

[Am J Gastroenterol](#). 2000 Feb;95(2):395-407.

A cost-effectiveness analysis of prescribing strategies in the management of gastroesophageal reflux disease.

[Gerson LB](#), [Robbins AS](#), [Garber A](#), [Hornberger J](#), [Triadafilopoulos G](#).

Department of Medicine, Stanford University School of Medicine, California, USA.

Abstract

OBJECTIVE: Patients who have uncomplicated gastroesophageal-reflux disease (GERD) typically present with heartburn and acid regurgitation. We sought to determine the cost-effectiveness of H₂-receptor antagonists (H₂RAs) and proton-pump inhibitors (PPIs) as first-line empiric therapy for patients with typical symptoms of GERD.

METHODS: Decision analysis comparing costs and benefits of empirical treatment with H₂RAs and PPIs for patients presenting with typical GERD was employed. The six treatment arms in the model were: 1) Lifestyle therapy, including antacids; 2) H₂RA therapy, with endoscopy performed if no response to H₂RAs; 3) Step up (H₂RA-PPI) Arm: H₂RA followed by PPI therapy in the case of symptomatic failure; 4) Step down arm: PPI therapy followed by H₂RA if symptomatic response to PPI, and antacid therapy if response to H₂RA therapy; 5) PPI-on-demand therapy: 8 wk of treatment for symptomatic recurrence, with no more than three courses per year; and 6) PPI-continuous therapy. Measurements were lifetime costs, quality-adjusted life years (QALYs) gained, and incremental cost effectiveness.

RESULTS: Initial therapy with PPIs followed by on-demand therapy was the most cost-effective approach, with a cost-effectiveness ratio of \$20,934 per QALY gained for patients with moderate to severe GERD symptoms, and \$37,923 for patients with mild GERD symptoms. This therapy was also associated with the greatest gain in discounted QALYs. The PPI-on-demand strategy was more effective and less costly than the H₂RA followed by PPI strategy or the other treatment arms. The results were not highly sensitive to cost of therapy, QALY adjustment from GERD symptoms, or the success rate of the lifestyle arm. However, when the success rate of the PPI-on-demand arm was < or =59%, the H₂RA-PPI arm was the preferred strategy.

CONCLUSION: For patients with moderate to severe symptoms of GERD, initial treatment with PPIs followed by on-demand therapy is a cost-effective approach.

PMID: 10685741 [PubMed - indexed for MEDLINE]