**GASTROINTESTINAL DISORDERS – Cost Studies**

**PG9**

**IMPACT OF SWITCHING PATIENTS FROM TWICE DAILY PROTON PUMP INHIBITORS TO ONCE DAILY DEXLANSOPRAZOLE**

*Parthan A1, Mody RR2, Deflin MM1, Akhras KS2*  
1Takeda Pharmaceuticals International, Inc., Deerfield, IL, USA  
2University of Rochester, Rochester, NY, USA

**OBJECTIVES:** Dexlansoprazole, a once-daily proton pump inhibitor (PPI) in a Dual Delayed-Release formulation, has demonstrated efficacy in a phase 3b study in maintaining symptom control among gastrointestinal reflux disease (GERD) patients previously controlled on twice daily (BID) PPIs. A pharmacy budget impact model (BIM) from a US payer perspective was developed to assess the impact of switching to QD dexlansoprazole from BID PPIs. METHODS: An excel-based BIM on a hypothetical plan of 1 million members was developed. Based on published literature, 28% of members had GERD, among which 5% were prescribed PPI therapy. Among these, 74%, 23% and 3% of patients were on QD, BID and as needed PPI therapy, respectively. The proportion of patients switching from BID PPI to QD dexlansoprazole and efficacy of dexlansoprazole in achieving symptom control among those patients was assumed to range from 84%-88% based on the results of the phase 3b trial. Market share of PPIs and drug costs were derived using internally available data. The market share of dexlansoprazole in year 1 was 4.23% and 8.44% pre- and post-switching, respectively. Model outcomes for years 1, 2 and 3 included: net total and per member per month (FMPM) pharmacy savings. RESULTS: The net pharmacy saving from switching to QD dexlansoprazole was estimated to be $7, 6.4 & $5.9 million for years 1, 2, & 3, respectively. FMPM pharmacy cost savings ranged from $0.66 in year 1 to $0.50 in year 3. The model results were most sensitive to cost of esomeprazole, proportion of GERD patients on PPIs, prevalence of the disease, and proportion of patients switching from BID esomeprazole to QD dexlansoprazole. CONCLUSIONS: Based on the economic model, switching GERD patients from twice daily PPIs to QD dexlansoprazole may generate cost savings for US health plans.

**PG10**

**BUDGET IMPACT MODEL OF INFliximAB FOR THE TREATMENT OF STEROID-DEPENDENT, STEROID-REFRACTORY AND ACUTE ULCERATIVE COLITIS IN THE REPUBLIC OF CROATIA**

*Black CM1, Pan T2, Jakopin Z2, Draskovic J3*  
1St. John’s University, Queens, NY, USA, 2Merrick & Co., Inc., Whitehouse Station, NJ, USA, 3Merrick & Co., Inc., Zagreb, Croatia

**OBJECTIVES:** Highly effective biologic therapies offer new treatment options for patients suffering from moderate to severe ulcerative colitis (UC) who fail with conventional therapies. A budget impact model was constructed to estimate the costs of infliximab therapy for steroid-dependent, steroid-refractory and acute UC patients in the perspective of Croatia. METHODS: Using epidemiology data and medical treatment guidelines, a budget impact model was constructed to calculate the annual cost of infliximab according to the Croatian Guidelines for Treatment of UC. Moderate to severe UC patients that were diagnosed steroid-dependent, and acute or steroid-refractory patients that were not covered by IV corticosteroids were considered eligible for infliximab. Clinical trial data was applied to the guidelines to determine infliximab eligible patients. Sensitivity analysis was conducted to describe the ranges of costs by varying incidence, and dosing, considering drug waste. RESULTS: According to the epidemiology data, 17.8 (411 patients) of all UC patients fall into these 3 categories of patients and should be treated with infliximab. Total costs of treating these patients according to drafted guidelines would be $33,822,366 kn (0.01% of GDP, 0.13% of total healthcare costs or 0.50% of total health care expenditure for Croatia). Judicial sales for infliximab in Croatia was assessed to be 19,399,407 kn (6.97%) of which is attributed to steroid-dependent patients, 7,893,089 kn (23.34%) to steroid-refractory and 6,599,870 kn (19.51%) to acute patients. New patients who require 8 infusions within the first year account for 11% of the cost, whereas maintenance therapy patients receiving 6 infusions explain the rest. Adjusting the dosage from 40mg/kg to 350mg/kg decreases the total cost by 12.50% (4,227,796 kn). A decreasing incidence of UC patients from 5.9 to 3.9 per 100,000 reduces the cost by 4.69% (1,586,046 kn). CONCLUSIONS: Given the significant improvement in quality of life of those with UC, infliximab should be considered where the budget allows it. Steroid-refractory UC patients accounted for majority of the costs.

**PG11**

**ECONOMIC EVALUATION OF THE USE OF PEG-INTERFERON ALFA 2A IN THE TREATMENT OF PATIENTS WITH CHRONIC HEPATITIS C PUBLIC MEXICAN PERSPECTIVE**

*Lach H1, Alva M2*  
1Instituto de Investigaciones Biomédicas, Mexico City, Mexico, 2Santa Lucia Hospital, Mexico City, Mexico

**OBJECTIVES:** To evaluate the costs associated with the treatment of Hepatitis C Virus (HCV) treated with Peg-interferon Alpha-2a versus Peg-interferon Alpha-2b. METHODS: A Markov model was constructed to evaluate the costs of treating patients with chronic hepatitis C in Mexico with a 10-year time horizon. The most frequently used-NSAIDs were ibuprofen (4%), aspirin (35%) and naproxen (33%). Nearly 43% reported using a PPI with 86% (n=731) reporting use more than three times per month. The most frequently used PPIs were omeprazole (46%), ranitidine (17%) and esomeprazole (17%). Of daily NSAID users, 42% reported taking a PPI. Of non-NSAID users, 12% reported a history of gastrointestinal reflux disease, 9% reported a history of ulcers, and 3% reported a history of gastrointestinal bleeding. CONCLUSIONS: This is the first study in the United States to document NSAID and PPI use. Importantly, only 42% of daily NSAID users take PPIs on a routine basis, leaving the majority of NSAID users at risk for gastrointestinal complications.