OBJECTIVES: Health care utilization and costs may be elevated among patients with C-ONLY and IBS+C. Migraine is an appropriate comparator because it is chronic, costly, and non-gastrointestinal. Health care utilization and costs were evaluated for these three groups. METHODS: A large US health plan claims database was retrospectively analyzed from January 2003 through December 2005. Three mutually exclusive cohorts were identified: 1) C-ONLY: ICD-9 564.0x (N = 91,632); 2) IBS+C: ICD-9 564.1 and 564.0x (N = 10,952); and 3) Migraine: ICD-9 346.xx (N = 101,418). Per patient use and costs (charged amounts) of medical services and prescriptions were assessed over a period of 3 months prior to and 9 months following first diagnosis. Patients had continuous health plan enrollment during this period. RESULTS: Total health care charges were $15,808 and $16,378 for patients with C-ONLY and IBS+C compared to $10,405 among patients with migraine (difference $5403 and $5,973, both P < 0.0001). Inpatient charges were approximately 2.5 times higher for the C-ONLY cohort and 1.7 times higher for the IBS+C cohort compared to migraine ($5112 and $3,625, vs. $2093; both P < 0.0001). Both cohorts had higher charges vs. office visits compared to migraine ($2460 and $3,050, vs. $2282; both P < 0.0001). Charges for hospital outpatient services were $3913 and $4738 for patients with C-ONLY and IBS+C, respectively, compared to $2784 for migraine (both P < 0.0001), while charges for other ancillary services were $2578 and $2627 for C-ONLY and IBS+C, respectively, compared to $1444 for migraine (both P < 0.0001). Prescription drug charges were slightly lower for C-ONLY, but higher for IBS+C compared to migraine ($1438 and $2053 vs. $1551; both P < 0.0001). Charges for ER visits were higher for both cohorts compared to migraine ($307 vs. $251, P < 0.0001 and $284 vs. $251, P = 0.0039). CONCLUSION: C-ONLY and IBS+C are costly conditions that present greater economic burden to payers compared to migraine. Institutional costs are primary drivers for constipation expenditures.

COST OF PATIENT CARE IN PATIENTS WITH CROHN’S DISEASE IN BRAZIL: PUBLIC HEALTH PERSPECTIVE
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OBJECTIVES: Because of its long duration, Crohn’s disease (CD) causes high use of health services and high lifetime costs for medical care. The aim of the present study was to measure the annual costs of patients with CD from the Brazilian public health perspective and to identify potentially relevant determinants of costs. METHODS: Thirty one gastroenterologists from southeast Brazil prospectively evaluated all their CD patients during two months. They used a structured questionnaire specifically developed to evaluate resource use by patients with CD. Costs of medical services (diagnostics and treatment) were considered as well as costs of medication. Resource use was valued using government reimbursement for hospital services and government tender prices for drugs. RESULTS: 221 patients were evaluated. The mean annual cost of one CD patient was R$ 2,239,67, including medication, physician, laboratory, diagnostic procedures, hospitalization and surgery costs. Medication, hospitalization, surgery and laboratory/ diagnostic procedures accounted, respectively for 79%, 18%, 2% and 1% of the total annual costs. Mesalazine was the most used drug to initiate CD’s treatment (59% of the times). Although mesalazine is deemed to be more expensive than sulfasalazine, there was no statistical difference between the costs of the patients treated with mesalazine and sulfasalazine. In fact, due to differences in the mean dosage of these drugs, mesalazine daily cost is lower than sulfasalazine.

CONCLUSION: This is the first time that CD treatment costs have been demonstrated from the Brazilian public health perspective. Considering that there was no statistical difference in total costs among patients taking mesalazine and sulfasalazine, and that medications represent more than 70% of total CD treatment annual costs in the public Brazilian health care system, the use of mesalazine may represent a reduction factor in the financial resource expenditure for the treatment of CD.

INCORPORATING NON-ADHERENCE RESULTING FROM MULTIPLE DAILY DOSE REGIMENS INTO ECONOMIC MODELS: COST-UTILITY ANALYSIS OF ALTERNATIVE GASTROINTESTINAL PROPHYLAXIS STRATEGIES IN PREVENTING NSAID ASSOCIATED GASTROINTESTINAL COMPLICATIONS IN CANADA
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OBJECTIVES: To investigate the potential impact of non-adherence resulting from multiple daily dosing on cost-utility of gastrointestinal prophylaxis strategies in preventing NSAID associated gastrointestinal complications. METHODS: Two decision analytical models (TreeAge 2005) were developed—one model incorporating non-adherence resulting from multiple daily dosing and another model that does not. Each model evaluates the cost-utility of gastrointestinal prophylaxis in a hypothetical cohort of patients’ age ≥65 years beginning a 6 month course of NSAIDs. Patients entering each model were treated with either: (1.) No Prophylaxis, (2.) Proton Pump Inhibitors (generic omeprazole od) (3.) misoprostol (200 ug qid), (4.) ranitidine (300 mg bid). Average adherence to therapy: od = 79% ± 14%, bid = 69% ± 15% and qid = 51% ± 20% were obtained from a systematic review of studies using electronic monitoring devices. Costs were from the perspective of a 3rd party payer of a Canadian provincial seniors’ drug plan. Cost-Utility was measured in terms of cost per quality adjusted life year (QALY) gained, relative to no prophylaxis. Probabilistic sensitivity analysis using Monte Carlo Simulation was used to generate uncertainty results, along with cost-effectiveness acceptability curves. RESULTS: Misoprostol (200 ug qid) has a greater likelihood (69.2%) than generic omeprazole (30.8%) of being the optimal cost-effective strategy at a willingness to pay (WTP) of $50,000 per QALY in the model that does not incorporate non-adherence resulting from multiple daily dosing. In the model that incorporates non-adherence resulting from multiple daily dose regimens, generic omeprazole has a greater likelihood (94.8%) than misoprostol (5.2%) of being the optimal cost-effective strategy at a WTP of $50,000 per QALY. CONCLUSION: Cost-utility results are sensitive to non-adherence resulting from multiple daily dosing. Previous economic models in this area have not incorporated this in the analysis. Markov modeling or discrete event simulation may be better suited to incorporate non-adherence rates of therapies.

RELATIONSHIP BETWEEN GASTROESOPHAGEAL REFLUX DISEASE SYMPTOMS AND COSTS: A DATABASE STUDY IN A US COHORT
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