A TRIAL-BASED ASSESSMENT OF THE COST-UTILITY OF BEVACIZUMAB AND CHEMOTHERAPY VERSUS CHEMOTHERAPY ALONE FOR ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC)  

**PCN6**

**CONCLUSIONS:** Patients with advanced NSCLC have a poor prognosis—with median overall survival of less than one year. A randomized clinical trial (RCT) of bevacizumab plus chemotherapy alone demonstrated a significant (2-month) improvement in median survival. However, a cost-effectiveness analysis of this therapy has not been published. Based on the RCT results, we performed a cost-utility analysis of a Markov model to project quality-adjusted life years (QALYs) and direct costs from a societal perspective. Results were sensitive to the cost and required dose of cetuximab, cost of care after progression, and time horizon. Utility values for health states and events were taken from published literature. Direct medical costs were included. Resource use was based on expert opinion from the two biggest oncology centers in Romania. Unit costs (2009) were derived from Romanian retail prices for drugs, diagnostic and monitoring tests and procedures, hospital stays/visits, diagnostic and monitoring tests. Costs were discounted by 5%.

**RESULTS:** One-way sensitivity analyses found results to be sensitive to the cost and required dose of cetuximab, cost of care after progression, and time horizon and discount rate, and adjusting the rates of mortality due to other causes, we used a Markov model which would enable a prediction of costs and health benefits obtained during the entire lifetime for each of the treatment options. RESULTS: In the chronic phase of the disease, dasatinib yielded 6.33 and 6.03 QALYs for Colombia and Venezuela, respectively, in comparison with 6.03 and 5.73 QALYs in the case of imatinib. In Colombia, with an ICER of $54,120,910 per QALY, stated in 2009 Colombian pesos, dasatinib showed a better cost-effectiveness ratio than nilotinib, and in Venezuela, dasatinib proved to be dominant. In the accelerated phase, dasatinib produced 3.5 times more QALYs than those of the imatinib group in both countries. In the blastic phase, QALYs were 3.4 times more than those of the imatinib group. CONCLUSIONS: Dasatinib at a dose of 140 mg/day showed a better cost-effectiveness ratio than the doses of 800 mg of Imatinib and 800 mg of Nilotinib for the treatment of patients with CML resistant to usual imatinib doses in the chronic phase, as well as in the accelerated and blastic phases.

**PCN99**

ECONOMIC EVALUATION OF DASATINIB FOR THE TREATMENT OF CHRONIC MYELOGENOUS LEUKAEMIA IN PATIENTS RESISTANT TO IMATINIB IN COLOMBIA AND VENEZUELA  

Valencia Zapatia JF1, Orozco G J2, Ribon G2, Guerrero F1, Nullo GC3

1Universidad CES Medellin, Medellin, Colombia; 2Bristol-Myers Squibb, Bogotá, - Colombia; 3Bristol-Myers Squibb, Buenos Aires, - Argentina

**OBJECTIVES:** To perform an economic evaluation of Dasatinib for the treatment of Chronic Myelogenous Leukaemia (CML) in patients resistant to imatinib in Colombia and Venezuela, using data from a published study entitled: “An Economic Evaluation of Dasatinib for the treatment of Chronic Myelogenous Leukaemia in Imatinib–Resistant Patients”, which was carried out by the York consortia, UK. **METHODS:** On the same initial assumptions of the York work as regards to population, age of start, time horizon and discount rate, and adjusting the rates of mortality due to other causes, we used a Markov model which would enable a prediction of costs and health benefits obtained during the entire lifetime for each of the treatment options. RESULTS: In the chronic phase of the disease, dasatinib yielded 6.33 and 6.03 QALYs for Colombia and Venezuela, respectively, in comparison with 6.03 and 5.73 QALYs in the case of imatinib. In Colombia, with an ICER of $54,120,910 per QALY, stated in 2009 Colombian pesos, dasatinib showed a better cost-effectiveness ratio than nilotinib, and in Venezuela, dasatinib proved to be dominant. In the accelerated phase, dasatinib produced 3.5 times more QALYs than those of the imatinib group in both countries. In the blastic phase, QALYs were 3.4 times more than those of the imatinib group. CONCLUSIONS: Dasatinib at a dose of 140 mg/day showed a better cost-effectiveness ratio than the doses of 800 mg of Imatinib and 800 mg of Nilotinib for the treatment of patients with CML resistant to usual imatinib doses in the chronic phase, as well as in the accelerated and blastic phases.

**PCN100**

SIMILARITIES AND DIFFERENCES IN TREATMENT PATTERNS AND RESOURCE UTILISATION FOR MULTIPLE MYELOMA: A COMPARISON BETWEEN 4 NORDIC COUNTRIES  

Persson J1, Christiansson O2, Wang M3, J basis J4, Melquist UE5

1The Swedish Institute for Health Economics, Lund, Sweden; 2Jansen-Clag AB, Solentuna, Sweden; 3Department of Hematology, Gothenburg, Sweden

**OBJECTIVES:** Compare Multiple Myeloma (MM) treatment patterns and resource utilisation in the Nordic countries. **METHODS:** A modified Delphi panel was designed, consisting of 14 haematologists at different university hospital clinics in Norway, Denmark, Finland, and Sweden. In a 3-round process with structured questionnaires in February 2007 to January 2008, resources utilisation was surveyed including drugs, tests, bone marrow transplantations (BMT), hospital inpatient/outpatient stays/visits, radiotherapy, surgical- and diagnostic procedures. **RESULTS:** Patient characteristics were slightly different with mean age ranging from 67 to 70, age above 65 years 52%-64%; males 55%-64%; co-morbidities 47%-63%. Differences were found in other resource categories. Differences in the introduction of thalidomide, bortezomib and lenalidomide were seen, with Denmark treating 24% of the patients with bortezomib and lenalidomide in 1st line. This could be driven by differences in the number of available visits. Radiotherapy was highest in Sweden and Denmark. Small differences were seen in other resource categories. **CONCLUSIONS:** Although Nordic treatment guidelines for MM from 2005 are well accepted (excl. Finland) some differences in treatment patterns were found differences in patient characteristics, clinical studies and a non-synchronised development of new treatment guidelines. Also differences in political decisions, relative prices and health care organisations may have an impact.

**PCN98**

COST-EFFECTIVENESS OF ADJUVANT THERAPY WITH TRASTUZUMAB IN THE TREATMENT OF EARLY BREAST CANCER (EBC) IN ROMANIA  

Grecea D1, Baculea S2, Radu PC3, Pana B3, Szkultecka-Debek M4

1Oncology Institute “Prof.Dr.Ion Chiricuta”, Cluj-Napoca, Romania, 2Roche Romania, 3Bristol-Myers Squibb, Bogotá, - Colombia, 4Bristol-Myers Squibb, Buenos Aires, - Argentina

**OBJECTIVES:** Trastuzumab (Herceptin®) as an adjuvant treatment for patients with early stage HER2+ve breast cancer, following surgery, chemotherapy and radiotherapy has been shown to reduce disease recurrence by ~50% and the risk of death at 2 years by ~33% (Piccart-Gebhart 2005). The objective of this analysis was therefore to determine the cost effectiveness of 1-year treatment with trastuzumab following stan-

**PCN97**

ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC) CETUXIMAB TREATMENT DECISION MODEL: CHEMOTHERAPY+CETUXIMAB VS. CETUXIMAB TREAT-TO-RASH STRATEGY VS. CHEMOTHERAPY ONLY IN FIRST-LINE TREATMENT OF STAGE IIIIB IV NSCLC  

Roth J1, Carlson J2

1University of Washington: Pharmaceutical Outcomes Research & Policy Program, Seattle, WA, USA; 2University of Washington, Seattle, WA, USA

**OBJECTIVES:** The cost-utility of two treatment strategies utilizing cetuximab plus platinum-doublet chemotherapy as first-line treatment in Stage III/IV non-small cell lung cancer relative to chemotherapy only from a U.S. societal perspective. **METHODS:** A decision analytic model was developed to estimate direct medical costs, patient time costs, and quality-adjusted life-years (QALYs) for three treatment strategies: 1) chemotherapy+cetuximab for all patients; 2) chemotherapy+cetuximab for one month and continued for patients experiencing rash; and 3) chemotherapy only. Model parameters were derived from the pivotal trial of cetuximab, published literature, and government sources. The model included trial-based adverse events and costs related to drug treatment, routine follow-up, AE’s, and post-progression care. The model results were examined using one way probabilistic sensitivity analyses (PSA). **RESULTS:** Total QALYs for the chemotherapy+cetuximab for all, treat-to-rash, and chemotherapy only strategies were 0.608, 0.610, and 0.574, respectively. Total costs were $173,532, $154,174, and $101,164, respectively. Relative to chemotherapy only, chemotherapy+cetuximab and treat-to-rash strategies had an incremental cost-effectiveness ratios of $2,219,000 and $1,470,000 per QALY, respectively. Relative to chemotherapy+cetuximab for all, the treat-to-rash strategy had a cost savings of $21,138, and a small increase in QALYs. One-way sensitivity analyses found results to be sensitive to the cost and required dose of cetuximab, cost of care after progression, and progression-free and overall survival. In the PSA, chemotherapy only had the highest probability of being cost effective until a willingness-to-pay of $1,400,000; after which treat-to-rash had the highest probability. **CONCLUSIONS:** These results suggest that the addition of cetuximab to chemotherapy for this patient population is not a cost-effective alternative to chemotherapy only by any plausible standard of willingness-to-pay. A chemotherapy+cetuximab strategy is recommended. Recommendations of oncology practice guidelines, a treat-to-rash strategy may be a cost-effective alternative to chemotherapy+cetuximab for all patients with negligible impact on QALYs.