



Aug 24, 2022

Treatment regimens used in the management of Helicobacter pylori in Colombia

Luis Valladales-REstrepo¹, Yessenia Correa-Sanchez¹, Brayan Stiven Aristizábal-Carmona², Jorge Machado Alba¹

¹Universidad Tecnológica de Pereira; ²Fundacion Universitaria Autonoma de las Americas



dx.doi.org/10.17504/protocols.io.btdvni66

Jorge Machado Alba

ABSTRACT

Background:Helicobacter pylori infection can cause gastritis, gastric ulcers, duodenal ulcers and gastric cancer. Its treatment involves different medications, but resistance to these treatments is increasing. It is currently considered a public health problem. The objective was to identify *H. pylori* eradication regimens by age group, year of treatment and geographical region of Colombia.

Materials and methods: This was a cross-sectional study that identified the *H. pylori* eradication regimens used for patients treated in outpatient consultations over a 6-year period based on a medication dispensing database of 8.5 million people affiliated with the Colombian Health Care System. Sociodemographic and pharmacological variables were considered. A descriptive analysis was performed.

Results: A total of 12,011 patients with a diagnosis of acid-peptic disease and *H. pylori* infection were identified. They had a median age of 49.9 years, and 65.5% were women, and they had undergone 12,426 eradication treatment regimens. Of these, 98.0% used a proton pump inhibitor (PPI), and 91.1% used amoxicillin. A total of 56.1% of the regimens were considered adequate; of these, 42.0% corresponded to the combination of PPI, amoxicillin and clarithromycin. This regimen predominated between 2015 and 2017 for all age groups and in all geographic regions except the Amazon-Orinoquía-Eastern region. Starting in 2018, the PPI, amoxicillin and metronidazole regimens predominated.

Conclusions: The management of *H. pylori* infection in the majority of patients is heterogeneous and inconsistent with current recommendations based on evidence of antimicrobial resistance.

ATTACHMENTS

SPSSS_BD_pylori_Reposit orio.xlsx

DOI

dx.doi.org/10.17504/protocols.io.btdvni66



1

https://doi.org/10.1016/j.bjid.2022.102331

PROTOCOL CITATION

Luis Valladales-REstrepo, Yessenia Correa-Sanchez, Brayan Stiven Aristizábal-Carmona, Jorge Machado Alba 2022. Treatment regimens used in the management of Helicobacter pylori in Colombia. **protocols.io** https://protocols.io/view/treatment-regimens-used-in-the-management-of-helic-btdvni66

MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

References 1. Hanafy AS, Seleem WM. Refractory Helicobacter Pylori gastritis: The hidden predictors of resistance. Glob Antimicrob Resist. 2019;19:194-200. doi: 10.1016/j.jgar.2019.05.015. 2. El-Serag HB, Kao JY, Kanwal F, Gilger M, LoVecchio F, Moss SF, Crowe SE, Elfant A, Haas T, Hapke RJ, Graham DY. Houston Consensus Conference on Testing for Helicobacter pylori Infection in the United States. Clin Gastroenterol Hepatol. 2018;16(7):992-1002.e6. doi: 10.1016/j.cgh.2018.03.013. 3. Curado MP, de Oliveira MM, de Araújo Fagundes M. Prevalence of Helicobacter pylori infection in Latin America and the Caribbean populations: A systematic review and meta-analysis. Cancer Epidemiol. 2019;60:141-148. doi: 10.1016/j.canep.2019.04.003. 4. Otero Regino W, Trespalacios Rangel AA, Mercado Reyes M. Tasa de reinfección por Helicobacter pylori en una cohorte de pacientes colombianos tratados exitosamente con seguimiento superior a 2 años. Rev Colomb Gastroenterol. 2015;30:53-9. 5. Arslan N, Yılmaz Ö, Demiray-Gürbüz E. Importance of antimicrobial susceptibility testing for the management of eradication in Helicobacter pylori infection. World J Gastroenterol. 2017;23(16):2854-2869. doi: 10.3748/wjg.v23.i16.2854. 6. Malfertheiner P, Megraud F, O'Morain CA, Gisbert JP, Kuipers EJ, Axon AT, Bazzoli F, Gasbarrini A, Atherton J, Graham DY, Hunt R, Moayyedi P, Rokkas T, Rugge M, Selgrad M, Suerbaum S, Sugano K, El-Omar EM; European Helicobacter and Microbiota Study Group and Consensus panel. Management of Helicobacter pylori infection-the Maastricht V/Florence Consensus Report. Gut. 2017;66(1):6-30. doi: 10.1136/gutjnl-2016-312288. 7. Xue Y, Zhou LY, Lu HP, Liu JZ. Recurrence of Helicobacter pylori infection: incidence and influential factors. Chin Med J (Engl). 2019;132(7):765-771. doi: 10.1097/CM9.000000000000146. 8. Crowe SE. Helicobacter pylori Infection. N Engl J Med. 2019;380(12):1158-1165. doi: 10.1056/NEJMcp1710945. 9. Falcone M, Luo C, Chen Y, Birtwell D, Cheatle M, Duan R, Gabriel PE, He L, Ko EM, Lenz HJ, Mirkovic N, Mowery DL, Ochroch EA, Paulson EC, Schriver E, Schnoll RA, Bekelman JE, Lerman C. Risk of Persistent Opioid Use following Major Surgery in Matched Samples of Patients with and without Cancer. Cancer Epidemiol Biomarkers Prev. 2020;29(11):2126-2133. doi: 10.1158/1055-9965.EPI-20-0628. 10. Fallone CA, Chiba N, van Zanten SV, Fischbach L, Gisbert JP, Hunt RH, Jones NL, Render C, Leontiadis Gl, Moayyedi P, Marshall JK. The Toronto Consensus for the Treatment of Helicobacter pylori Infection in Adults. Gastroenterology.

2016;151(1):51-69.e14. doi: 10.1053/j.gastro.2016.04.006. 11. Savoldi A, Carrara E, Graham DY, Conti M, Tacconelli E. Prevalence of Antibiotic Resistance in Helicobacter pylori: A Systematic Review and Meta-analysis in World Health Organization Regions. Gastroenterology. 2018;155(5):1372-1382.e17. doi: 10.1053/j.gastro.2018.07.007. 12. Boltin D, Dotan I, Birkenfeld S. Improvement in the implementation of Helicobacter pylori management guidelines among primary care physicians following a targeted educational intervention. Ann Gastroenterol. 2019;32(1):52-59. doi: 10.20524/aog.2018.0329. 13. Otero R W, Gómez Z M, Otero P L, Trespalacios R A. Helicobacter pylori: ¿cómo se trata en el 2018? [Helicobacter pylori: How do we treat it in 2018?]. Rev Gastroenterol Peru. 2018;38(1):54-63. 14. Li H, Liang X, Chen Q, Zhang W, Lu H. Inappropriate treatment in Helicobacter pylori eradication failure: a retrospective study. Scand J Gastroenterol. 2018;53(2):130-133. doi: 10.1080/00365521.2017.1413132. 15. Li H, Liang X, Chen Q, Zhang W, Lu H. Inappropriate treatment in Helicobacter pylori eradication failure: a retrospective study. Scand J Gastroenterol. 2018;53(2):130-133. doi: 10.1080/00365521.2017.1413132. 16. Doorakkers E, Lagergren J, Gajulapuri VK, Callens S, Engstrand L, Brusselaers N. Helicobacter pylori eradication in the Swedish population. Scand J Gastroenterol. 2017;52(6-7):678-685. doi: 10.1080/00365521.2017.1303844. 17. Lee JH, Ahn JY, Choi KD, Jung HY, Kim JM, Baik GH, Kim BW, Park JC, Jung HK, Cho SJ, Shin CM, Choi YJ, Lee SH, Kim JH, Lee WS, Sung JK, Chung JW, Cheung DY, Lee H, Min YW, Kim JJ, Kim SY; Korean College of Helicobacter; Upper Gastrointestinal Research. Nationwide antibiotic resistance mapping of Helicobacter pylori in Korea: A prospective multicenter study. Helicobacter. 2019;24(4):e12592. doi: 10.1111/hel.12592. 18. Afsar MNA, Jhinu ZN, Bhuiyan MAI, Islam Z, Siddigua TJ. Helicobacter pylori infection and micronutrient deficiency in pregnant women: a systematic review and meta-analysis. BMJ Open Gastroenterol. 2020;7(1):e000490. doi: 10.1136/bmjgast-2020-000490. 19. Gómez M, Otero W, Gutiérrez Ó. Tratamiento de la infección por Helicobacter pylori. Encuesta en un grupo de médicos generales y especialistas en Colombia. Rev Colomb Gastroenterol. 2007;22:7-16. 20. Camargo MC, García A, Riquelme A, Otero W, Camargo CA, Hernandez-García T, Candia R, Bruce MG, Rabkin CS. The problem of Helicobacter pylori resistance to antibiotics: a systematic review in Latin America. Am J Gastroenterol. 2014;109(4):485-95. doi: 10.1038/ajg.2014.24. 21. Machado-Alba JE, Valladales-Restrepo LF, Gaviria-Mendoza A, Machado-Duque ME, Figueras A. Patterns of Antibiotic Prescription in Colombia: Are There Differences between Capital Cities and Municipalities? Antibiotics (Basel). 2020;9(7):389. doi: 10.3390/antibiotics9070389. 22. Murakami TT, Scranton RA, Brown HE, Harris RB, Chen Z, Musuku S, Oren E. Management of Helicobacter Pylori in the United States: Results from a national survey of gastroenterology physicians. Prev Med. 2017;100:216-222. doi: 10.1016/j.ypmed.2017.04.021. 23. Atehortua Rendon JD, Pérez Cala TL, Martínez A. Descripción de la resistencia de Helicobacter pylori a seis antibióticos de uso frecuente en Colombia. Rev Colomb Gastroenterol. 2020;35(3):351-61. 24. Nyssen OP, Vaira D, Tepes B, Kupcinskas L, Bordin D, Pérez-Aisa Á, Gasbarrini A, Castro-Fernández M, Bujanda L, Garre A, Lucendo A, Vologzhanina L, Jurecic NB, Rodrigo-Sáez L, Huguet JM, Voynovan I, Perez-Lasala J, Romero PM, Vujasinovic M,

Abdulkhakov R, Barrio J, Fernandez-Salazar L, Mégraud F, O'Morain C, Gisbert JP. Room for Improvement in the Treatment of Helicobacter pylori Infection: Lessons from the European Registry on H. pylori Management (Hp-EuReg). J Clin Gastroenterol. 2021;Publish Ahead of Print. doi: 10.1097/MCG.00000000000001482. 25. Machado-Alba JE, Serna-Echeverri LS, Valladales-Restrepo LF, Machado-Duque ME, Gaviria-Mendoza A. Use of Tramadol or Other Analgesics in Patients Treated in the Emergency Department as a Risk Factor for Opioid Use. Pain Research and Management. 2020;2020:8847777. 26. Laredo V, Sostres C, Alfaro E, Arroyo MT, Lanas Á. Management of Helicobacter pylori infection at the primary care level. The implementation of specific counseling improves eradication rates. Helicobacter. 2019;24(3):e12586. doi: 10.1111/hel.12586.

LICENSE

This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

CREATED

Mar 16, 2021

LAST MODIFIED

Aug 24, 2022

PROTOCOL INTEGER ID

48277