

and pharmacoeconomic analysis results were validated by probabilistic sensitivity analysis. **CONCLUSIONS:** Sorafenib is cost-effective for treatment of patients with RAI refractory locally advanced/metastatic DTC compared to BSC with an ICER value below the willingness-to-pay threshold (3-times GDP per capita – 32,346 USD) for Turkey.

PCN83

WITHDRAWN

PCN84

COST-EFFECTIVENESS OF PRIMARY PROPHYLAXIS WITH PEGFILGRASTIM VS LIPEFILGRASTIM TO REDUCE THE INCIDENCE OF FEBRILE NEUTROPENIA IN PATIENTS WITH EARLY STAGE BREAST CANCER OR NON-HODGKIN LYMPHOMA Fust K¹, Li X², Maschio M³, Villa G⁴, Parthan A⁵, Barron R⁶, Weinstein MC⁷, Somers L⁸, Hoefkens C⁹, Lyman GH¹⁰

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OBJECTIVES: To evaluate the cost-effectiveness of primary prophylaxis (PP) with pegfilgrastim vs lipefilgrastim to reduce the incidence of febrile neutropenia (FN) in patients with stage II breast cancer receiving 4-cycle TC (docetaxel, cyclophosphamide) and patients with non-Hodgkin lymphoma receiving 6-cycle R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone) over a lifetime horizon from a Belgian payer perspective. **METHODS:** A Markov cycle tree model tracks FN events during chemotherapy (3-week cycles) and long-term survival (1-year cycles). Model inputs include: the odds ratio of FN between lipefilgrastim PP and pegfilgrastim PP (median [95% credible interval]: 1.39 [0.54–3.50]), estimated from a meta-analysis of randomized controlled trials using mixed-treatment comparison; equivalent prices of lipefilgrastim and pegfilgrastim since the launch of lipefilgrastim in Belgium (August 2014); mortality (which is affected by FN and chemotherapy relative dose intensity); costs (in 2014 €); and utilities. All inputs were estimated from public sources, research databases, and peer-reviewed publications. Quality-adjusted life-years (QALYs) and expected lifetime costs were estimated for each strategy. Probabilistic sensitivity analyses (PSA) and scenario analyses were conducted. **RESULTS:** Pegfilgrastim PP dominated lipefilgrastim PP, with total lifetime costs of €7,482 vs €7,806 for TC and €19,149 vs €19,801 for R-CHOP and total lifetime QALYs of 13.379 vs 13.348 for TC and 4.241 vs 4.184 for R-CHOP. At a willingness-to-pay threshold of €30,000 per QALY, pegfilgrastim PP was cost-effective vs lipefilgrastim PP in approximately 75% of PSA simulations for both regimens. In a scenario analysis when the lipefilgrastim price was set at 90% that of pegfilgrastim, the incremental cost-effectiveness ratios for pegfilgrastim PP vs lipefilgrastim PP were €4,700 per QALY gained for TC and €857 per QALY gained for R-CHOP. **CONCLUSIONS:** From a Belgian payer perspective, pegfilgrastim PP is cost-effective vs lipefilgrastim PP in patients with stage II breast cancer receiving TC and in patients with non-Hodgkin lymphoma receiving R-CHOP.

PCN85

COST-EFFECTIVENESS OF TREATING ADVANCED PROGRESSIVE PANCREATIC NEUROENDOCRINE TUMOR PATIENTS WITH EVEROLIMUS VERSUS SUNITINIB IN SWEDEN

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OBJECTIVES: Everolimus and sunitinib are indicated to treat patients with advanced, progressive pancreatic neuroendocrine tumors (pNETs). This analysis examines the projected cost-effectiveness of everolimus versus sunitinib in this setting from a Swedish payer's perspective. **METHODS:** A lifetime Markov model was developed to simulate a cohort of advanced, progressive pNET patients to estimate the incremental cost-effectiveness when treating with everolimus (10 mg/day) versus sunitinib (37.5 mg/day). Efficacy inputs were based on a weight-adjusted indirect comparison of the therapies using the respective phase 3 trial data (Signorovitch et al. 2013 and data on file). The disease pathway is reflected through mutually exclusive health states: stable disease without adverse events, stable disease with adverse events, disease progression, and death. Unit costs were obtained from public official Swedish sources. The model includes only direct costs. Resource use was based on a German physician survey, validated and adapted to Swedish conditions. Costs were represented in 2014 Swedish Krona (SEK). The incremental cost-effectiveness ratio (ICER) was calculated. Two-way sensitivity analyses were conducted to test the model's robustness. **RESULTS:** In the base case, the estimated gain of everolimus over sunitinib was 0.357 LYs (0.261 QALYs), which results in an ICER that ranges from 100,000–200,000 SEK/QALY depending on the assumptions around the duration of therapy for active treatment. The analysis is sensitive to the uncertainty of the indirect analysis results and variables such as dose intensity. **CONCLUSIONS:** This model, based on an indirect comparison of phase 3 studies, indicates that everolimus is cost-effective relative to sunitinib in advanced pNET. Its reliance on an indirect analysis due to the lack of head-to-head randomized controlled trial data warrants future research; however, model results indicate that everolimus is a valuable treatment option for pNET patients in Sweden.

PCN86

COST-EFFECTIVENESS OF CETUXIMAB+FOLFIRI VERSUS BEVACIZUMAB+FOLFIRI AT THE PUBLIC HEALTHCARE SYSTEM IN BRAZIL – THE FIRE 3 TRIAL ECONOMIC PERSPECTIVE

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OBJECTIVES: The aim of the study was to analyze the cost-effectiveness of cetuximab compared to bevacizumab, both in combination with cytotoxic chemotherapy (folinic acid, fluorouracil and irinotecan, FOLFIRI), for first-line treatment of RAS wild-type metastatic colorectal cancer, under the public perspective in Brazil. **METHODS:** A cost-effectiveness analysis has been developed based on a Markov model, comparing the use of cetuximab+FOLFIRI versus bevacizumab+FOLFIRI. Only 2014 direct medical costs were considered in the analyses and outcomes were measured in terms of life years saved. Efficacy data were obtained from the recently published clinical trial FIRE-3, a head-to-head trial between cetuximab+FOLFIRI and Bevacizumab+FOLFIRI, and costs were obtained from national databases, reflecting the perspective of the public healthcare sector in Brazil as a third party payer. Costs and outcomes were discounted to present value at a 5% annual rate. The time horizon considered 10 years. The total number of patients was calculated by the number of patients currently receiving chemotherapy who would be considered RAS wild-type and eligible to use cetuximab. **RESULTS:** In a 10 years time horizon, the use of cetuximab + FOLFIRI achieved clinical gains of 0.51 life years saved compared to bevacizumab + FOLFIRI, with an average cost reduction of R\$1,953 per patient. Cetuximab was shown to be a dominant therapy compared to bevacizumab, saving resources up to BRL 14,450,940.00 considering 5,171 patients in 2015. **CONCLUSIONS:** The use of cetuximab as first-line treatment for wild-type RAS metastatic colorectal cancer has shown significant and clinically meaningful benefits while being cost-saving to the Brazilian public healthcare system.

PCN87

COST-EFFECTIVENESS OF MULTIPLEXED PREDICTIVE BIOMARKER SCREENING IN NON-SMALL CELL LUNG CANCER

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OBJECTIVES: Population-wide screening for epidermal growth factor receptor (EGFR) mutations and anaplastic lymphoma kinase (ALK) gene rearrangements to inform cancer therapy in non-small cell lung cancer (NSCLC) is recommended by guidelines. We estimated cost-effectiveness of multiplexed predictive biomarker screening in metastatic NSCLC from a societal perspective in the US. **METHODS:** We constructed a microsimulation model to compare the life expectancy and costs of multiplexed testing and molecularly guided therapy vs treatment with cisplatin-pemetrexed (CisPem). All testing interventions included a two-step algorithm of concurrent EGFR mutation and ALK overexpression testing with immunohistochemistry (IHC) followed by ALK rearrangement confirmation with a fluorescence in situ hybridization (FISH) assay for IHC positive results. Three strategies were included: 'Test-treat' approach, where molecularly guided therapy was initiated after obtaining of test results; 'Empiric switch therapy', with concurrent initiation of CisPem and testing and immediate switch to test-result conditional treatment after one cycle of CisPem; and 'Empiric therapy' approach in which CisPem was continued for four cycles before start of a tyrosine kinase inhibitor (TKI). **RESULTS:** The incremental cost-effectiveness ratio (ICER) for 'Test-treat' compared to treatment with CisPem was \$136,000 per quality-adjusted life year (QALY) gained. Both empiric treatment approaches had less favorable ICERs. 'Test-treat' and 'Empiric switch therapy' yielded higher expected outcomes in terms of QALYs and life-years (LYs) than 'Empiric therapy'. These results were robust across plausible ranges of model inputs. **CONCLUSIONS:** From a societal perspective, our cost-effectiveness results support the value of multiplexed genetic screening and molecularly guided therapy in metastatic NSCLC.