

therapy with everolimus versus BSC alone from the Canadian societal perspective. **METHODS:** A Markov model simulated 2 hypothetical patient cohorts (everolimus versus BSC alone) from the time of initial treatment throughout the 6-year time horizon. The cost-effectiveness of everolimus was calculated in terms of cost per life-years gained (LYG) as well as cost per quality-adjusted life year (QALY) gained. Health state transition probabilities were derived directly from the RECORD-1 subgroup analysis; costs and health state utility values were obtained from literature. The analysis was performed from a societal perspective; as such, direct medical costs and indirect costs associated with productivity loss due to morbidity or future income loss attributed to early mortality were included. A sensitivity analysis from the payer's perspective was additionally performed. Outcomes and costs were discounted at a 5% annual rate. **RESULTS:** Treatment with everolimus produced an estimated gain over BSC alone of 0.643 LYG (0.455 QALYs) at an incremental cost of \$22,074. The deterministic analysis resulted in incremental cost-effectiveness ratios (ICERs) of \$34,326/LYG and \$48,507/QALY. The payer's perspective sensitivity analysis resulted in ICERs of \$48,670/LYG and \$68,777/QALY. According to the probabilistic sensitivity analysis, given a threshold of \$100,000/QALY, the probability that everolimus was cost-effective, from a societal perspective, was 100%. **CONCLUSIONS:** Results of this analysis suggest that, from a Canadian societal perspective, everolimus is a cost-effective alternative to BSC alone when treating mRCC patients whose disease fails on one prior VEGF-TKI treatment.

## PCN66

#### A COST AND OUTCOMES ANALYSIS OF BEVACIZUMAB PLUS FOLFIRI VERSUS CETUXIMAB PLUS FOLFIRI FOR THE TREATMENT OF FIRST-LINE METASTATIC COLORECTAL CANCER PATIENTS FROM THE BRAZILIAN PRIVATE PAYER PERSPECTIVE

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**OBJECTIVES:** Colorectal cancer (CRC) is the third most frequent worldwide and about 28,110 new cases were expected for Brazil in 2010. Two biologic agents are approved for treatment of mCRC in Brazil: cetuximab, exclusively for K-RAS wild-type patients and bevacizumab, for both K-RAS types. We aimed to compare costs and outcomes of bevacizumab versus cetuximab in first-line treatment of mCRC, both in combination with FOLFIRI from a private payer perspective in Brazil. **METHODS:** In the absence of head-to-head trials comparing Bev+FOLFIRI and Cet+FOLFIRI, an adjusted indirect comparison was conducted using Bucher method. Hazard ratios (HRs) from 3 studies: BICC-C(part II) comparing Bev+FOLFIRI vs Bev+IFL; AVF2107g comparing Bev+IFL vs IFL; and CRYSTAL comparing Cet+FOLFIRI versus FOLFIRI; were utilized. An illness-death Markov model was enhanced. Risks for progression and mortality were derived from Weibull regression model (assuming deaths conditional upon prior progression). Natural mortality rates were applied according to IBGE life table. Only direct costs were considered for patients with 1,78m<sup>2</sup> and 70Kg. Ex-factory prices were obtained from official public sources. Time-horizon was two years according to natural history of the disease. Utilities were derived from international sources; discounting was 5% for costs and outcomes, according to local guidelines. A probabilistic sensitivity analysis (PSA) was conducted in order to evaluate the robustness of results. Non-statistically significant HR 95%-CIs were exploited in PSA. **RESULTS:** Results of the analysis suggest Bev+FOLFIRI combination is less costly compared to Cet+FOLFIRI (\$Br216,838.38 vs. \$Br276,770.15) and a trend towards improved effectiveness with Bev+FOLFIRI (OS 20.1 vs. 16.60 months; QALYs 1.1 vs. 0.9) in first-line treatment of mCRC. PSA portends that Bev+FOLFIRI is dominant over Cet+FOLFIRI (93.44% of iterations Bev+FOLFIRI prolonged OS, being less costly). **CONCLUSIONS:** Based on current available data, analysis suggest Bev+FOLFIRI presents lower costs and better efficacy than Cet+FOLFIRI for treatment of first-line mCRC from a private payer perspective in Brazil.

## PCN67

#### ERLOTINIB AS SECOND LINE TREATMENT FOR ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC): ECONOMIC MODELING (EM) RESULTS

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**OBJECTIVES:** To determine the cost-effectiveness of erlotinib compared with docetaxel every 3 weeks (D3W) or weekly (DW) or pemetrexed in second line treatment for patients with advanced or metastatic NSCLC, from the Brazilian Private Healthcare System perspective. **METHODS:** The analysis is based on a three stage Markov model to estimate costs and consequences of treatments over 2 years. Epidemiological and efficacy data were derived from a systematic literature search. Indirect network meta-analysis assessed the relative efficacy of the compared treatments. The survival curves were modeled by fitting a Weibull distribution. Only direct medical costs were considered: Drug costs, daily hospital admission rates, procedures and laboratory test unit cost were obtained from Brazilian official databases of private healthcare system fees. Costs and benefits were discounted at 5% yearly and reported in 2010 Brazilian currency (BRL). Outcomes were expressed as progression-free survival (PFS; months), overall survival (OS; months) and quality adjusted life years (QALY). Probabilistic sensitivity analysis (PSA) was conducted to assess model robustness. **RESULTS:** Through the systematic literature review we identified a network meta-analysis performed by Hawkins et al comparing BR21, JMEI, TAX 317, ISEL, INTEREST and SIGN trials that formed the body of clinical data for the analysis. The analysis showed higher clinical benefits and lower average costs for erlotinib (9.73 OS; 4.24 PFS; 0.25 QALY; R\$40,471) than D3W (8.49 OS; 3.21 PFS; 0.21 QALY; R\$47,180) or DW (8.49 OS; 3.21 PFS; 0.21 QALY; R\$56,549) or pem-

etrexed (8.49 OS; 3.31 PFS; 0.21 QALY; R\$60,151), showing the dominance of erlotinib related to compared treatments. PSA demonstrated that in 86%, 98% and 97% of the simulations erlotinib was dominant compared to D3W, DW and pemetrexed. **CONCLUSIONS:** This analysis portends that Erlotinib could be considered as a dominant treatment strategy in 2nd line mNSCLC compared to docetaxel or pemetrexed under the Brazilian Private Healthcare System perspective.

## PCN68

#### COST-EFFECTIVENESS AND QUALITY OF LIFE ANALYSIS OF THE MULTICENTER ITAC02-01 STUDY: PROSPECTIVE RANDOMIZED COMPARISON OF REDUCED INTENSITY VERSUS NON-MYELOABLATIVE CONDITIONING REGIMEN FOR MATCHED RELATED ALLOGENEIC STEM CELL TRANSPLANTATION

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**OBJECTIVES:** The optimal intensity of conditioning prior to allogeneic hematopoietic stem cell transplants (HSCT) remains uncertain. We present the result of the prospective socio-economic evaluation associated with a randomized study comparing two levels of intensity reduction. **METHODS:** We compare reduced intensity conditioning regimen (RIC= Fludarabine, oral myleran and anti-thymocyte-globulin) and non myeloablative conditioning regimen (NMAC= Fludarabine and total body irradiation). Direct medical transplant costs were estimated by micro-costing on the basis of patients' CRF until 18 months after transplant. Costs of treatment of progression were estimated within five years after transplant. Cost-effectiveness analysis was performed using overall survival (OS) and disease free survival (DFS) as endpoint. Health-related quality of life (HRQL) was measured prospectively by the EORTC QLQ-C30 questionnaire administered seven days before transplant and on days +30 +80 +180 and +360. Linear mixed model analysis was performed to test whether there were differences in HRQL outcomes within and between the two groups over time. GVHD occurrence was included in the model. **RESULTS:** A total of 139 patients with hematological malignancies were treated (RIC: N=69; NMAC: N=70). Survival and DFS at one and five years were identical after RIC and NMAC. The mean total cost per patient was not different between groups (83,656€ for RIC vs. 72,592€ for NMAC, NS). This is related to decreased post graft costs for NMAC (-22,815€, p=0.002) being offset by increased costs of disease progression (+11,750€, p=0.008). Using DFS as endpoint, the RIC is cost-effective: incremental cost-effectiveness ratio=978.64 [95%CI=-313.23-2447.91]. Using OS no differences were found between the two groups. RIC had a stronger negative impact on patients' HRQL independently of GVHD. **CONCLUSIONS:** The results confirmed the relapse/toxicity arbitrage associated with the choice of the allo-HSCT conditioning regimen. Moreover, the importance of the choice of endpoints and follow-up times in the economic evaluation of cancer treatment is highlighted.

## PCN69

#### COST-EFFECTIVENESS ANALYSIS OF RITUXIMAB MAINTENANCE TREATMENT OF FOLLICULAR LYMPHOMA IN PATIENTS RESPONDING TO FIRST-LINE IMMUNOCHEMOTHERAPY INDUCTION

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**OBJECTIVES:** Maintenance treatment with Rituximab of follicular lymphoma (FL) patients responding to first-line induction therapy with R-CHOP, R-CVP or R-FCM, increases progression-free survival (hazard ratio 0.55; 95% CI 0.44 to 0.68, P<0.0001) compared with observation. We performed a cost-effectiveness analysis of maintenance therapy in first line of the FL with rituximab, compared with the option of "wait and watch" strategy. **METHODS:** We developed a Markov model of the FL, with four health states (progression free survival in first or second line, progression and death). The transition probabilities between states were obtained from clinical trials PRIMA and EORTC 20981. Health state utilities were obtained from literature. The use of health resources, from the perspective of the National Health System was estimated by a panel of Spanish onco-hematologist experts. Unitary costs (€ in 2010) were obtained from Spanish sources. Deterministic and probabilistic analyses were performed. **RESULTS:** In the deterministic base case analysis, for a time horizon of 30 years, the incremental cost per life year gained (LYG) and quality-adjusted life-years (QALYs) gained, was €5663 and €6253 respectively. The sensitivity analyses confirmed the stability of the base case for time horizons of 10 and 20 years and various statistical distributions (Weibull, exponential, log-logistic, log-normal, Gompertz, and gamma) ranging between €4222 and €8766. **CONCLUSIONS:** Compared with observation, rituximab maintenance treatment of the FL that responds to immunochemotherapy induction in first line, is a cost-effective strategy.

## PCN70

#### COST-EFFECTIVENESS OF CETUXIMAB AND BEVACIZUMAB IN THE FIRST-LINE TREATMENT OF METASTATIC COLORECTAL CANCER (mCRC) FOR PATIENTS WITH KRAS WILD-TYPE TUMOURS IN THE UNITED KINGDOM

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**OBJECTIVES:** Combinations of chemotherapy and monoclonal antibodies (MAbs) against the vascular endothelial growth factor (bevacizumab) and the epidermal growth factor receptor (cetuximab) have been shown to improve the clinical outcome of patients with mCRC. Little is known about the economic implications of their use. The aim of this analysis was to evaluate the cost, clinical- and cost-