PCN37
BI OF IRESSA IN NSCLC IN THE NETHERLANDS: A HOSPITAL PERSPECTIVE
Langetfeld M, Scherer F
AstraZeneca NL; Zoetermeer, the Netherlands
OBJECTIVES: To gain insight in the total costs of first-line treatment of NSCLC phase IIIb IV in the Dutch hospital setting. To calculate the budget impact of adding Iressa (gefitinib), including EGFR mutation testing, to the treatment sequence. To identify costs of EGFR mutation testing. METHODS: A budget impact model was constructed by MedaMax and adapted by AstraZeneca the Netherlands. The Netherlands reflect the Dutch situation. The model calculates the budget impact of EGFR testing and the resulting therapy change for NSCLC patients in Dutch hospitals. The model covers the first-line treatment of NSCLC fase IIIb/IV patients and calculates total costs in a hospital setting and budget impact, taken into account the following costs: Medica- tion—EGFR mutation testing—Administration and monitoring—Treating grade III/ IV adverse events. The model also calculates—Costs of delivery of oral therapies (outside hospital costs).
RESULTS: Before introduction of Iressa, total costs of first-line NSCLC treatment in Dutch hospitals was €41,982.936. After introduction of Iressa, total costs in hospital setting slightly decreased to €41,939.604 (year 1). Cost of EGFR mutation testing is €198,432, but medication costs of the hospital will decrease with €248,193.
CONCLUSIONS: Adding extra diagnosis will introduce new costs to the NSCLC treatment. However, for an individual hospital, the extra costs are limited. And the total costs of first-line NSCLC treatment even decrease, since the reimbursement of Iressa is outside of the hospital budget. As a result, the hospital has less cost to patients treated and the appropriate treatment is treated with Iressa. At the moment, for individual hospitals, EGFR mutation testing is still seen as a dilemma. Apart from the ethical point of view (making sure patients will receive the medication they will benefit most from), also from costs perspective, it is worth to test.

PCN38
INFLUENCE OF ME-TOOS TO POSSIBLE SAVINGS DUE TO BIOSIMILARS
Fusas J, Reichardt B
Stestz Cush Burgenland, Ersenstad, Burgenland, Austria
OBJECTIVES: To analyze the impact of market share, me-toos of established top-selling biopharmaceuticals enter the market before their patent expiry. After switching the sales to the me-too, called "step-innovation" by the provider, the possible savings of biosimilar diminishes as the sales are parked at the me-toos. The objective of the study is to test this hypothesis for the two substance classes erythropoiesis-stimulating agents (ESA) and granulocyte colony-stimulating factors (G-CSF). METHODS: By analyzing the market share of regional Austrian sickness funds, the share of prescriptions of filgrastim in GCSF (filgrastim plus lenogram plus pegfilgrastim) and of epoetin in ESA (epoetin plus darbepoetin) are correlated to the costs per package. These data are shown for several periods, 6 months before the availability of Biosimi- lars, 6 months after their availability, and 2 further half-years for ESA. To take regional influence into consideration, the data are shown for all nine regional sickness funds in Austria. RESULTS: The share of prescriptions for epoetin in ESA show a huge regional dispersion from 42% to 88% and those of filgrastim in GCSF from 23% to 66%. The average costs per package have an inverse relation to their market share. These data are confirmed through data of the other period. The average costs per packaging have been declined with increased market share of the biosimilar and hence cost-saving alternative for the Portuguese Health System considering the AE of grade 1/2 are assumed to entail (six MUI or three MUI, three times weekly) scenario. Deterministic univariate sensitivity analyses were performed to test the robustness of the model including grade 1–4 AEs analysis only and IFN low-dose (six MUI or three MUI, three times weekly) scenario. RESULTS: The associated costs of managing AEs were considerably lower with BEV + IFN compared with BEV + IFN. The average treatment costs for all grade AEs per patient was €1472 for SUN and €10193 for BEV + IFN resulting in a difference of –379 (€ a cost saving of 26% for BEV + IFN vs. SUN). Sensitivity analyses showed that BEV + IFN retains the lower cost option when alternative scenarios are considered and that a low-dose IFN would lead even to further cost savings. CONCLUSIONS: BEV + IFN is a more tolerable and hence cost-saving alternative for the Portuguese Health System considering the AE management costs of mRCC treatment when compared to SUN. These results are consistent with previous evidence for other countries.

PCN39
COST UTILITY OF HUMAN PAPILLOMA VIRUS VACCINE IN SPAIN
Cuesta C, Lopera-Po1an A, Biance J
Agencia Lan Ertzaintza, Madrid, Spain
OBJECTIVES: It is well known that a persistent infection by human papillomavirus (HPV) is an essential cause of cervical cancer. Prophylactic HPV vaccines aimed at preventing precancerous cervical lesions and cervical cancer are currently available and may be used for primary prevention of cervical cancer. To define the efficiency of using HPV vaccine within a cervical cancer screening program with cytology compared with the strategy of only cytology screening, a Markov model was developed based on the results of the systematic review and information about the natural history of the disease (HPV infection, cervical cancer). The model allows to assess cervical cancer incidence and associated mortality, life expectancy, and associated costs, with the objective of performing an economic analysis. METHODS: A comprehensive search of studies was developed in the main electronic databases including primary studies assessing HPV vaccine efficacy and/or safety or HPV. Meta-analysis was conducted when the studies were homogeneous, a decision analysis was performed using a Markov model based on the results of the systematic review and information about the natural history of the disease (HPV infection, cervical cancer). The model allows to assess cervical cancer incidence and associated mortality, life expectancy, and associated costs, with the objective of performing an economic analysis. RESULTS: A total of 11 studies were included to assess HPV vaccines: seven for efficacy and 11 for safety assessment. The efficacy of vaccine in preventing CIN2+ was 96% (95% CI: 92%–100%) for Moderna compared with IFN. The incidence of adverse events (AE) were also undertaken and the results supported this trend, although efficacy was lower. The economic evaluation showed that the vaccination strategy would imply a cost-effectiveness ratio of around €10,000 per quality-adjusted years (QALY), CONCLUSIONS: There is evidence from RCTs that the HPV vaccines are safe and effective in the prevention of cervical cancer precursor lesions. On top of this, this efficacy is reached with a reasonable cost-effectiveness ratio and within the acceptable limits of the Spanish National Health System.

PCN40
COST ANALYSIS OF MANAGING ADVERSE EVENTS IN THE TREATMENT OF METASTATIC RENAL CELL CARCINOMA IN PORTUGAL: A COMPARISON BETWEEN SUNITINIB AND BEVACIZUMAB IN COMBINATION WITH INTERFERON-ALPHA-2A
Silva CI, Monteiro P, Schwaner B
European Scientific Consultants, Lisbon, Portugal; Roche Farmacêutica Quimica, Avindura, Portugal; AP1 GmbH—Assessment in Medicine, Research and Consulting, Lôrrach, Germany
OBJECTIVES: The burden of metastatic renal cell carcinoma (mRCC) is substantial for patients and society. Bevacizumab (BEV) combination with interferon alfa-2a (IFN) has demonstrated to prolong mRCC patients’ progression-free survival and has comparable efficacy to sunitinib (SUN). However, tolerability differs between these treatment alternatives and it is therefore of importance to evaluate the economic impact of adverse events (AEs) management, for each alternative, in the daily clinical practice in Portugal. METHODS: A linear decision analytical model was applied considering direct medical costs only in the Portuguese Health System perspective. AEs incidences associated with each of the two alternatives were retrieved from the available literature. Health resource consumption was estimated based on an expert panel of Portuguese oncologists and urologists. Corresponding unitary costs were obtained through national official sources. The considered time horizon was 1 year. The base case analysis includes all grades AEs and a normal dose (nine MUI, three times weekly) of IFN scenario. Deterministic univariate sensitivity analyses were performed to test the robustness of the model including grade 1–4 AEs analysis only and IFN low-dose (six MUI or three MUI, three times weekly) scenario. RESULTS: The associated costs of managing AEs were considerably lower with BEV + IFN compared with BEV + IFN. The average treatment costs for all grade AEs per patient was €1472 for SUN and €10193 for BEV + IFN resulting in a difference of –379 (€ a cost saving of 26% for BEV + IFN vs. SUN). Sensitivity analyses showed that BEV + IFN retains the lower cost option when alternative scenarios are considered and that a low-dose IFN would lead even to further cost savings. CONCLUSIONS: BEV + IFN is a more tolerable and hence cost-saving alternative for the Portuguese Health System considering the AE management costs of mRCC treatment when compared to SUN. These results are consistent with previous evidence for other countries.

PCN41
ECONOMIC OUTCOMES AMONG 2ND LINE NON-SMALL CELL LUNG CANCER PATIENTS IN THE OUTPATIENT COMMUNITY SETTING
Grashuis S1, Renoz C2, Forsyth M1, Ravelo A2, Nadler E1
AstraZeneca BV, Zoetermeer, The Netherlands
OBJECTIVES: Our objective was to compare economic outcomes among patients (pts) receiving first-line and second-line (2nd) mono-therapy in the outpatient community setting. METHODS: Using US Oncology’s iKnowMed EMR data, we identified advanced NSCLC patients who received 2nd line mono-therapy from July 1, 2006 to June 30, 2008. Economic outcomes were derived using payer and patient claims and pharmacy data and included cost of treatment, supportive care costs, and frequency of outpatient physician visits, lab proce- dures, and acute care (ER/Inpatient) visits. All economic outcomes were calculated as per-patient month (PPM) metrics over a 12-month-follow-up period. Multiple regression analyses were used to estimate the independent association between treatment (E, D, or P) on outcomes after controlling for age, gender, stage at diagnosis, baseline hemoglobin, and performance status. RESULTS: We identified 610 pts—73 received E, 87 received D, and 450 received P. Total cost, chemotherapy costs, and supportive care costs differed significantly by treatment, as did frequency of outpatient visits and lab procedures. Relative to P, total adjusted costs PPM was $1579 lower for D and $1584 lower for E (P < 0.05). Majority of the cost savings are due to decreased chemo-related costs. Outpatient visits, lab procedures, and acute care visits are also less frequent with E relative to P (2.6 PPM, 0.05). CONCLUSIONS: In US outpatient setting, pts receiving E and D have statistically significant lower costs and resource use relative to pts receiving P.

PCN42
COSTS OF MANAGING ADVERSE EVENTS OF FIRST-LINE THERAPY FOR METASTATIC RENAL CELL CARCINOMA IN MEXICO: BEVACIZUMAB IN COMBINATION WITH INTERFERON-ALPHA-2A COMPARED WITH SUNITINIB
Carballo P, Ramirez J, Aguirre A
Instituto Nacional de Cancerología, Mexico City, Mexico
OBJECTIVES: Bevacizumab plus interferon-a2a (BEV-IFN) prolongs progression- free survival (PFS) to >10 months, providing comparable efficacy to sunitinib in patients with metastatic renal cell carcinoma (mRCC). However, the type and fre- quency of adverse events (AE) differ between these two regimens. We aimed to assess the costs of managing AE of grade 3/4 of these regimens from the perspective of public health-care system in Mexico. METHODS: A linear decision analytic model was developed to compare the direct medical costs of managing AE of grade 3/4 of BEV + IFN and sunitinib in patients with mRCC. AE of grade 3/4 are assumed to entail