cation was developed as an alternative to the complete wrap in order to reduce the prevalence of post-operative symptoms such as bloating and dysphagia. **OBJECTIVE:** To systematically review the effectiveness of two different surgical techniques of laparoscopic fundoplication (partial versus total) for the treatment of GORD in adults. **METHODS:** A systematic search of the literature was carried out. All randomised trials comparing total versus partial laparoscopic fundoplication were included. The main outcome measure was the number of patients who were symptom free at follow-up. Other outcome measures reviewed included clinical outcomes, PROs and QoL. In addition any long-term follow-up data were reviewed. **RESULTS:** Seven randomised trials identified met the inclusion criteria for this review. All trials included compared laparoscopic total fundoplication compared to partial fundoplication. Post-trial follow-up results varied between 3–6 months and a variety of outcome measures were reported. One study reported 12-month results. There was no reporting on quality of life, though three trials reported PROs. Dysphagia was more frequently reported in patients undergoing total fundoplication compared to partial wrap (RR 2.82 [95% CI: 18.4, 4.32]). No significant differences in post-operative bloating was found between the two surgical techniques. There was no significant difference in the number of patients reporting either “good” or “excellent” outcomes between techniques (RR 0.97 [95% CI: 0.89, 1.05]). **CONCLUSIONS:** Evidence from trials supports the view that both total and partial fundoplication are clinically effective for treating GORD. However, long-term efficacy and QoL data are needed to choose one technique over the other.

**GI DISEASES/DISORDERS**

**GI DISEASES/DISORDERS—Cost Studies**

**PGI3**

**COST-UTILITY ANALYSIS COMPARING ESOMEPRAZOLE WITH THE ORAL-DISPERSIBLE FORMULATION OF Lansoprazole IN THE INITIAL TREATMENT OF REFUX OESOPHAGITIS**

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**OBJECTIVES:** To assess the cost-effectiveness of esomeprazole (Nexium) compared to lansoprazole (Zoton FasTab) in the initial treatment of reflux oesophagitis over 12 weeks from the perspective of the UK NHS. **METHODS:** A probabilistic decision analysis model was constructed using Treeage DATA™ 4.0 to depict the sequential management of patients with unhealed reflux oesophagitis. Treatment pathways were based on a published 8-week UK healing model, however the model time horizon was extended by an additional 4 weeks to ensure the horizon was extended by an additional 4 weeks to ensure the need to prevent development of cirrhosis by preventing hepatitis B, hepatitis C, and alcohol abuse.

**PIG4**

**INPATIENT COSTS OF LIVER CIRRHOSIS IN THE UNITED STATES: A RETROSPECTIVE CLAIMS DATA ANALYSIS, 1993–2001**

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**OBJECTIVE:** To determine the economic burden of liver cirrhosis, a common outcome of chronic hepatitis B, hepatitis C, and alcoholic liver disease. **METHODS:** Hospital inpatient admission records were analyzed for 1993–2001 in a health insurance claims database (MarketScan® Database) for 3.5–5.0 million employees enrolled annually. All patients >18 years old admitted with a primary diagnosis of cirrhosis (ICD-9-CM code 571.2 or 571.5) were included in the analysis. For each patient identified, all admissions in a year were included except admissions related to hepatocellular carcinoma, liver transplantation, and admissions unlikely to be due to cirrhosis based on review of all primary and secondary diagnoses for each admission. Cost estimates were adjusted for inflation using the medical care component of consumer price index and are reported in 2002 US$. **RESULTS:** A total of 2073 cirrhosis patients with 4049 inpatient admissions were identified during the 9-year period. The average annual number of admissions per patient was 1.5 (95% confidence interval [CI]: 1.5–1.6); average length of hospital stay was 11.1 days (95% CI: 10.1–12.1), which decreased from 12.1 days in 1995 to 8.1 days in 2000. The annual cost of inpatient care per patient also decreased, from $31,244 in 1993 to $19,220 in 2000 for an average of $27,248 (95% CI: $24,247–$30,250); 86% (95% CI: 84%–87%) was for hospitalization and 7% (95% CI: 6%–8%) for physician costs. **CONCLUSIONS:** Annual cost of inpatient care for liver cirrhosis in the United States is >$27,000 per patient hospitalized, more than twice the average annual cost for all hospital admissions (~$12,000), and nearly seven times the per capita annual medical care expenses (~$4176). With >25,000 annual deaths from cirrhosis, this causes substantial economic burden to society, and underscores the need to prevent development of cirrhosis by preventing hepatitis B, hepatitis C, and alcohol abuse.

**PGI5**

**COST-EFFECTIVENESS OF TREATING ADULTS WITH CHRONIC HEPATITIS C (CHC) AND PERSISTENTLY NORMAL ALANINE AMINOTRANSFERASE (PNALT) WITH PEGINTERFERON ALFA-2A (40 KD) (PEGASYS) PLUS RIBAVIRIN (COPEGUS)**

**Homburger J, Farci P, Prati D, Zuezem S, Patel KK, Green J**

1Stanford University & Acumen, LLC, Burlingame, CA, USA; 2Università di Cagliari, Cagliari, TN, Italy; 3IRCCS Ospedale Maggiore, Milan, Italy; 4Saarland University Hospital, Homburg/Saar, Germany. **OBJECTIVES:** A randomized, placebo-controlled trial demonstrated sustained virological responses (SVR) exceeding 40% in adults with PNALT/CHC using peginterferon alfa-2a (40-kD) plus ribavirin (Peg/RBV) (Zeuzem. Hepatology 2003; 208A). We computed prognosis, costs, and cost-effectiveness of...
treatment with Peg/RBV compared with no treatment in PNALT/CHC. **METHODS:** Sustained viral response (SVR) was 40% for 48-week treatment in genotype 1 and 72% for 24-week treatment in genotype 2/3. Disease progression was modeled based on METAVIR scores F0 to F4, followed by cirrhosis complications and death. Mean fibrosis progression rates were derived from literature reports of biopsy series in patients with PNALT. The reference is a cohort of patients with mean age 45 years with PNALT and CHC, with distribution of fibrosis at baseline equal to that found in the trial. Quality of life and costs for each health state were based on literature estimates and on European treatment patterns. Costs in 2003 Euros and benefits were discounted at 3%. Sensitivity analyses on key clinical and economic parameters were performed. The analysis was reported from the perspective of a European National Health Service (Italian setting). **RESULTS:** In genotype 1, Peg/RBV compared with no treatment prolonged the time to cirrhosis by 4.8 years, increased life years (LY) by 1.4 and quality-adjusted life years (QALY) by 1 year. The incremental cost per QALY was 12,102€. In genotypes 2/3, Peg/RBV prolonged the time to cirrhosis by 8.6 years, increased LY by 2.5 and QALY by 1.8 years. The incremental cost per QALY was 1084€. Based on the distribution in the trial of 71% genotype 1, and 28% genotype 2/3, the overall CE ratio per QALY was 7419€. **CONCLUSIONS:** Treatment of adults with PNALT/CHC using Peg/RBV is projected to delay time until cirrhosis, increase life expectancy, and is cost-effective.

**ECONOMIC BURDEN OF GERD AND PUD IN AN EMPLOYED POPULATION**

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**OBJECTIVES:** The objective of this study was to evaluate the differences in reported levels of absenteeism and direct medical costs between employees diagnosed with gastroesophageal reflux disease (GERD) and/or peptic ulcer disease (PUD) and a matched-cohort with neither disease. **METHODS:** Data were extracted from the MarkerScan Research Database, a Health Insurance Portability and Accountability Act compliant database consisting of medical and prescription claims of employees linked to the absenteeism files of their employers. Employees with an ICD-9 code for GERD/PUD, and a matched cohort with neither disease, were identified from January 1, 1997 to December 31, 2000. Demographic, absenteeism, and resource-utilization variables were collected for all eligible subjects. Analysis of variance was used to test the null hypothesis that the four populations have equal means of absenteeism rates.

**RESULTS:** In all, 6205 employees with GERD, 2702 with PUD, 3297 with both GERD and PUD, and 42,902 matched control subjects were identified. There was no significant difference between the GERD and PUD groups in health care costs, except total prescription costs that were higher in the GERD group (p < 0.001). Work-absenteeism rates appeared to increase in the expected fashion, with lowest rates in the control group and highest rates in the combined group. The magnitude of this difference was 0.3 sickness-related absence days per individual per year between the groups with and without gastrointestinal disease. For all-cause absences, the difference was higher with 1.5 absence days per year. Projections of this data to an average sized Fortune 500 company of 250,000 employees would translate to total direct costs of $312 million and indirect costs of $4.75 million per year. **CONCLUSIONS:** Direct medical cost and worker absenteeism, in GERD and PUD employees creates a significant burden on the employee community.