</sup> Recently, it has been reported that in Greece, the cost of UBT is 30.36 Euros, versus 104.76 of endoscopy plus biopsy.<sup>5</sup> Hence, it should be of great interest to know on which data is based the consideration that endoscopy is less expensive in the above reported service.<sup>1</sup>

## CONFLICT OF INTEREST:

The author declared no conflict of interest

## AUTHOR'S CONTRIBUTION:

RP: Conception and drafting.

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Received: March 10, 2021; Revised: March 16, 2021;

Accepted: April 16, 2021

DOI: <https://doi.org/10.29271/jcpsp.2022.02.266>

## AUTHOR'S REPLY

Sir,

I thank you for highlighting an important issue related to testing for *H. Pylori* eradication. We agree that *H. pylori* needs to be tested with non-invasive methods like stool for *H. pylori* antigen or urea breath test (UBT), when there is no clinical indication for performing upper gastrointestinal endoscopy like weight loss, new-onset symptoms at age above 60 years, presence of malena or failure to respond to treatment.<sup>1</sup>

Apart from efficacy of investigations, these recommendations are also based on data related to demographic features of population, cost-effectiveness and availability of these tests, which can vary in different countries depending on available resources and their public health system; therefore, prompting flexibility. Cut-off limit of age for performing endoscopy in patients with dyspepsia, which is 60 years in western guidelines, is as low as 40 years in Asian population.<sup>2</sup> Moreover, in resource-constrained country, like Pakistan, not every test is available in public sector hospitals at subsidised rates. However, these tests are available in private laboratories, but at much higher cost.

Endoscopic services, being life-saving intervention, are available in every tertiary care hospital at minimal charges. It costs less than \$10 (PKR 1,600 – 1,650) in public sector hospitals with free pathology reporting service, while both stool for *H. pylori* antigen and UBTs are not available in majority of public sector hospitals; and it costs more than \$50 (PKR 8,000– 8,250) each at few private laboratories where these tests are performed. Therefore, decision to use endoscopic biopsy for *H. pylori* testing is based on availability of test and is meant to ensure cost-effectiveness. Moreover, endoscopic biopsy continues to be the gold standard test for *H. Pylori* testing.

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