

***Helicobacter pylori* eradication: the relevance of a periodic update**

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In the prospective study conducted in Israel by Boltin *et al* among primary care physicians (PCPs), the rate of recommendation of a 4-drug treatment protocol for *Helicobacter pylori* (*H. pylori*) eradication increased from 3.8% in 2015 to 37.1% in 2018 ($P<0.001$) [1]. Likewise, the number of PCPs who recommended bismuth- or levofloxacin-based therapy for second-line treatment increased from 30.3% in 2015 to 77.1% in 2018 ($P<0.001$). Independent predictors for a 4-drug treatment protocol included central clinic location, exposure to printed educational materials, and exposure to the social media platform. In contrast, there were no independent predictors of compliance with second-line treatment. Accordingly, the authors concluded that PCP compliance with *H. pylori* guidelines remains suboptimal but educational initiatives and direct web-based interaction between PCPs and gastroenterologists may be effective [1]. Focusing on the options chosen in the second-line treatment, we observed that the number of PCPs who repeated the first-line treatment decreased from 6.7% to 5.9%. Although this reduction was not statistically significant ($P=0.58$), it indicates a positive cultural trend.

In other regions of the world, opposite trends have recently been reported. Li *et al* found that in Shanghai, China, clarithromycin-containing regimens were used repeatedly to eradicate *H. pylori* infection in 60.8% of patients, while levofloxacin-containing regimens were repeated in 30.0% [2]. In Turin, northwestern Italy, we found that during the period 2014-2016 the same treatment was repeated after a failure in 15.1% of patients, compared with 3.9% in the period 2004-2006 ($P<0.0001$). Furthermore, while in the period 2004-2006 all repetitions were prescribed by PCPs, over the period 2014-2016 PCPs were responsible for 78.8% of prescriptions. In the specialist setting, the repetition of the same regimen ranged from 0% in the period 2004-2006 to 18.2% during the period 2014-2016, at the limit of statistical significance ($P=0.088$) [3]. Hence, in our area there is an increasing trend to repeat the same treatment after a first failure, despite a long background

in the management of *H. pylori* infection [4]. This could be due to the reduced interest and knowledge concerning *H. pylori* eradication, at both general and specialist levels. Nevertheless, it is possible that the lack of a health informatics network could limit the availability of patients' data, inducing errors such as the repetition of the same treatment when patient documentation on previous treatment is not available.

In conclusion, the interesting work by Boltin *et al* encourages the planning of updating courses or online networks dedicated to PCPs as well as specialists for medical re-education, aiming to stimulate the appropriate application of International Guidelines concerning the various steps of *H. pylori* treatment [5].

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