pared from four resource categories: chemotherapy acquisition, drug administration, hospitalisation associated with adverse events, and other medical resources. Italian health care unit costs were obtained from published sources. **RESULTS:** Lowest treatment costs were incurred by the Gem/Cis group (8092€), followed by the Vin/Cis and Pac/Carbo groups (9320€ and 11,203€ respectively). The cost difference between the Gem/Cis and Pac/Carbo regimens was due to the difference in chemotherapy acquisition costs (3732€), which offset the increased costs for drug administration (499€) and other medical resources (524€) in the Gem/Cis group. The overall per-patient cost saving for Gem/Cis versus Vin/Cis (1227€) was primarily due to reduced hospitalisations for adverse events (2223€) despite the increased acquisition costs for Gem/Cis (1422€). **CONCLUSIONS:** Based on data collected during a randomised clinical trial, first-line use of Gem/Cis offers potential cost savings compared to other platinum-based third-generation agent combinations in the treatment of advanced NSCLC in Italy. Since these savings relate primarily to chemotherapy acquisition and hospitalisation costs due to adverse events, they are likely to be transferred to the community setting.

**PCN19**

NEW TARGETED THERAPY FOR PATIENTS WITH PREVIOUSLY-TREATED ADVANCED NON-SMALL CELL LUNG CANCER—GEFITINIB (“IRESSA”)  


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**OBJECTIVE:** As the prognosis of non-small cell lung cancer (NSCLC) patients after first and second line treatment remains poor, new targeted strategies in third-line treatment are of high interest. This study estimates the cost-effectiveness of gefitinib compared to Best Supportive Care (BSC) in the Dutch health care setting. **METHODS:** A Markov model was designed to evaluate the lifetime clinical and economic outcomes of gefitinib treatment and BSC. The model was calibrated using clinical data from randomized controlled studies, a Delphi panel (n = 10), patient chart analysis and literature for costs data. The analysis was performed from a societal perspective for a hypothetical cohort of advanced NSCLC patients, who have failed two chemotherapy regimens. Only direct costs related to the treatment of severe adverse events, radiotherapy, evaluation of disease progression and terminal care were considered. The time horizon related to mortality, estimated the costs from start of therapy until death. Both costs and effects were discounted at 4% pa. **RESULTS:** With an assumed difference in survival of 2.45 months between gefitinib and BSC, the model predicts survival of 0.573 life years (LY) for BSC and 0.790 LY for gefitinib. Total costs related to BSC and gefitinib treatment until death are 8444€ and 15,272€ respectively. The average cost-effectiveness ratio of gefitinib is higher than BSC (19,326€/LY versus 14,743€/LY). The incremental cost-effectiveness ratio of gefitinib compared to BSC is 31,380€ per QALY. Applying the threshold proposed by the Institute for Medical Technology Assessment for disease with highest burden (45,000€/QALY), gefitinib is cost-effective in 73% of advanced NSCLC patients compared to BSC in third-line therapy. **CONCLUSION:** In addition to its convenient oral administration, its favorable tolerability profile, gefitinib is cost-effective compared to not only BSC but also compared to heart or liver transplantations. “Iressa” is a trademark of the AstraZeneca group of companies.

**PCN20**

COSTS OF TREATING ADVANCED NON-SMALL-CELL LUNG CANCER IN SPAIN USING GEMCITABINE IN COMBINATION WITH CISPLATIN: A COMPARISON WITH OTHER 2ND GENERATION NOVEL AGENTS  

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**OBJECTIVES:** To evaluate the costs in Spain of treating advanced non-small-cell lung cancer (NSCLC) with gemcitabine plus cisplatin (Gem/Cis) in comparison with other platinum-based combination chemotherapy regimens, and to compare the findings with previously published cost analyses. **METHODS:** A retrospective economic analysis was conducted based on medical resource utilisation in a randomised controlled trial (Scagliotti et al. 2002), which found that Gem/Cis demonstrated comparable efficacy to paclitaxel/carboplatin (Pac/Carbo) and vinorelbine/cisplatin (Vin/Cis) regimens in 612 patients with advanced NSCLC. Treatment costs were compared across four main resource categories: chemotherapy acquisition, chemotherapy administration, hospitalisation episodes, and other medical resources. Spanish Health Care unit costs were drawn from published literature and public sources. **RESULTS:** The mean total treatment-related costs of Gem/Cis were 5578€ per patient, which was lower than those seen with Pac/Carbo (11,541€) or Vin/Cis (6084€). Chemotherapy acquisition was the major cost driver for Gem/Cis (63% of total costs) and Pac/Carbo (90% of total costs), but other component costs, especially hospitalisations, were considerable for the Vin/Cis regimen (36% of total costs). The total costs per patient are comparable to those reported for Spain by Schiller et al. (2004) with calculations based on Comella et al. (2000) (Gem/Cis 4072€; Vin/Cis 4899€) and Schiller et al. (2002) (Gem/Cis 5082€; Pac/Carbo 840€), trials employing different dosing schedules. **CONCLUSIONS:** Cost-minimisation analyses based on chemotherapy and resource utilisation in randomised controlled clinical trials demonstrate that Gem/Cis has lower total treatment costs from the perspective of the Spanish national health system than Pac/Carbo and Vin/Cis for the treatment of advanced NSCLC.

**PCN21**

A PHARMACOECONOMIC MODEL OF THE COST-EFFECTIVENESS OF GEFITINIB (“IRESSA”) COMPARED WITH BEST SUPPORTIVE CARE (BSC) IN THIRD-LINE TREATMENT OF PATIENTS WITH REFRACTORY ADVANCED NON-SMALL-CELL LUNG CANCER (NSCLC) IN THE UK  

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**OBJECTIVE:** To assess the cost-effectiveness of gefitinib ("Iressa") compared to BSC in patients with refractory advanced NSCLC in the UK National Health Service (NHS). **METHODS:** A probabilistic model was developed to assess the cost-effectiveness (and associated uncertainty) of gefitinib compared with BSC in patients with refractory advanced NSCLC in the UK National Health Service. Efficacy data were drawn from two independent sources: data for gefitinib were derived from IDEAL II (patients refractory to platinum and docetaxel) and data for BSC were derived from a literature review (BSC arm of a randomised controlled trial in second-line advanced NSCLC). Cost data were collected from the perspective of the UK NHS. In the absence of a UK price for gefitinib, the pre-approval sales price in France (1950€) was converted into UK prices (approximately £1300). Resource utilisation and cost data for gefitinib were derived from pub-
lished data and expert clinical opinion. Conservative assumptions were made for gefitinib in the base-case analysis; namely that gefitinib patients consumed the same supportive care resources as patients treated with a combination of mitomycin, ifosfamide and cisplatin, which is approximately 20% higher than for BSC. RESULTS: Additional costs of gefitinib compared with BSC were estimated to be approximately £5000. The additional life expectancy was estimated to be approximately 3 months giving an incremental cost per life year gained (LYG) ratio of approximately £22k (based on mean of probabilistic simulations). The ratio falls to approximately £11k per LYG when equivalent palliative care costs are assumed. CONCLUSIONS: According to this model, the results show that gefitinib is likely to be a cost-effective strategy in the UK for the treatment of advanced NSCLC patients refractory to platinum and docetaxel compared with best supportive care. The model’s conservative assumptions would further support this conclusion. “Iressa” is a trademark of the AstraZeneca group of companies.

PCN22

A SYSTEMATIC EVALUATION OF THE IMPACT OF THE SCREENING INTERVAL ON EFFECTIVENESS AND COST-EFFECTIVENESS OF DIFFERENT CERVICAL CANCER SCREENING TECHNIQUES

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OBJECTIVES: To systematically evaluate the impact of the screening interval (SI) on effectiveness and cost-effectiveness of different cervical cancer screening strategies (CCS) in Germany using a decision analytic approach. METHODS: A decision-analytic Markov model, was used to evaluate the longterm clinical and economic outcomes of different SI (1, 2, 3, 5 years) for the following CCS: 1) no screening; 2) conventional Papanicolaou test (Pap); 3) liquid-based preparation (LP); 4) automated smear analysis (AA); and 5) a combination of liquid-based preparation and automated smear analysis. German clinical, epidemiological and economic data were used. Outcomes were detected/prevented cervical cancer (CC) cases and deaths, life expectancy, lifetime costs, and discounted incremental cost-effectiveness ratios (ICER). A societal perspective and 3% annual discount rate were considered. RESULTS: Medical effectiveness increased with increasing screening frequency in all CCS. Incremental effectiveness of new CCS versus Pap decreased with increasing screening frequency and test sensitivity. Screening every 5 years resulted in 252–699, annual screening in 3–38 detected CC cases/100,000 women. The ICER for annual Pap versus no screening was 66,000€/LYS, and for screening every 2, 3, or 5 years 2300€/LYS, 1400€/LYS, 140€/LYS, respectively. Compared to Pap, annual screening with new CCS resulted in ICERS of 220,000€/LYS (AA) – 1,083,000€/LYS (LP+AA). Longer screening intervals resulted in lower ICERS. Results were sensitive when varying values of screening test sensitivities or screening adherence of women. CONCLUSIONS: Annual Pap screening, the current clinical standard in Germany, is both effective and cost-effective. However, screening with new screening techniques every 2 years may be equally effective as annual Pap, but less costly. A reduction in screening frequency should be critically discussed within the context of improving screening adherence of women.

PCN23

A COST MINIMIZATION ANALYSIS OF FIRST-LINE POLYCHEMOTHERAPY REGIMENS IN THE TREATMENT OF ADVANCED NON-SMALL-CELL LUNG CANCER

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OBJECTIVES: Five polychemotherapy regimens: gemcitabine-cisplatin (Gem/Cis), vinorelbine-cisplatin (Vin/Cis), docetaxel-cisplatin (Doc/Cis), paclitaxel-cisplatin (Pac/Cis) and paclitaxel-carboplatin (Pac/Car), are commonly used in first-line treatment of advanced non-small cell lung cancer. Whereas taxanes have to be administered within a conventional day-hospitalization setting, gemcitabine and vinorelbine could be administered without platinum in home-hospitalization. The purpose of the study is to find out which case management minimizes costs for the French National Health Insurance while ensuring patient safety. METHODS: A Markov model was constructed in order to estimate the cost consequences of home administrations for gemcitabine and vinorelbine chemotherapies (without cisplatin) compared to taxanes administered only at hospitals. Transitional probabilities are based on Schiller (2002) and Scagliotti (2002) published controlled trials. In all cases, no differences in efficacy were found between all regimens. A cost minimization analysis was performed. The costs were calculated by adding DRG costs, onerous drug costs reimbursed over DRGs and transportation expenses. Platinum components included in DRG costs were not added. Costs of febrile neutropenia, blood transfusions, nausea and vomiting, diagnosis and palliative care, were taken into account. A univariate sensitivity analysis was performed, in order to identify the main cost drivers. RESULTS: With the conservative assumption of no differences in therapeutic efficacy and no more than two home administrations per cycle, Gem/Cis and Vin/Cis appear with annual follow-up costs of 16,815€ and 17,206€ respectively. Taxanes (Doc/Cis, Pac/Cis and Pac/Car) hospital administration have annual follow-up costs of 20,800€, 22,720€, and 25,760€ respectively. CONCLUSION: When the patient’s safety and his will to receive chemotherapy at home are met in an environment where equivalent efficacy exists between chemotherapy regimens, an economic analysis can quantify the financial consequences on the French Health Insurance, of the drug choice made by prescribers.

PCN24

GEMZAR RETROSPECTIVE ECONOMIC ANALYSIS OF CLINICAL TRIAL (GREAT) IN THE TREATMENT OF NON-SMALL-CELL LUNG CANCER IN TAIWAN

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OBJECTIVES: Gemcitabine/cisplatin (GC) is one of several novel chemotherapy regimens available for the treatment of non-small cell lung cancer. An economic cost-minimisation analysis using a phase III randomized clinical trial was performed to evaluate the relative total cost of treatment of GC with other novel agent regimens in Taiwan. METHODS: The analysis was based upon the trial published by Schiller et al. (2002) with GC, paclitaxel/cisplatin (PC), paclitaxel/carboplatin (PCA) and docetaxel/cisplatin (DC) as treatment arms. The economic evaluations were conducted using the retrospective model in European countries published by Schiller et al. (2004). Taiwan costs were drawn from Taiwan National Health Insurance Reimbursement