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Use of probiotics in the *Helicobacter pylori* eradication in Italy: data from the Italian Registry on *Helicobacter pylori* treatment

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Background: Probiotics may have beneficial effect in reducing adverse events in patients treated for *Helicobacter (H.) pylori* infection; however, data on their use in this setting are scarce.

Aim: To investigate the use of probiotic supplementation in the treatment of *H. pylori* infection in clinical practice in Italy.

Methods: The "Italian Registry on *H. pylori* treatment" is an online database prospectively registering adult patients prescribed with a treatment for *H. pylori* infection by gastroenterologists in Italy. Data were collected in 17 Centers from June 2017 to May 2019 using the web application REDCap (Research Electronic Data Capture).

Results: A total of 1803 patients [1140 (63.5%) females, mean age (SD): 55.4 years (15.1)] were included in the Registry in the study period. Of these, 1699 received one treatment regimen, 101 two regimens and 3 three regimens, with a total of 1910 cases. Probiotics were prescribed in 49.9% (n. 953) of cases: 100% (61/61) with rifabutin triple therapy, 86.4% (472/546) with sequential therapy, 54.2% (77/142) with levofloxacin triple therapy, 46.3% (38/82) with concomitant therapy, 33% (211/641) with bismuth quadruple therapy (Pylera®), 24.1% (90/374) with clarithromycin triple therapy and 21.1% (4/19) with other regimens. The most frequently prescribed probiotic was a combination of *Lactobacillus rhamnosus* and *Bifidobacterium breve* (586, 61.5%), followed by *Lactobacillus casei* DG (118, 12.4%), *Lactobacillus rhamnosus* (85, 8.9%), *Saccaromyces boulardii* (74, 7.8%) and others probiotics (90, 9.4%). Conclusions

Probiotic supplementation is used in half of patients treated for *H. pylori* eradication in Italy. *Lactobacillus* and *Bifidobacterium* are the probiotics most commonly prescribed.

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