bust to changes of most parameters—most sensitive to prevalence and eradication efficacy changes.

**PGI10**

IRRITABLE BOWEL SYNDROME COSTS SICKNESS FUNDS DM 2.8 BILLION PER YEAR

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BACKGROUND: With a prevalence of up to 20%, Irritable Bowel Syndrome (IBS) could cost the German Sickness Funds (GKV) more than DM 28 billion (10.5% of its total expenditures) per year. Despite these potentially tremendous costs it is still a fairly obscure disease in terms of proper diagnosis and lacking effective treatment. **OBJECTIVE:** To assess diagnosis and treatment options of IBS using strict Rome-II criteria. **METHODS:** Face-to-face interviews of patients (121) and physicians (147 GPs, 53 internists). Results: The patient survey (age 14–74 yrs.; strict Rome-II criteria) puts the prevalence of IBS (constipated and alternating type) in Germany at around 2.3% (1.4 million). This figure correlates well with previous findings. The patients responded that they experienced an average of 7 episodes per year, each lasting about 4–5 days. Some 11% of them suffer permanently. Of the physicians questioned, only 73% recognize IBS when given the symptoms; 57% of these actually classify it accordingly while an alternative diagnosis is “irritable colon” (24%). When choosing a drug, daily treatment costs outweigh every other factor of the physicians relevant set (efficacy, onset, side-effects, mode of action etc.) by about 3:1. In consequence a drug treatment is initiated in (only) 40% of the cases. This is also due to a lack of effective and specific treatment which could help to reduce the frequency of episodes. Results of another study put the direct costs of the average IBS patient at around DM 1,729 per year. Combining this with the above findings results in a more realistic figure of around DM 988 million in direct costs per year (0.37% of total GKV expenditures). **CONCLUSION:** These comparably high costs (insulin treated diabetes: DM 1,217 p.a.) could be significantly reduced by DM 247 for each episode prevented through proper diagnosis and consequent treatment with a specific and effective medication.

**PGI11**

CHARACTERIZATION AND MARKOV MODELING OF GASTROESOPHAGEAL REFLUX DISEASE STATES IN A LARGE HEALTH CARE PLAN

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**OBJECTIVES:** The objective was to describe the disease state (DS) transition patterns of gastroesophageal reflux disease (GERD) by applying a multi-state model assuming a Markov process. **METHODS:** This retrospective study utilized administrative claims for subjects with GERD from a large Midwest USA health care plan. Subjects were tracked for six, six-month time periods (baseline and five followups). Within each time period, ICD-9 diagnosis codes were used to categorize subjects’ GERD into four DS plus a non-symptomatic state: DS0 [no GERD diagnosis], DS1 [mild esophagitis], DS2 [reflux esophagitis], DS3 [esophageal ulceration], and DS4 [structures and complications]. GERD transition probabilities and patterns were analyzed in a five-state Markov framework. Disease regressions and progressions were allowed. The effects of patient and provider covariables on transition probabilities were modeled using logistic regression techniques. **RESULTS:** A total of 7575 subjects with GERD were analyzed. In the five followup periods combined, 79% of the subjects were in GERD DS0, 6% in DS1, 8% in DS2, 2% in DS3, and 5% in DS4. For all initial DS, the most frequent transition path was to regress to DS0 (becoming non-symptomatic) and the second most common was to stay in the initial disease state. For subjects ending a time period in DS1, 89% regressed to DS0 in the next time period, while 6% stayed in DS1, 3% progressed to DS2, 1% progressed to DS3, and 1% progressed to DS4. Multivariate modeling of risk factors influencing transitions showed that progressing from DS1 is associated with age >70, a proton pump inhibitor prescription, and absence of a diagnostic procedure. **CONCLUSIONS:** The Markov analysis showed that subjects with GERD commonly have their symptoms regress, with only a small percent progressing. The Markov model is a useful methodology to research disease states in a retrospective database setting within a health care plan.

**PGI12**

ESTIMATING POTENTIAL UTILIZATION OF ESOMEPRAZOLE BY ASSESSING GERD SYMPTOM CONTROL ON TRADITIONAL PPI'S

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**OBJECTIVES:** Approximately one-half of the American population experiences weekly symptoms of gastroesophageal reflux disease (GERD). With the hypothesis that not all patients are completely symptom free on proton pump inhibitor’s (PPI’s), the pharmaceutical industry is formulating more potent anti-secretory drug therapies. In November of 2000 the FDA approved esomeprazole for the treatment of Erosive Esophagitis (EE). Esomeprazole is a more potent inhibitor of gastrin and gastric acid, with clinical studies demonstrating quicker symptom relief with more complete 24-hour acid control. If complete acid control translates into better long-term symptom relief for chronic symptomatic GERD it may play a vital...