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OBJECTIVES: To compare observational data with a large clinical study (MUCOSA) which showed that misoprostol reduced NSAID complication rates by 40% in patients with arthritis. To measure the cost of prescribing, endoscopy and hospitalizations for patients receiving nonsteroidal anti-inflammatory drugs (NSAIDs) and estimate the cost-effectiveness of misoprostol in routine practice.
METHODS: A cohort study using all patients in the Tayside region that received NSAIDs and anti-ulcer drugs between 1989 and 1995. Thirty-day treatment was estimated from the cost of the NSAID plus endoscopies plus hospitalization for GI events. Costs of hospitalizations and endoscopic procedures were obtained from Scottish Information and Statistics Division for 1997.
RESULTS: Among 54,807 eligible patients the risk adjusted rates of hospitalization for gastrointestinal diagnoses were 50% lower on Arthrotec (a fixed combination of misoprostol and diclofenac) than on diclofenac alone. Statistically significant risk factors were: a prior history of gastrointestinal events ($p < 0.001$), a prior history of cardiovascular events ($p < 0.001$), increasing age ($p < 0.001$), social deprivation score ($p = 0.072$), concurrent exposure to anti-ulcer drugs ($p < 0.001$) or steroids ($p = 0.001$) and type and dose of NSAID ($p < 0.001$ and $p = 0.047$ respectively). Only nabumatone had a lower event rate than Arthrotec, but at a higher expected cost. Arthrotec had lower 30 day treatment and complication costs than diclofenac alone in high risk patients (e.g., £52 *vs* £86 for a patient aged 80–89 with a prior history of GI events) but not in low risk patients (e.g., £16.50 *vs* £15 for a patient aged 50–59 with no prior GI events).
CONCLUSIONS: There was close agreement between this observational study and the MUCOSA study on the extent to which the prophylactic use of misoprostol reduced NSAID associated gastrointestinal complications. The combination of misoprostol with diclofenac should reduce thirty day treatment and complication costs in high risk patients, in comparison with diclofenac alone.

GI2

COST-EFFECTIVENESS ANALYSIS OF HIGH DOSE IV OMEPRAZOLE INFUSION AS ADJUVANT THERAPY TO ENDOSCOPIC HAEMOSTASIS FOR BLEEDING PEPTIC ULCERS

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OBJECTIVES: To investigate the cost-effectiveness of high dose IV omeprazole as an adjuvant therapy to endoscopic hemostasis for prevention of early ulcer rebleeding from a hospital perspective. A randomized, placebo-controlled clinical trial was conducted previously in a local hospital to study the effects of high dose IV omeprazole infusion on patient outcomes after endoscopic ulcer hemostasis. Although the interim data suggested that IV omeprazole significantly decreased the rate of early rebleeding that occurred 72 hours after therapy, the cost implication of this therapy has not been examined.
METHODS: The data of 157 patients who completed the above study was analyzed. The percentages of patients who experienced early rebleeding were obtained from medical records. The health care resources consumed by each patient during the first 72 hours post endoscopic hemostasis were also retrieved from their records and studied.
RESULTS: Four of 80 (5%) patients in the omeprazole group and 17 of 77 (22%) patients from the placebo group had rebleeding within 72 hrs after endoscopy and required further treatment. The treatment cost within 72 hours post endoscopy of the IV omeprazole group was lower than that of the placebo group (HK$1312 per patient vs. $3223 per patient, 1 US = 7.8 HK). The cost-effectiveness ratios for the omeprazole group and placebo group were $9,946 and $12,821, respectively, per early rebleeding episode prevented.
CONCLUSIONS: High dose omeprazole is more cost-effective in preventing early ulcer rebleeding than placebo after endoscopic hemostasis.

GI3

EVALUATION OF PHARMACISTS' INTERVENTIONS ON PRESCRIBING ERRORS OF NONSTEROIDAL ANTI-INFLAMMATORY DRUGS: COSTS SAVINGS AND CLINICAL EFFECTS

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OBJECTIVES: To determine the economical and clinical impact of pharmacists' interventions in ambulatory care within the context of a prescribing error of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs).
METHOD: A national survey was carried out in 900 town pharmacies during 12 weeks to record all prescriptions with an anomaly like contraindication, interaction which could be dangerous for the patient. We used a decision analysis to compare two strategies, with or without a systematic pharmacist's intervention before a prescription of NSAIDs. The outcome was upper gastrointestinal side effects of NSAID therapy (peptic ulcer and complications) and we used a prescribing errors rate varying between 0,5% to 2% to estimate the costs savings and to measure the occurrence of peptic ulcer avoided. Computer simulation was performed with Tree Age 3.0.
RESULTS: 446 cases of NSAIDs prescription errors were notified including combination of NSAIDs, NSAIDs overdose and NSAIDs prescription with risk factors like peptic