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EFFECTIVENESS OF *HELICOBACTER PYLORI* ERADICATION TREATMENTS IN PRIMARY CARE: INSIGHTS FROM A NATIONAL REAL-WORLD COHORT.

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Objective: *H. pylori*, a leading cause of chronic gastritis, peptic ulcers, and gastric cancer, is widely treated in Primary Care, but real-world treatment effectiveness in this setting remains suboptimal. This study evaluated the effectiveness of *H. pylori* eradication regimens prescribed in Primary Care using BIFAP, a Spanish healthcare database.

Patients and Methods: Adults (≥18 years) diagnosed with *H. pylori* between 2003-2023 and prescribed treatment were included. Guideline-based regimens were evaluated using validated algorithms and confirmed through test results (stool antigen or breath test) within 12 months. Logistic regression adjusted for clinical covariates. Results were compared with data from the Hp-EuReg to contrast with Specialized Care.

Results: Among 211,972 identified patients, 30,693 (14%) were included in the effectiveness analysis. The most frequently prescribed first-line regimen in both Primary and Specialised Care was proton pump inhibitor plus a single-capsule with bismuth-tetracycline-metronidazole (Pylera®) (PPI+ScBQT). Significant ($p < 0.01$) differences were observed in eradication rates among the regimens. PPI+ScBQT had the highest effectiveness (91%), followed by PPI+clarithromycin (C)-amoxicillin(A)-metronidazole(M) (88%), PPI+C+A (70%), and PPI+C+M (61%). The results aligned with data from Specialised care (Hp-EuReg). Adjusted logistic regression showed PPI+ScBQT was significantly more effective than other regimens, with lower odds ratio (OR) of failure compared to PPI+C+M (OR 0.15), PPI+C+A (0.23), and PPI+C+A+M (0.72), after accounting for age, sex, obesity, peptic ulcer, chronic kidney disease, and smoking.

Conclusions: In Primary Care, PPI+ScBQT showed superior effectiveness, followed by PPI+C+A+M. Findings were consistent with Gastroenterology data, supporting the use of bismuth-based quadruple therapy as the most effective first-line option.

Conflict of interest disclosure:

O.P. Nyssen*: Other; Significant; Mayoly, Allergan/Abbvie, Richen, Juvisé and Biocodex. E. Fernán-dez-Antón*: None. G. Alonso-Martínez: None. P. Parra: None. F.J. de Abajo**: None. J.P. Gisbert**: Other; Significant; Mayoly, Allergan/Abbvie, Diasorin, Richen, Juvisé and Biocodex.

P01.003.

TO FAIL OR NOT TO FAIL – AN UPDATE FROM THE UK ON THE TREATMENT OUTCOMES OF 462 PATIENTS FROM THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG)

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Objective: UK guidance on *H. pylori* management is not aligned with guidance in the rest of Europe. The aim of this study is to analyse the current UK practice to highlight areas that warrant improvement.

Materials and Methods: UK data collected at AEG-REDCap e-CRF until January 2025 from the European Registry on *H. pylori* management (Hp-EuReg) were analysed. Modified intention-to-treat (mITT) and per protocol (PP) analyses were performed and Fisher's exact test was used for comparison of categorical data (significance for $p<0.05$).

Results: The mean age of 462 patients was 55 years (SD 16.2 years). Most commonly prescribed regimens were Amoxicillin-Clarithromycin-PPI (75.5%), Amoxicillin-Metronidazole-PPI (11.1%) and Clarithromycin-Metronidazole-PPI (9.1%). PPI was prescribed at low, standard and high dose in 76%, 21% and 3%, respectively. Tests to confirm eradication success were done in 85% of patients, with practice varying between different sites ($p<0.001$). Eradication was successful in 71% in both mITT and PP analyses. Treatment was prescribed for 7 days in 90.9% of patients and for 14 days in 7.4%. Patients treated for 7 days showed treatment success in 70% and 69% in the mITT and PP analyses, respectively, compared to 93% (mITT, PP) in those treated for 14 days (mITT: $p=0.005$; PP: $p=0.010$). Second-line treatment was documented for 109 patients with 20 different regimens having been prescribed. The overall mITT success of second-line treatment was only 48.5%.

Conclusions: Clarithromycin-triple therapy remains the standard in the UK, despite a treatment failure of ≈30%. A review of the national guidance on this topic is needed.

Conflict of interest disclosure:

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P01.008.

SECOND- AND THIRD-LINE THERAPIES FOR *HELICOBACTER PYLORI* ERADICATION IN SLOVENIA: DATA FROM 2013-2024 OF THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT

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Objectives: The treatment for *Helicobacter pylori* (*H. pylori*) infection is clinically indicated, however, the optimal strategies for *H. pylori* second- and third-line management remain unclear.

Patients and Methods: Data on patient's second- and third-line eradication therapies registered in the European Registry on *H. pylori* Management (Hp-EuReg) between 2013 and 2024 were included. Effectiveness was assessed using a modified intention-to-treat (mITT) analysis, usually with UBT.

Results: Data from eight Slovenian medical institutions contributed to the Hp-EuReg database, encompassing 402 second-line and 81 third-line eradication regimens. Among second line regimens with more than 15 patients, the following achieved an eradication rate of at least 90%: a 14-day regimen of esomeprazole, amoxicillin, levofloxacin, and bismuth (96%); a 10-day and 14-day regimen with esomeprazole, amoxicillin, and levofloxacin (91% and 90%, respectively); and a 10-day regimen with esomeprazole combined with bismuth quadruple therapy in a single-capsule (100%). The overall

eradication rates for second-line empirical treatments and culture-guided treatments were 86% and 89%, respectively ($p > 0.05$). Side effects were reported by 52 patients (13%), and treatment was discontinued in 0.7% of cases due to adverse events. In third-line treatment, bismuth single-capsule combination therapy was the only regimen that achieved an optimal cure rate (94%). The eradication rate for empirical treatment was 84%, while that for culture-guided treatment was 85% ($p > 0.05$). Side effects were reported in 12 patients (15%); however, no patient required treatment discontinuation due to adverse events.

Conclusions: In Slovenia, *H. pylori* eradication second- and third-line rescue therapies are generally effective and safe in clinical practice.

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LITERATURE-BASED HELICOBACTER PYLORI RESISTANCE DATA INTEGRATED INTO THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG): LIMITED USEFULNESS FOR PREDICTING FIRST-LINE EMPIRICAL TREATMENT EFFECTIVENESS

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***Objective**: H. pylori* infection causes gastritis, peptic ulcer, and gastric cancer. Without an effective vaccine, eradication therapy remains crucial. However, rising antibiotic resistance has compromised treatment effectiveness. This study evaluated whether literature-based data could predict first-line empirical treatment effectiveness.

Materials and Methods: Antibiotic resistance data for clarithromycin, metronidazole, and levofloxacin were obtained from bibliographic reviews, estimating prevalence for three timeframes: treatment year, previous year, and the weighted average of the last five years. These rates were matched with outcomes from the European Registry on *H. pylori* Management (Hp-EuReg), a prospective, real-world study involving 23 countries from 2008-2024. Modified intention-to-treat analyses were conducted using multivariate logistic regression with 10,000 stratified-bootstraps, with covariates: age, sex, country, prescription year, first-line treatment, proton pump inhibitor dosage, treatment duration, compliance, and assigned resistance values. Additional analyses assessed the impact of antibiotic-specific resistances on the corresponding treatments.

Results: The final analysis included 18,219 patients from 13 countries. The ORs obtained were as follows: for clarithromycin resistance and treatment success, OR=1.02 [1.00-1.03]; and for levofloxacin resistance and treatment success, OR=0.98 [0.97-1.00]. When only the previous year was considered, the OR was 1.01 [1.00-1.02]). For clarithromycin-amoxicillin triple therapy, clarithromycin resistance (current and last five years), the OR was 0.99 [0.99-1.00]). For clarithromycin-metronidazole triple therapy, the OR for clarithromycin was 0.97 [0.93-1.01]) and for metronidazole 0.96 [0.93-1.00]) No significant associations were observed with other regimens.

Conclusions: Literature-based resistance data proved to be useless for guiding real-world first-line *H. pylori* therapy and confirmed the need to test antibiotic susceptibility in each individual patient to obtain reliable resistance information.

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P01.050.

IMPACT OF DRUG DOSAGES ON THE EFFECTIVENESS OF FIRST-LINE BISMUTH QUADRUPLE THERAPY: RESULTS FROM 11,000 PATIENTS FROM THE EUROPEAN REGISTRY ON *HELICOBACTER PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* First-line empirical bismuth quadruple therapies including a proton pump inhibitor (PPI) and two antibiotics have been shown to be highly effective against *Helicobacter pylori* infection. However, there is limited evidence regarding their effectiveness based on drug dosages.

Patients and Methods: First-line bismuth quadruple regimens with more than 100 cases were selected from a prospective, non-interventional registry of the clinical practice of European gastroenterologists (Hp-EuReg; 2013-2024). Effectiveness was analysed by modified intention-to-treat (mITT) based on the different drug dosages.

Results: Overall, 10,767 first-line treatments were analysed (Table 1) showing ≥90% effectiveness in following regimens: PPI-clarithromycin-amoxicillin-bismuth (CAB) regardless of bismuth dosages and using A and C at standard doses; PPI-tetracycline-metronidazole-bismuth (TMB) with T ≥1,500 mg/day, M 1,500 mg/day, and bismuth ≥480 mg/day, with no benefit from higher bismuth doses; PPI-amoxicillin-metronidazole-bismuth (AMB) with A 2,000 mg/day, M ≥1,000 mg/day, and bismuth 480 mg/day, without relevant improvement when increasing M dosages; PPI-clarithromycin-metronidazole-bismuth (CMB) with M ≥800 mg/day, C 1,000 mg/day, and bismuth 480 mg/day, and did not improve with higher daily doses of bismuth; PPI-amoxicillin-levofloxacin-bismuth (ALB) with no differences observed when increasing the L dose above 500 mg/day. The remaining regimens did not reach mITT >90%.

Conclusions: CAB, TMB, AMB, CMB, and ALB bismuth-containing regimens are highly effective (>90%)

in clinical practice in Europe. Increasing bismuth dose above 480 mg/day did not improve effectiveness.

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P01.051.

PRESCRIPTIONS AND EFFECTIVENESS OF ALTERNATIVE AND INFREQUENT *HELICOBACTER PYLORI* ERADICATION REGIMENS: INSIGHTS FROM THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* Despite the recommendations of clinical guidelines, many alternative *Helicobacter pylori (H. pylori)* eradication regimens are still prescribed. Data on the frequency and effectiveness of these less commonly used treatments remain limited.
The aim of the study was to evaluate the frequency and effectiveness of less prescribed regimens with-

in the European Registry on *Helicobacter pylori* Management (Hp-EuReg).

Materials and Methods: This ongoing international, prospective, non-interventional registry on the management of *H. pylori* infection began in 2013. Regimens prescribed in fewer than 5% of cases were classified as 'less frequently prescribed'. Effectiveness was assessed using modified intention-to-treat (mITT) and per-protocol (PP) analyses.
Results: Among 82,510 prescriptions, 260 less prescribed regimens (5.5%) were identified, with 63% used in first-line therapy. Common first-line treatments encompassed bismuth-containing quadruple therapy with PPI-clarithromycin-metronidazole-bismuth (20%), non-bismuth hybrid quadruple therapy with clarithromycin-amoxicillin-metronidazole (9.5%), and dual therapy with PPI-amoxicillin (8.6%). Second-line regimens included triple therapies: PPI-amoxicillin-moxifloxacin (16%), PPI-clarithromycin-levofloxacin (11%), and PPI-metronidazole-levofloxacin (9.5%). In the third-line, the most common was bismuth-containing quadruple therapy including PPI-metronidazole-doxycycline-bismuth (27%), followed by triple therapies with PPI-clarithromycin-levofloxacin (6.8%) and PPI-amoxicillin-moxifloxacin (5.6%). Antibiotic-free regimens, such as PPI plus probiotics — *Lactobacillus bulgaricus* or *Lactobacillus reuteri* — were prescribed in 104 cases.
Conclusions: Among the various less prescribed *H. pylori* eradication regimens, few achieved eradication rates above 90%, highlighting the importance of evidence-based treatment adherence to optimize clinical outcomes.

TABLE 1. FREQUENCY OF USE AND EFFECTIVENESS OF ALTERNATIVE AND INFREQUENT PRESCRIPTIONS IN FIRST-, SECOND- AND THIRD-LINE TREATMENTS.

		Frequency, n (%)	Effectiveness mITT	Effectiveness PP
Overall	Quadruple-PPI+C+M+B	597 (13.2)	90.4%	90.7%
	Dual-PPI+A	339 (7.5)	70.8%	70.8%
	Quadruple-PPI+M+D+B	309 (6.8)	67.1%	67.7%
First-line	Quadruple-PPI+C+M+B	580 (20.3)	90.2%	90.5%
	Hybrid-PPI+C+A+M	270 (9.5)	94.2%	94.2%
	Dual-PPI+A	244 (8.6)	76.1%	76.1%
Second-line	Triple-PPI+A+Mx	153 (15.8)	91.8%	91.8%
	Triple-PPI+C+L	104 (10.7)	76.9%	76.7%
	Triple-PPI+M+L	92 (9.5)	75%	75%
Third-line	Quadruple-PPI+M+D+B	106 (26.8)	62.7%	63.3%
	Triple-PPI+C+L	27 (6.8)	52%	50%
	Triple-PPI+A+Mx	22 (5.6)	63.3%	63.3%
Antibiotic free-regimens	PPI+*Lactobacillus bulgaricus*	55 (52.8)	87.3%	87.3
	PPI+*Lactobacillus reuteri*%	22 (21.15)	40%	40.9%

n, number of patients receiving a prescription; C, clarithromycin; M, metronidazole; B, bismuth; A, amoxicillin; D, doxycycline; L, levofloxacin; Mx, moxifloxacin; R, rifabutin; PPI, proton pump inhibitor; mITT, modified intention to treat; PP, per protocol.

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Conclusions: ddPCR on RUT samples is a feasible, effective method for detecting clarithromycin resistance. Resistance status was the primary predictor of eradication success, highlighting the limitations of empiric therapy. Molecular-guided treatment may improve outcomes and support antibiotic stewardship. These findings support expansion of this approach to non-invasive stool-based testing in primary care and screening contexts.

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REAL-WORLD INDICATIONS AND ERADICATION RATES OF FIRST-LINE *H. PYLORI* THERAPIES IN GERMANY: DATA FROM THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG) WITH A FOCUS ON GASTRIC CANCER PREVENTION

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Objective*: Helicobacter pylori (H. pylori*) is a key risk factor for gastric cancer (GC). In Germany, an intermediate-risk country, current S3 guidelines recommend a targeted test-and-treat approach in high-risk individuals for GC prevention. However, real-world data on treatment indications and effectiveness are limited.
Patients and Methods: This analysis includes first-line *H. pylori* treatments from five German university centers participating in the European Registry on *H. pylori* Management (Hp-EuReg; 2013-2025), documented *via* AEG-REDCap. Indications were categorised by symptom profile, endoscopic findings, and GC risk. Eradication rates were assessed by modified intention-to-treat and compared across regimens using the χ^2 test.
Results: Among 448 patients (53% male, median age 55) included main indications were non-investigated dyspepsia (33%), dyspepsia with normal endoscopy (30%), and peptic ulcer disease (18%). GC prevention accounted for 5% of cases, including prior GC resection (0.9%), first-degree relatives of GC patients (2%), and high-risk screening (1.3%). Other indications included iron deficiency anaemia (4%), vitamin B12 deficiency (0.7%), and MALT lymphoma (0.2%). The most frequently prescribed first-line regimens were amoxicillin-clarithromycin triple therapy (54%) and bismuth-based quadruple therapy (BQT, 41%), administered as a three-in-one capsule containing metronidazole-tetracycline-bismuth. Both regimens achieved high eradication rates (98% *vs.* 97%) when administered for 10 days.
Conclusions: In Germany, most *H. pylori* eradications were symptom-driven, though a small but relevant proportion targeted GC prevention. Over the study period, both most commonly used first-line regimens were highly effective in real-world settings.

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P01.100.

TRENDS IN THE PRESCRIPTION OF ERADICATION TREATMENTS AND THEIR EFFECTIVENESS IN NAÏVE PATIENTS OVER 12 YEARS (2013-2024) IN EUROPE: DATA FROM THE EUROPEAN REGISTRY ON *HELICOBACTER PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* The infection by *Helicobacter pylori* can be successfully treated and eradicated by adhering to consensus guidelines, which must be continually assessed for clinical applicability.

Materials and Methods: Multicenter, prospective registry evaluating the decisions and outcomes of *H. pylori* management by European gastroenterologists (Hp-EuReg, Hp-WorldReg's partner). Data were registered at AEG-REDCap e-CRF until December 2024. Modified intention-to-treat (mITT) and time trend analyses were performed.

Results: Overall, 64,084 (84%) first-line empirical prescriptions were analyzed. The total number of different therapeutic regimens prescribed exceeded 100. Triple therapy prescriptions decreased from 58% during 2013/15 to 34% in 2022/24; likewise, non-bismuth concomitant therapy use decreased from 23% in 2013/15 to 14% in 2022/24; while three-in-one single-capsule increased from 0.3% in2013/2015 to 20% in 2022/24. An increase in the average duration of treatments (from 9.9 to 12.7 days) in 2013-2024 was identified, as well as in the use of standard/high-dose of PPIs (increasing from 36% to 61%) in 2013-2024. Over 12 years of evolution, an overall improvement of ≈10% in first-line effectiveness was observed, increasing from 86% to 93%, both globally and across geographic regions (Table 1).

Conclusions: European gastroenterological practice is continuously adapting to the latest published evidence and recommendations—reducing the use of triple therapies while increasing both treatment duration and PPI dosage—leading to a progressive improvement in overall effectiveness. These changes have remained consistent in recent years.

TABLE 1. PRESCRIPTIONS AND EFFECTIVENESS TRENDS OF FIRST-LINE EMPIRICAL TREATMENTS IN EUROPE IN THE PERIOD 2013-2024.

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Treatment												
Quadruple-C+A+B	1.9%	2.6%	6.5%	19%	12%	25%	13%	14%	16%	14%	17%	17%
Single-capsule*	0.2%	0.2%	0.5%	14%	22%	17%	21%	19%	19%	21%	19%	20%
Quadruple-M+Tc+B	2%	1.8%	0.5%	0.2%	0.3%	0.6%	1.3%	1.3%	1.6%	3.7%	2.4%	2.8%
Concomitant-C+A+M/T	21%	21%	27%	21%	19%	8.5%	11%	13%	14%	13%	15%	14%
Sequential-C+A+M/T	16%	9.7%	7.4%	1.9%	7.8%	7.2%	5.8%	3.6%	3.6%	3.6%	2.4%	2.1%
Triple-A+L	2.2%	2.1%	3%	1.7%	0.6%	0.6%	1.1%	1.2%	1.2%	2.3%	3%	2%
Triple-A+M	3.4%	2.9%	1.5%	1.5%	1.3%	0.4%	1.6%	1%	1.3%	1.5%	1.6%	1.3%
Triple-C+M	3.2%	6.1%	8.1%	5.7%	1.3%	0.9%	1.2%	6.4%	4.1%	3.9%	2.7%	1.7%
Triple-C+A	46%	50%	40%	29%	30%	30%	36%	33%	33%	28%	25%	21%
Therapy length												
7 days	27%	28%	23%	17%	7.3%	2.1%	2.8%	3.4%	2.9%	8.8%	3%	2.1%
10 days	57%	55%	59%	48%	52%	47%	41%	39%	43%	43%	34%	31%
14 days	17%	18%	18%	36%	40%	51%	56%	58%	54%	48%	63%	67%
PPI doses												
Low (4.5 to 27 mg omeprazole equivalents b.i.d.)	64%	55%	44%	38%	44%	31%	35%	46%	43%	37%	42%	39%
Standard (32 to 40 mg omeprazole equivalents b.i.d.)	16%	24%	24%	23%	23%	37%	29%	24%	26%	35%	31%	28%
High (54 to 128 mg omeprazole equivalents b.i.d.)	20%	22%	31%	39%	33%	32%	37%	30%	31%	29%	27%	33%
Overall effectiveness												
Eradication rate (mITT)	86%	85%	86%	88%	88%	91%	89%	89%	91%	92%	92%	93%
Effectiveness depending on geographical region												
East	92%	79%	84%	83%	82%	91%	90%	93%	93%	91%	93%	91%
East-Centre	87%	85%	86%	85%	87%	89%	89%	93%	91%	92%	94%	95%
South-West	84%	86%	86%	90%	91%	91%	88%	85%	90%	93%	92%	95%
West-Centre	89%	92%	93%	94%	89%	92%	91%	89%	89%	94%	94%	94%
North	85%	82%	83%	88%	83%	77%	84%	83%	81%	83%	77%	79%

PPI: proton pump inhibitor; mITT: modified intention-to-treat; A – amoxicillin; C – clarithromycin; M – metronidazole; T – tinidazole; L – levofloxacin B; – bismuth salts; Tc – tetracycline; East – Ukraine, Serbia, Bulgaria, Turkey, Russia, Romania, Albania, North Macedonia, Bosnia and Herzegovina, Kosovo, Moldova, Montenegro; East-Centre – Croatia, Poland, Hungary, Latvia, Lithuania, Greece, Slovenia, Czech Rep, Azerbaijan, Slovakia, Malta, Armenia; South-West – Portugal, Spain; West-Centre – France, Austria, Belgium, Germany, Italy; North – The United Kingdom, Finland, The Netherlands, Ireland, Israel, Norway, Switzerland, Sweden, Denmark; *Three-in-one single-cap-sule containing metronidazole. tetracycline and bismuth.

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EMPIRICAL SECOND-LINE TREATMENTS IN EUROPE: DATA FROM 9,000 CASES FROM THE EUROPEAN REGISTRY ON *HELICOBACTER PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* After a first eradication attempt, a relevant proportion of patients fail to cure *Helicobacter pylori* infection. The aim of the study was to assess second-line empirical treatment effectiveness.

Patients and Methods: A prospective registry (Hp-EuReg, Hp-WorldReg's partner) systematically included infected adults in the AEG-REDCap e-CRF until January 2025. Modified intention-to-treat (mITT) and per-protocol (PP) analyses were conducted.

Results: Overall, 8,901 patients received a second-line empirical therapy, achieving 82% effective-ness (mITT and PP). Adherence was 96.5% and adverse events occurred in 19%, mostly mild. Table 1 shows the effectiveness of common second-line treatments, with only 14-day bismuth quadruple therapies (tetracycline-metronidazole-bismuth or clarithromycin-amoxicillin-bismuth) plus high- dose PPIs achieving over 90% success. After first-line clarithromycin therapy failure, second-line triple therapy with amoxicillin plus rifabutin or levofloxacin achieved 85% and 80% effectiveness, respectively. Additionally, bismuth quadruple therapy with tetracycline-metronidazole (single-cap-sule and classical format), clarithromycin-amoxicillin, and levofloxacin-amoxicillin achieved 87%, 84%, 88%, and 85% cure rates, respectively.

Within the same subgroup but in patients receiving optimized therapy, certain regimens yielded higher cure rates: triple therapy with amoxicillin-levo-floxacin reached 87%, non-bismuth concomitant therapy (amoxicillin-clarithromycin-metronidazole) 86%, and bismuth quadruple therapy with tetracycline-metronidazole (single-capsule and classical format) achieved 89%, while amoxicillin-metronidazole and clarithromycin-amoxicillin reached 91% and 92%, respectively.

Conclusions: In Europe, empirical second-line treatment effectiveness is generally suboptimal (<90%), but 14-day bismuth quadruple therapy (tetracycline-metronidazole or clarithromycin-amoxicillin) with high-dose PPIs achieved optimal results. Optimization of regimen selection, treatment duration, and PPI dosing is necessary after first-line therapy failure.

TABLE 1. SECOND-LINE EMPIRICAL TREATMENT PRESCRIPTIONS AND EFFECTIVENESS BY TREATMENT SCHEME AND GEOGRAPHICAL REGION.

Treatment	N	Use (%)	mITT, N (%)	(95% CI)	PP, N (%)	(95% CI)
Triple-A+L	2,100	24	1,853 (79)	(78-81)	1,831 (80)	(78-82)
Single-capsule*	1,850	21	1,721 (87)	(85-89)	1,684 (88)	(86-89)
Quadruple-A+L+B	1,271	14	1,022 (86)	(83-88)	1,002 (86)	(84-88)
Quadruple-C+A+M	553	6.2	527 (81)	(78-85)	514 (82)	(79-86)
Quadruple-M+Tc+B	480	5.4	426 (84)**	(80-88)	407 (86)	(82-89)
Triple-C+A	436	4.9	344 (74)	(69-79)	338 (74)	(69-79)
Quadruple-C+A+B	390	4.4	267 (89)**	(85-93)	257 (89)	(86-93)
Triple-A+R	218	2.4	195 (82)	(76-87)	193 (82)	(76-88)
Triple-A+M	204	2.3	178 (57)	(50-65)	177 (58)	(50-65)
Other	1,229	14	NA	NA	NA	NA
Overall	8,731	100	7,601 (82)	(81-83)	7,451 (82)	(81-83)
Overall (optimised conditions)	1,913	22	1,641 (87)	(85-89)	1,604 (87)	(86-89)
East	1,404	16	1,147 (83)	(81-86)	1,111 (84)	(81-86)
East-Centre	1,645	18	1,158 (85)	(83-87)	1,145 (85)	(83-87)
South-West	4,046	45	3,834 (81)	(80-83)	3,756 (82)	(81-83)
West-Centre	1,163	13	1,043 (84)	(82-86)	1,028 (84)	(82-87)
North	643	7.2	566 (70)	(66-74)	548 (72)	(68-75)
Total	8,901	100	7,748 (82)	(81-83)	7,588 (82)	(81-83)

95% CI – confidence interval; mITT: modified intention-to-treat; PP: per-protocol, N: total number of patients analysed; C – clarithro- mycin; M – metronidazole; A – amoxicillin; L – levofloxacin; B – bismuth salts; Tc – tetracycline; R – rifabutin; Other – Other second-line empirical treatments with less than 150 patients treated in each category; East – Ukraine, Serbia, Bulgaria, Turkey, Russia, Romania, Albania, North Macedonia, Bosnia and Herzegovina, Kosovo, Moldova, Montenegro; East-Centre – Croatia, Poland, Hungary, Latvia, Lith- uania, Greece, Slovenia, Czech Rep, Azerbaijan, Slovakia, Malta, Armenia; South-West – Portugal, Spain; West-Centre – France, Austria, Belgium, Germany, Italy; North – The United Kingdom, Finland, The Netherlands, Ireland, Israel, Norway, Switzerland, Sweden, Denmark;
*three-in-one single-capsule containing tetracycline, metronidazole and bismuth; **achieved over 90% effectiveness when optimised (high- dose PPIs and 14-days).

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P01.022.

EFFECTIVENESS AND SAFETY OF SINGLE-CAPSULE BISMUTH QUADRUPLE THERAPY IN 12,500 PATIENTS FROM THE EUROPEAN REGISTRY ON *HELICOBACTER PYLORI* MANAGEMENT (HP-EUREG)

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Objective: The use of the three-in-one single-capsule formulation of bismuth quadruple therapy (PPI, bismuth, tetracycline, and metronidazole), introduced several years ago, has become increasingly widespread in Europe. However, the experience with this regimen should be analyzed in depth. The aim of the study was to evaluate the effectiveness and safety of the three-in-one single-capsule in the European Registry on *Helicobacter pylori* management (Hp-EuReg).

Patients and Methods: Multicenter, prospective registry (Hp-EuReg, Hp-WorldReg's partner) evaluating infected adult patients treated with 10-day single-capsule according to data sheet (3 capsules/6 h) or alternative three times a day (4 capsules/8 h) prescriptions and registered at AEG-REDCap e-CRF until December 2024. Modified intention-to-treat (mITT) and per-protocol (PP) analyses were performed.

Results: Overall, 12,519 (16%) patients received single-capsule bismuth-quadruple therapy, achieving 92% eradication rate based both on the mITT and PP analyses. In first-line treatment, effectiveness (mITT) reached 93%, decreasing to 87% in the second-line and to 83% in subsequent lines (3rd to 6th) (Table 1). Compliance was reported in 97% of cases, and was the factor most closely associated with the effectiveness. Adverse events (21%) were generally mild and transient; with 0.1% of patients reporting serious adverse events, leading to the discontinuation of treatment in 1.7% of patients.

Conclusions: The 10-day treatment with single-capsule bismuth-quadruple therapy achieves *H. pylori* eradication in approximately 90% of patients (mITT) in real-world clinical practice, both as a first-line and rescue treatment, with a favorable safety profile.

TABLE 1. THREE-IN-ONE SINGLE-CAPSULE EFFECTIVENESS, COMPLIANCE AND SAFETY IN THE FIRST-LINE AND RESCUE TREATMENT LINES.

	Use, N (%)	mITT, N (%)	95% CI	PP, N (%)	95% CI	Compliance, N (%)	95% CI	AEs, N (%)	95% CI
Overall	12,519 (16*)	11,833 (92)	(91-92)	11,627 (92)	(92-93)	12,198 (97%)	(97-97)	12,213 (21%)	(20-22)
1st line (naïve)	9,958 (80)	9,449 (93)	(93-94)	9,299 (94)	(93-94)	9,707 (97%)	(97-98)	9,719 (20%)	(19-21)
2nd line	1,850 (15)	1,721 (87)	(85-89)	1,684 (88)	(86-89)	1,799 (96%)	(95-97)	1,803 (22%)	(20-24)
3rd to 6th line	710 (5.7)	662 (83)	(80-86)	643 (84)	(81-87)	692 (95%)	(93-96)	691 (29%)	(25-32)

*Of the total of treatments included in the Hp-EuReg up to January 2025 (i.e., N= 77,954); mITT: modified intention-to-treat; PP: per-protocol; N: total number of patients analysed; CI: confidence interval; AEs: adverse events.

Conflict of interest disclosure:
O.P. Nyssen: Other; Significant; Mayoly, Allergan/Abbvie, Richen, Juvisé and Biocodex. Á. Pérez-Aí- sa: None. J. Tejedor-Tejada: None. S. J. Martínez-Domínguez: None. A.J. Lucendo: None. M. Perona: None. Ó. Núñez: None. A. G. Gravina: None. M.S. Marcos: None. A. Moreno Loro: None. J.M. Huguet: None. A. Gasbarrini: None. R. Pajares Villarroya: None. M. Sánchez Alonso: None. A. Cano-Català: None. L. Moreira: None. P. Parra: None. F. Mégraud: None. C. O'Morain: None. J.P. Gisbert: Other; Sig- nificant; Mayoly, Allergan/Abbvie, Diasorin, Richen, Juvisé and Biocodex.

P01.037.

FACTORS ASSOCIATED WITH THE LACK OF FOLLOW-UP IN *HELICOBACTER PYLORI* ERADICATION TREATMENT: RESULTS FROM THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* The Maastricht VI/Florence Consensus recommends eradication of all *Helicobacter pylori* (*Hp*) infections, yet retreatment strategies remain variable. This study investigates reasons and factors for not retreating after eradication failure.

Patients and Methods: Multicenter, prospective registry evaluating decisions and outcomes of *H. pylori* management by European gastroenterologists (Hp-EuReg). Patients with eradication failure registered in AEG-REDCap between 2013-2024 were included and classified into 2 groups: those receiving retreatment and those who did not. Reasons for no retreatment were categorized as medical or patient-related. Multivariate logistic regression identified factors linked to absence of retreatment for each perspective, using the retreatment group as the reference.

Results: Among 6,904 patients, 950 (14%) were not retreated after failure: 41% due to medical decisions, 50% due to patient decisions. Frequent reasons for no retreatment included prior poor tolerance or non-compliance, unclear indication, and multiple eradication attempts. Medically, lack of retreatment was associated with age ≥ 71 years, previous non-compliance, number of previous attempts and prior treatment discontinuation due to adverse events. From the patient perspective, associated factors included male sex, two to four previous attempts, and previous non-compliance.

Conclusions: Over 10% of European patients are not retreated after *Hp* eradication failure. Barriers include advanced age, a history of poor adherence, and multiple prior eradication failures. The decision to avoid retreatment was often patient-driven, although medical reasons were also relevant, highlighting the need for shared decision-making and improved patient education.

TABLE 1. FACTORS ASSOCIATED WITH THE LACK OF *H. PYLORI* RETREATMENT AFTER A THERAPEUTIC FAILURE - MULTIVARIATE ANALYSIS.

	Retreatment	No retreatment - Overall			No retreatment - Medical perspective			No retreatment - Patient perspective		
Variables	**N = 5,954**	**N = 950**	***p*-value**	**OR (95% CI)**	**N = 393**	***p*-value**	**OR (95% CI)**	**N = 474**	***p*-value**	**OR (95% CI)**
Sex										
Male-Female	2,100 (35.3%) 3,850 (64.7%)	386 (40.6%) 564 (59.4%)	0.000	1.30 (1.12-1.50)	147 (37.4%) 246 (62.6%)	0.116		206 (43.5%)	0.004	1.34 (1.10-1.63)
Age										
18-70 ≥ 71	5,455 (91.6%) 475 (7.9%)	851 (89.5%) 96 (10.1%)	0.015	1.35 (1.06-1.72)	350 (89.1%) 40 (10.2%)	0.028	1.49 (1.04-2.13)	430 (90.7%) 44 (9.3%)	0.282	
Number of previous eradication attempts										
One	1,054 (17.7%)	181 (19.1%)	0.000	1.57 (1.30-1.89)	82 (20.9%)	0.000	2.07 (1.57-2.73)	82 (17.3%)	0.109	
Two	334 (5.6%)	105 (11.1%)	0.000	2.82 (2.21-3.61)	61 (15.5%)	0.000	4.89 (3.54-6.74)	26 (5.5%)	0.006	1.69 (1.16-2.44)
Three	115 (1.9%)	63 (6.6%)	0.000	5.05 (3.63-7.03)	39 (9.9%)	0.000	9.25 (6.15-13.93)	21 (4.4%)	0.000	2.91 (1.78-4.76)
Four	42 (0.7%)	27 (2.8%)	0.000	6.00 (3.61-9.96)	12 (3.1%)	0.000	7.84 (3.96-15.53)	10 (2.1%)	0.000	3.60 (1.75-7.41)
Five	28 (0.5%)	13 (1.4%)	0.000	4.04 (2.04-8.02)	5 (1.3%)	0.002	4.73 (1.75-12.77)	5 (1.1%)	0.073	
Treatment compliance*	5,647 (94.8%)	739 (77.8%)	0.000	6.07 (4.97-7.41)	303 (77.1%)	0.000	4.27 (2.64-6.93)	358 (75.5%)	0.000	10.04 (7.37-13.68)
Interruption due to AE	183 (3.1%)	109 (11.5%)	0.053		68 (17.3%)	0.010	2.06	39 (8.2%)	0.000	0.34

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P01.038.

HELICOBACTER PYLORI ERADICATION PRESCRIPTIONS IN PRIMARY CARE: INSIGHTS FROM OVER 200,000 PATIENTS IN A NATIONAL REAL-WORLD COHORT

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***Objective**: H. pylori* is a common infection causing chronic gastritis, peptic ulcers, and gastric cancer, primarily managed in Primary Care. Assessing real-world practices and guideline adherence is crucial for treatment optimization. The aim of the study was to assess current *H. pylori* management strategies in Primary Care using data from BIFAP, a Spanish healthcare database of Primary Care practices.
Patients and Methods: Patients aged ≥18 with recorded *H. pylori* infection (2003-2023) and treatment prescriptions were included. Infection cases were identified using ICD-9/10 and SNOMED CT codes, and treatment patterns were based on Spanish and European guidelines. First-line treatment prescriptions were compared between Primary (BIFAP) and Specialized Care (European Registry, Hp-EuReg).
Results: A total of 211,972 *H. pylori*-infected subjects were identified. The most frequent first-line treatments were: proton pump inhibitor (PPI) plus a single-capsule containing bismuth-tetracycline-metronidazole (PPI+ScBQT), with 36% of cases; PPI+clarithromycin-amoxicillin (PPI+C+A), with 30%; and PPI+-clarithromycin-amoxicillin-metronidazole (PPI+C+A+M), with 26%. PPI+ScBQT was the most common in patients aged 18-64 and those with obesity, chronic kidney disease, or smoking history, while PPI+C+A was more common in those aged ≥65 or with peptic ulcers. Since 2013, PPI+C+A use by general practitioners and gastroenterologists decreased, though it remains above 10% in Primary Care. PPI+C+A+M increased since 2015, with higher use in the Specialized Care (40%) *vs.* Primary Care (30%). ScBQT is now the most prescribed regimen in both settings, accounting for ~60% of prescriptions.
Conclusions: Primary Care *H. pylori* treatments are varied, with single-capsule bismuth quadruple therapy most prescribed. Guidelines are followed, but adoption is slower in Primary Care than in Gastroenterology.

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E. Fernández-Antón*: None. O.P. Nyssen*: Other; Significant; Mayoly, Allergan/Abbvie, Richen, Juvisé and Biocodex. G. Alonso-Martínez: None. P. Parra: None. J.P. Gisbert**: Other; Significant; Mayoly, Allergan/Abbvie, Diasorin, Richen, Juvisé and Biocodex. F.J. de Abajo**: None.

P01.044.

LONG-TERM EFFECT OF MACROLIDE CONSUMPTION ON *HELICOBACTER PYLORI* ERADICATION TREATMENTS: DATA FROM THE EUROPEAN REGISTRY ON *H. PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* Prior antibiotic use affects *H. pylori* resistance, but the impact of previous clarithromycin use on eradication success remains unclear. This study examined how population-level macrolide use impacts the effectiveness of first-line regimens in treatment-naïve patients.

Patients and Methods: A retrospective, observational, multicentre, ecological study was conducted using data from the European Registry on *H. pylori* Management (Hp-EuReg). Multivariate logistic regression assessed the effectiveness of modified intention-to-treat regimens. Variables included clarithromycin-based therapy, duration (7-14 days), proton pump inhibitor dose, compliance (>90%), and clarithromycin use (defined daily doses per 1,000 inhabitants/day from ESAC-Net). Hierarchical models matched macrolide consumption by year and country, evaluating interactions with first-line empirical treatments.

Results: The study analyzed 27,549 naïve patients from 23 countries, with macrolide use data from 2013-2022. Higher macrolide consumption within 0-8 years before treatment was linked to reduced eradication success, especially in the previous 4 years. Eradication rates declined from 93% to 82% when clarithromycin use occurred 2 years before treatment. Triple therapies with amoxicillin or metronidazole plus clarithromycin, and some bismuth-quadruple therapies, were less effective with higher macrolide use. Table 1 shows that delayed macrolide consumption (0-8 years) consistently reduced the effectiveness of clarithromycin-based triple therapies, with more variable effects on quadruple regimens.

Conclusions: Higher population-level macrolide consumption reduces the success of clarithromy- cin-based *H. pylori* eradication, with the effect diminishing after 5 years.

TABLE 1. EFFECT ON TREATMENT EFFECTIVENESS OF THE INTERACTION BETWEEN *H. PYLORI* ERADICATION TREATMENTS AND MACROLIDE CONSUMPTION IN THE COMMUNITY THROUGHOUT THE FULL RANGE OF DELAYS BETWEEN MACROLIDE CONSUMPTION AND TREATMENT.

	Years of delay								
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Triple-CA: Macrolides	0.65	0.80			0.76	0.61	0.56	0.72	0.63
Triple-CM: Macrolides	0.35	0.50	0.51	0.55		0.60	0.57		
Conco-CAT CAM: Macrolides			1.25	1.18					
Seq-CAT-CAM: Macrolides	0.78					1.18			
Quad-CAB: Macrolides		0.56	0.53			6.44		88,000	0.009

The table displays significant (<0.05) odds ratios for interaction terms in macrolide-based treatments across delay cases. A: amoxicillin; B: bismuth; C: clarithromycin; M: metronidazole; T: tinidazole.

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EFFECTIVENESS OF REPEATED USE OF AMOXICILLIN-CLARITHROMYCIN TRIPLE THERAPY AND BISMUTH QUADRUPLE THERAPY AFTER PRIOR FAILURE: PRELIMINARY RESULTS FROM THE EUROPEAN REGISTRY ON *HELICOBACTER PYLORI* MANAGEMENT (HP-EUREG)

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***Objective**:* In clinical practice, the effectiveness of *H. pylori* eradication failures accumulates over time. Guidelines discourage repeated use of the same regimen following initial failure.

Materials and Methods: The study evaluated the effectiveness of triple therapy with amoxicillin-clarithromycin and bismuth quadruple therapy (classical and single-capsule) when empirically prescribed as retreatment after one or several failures with the same regimen. Data from European Registry on *H. pylori* management (Hp-EuReg) registered at e-CRF AEG-REDCap (2013-2024) were collected.

Results: Among 518 patientstreatedwithamoxicillin-clarithromycintripletherapybetweenthe 2nd and 6th line, 230 received this same regimen more than once. In the 2nd line treatment, effectiveness was 74%, improving with longer treatment duration(50% at 7 days, 72% at 10 days, and82% at 14 days).Inthe 3rd line, effectiveness decreased to 56%. Of 672 patients receiving classical bismuth quadruple therapy with metronidazole-tetracy-cline-bismuth between the 2nd and 6th line, 13 cases underwent repeated use of this regimen across multiple lines. When repeated in the 2nd line, effectiveness reached 69%. On the other hand, from 2,579 patients that were treatedwith single-capsule bismuth quadruple therapy from the 2nd to 6th line, 101 patients received this sameregimen in at least two different lines. The single-capsule demonstrated higher effectiveness in boththe 2nd and 3rd line (achieving ≥90% and approximately 80%, respectively) compared to the classical prescription.

Conclusions: Repeated use of amoxicillin-clarithromycin triple therapy achieved notable success in the 2nd line retreatment, particularly with 14-day regimens (>80%). Single-capsule bismuth quadruple therapy demonstrated optimal (>90%) effectiveness when repeated in the 2nd line.

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