

## Cost-effectiveness study on treatment of duodenal ulcer

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### Abstract

**AIM:** To compare the efficiency of therapy with a 2-week regimen of amoxicillin plus metronidazole and six weeks of Tagamet (AMT group) vs the efficacy of therapy with 6 wk of omeprazole plus 2 wk of amoxicillin (OA group) for ulcer healing, *Helicobacter pylori* (Hp) eradication, and decreasing the recurrence of duodenal ulcers.

**METHODS:** This cost-effectiveness analysis was based on results shown in a randomized controlled trial conducted in 1995 in patients with a duodenal ulcer (OA group, 46 patients; AMT group, 43

patients) and treated at class grade III A hospitals in Shanghai, China.

**RESULTS:** The costs of treatment in the AMT group were less than those in the OA group for ulcer healing (¥546.25 vs ¥1296.76 per case,  $P < 0.01$ ), Hp eradication (¥702.32 vs ¥1742.53 per case,  $P < 0.01$ ), and decreasing ulcer recurrence (¥640.39 vs 1424.54 per case,  $P < 0.01$ ). Direct costs comprised the major cost involved in treatment of duodenal ulcers. The difference in the cost of treating ulcers in the two groups was primarily due to the costs of the different drugs. There was no significant difference between the two groups regarding their direct non-medical costs and indirect costs.

**CONCLUSION:** When based on therapeutic effectiveness and financial costs, AMT therapy was more cost-efficient than OA therapy. AMT therapy is recommended for its low cost, acceptable ulcer healing rates, ability to cure of an Hp infection, and especially when treating patients with an ulcer  $< 1$  cm in diameter.

**Key words:** Duodenal ulcer; *Helicobacter pylori*; Cost-effectiveness analysis

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