OBJECTIVES: Hemophilia B is a rare and expensive to treat disease. The aim of this study was to develop an economic evaluation of prophylactic vs on-demand supply of recombinant factor IX (rFIX) in the treatment of patients with severe hemophilia B, from the Social Security Mexican Institute (IMSS) perspective. METHODS: A three-state Markov model (two-week cycles) following male patients from birth up to 75 years was developed to estimate the cost and outcomes of prophylactic (30 IU/kg body weight/week) vs on-demand (40 IU/kg and body weight/21 days) approaches to manage hemophilia B. On-demand was considered the usual prac- tice. Effectiveness measure was the QALY. A literature review was performed to extract Mexican demographic and general epidemiologic data needed to populate the model. Treatment cost data (inpatient, outpatient, emergency services, medici- nes, laboratory and image studies) were extracted from Mexican electronic databases (the acquisition cost of rFIX was provided by the manufacturer). Health and economic consequences were assessed in different age groups. Both costs and outcomes were discounted at 5% annual rate. Probabilistic sensitivity analyses and economic consequences were assessed in different age groups. Both costs and expected cost per patient of morphine 4mg, buprenorphine 0.12mg, morphine 6mg-buprenorphine 0.18mg, morphine 12mg-buprenorphine 0.36mg, ketorolac, buprenorphine and morphine 4 and 6mg.

PSY33
ADAPTATION TO COLOMBIA AND VENEZUELA OF THE ECONOMIC MODEL FOR BOSUTINIB FIRST-LINE TREATMENT OF CHRONIC MYELOID LEUKEMIA.
DEVELOPED BY THE YORK HEALTH ECONOMICS CONSORTIUM

Oreco J1, Valencia J2
1Universidad CES, Medellin, Colombia, 2Boots-Myers Squibb Company, Bogota, Colombia

OBJECTIVES: Based on an economic evaluation of cost-effectiveness of frontline dasatinib treatment for chronic myeloid leukemia by the York Consortium and after transferability analysis of data, we performed an adaptation of this model in Colombia and Venezuela. We compared the costs and cost-effectiveness ratio of bosutinib 50mg/day and dasatinib 140mg/day as frontline treatment for CML in its three phases. With increases to 140 mg/day of dasatinib, 800 mg/day of imatinib and 800 mg/day nilotinib in a second-line therapy.

METHODS: The original model considered those patients with CML who had not received previous treatment and a Markov’s model with probabilities of change for the chronic, accelerated and death phases, on the lifetime and with a costs and benefits discount rates of 3.5%. Direct medical and treatment cost and mortality rates were taken from the local jurisdiction and WHO life tables. The results of the model included the costs of each alternative treatment with dasatin- ib, nilotinib or imatinib and the QALYs (Quality Adjusted Life Years). Costs are expressed in 2011 Colombian pesos and Venezuelan strong bolivars. RESULTS: Dasatinib 100 mg/day as frontline treatment for CML produced the greatest number of QALYs, both in Colombia and Venezuela with 10.67 and 10.53 QALYs respectively, compared with imatinib; 10.10 and 9.97 QALYs and nilotinib; 10.50 and 10.36 QALYs. Dasatinib 100 mg/day was also more cost-effective than nilotinib as front- line treatment for CML, being dominant in both these countries. CONCLUSIONS: In the frontline treatment for CML in Colombia and Venezuela, Dasatinib was more effective than imatinib and nilotinib and showed better rates of cost-effectiveness than nilotinib had been dominant in both countries. Although there was an increase in over- all costs, this is due to the increase in life years gained and thus in greater use of medical resources and medications.

PSY34
ASSESSING INTERVENTION VERSUS ADULTS WITH METABOLIC SYNDROME: A COMPREHENSIVE ECONOMIC MODEL DECISION MODEL

Castro M, Dequen P, Davies MJ, Khunti K, Abrams K
University of Leicester, Leicester, UK

OBJECTIVES: Metabolic Syndrome (MetS) is defined as a clustering of risk factors for diabetes mellitus (T2DM) and cardiovascular disease (CVD) which puts individ- uals at increased risk of developing these conditions and consequently leads to a reduction in life expectancy and increased morbidity. METHODS: A systematic review and network meta-analysis was undertaken to assess the relative clinical effectiveness and pharmacological costs of the interventions, both independently and in combination. A second systematic review, and series of meta-analyses, was also undertaken to estimate the increased burden that a MetS diagnosis has on the subsequent risk of T2DM, CVD and all-cause mortality. A probabilistic Markov decision model was developed with WinBUGS, and which directly included the series of meta-analyses above, in order to assess the cost-effectiveness of the various interventions. RESULTS: The use of both lifestyle and pharmacological interventions in combination was dominated in the incre- mental cost-effectiveness analysis, with the use of both of them independently producing greater health gain at lower cost. Pharmacological intervention was cost-effective compared to standard care (ICER £3050 with a probability of 0.53 at a threshold value of £20k/QALY), and lifestyle intervention was cost-effective com- pared to pharmacological (ICER £9933 with a probability of 0.52 at a threshold value of £20k/QALY). A series of sensitivity analyses were also undertaken both with regards to the model inputs/distributions and a number of methodological assump- tions, but the results remained largely insensitive to these changes. CONCLUSIONS: The use of a lifestyle intervention would appear to be a potentially cost-effective treatment strategy for adults with MetS, however considerable un- certainty surrounds this decision. The use of a comprehensive approach to eco- nomic modelling within a WinBUGS framework allowed distributional assump- tions to be relaxed, sources of correlation to be appropriately accounted for, and more complex sensitivity analyses to be easily carried out. At IMSS setting, parecoxib ap- pears to be cost-saving regarding morphine 12mg and cost-effective regarding ke- torolac, buprenorphine and morphine 4 and 6mg.

PSY55
ECONOMIC EVALUATION OF LENALIDOMIDE IN THE MANAGEMENT OF MYELOMA: A COMPLEXITY-ADAPTED ECONOMIC MODELLING APPROACH

Pragnalika V, Kourlaba G, Maniadakis N
Nuffield Department of Public Health, Oxford, UK

OBJECTIVES: To assess the cost-effectiveness of lenalidomide with dexamethasone (Len/Dex) combination relative to bortezomib alone, in previously treated multiple myeloma patients in Greece.

METHODS: A discrete event simulation model was locally adapted, to estimate the differences in the overall survival and treatment cost for the two alternative options. Efficacy data utilized came from the two large, multicenter, controlled, randomized clinical trials for the first option and an open label study for the second. Quality of life data were extracted from inter- national sources. Data on resource use and prices were collected from the elec- tronic databases of local hospitals and other relevant sources. The perspective of the analysis was that of payers. Total cost accounts for the monitoring and admin-