had to be in unresectable stage IIIB or stage IV and under current anticancer treatment at enrollment. The calculations included direct costs for radiotherapy, supportive and concomitant medication, involvement of other medical disciplines, hospitalisations, transfusions an other more. The total annual cost were in median 10,098.00€ per patient. In contrast, the median annual cost of BSC in the four international studies were 29,621.48€. **CONCLUSIONS:** The results show a significant difference in the annual cost from data under real-world-conditions in relation to the median cost from the four international studies. A reason for the lower costs compared to the referenced studies could be the higher share of less expensive outpatient services in the german health system.

#### PCN93

A COST COMPARISON OF TREATMENT WITH ABIRATERONE ACETATE PLUS PREDNISONE IN THE PRE CHEMOTHERAPY SETTING FOLLOWED BY ENZALUTAMIDE IN THE POST-CHEMOTHERAPY SETTING VERSUS THE OPPOSITE TREATMENT SEQUENCE IN METASTATIC CASTRATION RESISTANT PROSTATE CANCER PATIENTS WITH NON-VISCERAL METASTASES Dearden 1<sup>1</sup>. Girod 1<sup>2</sup>. Maiet 1<sup>3</sup>. yan de Wetering G<sup>3</sup>

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OBJECTIVES: Abiraterone acetate plus predniso(lo)ne (AA+P) and enzalutamide (ENZ) are novel anti-androgen therapies for the treatment of metastatic castrationresistant prostate cancer (mCRPC) that are approved in both the pre-chemotherapy and post-chemotherapy settings. The aim of this study is to estimate and compare the costs associated with two treatment sequences: AA+P followed by docetaxel (DOC) chemotherapy and then ENZ ('AA+P-DOC-ENZ sequence') versus ENZ followed by DOC chemotherapy and then AA+P ('ENZ-DOC-AA+P sequence') in mCRPC patients with non-visceral metastases. **METHODS:** A health economic model has been developed to estimate and compare the cost consequences of these two treatment sequences in the UK. Seven health states were considered in the model: pre chemotherapy treatment (AA+P or ENZ), active monitoring (before and after chemotherapy separately), DOC chemotherapy, post-chemotherapy treatment (AA+P or ENZ), best supportive care, and death. Clinical input data (e.g., duration of treatment, time to chemotherapy) for the model were derived from published pivotal trial results. Costs parameters were derived from available literature and the manufacturers' published reimbursement submission dossiers. List prices of drugs were used. For each treatment sequence, the model estimated total costs and total costs per health state. RESULTS: The total costs were estimated to be £75,956 for the A+P-DOC-ENZ sequence' and £80,591 for the 'ENZ-DOC-AA+P sequence' resulting in a total cost difference of £4,636. Prechemotherapy costs of AA+P and ENZ treatment were estimated to be £43,817 and £48,860, respectively (difference £5,043). With respect to the other health and 195000, respectively (unreled 25,945), with respect to their neutrino assistances, similar costs were estimated for the two sequences, e.g., post-chemother-apy costs of AA+P and ENZ treatment were predicted to be £9,481 and £8,974, respectively. CONCLUSIONS: The results of the health economic model suggest that the 'AA+P-DOC-ENZ sequence' yields lower total costs than the 'ENZ - DOC-AA+P sequence' and therefore starting treatment with AA+P may result in cost savings.

#### PCN94

## A COST-EFFECTIVENESS ANALYSIS OF GEFITINIB AS THE FIRST LINE TREATMENT IN PATIENTS WITH POSITIVE EGFR MUTATION IN METASTATIC OR LOCALLY ADVANCED NON-SMALL CELL

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OBJECTIVES: Assess the cost-effectiveness of tyrosine kinase inhibitors (TKIs) on an EGFR+ NSCLC population under the Brazilian private healthcare system. METHODS: A cost-effectiveness analysis (CEA), based on a Markov framework with monthly cycles, was performed to evaluate costs and effects of gefitinib versus erlotinib on an EGFR+ NSCLC population over a 1 year period. Outcomes measured were overall survival (OS), progression free survival (PFS), Quality Adjusted Life Years (QALYs) and total costs. Direct medical costs were assessed, including treatment and genome testing costs. Treatment costs were based on ex-factory prices and label defined posologies. Efficacy data was based on a meta-analysis by Gao et al. RESULTS: Gefitinib was equivalent to erlotinib regarding effectiveness outcomes, showing incremental results of 0, -0.02 and -0.01 for OS, PFS and QALY over a 1 year time horizon, respectively. Costs were significantly lower on patients treated with gefitinib than on those treated with erlotinib. On a scenario where genome testing was not performed gefitinib showed a total cost of R\$ 21,580.56 (US\$ 6,916.67) while erlotinib showed total costs of R\$ 39,393.24 (US\$ 12,626.04), resulting in an incremental cost of -R\$ 17,812.98 (-US\$ 5,709.29). Genome testing added R\$ 1,000.00 (US\$ 320.51) to both arms, resulting in R\$ 22,580.56 (US\$ 7,237.36) and R\$ 40,393.24 (US\$ 12,946.55). CONCLUSIONS: Regarding effectiveness, both TKIs showed a similar profile. Those results are confirmed by a recent meta-analysis by Haaland et al. Therefore, in this economic model gefitinib and erlotinib showed similar efficacy profile with gefitinib representing a less costly treatment choice than erlotinib for the Brazilian private healthcare system.

#### PCN95

ANALYSIS OF CLINICAL AND ECONOMIC IMPLICATIONS OF ESMO 2014 CLINICAL PRACTICE GUIDELINES FOR METASTATIC COLORECTAL CANCER TREATMENT Suarez J

### Merck, Madrid, Spain

**OBJECTIVES:** ESMO Clinical Guidelines for metastatic Colorectal Cancer treatment (mCRC) were updated in 2014. The objective is to assess the clinical (measured by overall survival, OS) and economic implications of its recommendations from the Spanish national healthcare system view. **METHODS**: A calculator was designed in order to analyze and compare the clinical and economic outcomes of the scenarios

presented in the guideline. A systematic review was performed on all the information about the dosage and frequency of administration found in the summary of product characteristics of the different products included in the treatment algorithms. Current pricing and reimbursement conditions in Spain of every biologic and chemotherapy drug considered in the guidelines were checked. RESULTS: The first scenario, which places bevacizumab as first and second line treatment (concept of continuum of care) and anti-EGFR antibody as third line out of the four lines considered, yields an estimated OS of 20.2 months and total cost of 52,000€ per patient. The second scenario, which places bevacizumab as first line treatment and includes anti-EGFR antibody as second line in order to rescue the patients who have failed in the previous treatment, results in an estimated OS of 25.0 months and total cost of 50,000€ per patient. Finally, the third scenario places anti-EGFR antibody available for WT RAS patients as first line treatment and bevacizumab as second line out of three lines. When cetuximab is chosen as the anti-EGFR first line therapy, estimated OS is 33.1 months and the total cost does not exceed 40,000€. CONCLUSIONS: This analysis not only demonstrates that the use of more agents does not always assure a better clinical result, but that the use of cetuximab as first line treatment in WT RAS mCRC patients stands as the most efficient and cost-effective alternative maximizing OS.

#### PCN96

#### ORAL VINORELBINE PLUS CISPLATIN VERSUS PEMETREXED PLUS CISPLATIN AS FIRST-LINE TREATMENT FOR PATIENTS WITH ADVANCED NON- SQUAMOUS NON- SMALL CELL LUNG CANCER: A COST MINIMIZATION ANALYSIS IN TWELVE EUROPEAN COUNTRIES

#### Bucher D<sup>1</sup>, Grossi F<sup>2</sup>

<sup>1</sup>Pierre Fabre, Boulogne Billancourt, France, <sup>2</sup>National Institute for Cancer Research, Genova, Italy **OBJECTIVES:** Several platinum-based combination therapies can be used for the treatment of non-small lung cancer. According to a recent review, there is no clearly superior treatment in terms of effectiveness, the objective of our current study was to determine whether treatment with oral vinorelbine plus cisplatin can be potentially cost saving for payers, compared to treatment with pemetrexed and cisplatin. METHODS: Considering the similar efficacy results of both treatment options in non-squamous non-small cell lung cancer patients (NS-NSCLC), as reported in a randomized phase II study (NAVoTRIAL01), a cost minimization analysis was conducted across 12 European countries (Austria, Czech republic, Denmark, Finland, France, Germany, Greece, Norway, Slovak Republic, Spain, Switzerland, the UK). This analysis adopted the perspective of the National Health Service. Costs considered were those related to anticancer drugs, administration settings (i.e. out-patient/inpatient/at home), serious adverse events and concomitant medications. All relevant costs were calculated based on country-specific reimbursement procedures and official tariffs. **RESULTS:** Using the perspective of the National Health Service, the savings per patient treated with oral vinorelbine ranged from  ${\it {\it f1,317}}$  in Denmark to  $\ell$ 35,001 in Germany. Expressed as a percentage, it varies from 5% (France) to 83% (Czech Republic). Pooled average costs for each treatment option across the 12 countries resulted in an estimated cost saving of €12,871 per patient favouring treatment with oral vinorelbine plus cisplatin as opposed to treatment with pemetrexed plus cisplatin. Sensitivity analysis confirmed the robustness of the results. CONCLUSIONS: This pan-European economic analysis provides economic evidence to support the use of oral vinorelbine instead of pemetrexed in the treatment of NS-NSCLC. Indeed, oral vinorelbine provides similar efficacy and an easily manageable safety profile at a lower overall cost per patient treated (from the perspective of the NHS). These benefits are also supported by a convenient mode of administration for the patient.

#### PCN97

DECREASE OF PATIENT COSTS IN THE NETHERLANDS: A COST OF ILLNESS STUDY IN METASTATIC NON SMALL CELL LUNG CANCER (NSCLC) Keusters WR<sup>1</sup>, Frederix GW<sup>1</sup>, de Weger VA<sup>2</sup>, Beijnen JH<sup>2</sup>, Hövels AM<sup>1</sup>, Schellens JH<sup>2</sup> <sup>1</sup>Utrecht University, Utrecht, The Netherlands, <sup>2</sup>Netherlands Cancer Institute, Amsterdam, The Netherlands

OBJECTIVES: The primary objective of this study is to identify the total cost of illness (COI) of metastatic NSCLC in the Netherlands during 2006-2012, from a healthcare perspective. Secondary objective is to identify whether changes in distribution of costs have occurred over the last years. METHODS: Patients diagnosed with metastatic NSCLC between 1-1-2006 and 31-12-2012, who had full follow-up and no registered trial participation were included. Patient charts were provided, and a structured chart review was performed using a case report form. Data collection started after diagnosis of metastatic NSCLC and ended at patient's death. Data were collected of outpatient visits, clinical attendance, oncolytic drug use, imaging, lab tests, radiotherapy and surgery data. RESULTS: In total 65 patients were included in this study. On average patients had 22.2 outpatient visits and 14.1 inpatient days. Diagnostic lab tests and imaging procedures were performed respectively 18.7 and 13.0 times on average. Oncolytic drugs were used by 75% of patients; average 6.3 intravenous administrations and 22.7 subscription days of oral oncolytic drugs. Total costs amounted to €16,304, with oncolytic drugs (€6,625) and inpatient days (€5,104) as the main cost drivers. In comparison with the time-period of 2003-2005 total treatment expenditures decreased by 53%. Of this total costs of treatment, the proportion of costs of oncolytic drugs increased from 16% to 41% and proportion of costs for outpatient visits decreased from 52% to 31%. CONCLUSIONS: Outcomes in this study demonstrate that, compared to a recent study, the average cost for metastatic NSCLC has decreased over time in the Netherlands. A shift of main cost drivers seem to have taken place from inpatient stays in 2005, to costs of oncolytic drugs currently. This shift is possibly related to changes in patient management but also due to the increase of total expenditures on oncolytic drugs.

# PCN98

THE ECONOMIC BURDEN OF PRIMARY BRAIN TUMORS IN CANADA Lachaine J, Benmouhoub I, Mathurin K

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