

retrieved from the medical records of a group of GERD patients in Hong Kong. Sensitivity analysis was conducted to examine the robustness of the model. **RESULTS:** The cost-effectiveness ratios (CERs) of standard-dose H2RA, low-dose PPI and standard-dose PPI per asymptomatic patient-month were HKD644, 660 and 873, respectively (1USD = 7.8HKD). The incremental CER (ICER) of low-dose PPI comparing to standard-dose H2RA was HKD1,241 per additional asymptomatic patient-month gained, while the ICER of standard-dose PPI comparing to low-dose PPI was HKD11,766 per additional asymptomatic patient-month gained. One-way sensitivity analysis showed that the CER of standard-dose PPI was insensitive to variation of all the inputs of the model. The CERs of low-dose PPI and standard-dose H2RA were sensitive to the variation of relapse rate of H2RA and direct medical cost per symptomatic patient-month. **CONCLUSION:** Based on the Markov analysis of the data obtained, standard-dose PPI was more expensive but more effective than low-dose PPI or standard-dose H2RA for maintenance treatment of patients with GERD.

A COST-EFFECTIVENESS ANALYSIS OF ESOMEPRAZOLE VS. OMEPRAZOLE IN THE ACUTE TREATMENT OF PATIENTS WITH REFLUX OESOPHAGITIS IN GREECE

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OBJECTIVE: To compare the cost-effectiveness of esomeprazole 40mg od or omeprazole 20mg od in the acute treatment of patients with reflux oesophagitis in Greece. **METHODS:** A simple decision analysis model was designed to compare the cost-effectiveness of esomeprazole vs. omeprazole during eight weeks' acute treatment of reflux oesophagitis patients. Omeprazole, the leading PPI in Greece, was chosen as the comparator. Probability of treatment success was based on pooled healing rates (Life Table estimates) from 3 clinical studies (N = 4877). Only direct medical costs were included in the cost-effectiveness analysis. As patients can unrestrictedly visit public or private sector GPs or gastroenterologists, all patients were assumed to visit a specialist. An endoscopy was assumed to be carried out in non-responders after eight weeks' of therapy, which is a conservative patient management assumption, according to results obtained from a market research among Greek gastroenterologists. Furthermore, the analysis did not consider additional treatment costs (e.g. drugs, visits) for failures beyond eight weeks. One analysis was carried out by using private market and one by using public hospital endoscopy and visit charges. **RESULTS:** Healing rates from the pooled analysis showed that esomeprazole is significantly more effective than omeprazole. After 4 weeks of therapy, healing rates were 77.7% for esomepra-

zole compared with 67.6% for omeprazole ($p < 0.001$). The corresponding values after 8 weeks treatment were 93.4% and 86.2%, respectively ($p < 0.001$). The decision analysis model resulted in similar direct medical costs for the esomeprazole and the omeprazole strategy, both when using public (€328 vs. €330) and private charges (€353 vs. €356). **CONCLUSIONS:** Despite using conservative assumptions, esomeprazole 40mg od was found to be cost-effective compared with omeprazole 20mg od in the acute treatment of patients with reflux oesophagitis in Greece, since esomeprazole provides better effectiveness at no additional treatment costs.

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COST COMPARISON OF ESOMEPRAZOLE BASED AND OMEPRAZOLE BASED HELICOBACTER PYLORI ERADICATION STRATEGIES IN DUODENAL ULCER DISEASE IN GREECE

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The recommended *Helicobacter Pylori* (*H. Pylori*) eradication treatment strategy in duodenal ulcer (DU) disease includes one-week proton pump inhibitor (PPI) triple therapy regimens followed by PPI monotherapy for three weeks. Triple therapy regimens of omeprazole, amoxicillin and clarithromycin (OAC) are the most widely used regimens in Greece. Esomeprazole, the first PPI developed as an optical isomer, has been shown to achieve greater and more sustained acid control than omeprazole, with a similar tolerability and safety profile. Results from two clinical studies reveal that eradication regimens with esomeprazole 1-week triple therapy (esomeprazole, amoxicillin, clarithromycin) (EAC) without subsequent three weeks monotherapy show comparable eradication rates with OAC including 3 weeks monotherapy (EAC: 90%, n = 204, OAC: 88%, n = 196; EAC: 86%, n = 214, OAC: 88%, n = 219). **OBJECTIVE:** To evaluate the potential cost savings associated with eradication of *H. Pylori* with EAC 1-week therapy compared with OAC 1-week therapy followed by 3 weeks omeprazole monotherapy in patients with DU in Greece. **METHODS:** Patient management in clinical practice was investigated through market research of 10 Greek gastroenterologists. A cost analysis was performed to assess incremental direct medical costs associated with the esomeprazole and omeprazole based eradication strategies. The perspective of the analysis was that of the Greek health care system (Greek public sector charges). **RESULTS:** The cost analysis showed that eradication treatment with esomeprazole therapy results in a cost per patient of €114,57 while treatment with omeprazole results in a corresponding cost per patient of €158,18. Thus, esomeprazole therapy provides cost savings of 28% (€43,6) per patient when compared with omeprazole therapy. **CONCLUSION:** Eradication of *H. Pylori* with 1-week triple therapy with

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esomeprazole (EAC) results in direct medical cost savings compared with 1-week triple therapy (OAC) followed by three weeks omeprazole monotherapy, while offering comparable effectiveness.

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ANALYSIS OF RESOURCE USE AND COSTS ASSOCIATED WITH MINOR NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAID) RELATED GASTRO-INTESTINAL (GI) EVENTS

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OBJECTIVES: In the assessment of NSAID related GI events, many authors focus on severe events leading to hospitalisation. This study aimed at describing medical practice, resource utilisation and costs of different GI events related to chronic NSAID use in osteo-arthritis (OA) and rheumatoid arthritis (RA) patients in Belgium. **METHODS:** A random sample of 231 OA and RA patients with GI events associated with NSAID use was included in a multicenter GP level chart review. Charts were assessed by the GP and monitored by an independent researcher for all medical resource use related to the event. Direct medical costs were calculated by multiplying resource use with standard costs for the health insurance. GI events were categorised as GI discomfort (= minor event), symptomatic ulcer, anaemia with occult bleeding and severe (i.e. hospitalised) gastro-intestinal pathologies. **RESULTS:** Thirty-five patients (15.2%) were RA patients, 196 (84.8%) OA. The average age of the sample was 61.0y (st.dev 14.7y). 45% were male. The median duration of a GI event was 10 days, the average was 23 days. The average cost per patient was €284. The cost per type of event (in €) was as follows ($p < 0.001$ Kruskal Wallis): GI Discomfort ($n = 155$): 198 (SE = 41); Ulcer ($n = 66$): 364 (SE = 28); Anaemia ($n = 7$): 756 (SE = 234); Severe GI ($n = 3$): 1,896 (SE = 1,585). Total cost ($n \times$ mean) was: GI Discomfort: 30,657 (46.7%); Ulcer: 24,020 (36.6%); Anaemia: 5,293 (8.1%); Severe GI: 5,688 (8.7%). It was thus shown that GI discomfort, due to the relative high number of patients, leads to 47% of total GI related costs. **CONCLUSIONS:** Many patients with minor NSAID related GI events visit a physician. The resulting use of healthcare resources to manage these events should be taken into account in economic evaluations of measures to prevent GI events.

**GASTROINTESTINAL DISEASES/DISORDERS—
Clinical Outcomes**

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META-ANALYSIS OF ESOMEPRAZOLE 40 MG AND LANSOPRAZOLE 30 MG IN THE HEALING OF REFLUX OESOPHAGITIS

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OBJECTIVE: Two studies have reported results comparing esomeprazole 40mg and lansoprazole 30mg in the healing of reflux oesophagitis. The two studies come to different conclusions. One study shows superiority for esomeprazole at four and eight weeks while the other claims equivalence. The aim of this work was to combine the results of the 2 studies by meta-analysis to ascertain if there is a difference in healing rates with esomeprazole 40mg and lansoprazole 30mg. **METHODS:** Meta-analysis of intention-to-treat (ITT) endoscopic healing rates at four and eight weeks. If the healing rates were not presented in an ITT format they were recalculated. ITT was defined as “patients being analysed in the treatment arm that they entered at randomisation, regardless of whether they dropped-out, received the incorrect treatment or withdrew before completion of the trial”. **RESULTS:** At 4 weeks, esomeprazole 40mg is significantly more effective than lansoprazole 30mg in the healing of reflux oesophagitis (Relative Risk 1.05; 95% CI 1.02–1.09). Similarly, at 8 weeks esomeprazole 40mg is significantly more effective than lansoprazole 30mg (Relative Risk 1.04; 95% CI 1.01–1.06). A chi-squared test was carried out to investigate possible heterogeneity. Significant heterogeneity was not detected at four or eight weeks. **CONCLUSIONS:** Esomeprazole 40mg is significantly more effective than lansoprazole 30mg in the healing of reflux oesophagitis at 4 and 8 weeks.

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OUTCOMES ANALYSIS OF RABEPRAZOLE (ACIPHEX) USE AT A VETERAN AFFAIRS MEDICAL CENTER

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OBJECTIVE: To analyze the safety, effectiveness and cost savings of rabeprazole at the McGuire Veterans Affairs Medical Center. Similar effectiveness and safety profiles among the proton pump inhibitors (PPI) prompted a dose-per-dose interchange (1:1) of rabeprazole with currently prescribed PPIs (lansoprazole and omeprazole) when rabeprazole was added to the VA National Formulary priced 75%–80% less than its competitors. Rabeprazole was also identified as drug-of-choice for future use in PPI-naïve patients. **METHODS:** Patients with active rabeprazole prescriptions ($N = 3885$) and those failing therapy ($N = 249$) as of 5/22/02 were selected for analysis (total $N = 4134$). Patients were divided into two subsets: those participating in the PPI therapeutic interchange: $N = 2088$; and PPI-naïve patients prescribed rabeprazole after formulary addition: $N = 1797$. A retrospective database analysis of 14,565 PPI prescriptions from January 1, 2000–May 22, 2002 was conducted to assess PPI prescribing trends, pharmacy acquisition costs, tolerance, effectiveness and dose creep for these individuals. **RESULTS:** Safety: Patients experience an adverse drug event (ADE): $N = 65$ (1.6%). Effectiveness: Patients failing rabeprazole: $N = 184$ (4.5%). Total number