

CADTH Reference List

Point-of-Care Rapid Urease Test for *Helicobacter Pylori*

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Key Message

No relevant evidence-based guidelines were identified about the use of a rapid urease test as a point-of-care test to diagnose *Helicobacter pylori*.

Research Question

What are the evidence-based guidelines regarding the use of a rapid urease test as a point-of-care test to diagnose *H. pylori*?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were *Helicobacter pylori*, rapid urease test, and point-of-care testing. A CADTH-developed search filter was applied to limit retrieval to guidelines. A second focused search was also run with no search filter applied. Where possible, retrieval was limited to the human population. The search was also limited to English-language documents published between January 1, 2017, and August 3, 2022. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed. The overall summary of findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when available, and relevant recommendations were summarized.

Results

No relevant evidence-based guidelines were identified about the use of a rapid urease test as a point-of-care test to diagnose *H. pylori*.

Additional references of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

Table 1: Selection Criteria

Criteria	Description
Population	Patients of any age being screened for <i>H. pylori</i>
Intervention	POC rapid urease test (also known as the CLO test)
Comparator	Not applicable
Outcomes	Recommendations regarding the use of a POC rapid urease test for the diagnosis of <i>H. pylori</i> infection from gastric biopsies (e.g., whether the POC rapid urease test should be used; who should be conducting the point-of-care test)
Study designs	Evidence-based guidelines

CLO = Campylobacter-like organism; POC = point-of-care.

Overall Summary of Findings

No relevant evidence-based guidelines were found regarding the use of a rapid urease test as a point-of-care test to diagnose *H. pylori*; therefore, no summary can be provided.

References

Guidelines and Recommendations

No literature identified.

Appendix 1: References of Potential Interest

Note that this appendix has not been copy-edited.

Non-Randomized Studies

Diagnostic Test Accuracy

1. Losurdo G, Francioso F, Pricci M, et al. A prospective study on *Helicobacter pylori* rapid urease test false negativity: is it time for its use in restricted situations?. *Minerva Gastroenterol (Torino)*. 2022 Jun 15. Online ahead of print. [PubMed](#)
2. Dechant FX, Dechant R, Kandulski A, et al. Accuracy of different rapid urease tests in comparison with histopathology in patients with endoscopic signs of gastritis. *Digestion*. 2020; 101(2): 184-190. [PubMed](#)
3. Trung TT, Minh TA, Anh NT. Value of CIM, CLO test and multiplex PCR for the diagnosis of *Helicobacter pylori* infection status in patients with gastritis and gastric ulcer. *Asian Pac J Cancer Prevention*. Nov 01 2019; 20(11): 3497-3503. [PubMed](#)
4. Liao PH, Lin YC, Chu CH, Shih SC, Liou TC. Colonization of *Helicobacter pylori* in the gastric cardia: a comparison between the UFT300 and CLO tests. *JGH Open*. Jun 2018; 2(3): 93-96. [PubMed](#)

Guidelines and Recommendations

Unclear Methodology

5. *H. pylori*: who to test and how to treat. Dunedin (NZ): bpacnz; 2022: <https://bpac.org.nz/2022/h-pylori.aspx>. Accessed 2022 Aug 4.
Refer to: Invasive testing is reserved for patients with dyspepsia and red flag symptoms (page 3)
6. *Helicobacter pylori*. World Gastroenterology Organisation global guidelines. Milwaukee (WI): World Gastroenterology Organisation; 2021: <https://www.worldgastroenterology.org/UserFiles/file/guidelines/helicobacter-pylori-english-2021.pdf>. Accessed 2022 Aug 4.
Refer to: Section 6.1. Endoscopic diagnostic tests (page 11)
7. El-Serag HB, Kao JY, Kanwal F, et al. Houston Consensus Conference on testing for *Helicobacter pylori* infection in the United States. *Clin Gastroenterol Hepatol*. 07 2018; 6(7): 992-1002.e6. [PubMed](#)
Refer to: Statements 20-22 and "Testing methods and confirmation of eradication" (page 999)

Point-of-Care Testing Not Specified

8. Ding SZ, Du YQ, Lu H, et al. Chinese consensus report on family-based *Helicobacter pylori* infection control and management (2021 Edition). *Gut*. 2022; 71(2): 238-253. [PubMed](#)
Refer to: "Other invasive methods for H. pylori detection include..." under CQ14 (pages 10-11)
9. M Romano M, Gravina AG, Eusebi LH, et al. Management of *Helicobacter pylori* infection: guidelines of the Italian Society of Gastroenterology (SIGE) and the Italian Society of Digestive Endoscopy (SIED). *Dig Liver Dis*. 2022 Jul 10. Online ahead of print. [PubMed](#)
Refer to: Statement 8 (page 4)
10. Jones NL, Koletzko S, Goodman K, et al. Joint ESPGHAN/NASPGHAN Guidelines for the management of *Helicobacter pylori* in children and adolescents (update 2016). *J Pediatr Gastroenterol Nutr*. 2017 Jun;64(6): 991-1003. [PubMed](#)
Refer to: Recommendation 2a (page 3)

Review Articles

11. Rupp S, Papaefthymiou A, Chatzimichael E, et al. Diagnostic approach to *Helicobacter pylori*-related gastric oncogenesis. *Ann*. Jul-Aug 2022; 35(4): 333-344. [PubMed](#)
12. Parihar V, McNamara D. Endoscopic detection of *Helicobacter pylori* by the rapid urease test. *Methods Mol Biol*. 2021;2283: 37-43. [PubMed](#)
13. Sabbagh P, Mohammadnia-Afrouzi M, Javanian M, et al. Diagnostic methods for *Helicobacter pylori* infection: ideals, options, and limitations. *Eur J Clin Microbiol Infect Dis*. 2019 Jan;38(1): 55-66. [PubMed](#)
14. Mohammadian T, Ganji L. The diagnostic rests for detection of *Helicobacter pylori* infection. *Monoclon Antib Immunodiagn Immunother*. Feb 2019; 38(1): 1-7. [PubMed](#)

Additional References

15. Point-of-care testing for *Helicobacter pylori* infection. *NIHR Horizon Scan Report 0048*. Oxford (UK): National Institute for Health and Care Research; 2017: <https://www.community.healthcare.nihr.ac.uk/reports-and-resources/horizon-scanning-reports/point-of-care-testing-for-heliobacter-pylori-infection?26feec3a-135c-11ed-b4b7-0a98ab6c0554>. Accessed 2022 Aug 4.
Refer to: Invasive Testing (page 3)