OBJECTIVES: To describe the relationship between symptoms of gastroesophageal reflux disease (GERD) and costs for work productivity loss, physician/specialist visits, emergency room visits, hospitalisations, and prescribed GERD-related medication. **METHODS:** An exploratory database analysis was performed on results from the 2004 National Health and Wellness Survey. US respondents with self-reported symptoms of GERD (n = 10,028, mean age: 52 years, 58% female) were age- and sex-matched to controls without GERD symptoms (n = 10,028). Respondents with GERD were classified by self-reported symptom severity (mild, moderate or severe) and frequency (low or medium-to-high: symptoms on <2 days or ≥2 days per week, respectively). Productivity losses (absence from work and reduced productivity while at work) were obtained using the generic version of the Work Productivity and Activity Impairment questionnaire, and were calculated as the mean difference between employed respondents with GERD (n = 5505) and controls (n = 6031). Costs were calculated by multiplying fixed approximate unit costs by self-reported productivity losses and resource utilisation. **RESULTS:** Compared with controls, respondents with GERD had greater costs per month for absence from work (mean difference [MD]: $113 per employee), reduced productivity while at work (MD: $283 per employee), physician/specialist visits (MD:$45), emergency room visits (MD: $7), and hospitalisations (MD: $30). Monthly GERD-related medication costs for respondents with GERD were $42. The mean differences in costs increased with increasing GERD symptom severity and/or frequency for all cost variables. The relative cost of GERD medication decreased with increasing symptoms: for example, when excluding productivity costs, GERD medication constituted 40% of the mean difference in overall monthly costs in patients with mild symptoms and a low frequency, but only 25% in patients with severe symptoms and a medium-to-high frequency. **CONCLUSION:** Increasing severity and frequency of GERD symptoms was found to be associated with higher overall costs, while the relative importance of GERD medication costs decreased.

GASTROINTESTINAL DISORDERS—Health Care Use & Policy Studies

PGI12

HAVING YOUR CAKE AND EATING IT TOO: RESULTS FROM A POLICY ANALYSIS OF A PROTON PUMP INHIBITOR PREFERRED DRUG LIST

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OBJECTIVES: On May 18, 2005 the Arkansas Medicaid program implemented an evidence-based Preferred Drug List (PDL) recommendation for Proton Pump Inhibitors (PPIs). Under the PDL program guidelines, esomeprazole and lansoprazole were made available as preferred agents to Medicaid recipients without prior approval. Previously, all PPIs required prior authorization and were not covered unless patients The objective of this study was to estimate the impact of this policy on PPI expenditures and utilization as well as utilization of potential substitute H2RAs. **METHODS:** This study utilized a time series panel design to evaluate the impact of the policy using Arkansas Medicaid administrative claims data obtained from January 2003 through August 2006. Auto-Regressive Integrated Moving Average (ARIMA) time series models were specified using monthly prescription expenditures and utilization in the pre-policy period (January 2003–April 2005) to forecast expenditures and utilization in the post-policy period. The Medicaid payer perspective was used and all prescription costs were calculated based on the amount paid for each claim adjusted for product specific CMS rebates. **RESULTS:** The annual forecast expenditures for PPIs and H2RAs collectively for June 2005–May 2006 was $9,432,605 (95%CI: 8,747,983–10,117,226) and observed expenditures were $4,555,592 indicating that the prior approval policy change was associated with a 52% reduction in GI antisecretory expenditures or $4,877,013 (95%CI: 4,192,391–5,561,635). Utilization of PPIs increased by 44% (3001 Rxs/month; 95%CI: 3695–2308) which more than offset the 21% (1660 Rxs/month; 95%CI: 1199–2121) decrease in utilization of H2RAs. **CONCLUSION:** Replacing step therapy and prior authorization requirements with a preferred drug list selection including supplemental rebates for this Medicaid program significantly lowered expected combined H2RA and PPI prescription expenditures. Since utilization to antisecretory therapy actually increased, increases in non-pharmacy costs or negative outcomes are not anticipated.

PGI13

LOWER DISEASE ACTIVITY AND CLINICAL REMISSION ARE ASSOCIATED WITH REDUCED HOSPITALIZATION RISK IN CROHN'S DISEASE

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OBJECTIVES: Hospitalization is a major source of health care costs for Crohn's Disease (CD). This retrospective analysis of clinical trial data examined the relationship between Crohn's Disease Activity Index (CDAI) scores and hospitalization risk. **METHODS:** We analyzed data from the CHARM trial (adalimumab maintenance therapy) for 778 randomized patients (of 854 enrolled) with moderate to severe CD (baseline CDAI: 220–450) who were treated for up to 66 weeks. As a measure of clinical efficacy, CDAI scores were collected. Hospitalization events were recorded as severe adverse events. While controlling for patient demographic information, we applied a Cox proportional hazard regression model to evaluate the relationship between hospitalization risk and CDAI reduction or clinical remission (CDAI < 150). CDAI and clinical remission were imputed as time-varying covariates. Simulation was applied to assess 1-year, all-cause and CD-related hospitalization rates. **RESULTS:** A total of 157 patients were hospitalized, of which 112 were for CD-related reasons. Cox regression revealed that, at any point in time, lower CDAI score was associated with decreased risk of both all-cause hospitalization (hazard ratio [HR] = 1.06 for every 10 points of CDAI increase, $p < 0.01$) and CD-related hospitalization (HR = 1.08, $p < 0.01$). Simulation study showed that a 70-point CDAI reduction throughout the follow-up period reduced all-cause hospitalization risk by 28.3% and CD-related hospitalization risk by 36.5% at year-end. Clinical remission was associated with a significant reduction in both all-cause (HR = 0.52, $p < .001$) and CD-related hospitalizations (HR = 0.37, $p < .001$). Simulations revealed that clinical remission was associated with a 43.7% decrease in the 1-year risk of all-cause hospitalization and a 60.3% decrease in CD-related hospitalization. **CONCLUSION:** Both lower CDAI score and clinical remission are associated with significantly reduced hospitalization risk for CD patients.