Kong SLE patients compared to standard care. METHODS: A lifetime microsimulation model was adapted with epidemiological and cost data from Hong Kong. The model comprises the usual care pathway and incorporates the BLISS-52 and BLISS-76 trial data for the short term outcomes within one year, while long-term outcomes were based on a natural history model developed using the Johns Hopkins Lupus registry. The natural history model has the relationship between disease severity and annual mortality to covariables on the risk of dying and developing organ damage. Data available from the SLE population in Hong Kong was used as input in the modified model. The analysis was performed from a Hong Kong health-care perspective. In the base case, cost and effectiveness were discounted to the year of analysis at 5% p.a. RESULTS: The base case analysis showed that compared to standard care, treatment with belimumab increased life expectancy by 0.80 (2.77 undiscounted) and QALYs by 0.41 over 5 years discounted (total undiscounted costs were US$47,865 (US$80,460 undiscounted). The ICER of belimumab compared to standard care was US$59,546 per life year and US$79,407 per QALY gained. Hong Kong SLE patients compared to standard care would benefit highly with this result since $107,883 is greater than the estimated threshold for effectiveness, at 3 times GDP.

CONCLUSIONS: This study shows that belimumab would be cost-effective compared to standard care for the treatment of SLE in Hong Kong.

PSY42 ECONOMIC ASSESSMENT OF RECOMBINANT FACTOR IX IN PROPHYLAXIS FOR HEMOPHILIA B IN YOUNG PATIENTS IN MEXICO

Mucino-Ortega F1, Salinas-Escudero G2, Galiano-Suárez RM1

1 Pfizer S.A. de C.V., Mexico City, Mexico, Hospital Infantil de México Federico Gómez, Secretaría de Salud, Mexico City, Distrito Federal, Mexico

OBJECTIVES: Hemophilia B is a rare condition and evidence of specific health and economic outcomes for it are relatively scarce. The purpose of this study was to evaluate the economic and health consequences of prophylaxis vs on-demand supply of factor IX (FIX) in young patients diagnosed with moderate/severe hemophilia B, from the perspective of Instituto Mexicano del Seguro Social (IMSS). A three-state, two-week cycle Markov model was developed for moderate/severe hemophilia B patients starting at age 2 until they reached 18 years. Patients in prophylaxis received 64.6 IU recombinant FIX/kg per infusion and 2.77 infusions every two weeks (same dose used in spontaneous bleeds), while patients in the on-demand arm received 69.4 IU plasma-derived FIX/kg to manage spontaneous bleeds. A literature review for outcomes in hemophilia B was performed (rates of bleeding with prophylaxis and on-demand therapy, average cost and probability of death per age correspond to the Mexican population). Avoided bleeds were the effectiveness measure used. The model does not consider other costs than FIX acquisition costs and emergency room were considered (both extracted from IMSS sources). Administration or adverse event management. Only the costs of acquisition of FIX were considered. RESULTS: The prophylaxis group experienced 49% fewer bleeds than the on-demand group (9.11 vs. 3.32 per patient, respectively), however, this has reached with an incremental cost of $817,818.89 (cost of prophylaxis was $920,411.15, almost nine times the cost of on-demand). In spite of this, ICER for prophylaxis was $1,589,824 per avoided bleed. The model is highly sensitive to probability of spontaneous bleeding, doses and cost of acquisition of FIX.

CONCLUSIONS: At IMSS, prophylaxis with recombinant FIX for the management of patients with moderate/severe hemophilia B would be an intervention with strong health benefits worth the additional investment required.

PSY43 ECONOMIC ASSESSMENT OF THE PROPHYLAXIS VS ON-DEMAND APPROACH FOR THE TREATMENT OF HEMOPHILIA A IN YOUNG PATIENTS IN MEXICO

Mucino-Ortega F1, Salinas-Escudero G2, Galiano-Suárez RM1

1 Pfizer S.A. de C.V., Mexico City, Mexico, Hospital Infantil de México Federico Gómez, Secretaría de Salud, Mexico City, Distrito Federal, Mexico

OBJECTIVES: Hemophilia A is a disease with extreme disabling consequences. Prophylaxis helps to diminish them, but its cost should be assessed. The study was intended to estimate the economic and health consequences of prophylaxis vs on-demand supply of factor VIII (FVIII) in the management of patients with hemophilia A, from the perspective of Instituto Mexicano del Seguro Social (IMSS). METHODS: A three-state, two-week cycle Markov model simulated hemophilia A in children from age 2 to 18 in two arms: prophylaxis with recombinant FVIII (25U moroctocog alfa/kg every other day) and infusions of 40UI/kg of plasma derived FVIII for spontaneous bleeds. The number of bleeds per approach, utilities and infusions required to control spontaneous bleeds. The cost-effectiveness analysis is with the VON threshold of $107,883/Quality Adjusted Life Year (QALY) of patients with hemophilia A would bring highly valuable health benefits to patients, but more resources would need to be invested.

PSY44 COST-EFFECTIVENESS ANALYSIS OF BIOLOGICAL THERAPIES FOR THE TREATMENT OF MODERATE AND SEVERE PSORIASIS IN INSTITUTIONAL CARE IN MEXICO

Toroa Torres FG1, Albuja Rocio MF2, Moult Quevedo JF1, Estévez C1

1 Makrose, Quito, Ecuador, 2 Pfizer, Quito, Ecuador, Pfizer Inc., New York, NY, USA, Pfizer Inc., New York, NY, USA

OBJECTIVES: Psoriasis is a chronic skin disease that strongly affects quality of life of its patients. In Ecuador, this disease affects 0.5% of the population and is estimated that 650 new patients are diagnosed every year with psoriasis according the Ecuadorian National Foundation of Psoriasis. Biological treatments has dramatically changed the therapeutics, outcomes and cost of effectiveness of these patients. The aim of this study is to assess the cost-effectiveness of biologic alternatives available in Ecuador to treat moderate to severe psoriasis adult patients from a public payer's perspective.

METHODS: A decision-tree model was developed to simulate the clinical course of patients (18yrs+) treated with etanercept (50mg per week), adalimumab (80 mg on week 0, thereafter 40 mg every 2 weeks) and infliximab (5 mg/kg at weeks 0, 2, 6 and thereafter every 8 weeks) as first-line therapies, as well as treatment associated costs (2-year timeframe with a 5% annual discount rate). Effectiveness measures were the percentage of patients reaching 75% improvement using the Psoriasis Area and Severity Index (PASI-75) and quality adjusted life years gained (QALY’s).

Costs considered included: biologic acquisition costs, concomitant medication, medical follow-up and side effects management. Clinical response of biologicals was extracted from literature. Unit costs were collected from official Ecuadorian databases (Ministry of Health, National Social Security). RESULTS: After two years, the percentage of patients reaching PASI-75 were 69.3% and 62.4% respectively for adalimumab, and US$ 39,585 for etanercept and US$ 49,055.6 for Infliximab. These results were supported through published literature. Univariate sensitivity analysis was performed.

CONCLUSIONS: In Ecuador, the less expensive therapy to treat moderate to severe adult psoriasis patients would be etanercept.

PSY45 COST-EFFECTIVENESS ANALYSIS OF PREGABALIN FOR THE TREATMENT OF NEUROPATHIC PAIN IN COLOMBIA

Olarte Molina P1, Orozco Giraldo C2, Garcia-Salgueiro MV1

1 CES University, Medellin, Colombia, 2 Pfizer S.A.S., Bogota, Colombia

OBJECTIVES: Neuropathic pain is caused by various disorders affecting the peripheral or central nervous system. Its most common causes are secondary to herpes zoster infection and as a complication of diabetes mellitus. The aim of this analysis is to evaluate the cost-effectiveness of pregabalin versus duloxetine to estimate the pain reduction in diabetic neuropathy and postherpetic neuralgia from the social perspective in Colombia. METHODS: A Markov model was developed with 3 health-states: improvement (gain reduction >50%) using visual analogue scale [VAS] against baseline), no improvement and treatment failure (due to therapeutic failure). The time horizon is 5 years (three-month cycles) and discounts annually effectiveness and costs using a 3% rate. Comparators were pregabalin (150-300 mg/day) vs. duloxetine (60 mg/day). Population (>18 years) with neuropathic pain was estimated in 775,152 for Colombia. Data on effectiveness and utility data were taken from a literature and meta-analysis of controlled clinical trials. Costs were taken from official tariff manuals, pricing laws and from the local health insurance company SURA. Costs are expressed in 2012 USD. Cost-effectiveness measure was Quality Adjusted Life Years (QALYs).

RESULTS: Over a 5-year period, pregabalin obtained 231,106 QALYs more than duloxetine (1,003,720 and 772,615 QALYs, respectively). Total expected savings with pregabalin was USD43,955 compared to duloxetine (total expected costs: USD664,830 and USD1,044,440, respectively). Costs of diabetes (sick leaves) were USD43.8 lower with pregabalin than duloxetine. Probabilistic sensitivity analyses showed the robustness of the model.

CONCLUSIONS: Pregabalin is shown to be a cost-saving alternative compared with duloxetine for the treatment of neuropathic pain, pregabalin would have a higher rate of patients with reduction pain (51%) than duloxetine (41%), a larger number of QALYs and would have savings USD567.1 per patient due to lower costs of treatment and fewer payments for medical disabilities.

PSY46 COST-UTILITY ANALYSIS OF SPINAL CORD STIMULATION IN PATIENT WITH FAILED BACK SURGERY SYNDROME: RESULTS FROM THE PRECISE STUDY

Ciampichini R1, Scalone L2, Zucco F3, Lavano A4, Costantini A5, De Rose M4, Poli P6, Fortini G1, Demartini D1, De Simone E1, Menardo V1, Cisotto P1, Meglio M1, Beccaguti G4, Griffi M1, Pisa R1, Santoro T1, Mantovani LV

1 Chirurgia, Fondazione IRCCS Ospedale Policlinico Universitario Agostino Gemelli, Roma, Italy, 2 Neurochirurgia, IRCCS Fondazione Sant'Anna, Genova, Italy, 3 Neurochirurgia, IRCCS Fondazione Santa Croce e Carle, Cuneo, Italy, 4 Neurochirurgia, IRCCS Fondazione Ospedale Poli, Pisa, Italy, 5 Neurochirurgia, Ospedale Universitario Sperimentale Cattedra di Neurochirurgia, Genoa, Italy, 6 Neurochirurgia, IRCCS Fondazione Ospedale Sacro Cuore, Cuneo, Italy, 7 Neurochirurgia, IRCCS Fondazione Ospedale Sacro Cuore, Cuneo, Italy

OBJECTIVES: Failed back surgery syndrome represents one the most challenging and chronic neurorehabilitation problems. Clinical trials have shown that Spinal Cord Stimulation (SCS) is a less invasive and with reduced side effects than the surgery. The aim of the present study is to evaluate the cost-utility of SCS in the patients with Failed Back Surgery Syndrome (FBSS).

METHODS: We conducted a cost-utility analysis with a Markov model, where each patient can be in 3 states: no pain, milder pain, or severe pain (excluding the surgery). The transition probabilities, expected utility of each state and the cost of the intervention were estimated. Costs items were defined for the patient, hospital and society perspectives. No discount was applied. RESULTS: The probabilistic sensitivity analysis showed that the SCS is cost-effective in all the scenarios simulated. The ICER for SCS was 18,073,838.42€ per QALY gained. CONCLUSIONS: This analysis shows that the SCS is an effective treatment for FBSS patients with severe pain and the QALY gained is very small.