

Quadruple Therapy for Eradicating *H. pylori* Infections

Bismuth-based quadruple therapy bested a standard triple-therapy regimen.

Guidelines for eradicating *Helicobacter pylori* infections ([Gut 2007; 56:772](#)) recommend standard triple therapy with omeprazole, clarithromycin, and amoxicillin (OCA) as first-line treatment, but rising clarithromycin resistance has eroded this regimen's effectiveness. In several trials conducted during the past decade, quadruple therapy with omeprazole plus a combined formulation of bismuth subcitrate potassium, metronidazole, and tetracycline (OBMT; Pylera) was more effective than standard OCA for patients with clarithromycin-resistant strains but was no more effective than OCA overall.

In a new manufacturer-sponsored European trial, investigators randomized 440 patients with confirmed *H. pylori* infections and upper gastrointestinal symptoms to receive either OCA (1 dose of each component twice daily for 7 days) or OBMT (3 combined-formulation capsules 4 times daily plus omeprazole twice daily for 10 days). *H. pylori* sensitivity to clarithromycin and metronidazole was determined in each patient at baseline. *H. pylori* was considered to be eradicated if urea breath tests were negative at 28 and 56 days after completion of therapy.

In an intent-to-treat analysis, *H. pylori* was eradicated in 80% and 55% of patients who received OBMT and OCA, respectively. OCA was effective in only 8% of patients with clarithromycin-resistant *H. pylori*, whereas OBMT was effective in 91% of patients with metronidazole-resistant *H. pylori*. Gastrointestinal adverse effects were more common with OCA than with OBMT.

Comment: Although capsules combining bismuth, metronidazole, and tetracycline are very expensive, OBMT now might be a better first-line treatment choice than OCA for eradicating *H. pylori* infections in unselected patients and particularly in patients with prior exposure to macrolides or allergies to penicillin.

— [Bruce Soloway, MD](#)

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