mofetil (MMF) yielding four treatment arms: MMF + CYA (60), MMF + FK (51), CSA (39), and FK (41). All patients were followed for one year post-transplant. Using intent to treat or crossover analysis outcomes were similar between FK- and CYA-treated groups, allowing comparison of MMF patients (111) to no-MMF patients (80). Costs (included: hospital, clinic, emergency department, outpatient immunosuppression; excluded: physician fees) were obtained using relative value units (RVUs, microcosting), and wholesale acquisition prices. Ratios of cost-to-charges (RCCs) for cost-estimate method comparisons were obtained from a Medicare cost report. RESULTS: All treatment arms had similar severity and chronology of rejection episodes. In addition, there were no significant differences between treatment arms when actual costs (RVUs), or other cost-estimation methods were used. Cost-center specific ratio of costs to charges (RCCs) performed better than global hospital RCCs, but both were significantly different from, and underestimated, RVU costs. Pharmacy appeared to be the reason why cost-center specific RCCs did not perform well. There were no significant differences between cost-center specific RCCs and RVU costs when pharmacy RCCs were adjusted. CONCLUSIONS: There is not a preferred immunosuppressive treatment substitute (MMF + FK, MMF + CYA, FK, CYA) for the post-liver transplant population at UCH. Traditional cost-estimate methods do not accurately approximate costs. A pharmacy adjustment may be required for disease states that use significant inpatient pharmacy resources. Cost-center specific RCC method cost-estimates may be improved with this methodology.

GI DISEASES/DISORDERS

GI DISEASES/DISORDERS—Quality of Life

RESPONSIVENESS TO CHANGE AND ENGLISH LANGUAGE VALIDATION OF THE WPAI-GERD QUESTIONNAIRE—RESULTS FROM A CANADIAN STUDY

Wahlqvist P1, Guyatt G2, Armstrong D3, Austin P3, Barkun A3, Chiba N2, deGregori N1, El-Dika S2, Fallone C2, Heels-Ansdell D1, Tanser L1, Velthuysen van Zanten S3, Wiklund I1, Schuennemann H4

1AstraZeneca R&D Mölndal, Mölndal, Sweden; 2McMaster University, Hamilton, ON, Canada; 3McGill University Health Centre, Montreal, QC, Canada; 4University at Buffalo, Buffalo, NY, USA; 5AstraZeneca Canada, Mississauga, ON, Canada; 6Dalhousie University, Halifax, NS, Canada

OBJECTIVES: To assess responsiveness to change and construct validity of the English Work Productivity and Activity Impairment questionnaire for Gastro-Esophageal Reflux Disease (WPAI-GERD). METHODS: The WPAI-GERD was used in a clinical study in Canadian GERD patients with moderate or severe symptoms treated with esomeprazole 40mg once daily for 4 weeks. Productivity variables obtained included GERD-specific absence from work, reduced productivity while at work, and reduced productivity while carrying out regular daily activities other than work during the preceding week. RESULTS: The analysis included 217 patients, of whom 71% (n = 153) were employed. Before start of treatment, employed patients reported an average of 0.9 hours absence from work and 14.0% reduced work productivity (= 5.8 hours equivalent; % reduced productivity x hours actually worked), as well as 21.0% reduced productivity in daily activities (all patients). After treatment, the corresponding figures decreased to 0.3 hours, 3.0% (= 1.1 hours equivalent) and 4.9%, respectively. Thus, the improvement (difference from start of treatment) in productivity was 0.6 hours (p = 0.01) for absence from work, 11.0% units (p < 0.001) for reduced work productivity (= 4.7 hours equivalent, p < 0.001) and 16.1% units (p < 0.001) for reduced productivity in activities. This improvement translates into an avoided loss of work productivity of 5.3 hours in total on a weekly basis per patient employed. Cross-sectional correlation coefficients between WPAI variables and symptoms (range: 0.04–0.63), as well as health-related quality of life (range: 0.02–0.65) supported cross-sectional construct validity of the English WPAI-GERD. Corresponding change score correlations between WPAI variables and relevant symptoms were low (range: 0.10–0.23), which would indicate poor longitudinal construct validity. CONCLUSIONS: Cross-sectional construct validity of the English WPAI-GERD version was confirmed and results indicated that the WPAI-GERD is responsive to change. Although these results also indicated poor longitudinal construct validity, the overall findings suggest that further study of the instrument remains warranted.

WORK LOSS AND ACTIVITY IMPAIRMENT DUE TO INFLAMMATORY BOWEL DISEASE

Weston C1, Sikirica V1, Pizzi L1, Goldfarb N1, Morrett D1, Cobb N1, Howell J1, Infentolino A2, Dimarino A2, Cohen S2

1Jefferson Medical College, Philadelphia, PA, USA; 2Thomas Jefferson University, Philadelphia, PA, USA

OBJECTIVES: To evaluate lost productivity in Inflammatory Bowel Disease (IBD) patients from a large gastroenterology outpatient practice in an urban university hospital system. METHODS: A self-administered survey was mailed to 614 IBD patients. The survey included the WAI questionnaire (Work and Activity Impairment from IBD), a modified version of the WPAI (Work Productivity and Activity Impairment Questionnaire), which measures lost productivity in the form of missed work (absenteeism), impairment during work (presenteeism), and daily activity impairment during the past year. Additional questions pertaining to IBD disease severity, demographics, medical treatment, and comorbid conditions were included. Multiple regression models were used to assess the impact of IBD severity, age, gender, comorbidities, and disease type (Crohn’s Disease or Ulcerative Colitis) on absenteeism, presenteeism, and activity impairment. RESULTS: Of the 314 respondents (51.1% response rate), 46.8% were female and 53.2% male (mean age 46.1 years). Respondents reported an average of 14.1% of scheduled work hours were lost due to absenteeism or disability. Among respondents who missed at least some work in the past year (n = 98; 31.2%), the mean number of hours missed was 56.4. On average respondents reported a 25.4% decrease in workplace productivity (presenteeism), and reported a 30.4% reduction in daily activity level due to IBD. Multiple regression analysis revealed that IBD severity, age and anemia were the most significant predictors of absenteeism (p < 0.05). For presenteeism, IBD severity, anemia and hypercholesterolemia were significant predictors (p < 0.05). Lastly, for daily activity impairment, IBD severity, female gender, and the comorbidities of anemia, arthritis, hypercholesterolemia, depression and anxiety were significant predictors (p < 0.05). In all three models, severity of IBD symptoms was the most important predictor of lost productivity. CONCLUSIONS: The severity of IBD is a significant determinant of productivity loss in the form of absenteeism from work, presenteeism at work, and daily activity impairment.