patients with ulcer bleeds exhibiting high risk stigmata at time of endoscopy. We assessed the cost-effectiveness of starting an IV infusion of pantoprazole (80-mg bolus followed by 8 mg/hr for 3 days) for high risk, non-variceal ulcer lesions after therapeutic endoscopy had been performed.
METHODS: A decision analysis was conducted by creating a decision tree model in Data 3.5. The assumptions of probabilities and costs were derived from the literature, a local cost database, and a national Registry of patients with Upper Gastrointestinal Bleeding undergoing Endoscopy (RUGBE). Efficacy was the proportion of patients with an episode of rebleeding. Both threshold and sensitivity analyses were conducted. The time horizon was 30 days following hospital admission.
RESULTS: It was estimated that hospitalization costs for patients with uncomplicated and complicated ulcer bleeds were respectively CDN$1546.08 and $3275.63 per patient. Over the range of probabilities covered by the 95% confidence interval assigned to the rebleeding rate, the optimal strategy was the use of IV PPI infusion versus non-use. The IV PPI strategy exhibited higher effectiveness (17% decrease in rebleeding) at lower cost ($67 less per hospitalized patient). The estimates were robust across a wide range of clinically relevant variables. Assumptions about hospitalization costs had the greatest effect on the decision to start/not start the IV PPI.
CONCLUSIONS: Based on the assumptions of our model, the most cost-effective approach is to start an IV PPI infusion for a patient with a high-risk ulcer bleed having undergone urgent endoscopic therapy.

PG16

EFFECT OF POSTOPERATIVE ILEUS ON LENGTH OF STAY IN COLECTOMY

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Colectomy is a common surgical procedure known to be associated with Postoperative Ileus (POI). POI leads to inhibited bowel function following surgical procedures and it delays discharge of hospital patients by affecting patient's tolerance to solid/liquid intake. Thus, POI can potentially extend length of stay (LOS) and increase hospital costs in colectomy patients.
OBJECTIVES: To evaluate impact of POI on LOS and determine factors that lead to POI in hospital patients undergoing colectomy.
METHODS: Adult patients who underwent colectomy, with/without POI were identified from cross-sectional 1999 National Hospital Discharge Survey (NHDS) using ICD-9-CM code for surgical procedures and diagnosis (457.1, 457.4 and 458). Hospital patients with cardiac, respiratory, or urinary comorbidities were excluded. Patient characteristics and LOS were compared between patients with/without POI using student's t-test. Patient characteristics affecting development of POI were evaluated using logistic regression. All analyses were conducted using SAS version 8.0. Data were weighted to obtain national estimates.
RESULTS: The mean LOS was 13.29 (+/– 8.74) vs. 7.49 (+/– 3.37) days in patients with/ without POI respectively. The LOS in patients with POI was significantly greater than those without POI ($p < 0.0001$) after re-scaling record weights. Patient characteristics of age, gender, race and primary payer were not significantly associated with development of POI.
CONCLUSIONS: POI leads to significant increase in LOS of patients who underwent colectomy. We suspect severity of illness and treatment characteristics to interact with POI. However, data on these variables were not available in the survey. Therefore, we could not detect a significant association of the factors, considered in this study, on POI. Future research would be needed to ascertain impact of severity of illness and treatment characteristics on POI.

PG17

ECONOMIC OUTCOMES OF EMPLOYER BENEFICIARIES TREATED FOR IRRITABLE BOWEL SYNDROME (IBS)

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OBJECTIVES: This study investigates the extent to which IBS imposes a financial burden on an employer.
METHODS: Administrative claims data from a national, Fortune 100 manufacturer that includes all medical, pharmaceutical, and disability claims for the company's employees, spouses, dependents, and retirees ($n > 100,000$) were used for this analysis. IBS patients ($n = 1,610$) were identified using ICD-9-CM codes of individuals aged 18 through 64 years, who received primary treatment for IBS; or secondary treatment for IBS and primary treatment for constipation or abdominal pain, between 1996 and 1998. Over 93% ($N = 1,509$) of these IBS patients were matched based on age, sex, zip code, and employment status to control beneficiaries. Excluded from both the IBS and control samples were patients treated for malignant neoplasm of digestive organ and peritoneum, inflammatory bowel disease, Crohn's disease, ulcerative colitis, and diverticulitis. Direct (medical and pharmaceutical) and indirect (disability and medically-related work absence) costs of IBS patients and controls were estimated using SAS, version 8.
RESULTS: On average, an IBS patient cost the employer $1,251 more than an employee not treated for IBS ($4,527 versus $3,276; $p < 0.0001$). Direct medical costs accounted for 83% of total costs associated with IBS. Hospital outpatient costs accounted for the largest portion; average hospital outpatient costs were $1,258 and $742 for IBS patients and controls, respectively ($p < 0.0001$). The average number of medical claims per

IBS patient was 17.4 versus 10.9 for controls ($p < 0.0001$). The average number of prescriptions filled was 26.9 versus 19.2 for IBS patients and controls respectively ($p < 0.0001$). Medically-related work absence costs were $301 and $176 for IBS patients and controls, respectively ($p < 0.0001$).
CONCLUSIONS: IBS patients impose a significant financial burden on the employer, due to higher levels of medical and pharmaceutical care utilization and medically-related work absences compared to controls.

PG18

A COST ANALYSIS OF DIAGNOSTIC AND TREATMENT STRATEGIES IN PATIENTS WITH SYMPTOMS OF POUCHITIS

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OBJECTIVES: Many patients with symptoms of pouchitis respond to empiric antibiotic treatment. An alternate diagnostic strategy, endoscopic evaluation reserves antibiotics for those patients who truly have pouchitis (approximately 55% of symptomatic patients). The goal of this project was to compare the costs and cost-effectiveness of different strategies of diagnosis and treatment of patients with pouchitis symptoms.
METHODS: A decision-analytic model assessed the following strategies: empiric treatment with metronidazole, empiric treatment with ciprofloxacin, empiric treatment with metronidazole and then ciprofloxacin for non-responders, endoscopy with histology, and endoscopy with no histology. Data regarding the likelihood of pouchitis, diagnostic accuracy and precision of endoscopy, and response to empiric therapy were derived from several recent clinical studies. Redbook wholesale prices and 2001 Medicare reimbursement rates served as cost source data. The model was run to determine the least costly strategy and the most cost-effective strategy using the number of days during the study that a patient was diagnosed and treated as the unit of effectiveness.
RESULTS: The empiric treatment with metronidazole strategy was the least costly ($216) strategy, followed by the test with no histology ($228), empiric treatment with metronidazole and then ciprofloxacin for non-responders ($238), empiric treatment with ciprofloxacin ($284), and endoscopy with histology ($342). In cost effectiveness analysis, the test with no histology strategy cost $12 more and was associated with diagnosis and treatment 7 days earlier compared with the empiric treatment with metronidazole strategy (incremental cost effectiveness ratio $1.83 per additional day diagnosed and treated). All other strategies were dominated. Sensitivity analysis revealed that results were not sensitive to variation in model parameters.
CONCLUSION: Empiric treatment with metronidazole was the least costly strategy, but endoscopy with no histology might be considered the most cost-effective since it offers a substantial improvement in the time to diagnosis and treatment for little additional cost.

PG19

THE COST-EFFECTIVENESS OF INTRAVENOUS PROTON PUMP INHIBITOR CONTINUOUS INFUSION (IV PPI) ADMINISTERED PRIOR TO ENDOSCOPY IN THE TREATMENT OF PATIENTS WITH NON-VARICEAL UPPER GI BLEEDING

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OBJECTIVES: Recent randomized trials have demonstrated that the use of IV PPI following endoscopic therapy lowers 30-day re-bleeding rates in patients with ulcers displaying high-risk stigmata. However, the cost-effectiveness of, in addition, using IV PPI routinely from the moment of initial presentation until the endoscopy is carried out in all bleeding patients is unknown.
METHODS: We assessed the cost-effectiveness of starting an IV infusion of pantoprazole (80-mg bolus followed by 8 mg/hr) in all patients presenting with an upper GI bleed until endoscopy can be carried out. The analysis was conducted by creating a decision tree model in Data 3.5. Assumptions of probabilities and costs were derived from the literature, a local Canadian cost database, and a national Registry of patients with Upper Gastrointestinal Bleeding undergoing Endoscopy (RUGBE). Differential costs were attributed to ulcer, variceal, and non ulcer non variceal lesions. Efficacy was the proportion of patients without an episode of re-bleeding. Threshold and sensitivity analyses were conducted. The time horizon was 30 days following hospital admission. Costs are in 2001 Canadian dollars.
RESULTS: Using the base-case analysis, the dominant strategy was that of IV PPI following endoscopy as it displayed equal effectiveness at a lesser cost (average cost-effectiveness of $2,743 per patient who does not re-bleed) when compared to a strategy of starting IV PPI on all patients pre-endoscopy. When postulating increased benefit for patients who are subsequently found to be bleeding from high or low risk ulcer lesions, variceal, or non variceal non ulcer causes of bleeding, the results remain unchanged across a reasonable range of clinical assumptions both in one-way and multi-way sensitivity analyses.
CONCLUSIONS: The use of IV PPI following findings of urgent endoscopy appears to be the most cost-effective approach when compared to initiating IV PPI in all bleeding patients prior to endoscopy.