the limited availability of databases reporting the same information in Italy, the objectives of this study were to assess the applicability of the Belgian analysis, and to estimate cost differences between ESAs in Italy. **METHODS:** To adapt the Belgian data for the Italian setting, costs were replaced with Italian-specific costs, and discrepancies in epidemiology and treatment patterns were examined. Adjusting for country discrepancies, costs were analyzed using a mixed-effects model stratifying for propensity score quintiles as in Spaepen et al. Sources included Eurostat, national cancer registries, IMS sales data, treatment and reimbursement guidelines, and reimbursement public tariffs. **RESULTS:** The Italian and Belgian populations were similar in terms of age, gender, ESA use and blood transfusions. The Belgian dataset was adjusted to reflect the incidence of haematological, lung, female breast and female genital cancers. No major differences between countries were found regarding the use of ESAs or blood transfusions. In Italy, total costs (mean±SE) were €10,546±873 for DARB versus €14,063±745 and €13,274±910 for EPO-A ($p<0.0001$) and EPO-B ($p=0.0008$), respectively. Anaemia-related costs were €3,144±211 for DARB versus €5,049±119 and €3,656±230 for EPO-A ($p<0.0001$) and EPO-B ($p=0.0935$). ESA costs were €2,475±187 for DARB versus €4,241±115 and €3,115±203 for EPO-A ($p<0.0001$) and EPO-B ($p=0.0139$). **CONCLUSIONS:** Total and anaemia-related costs were lowest in patients receiving DARB compared with EPO-A and EPO-B in Italy. These findings are consistent with those from the Belgian analysis. Adapting Belgian data to Italy is feasible when accounting for patient and treatment characteristics and costs.

PCN35

## CAPECITABINE FOR THE TREATMENT OF COLORECTAL CANCER IN PRIVATE HEALTH SYSTEM IN BRAZIL: A BUDGETARY IMPACT ANALYSIS BASED ON REAL WORLD DATA

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**OBJECTIVES:** Capecitabine (C) is approved in Brazil to treat colorectal cancer CRC, and can replace the combination of 5fluorouracl (5FU) and folinic acid (FA) in many chemotherapy (CHEMO) combination. There are restrictions to their use in the private sector in Brazil, as oral (PO) CHEMO is not covered by health insurance plans (HI). For many patients and physicians, a PO option is preferred over the intravenous (IV) . Our aim was to study the budgetary impact linked to the use of C for the treatment of CRC in HI. **METHODS:** We searched Evidencias Database for CRC patients eligible for the use of C, in the year of 2008. This database has information from over 2 million of users of 14 HI. We calculated the costs of the IV chemo actually used (mainly combinations of 5FU-FA with oxaliplatin and irinotecan). We calculated the costs of the drug used and, when appropriate, the infusion pump to deliver 5FU by continuous infusion. Then, based on the real data of each individual patient, we calculated the costs if C replaced 5FU-FA in the CHEMO. We assumed both treatments would have the same efficacy, as reported in the literature. **RESULTS:** We found 315 records of CRC patients that used IV Chemo and could replace it by C. These patients received 2706 cycles of treatment and had an actual total cost of US$7,237,000 (85% of them refers to the CHEMO drugs only). If C replace 5FU-FA in the IV CHEMO, the total cost would drop 9.5%, to US$6,804,000, mainly due to the exclusion of the need of an infusion pump. **CONCLUSIONS:** The use of C to treat CRC is linked to a smaller cost than the IV alternative in the private health plans in Brazil.

PCN36

## THE ECONOMIC IMPACT OF TREATING EARLY LUNG CANCER: A SYSTEMATIC REVIEW

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**OBJECTIVES:** Lung cancer is one of the most common cancers in the world. Standard curative therapy includes surgical resection of the primary tumour. Understanding how to combine best clinical outcomes for the most efficient use of resources is important. We undertook a systematic review of the costs related to managing early stage lung cancer to summarize the body of literature from the global community. **METHODS:** An electronic literature search of EMBASE, MEDLINE and HEALTHSTAR was performed (January 2000-August 1, 2010). The search terms "Lung Cancer" and "Costs and Cost Analysis" or "Economics" were used. Two reviewers independently evaluated articles and consensus was achieved for all discordant evaluations. Data were abstracted using a standardized abstraction form. Costs are reported in 2010 Canadian dollars. **RESULTS:** The literature search identified 3654 abstracts; 25 articles were included and the research spanned 13 countries. The majority (15/25) of the studies performed cost identification studies; the remainder included 9 cost-effectiveness and 1 cost-utility analyses. Prospective research was performed in only one study. Just over 50% (13/25) of the studies reported a perspective, while 14/25 specified a time horizon for cost and health outcome collection. Overall costs for treating early NSCLC ranged from $24,040 (no recurrence) to $97,774 (persistent recurrence). The mean costs per patient for surgery ranged from $88 (lobectomy chest drain equipment) to $92,967 (thoracotomy lobectomy). **CONCLUSIONS:** The literature varies in adherence to optimal assessment methodology, and room for improvement is evident. Costs vary by treatment modality, yet few comparisons of available options exist for this population. Further comparisons of population-based clinical and economic outcomes are necessary in order to understand the burden of early lung cancer. This systematic review of the costs of early lung cancer may help to inform the methodologies and costs for future cost-effectiveness evaluations.

PCN37

## COST-MINIMIZATION ANALYSIS OF SECOND-LINE CHEMOTHERAPY FOR NON-SMALL-CELL LUNG CANCER (NSCLC)

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**OBJECTIVES:** To compare the costs associated to second-line chemotherapies for adNSCLC in France. Three therapies, docetaxel, pemetrexed and erlotinib are currently marketed in France for second-line management of advanced non-small-cell lung cancer (adNSCLC). Published studies showed no statistically differences between these treatments in term of efficacy (median progression-free survival or survival), but there are few data on the costs of these therapies. **METHODS:** A cost-minimization analysis was based on an indirect comparison of the results of two prospective randomized French clinical trials (GFPC05-06 and CYTAR) in second-line setting. Costs were estimated in the perspective of the French National Sickness Fund and included direct treatments costs (excluding transports) and in-patients costs both for treatment administration and potential adverse events. All costs were estimated on a 100 days period. **RESULTS:** Studied population included 145 patients treated with erlotinib, 75 patients treated with docetaxel and 75 with pemetrexed. Characteristics of patients were assumed to be similar. Overall, the median direct costs of the second line chemotherapies/100 management days were: 9,009€ (IQR: 8,403-12,291) for docetaxel, 14,229€ (IQR: 12,718-20,099) for pemetrexed and 7,134€ (IQR: 6,752-8669) for erlotinib. Two by two, total costs differences between compared chemotherapies were all statistically significant ($p<0.001$). The cost breakdowns among drug costs, in-patient stays for drug delivery, tests and supportive care and adverse events were respectively 85%, 0%, 0%, 15% (erlotinib), 73%, 6%, 6%, 15% (pemetrexed), and 59%, 20%, 7%, 14% (docetaxel). **CONCLUSIONS:** Costs of second-line therapies for adNSCLC appeared to be slightly lower using erlotinib as compared with docetaxel and pemetrexed due to lower administration costs. However, this study was based only on an indirect comparison and head to head trials are required to confirm such a conclusion.

PCN38

## ECONOMIC EVALUATION OF DARBEPOETIN ALPHA IN THE MANAGEMENT OF PATIENTS WITH CHEMOTHERAPY INDUCED ANEMIA (CIA) IN GREECE

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**OBJECTIVES:** An economic evaluation was undertaken to compare the treatment cost of patients on darbepoetin alfa (DA) 500 mcg once every 3 weeks (Q3W) and 150 mcg weekly (QW), epoetin-alfa (EA) 40,000 IU QW, epoetin-beta (EB) 30,000 IU QW and 3-times weekly (TIW) in the management of chemotherapy-induced anaemia (CIA) in Greece. **METHODS:** : The analysis was based on a decision tree model reflecting the local management of patients, driven primarily by their response to therapy (measured in terms of an increase in haemoglobin concentration ≥2 g/Dl). As therapies are assumed to be of similar efficacy, a cost-minimisation analysis was undertaken considering National Health Services and patient transportation costs. Different data on the dose and cost of drugs, and frequency of therapy and response rates, were obtained from the published literature, expert opinions and registries. The model was probabilistic and was used to run Monte Carlo simulations to compensate for uncertainty. Results correspond to 2011 costs. **RESULTS:** The mean total cost per patient treated with DA-Q3W was €2951 (95% Uncertainty Interval (UI): €2912-2992), DA-QW €3192 (95%UI: €3075-3308), EA-QW €3781 (95%UI: €3646-3914), EB-TIW €4908 (95%UI: €4563-5251), and EB-QW €3956 (95%UI: €3821-4089). Cost-savings associated with DA-Q3W were: 8% relative to DA-QW; 22% to EA-QW; 40% to EB-QW; and 25% to EB-TIW. The mean cost per response to DA-Q3W was €3999 (95%UI: €3760-€4241); to DA-QW €4326 (95%UI: €4036-4639); to EA-QW €5560 (95%UI: €5322-5790); to EB-TIW €7219 (95%UI: €6699-7734) and to EB-QW €5818 (95%UI: €5575-6051). **CONCLUSIONS:** The present economic analysis indicates that DA-Q3W and DA-QW may be associated with lower cost in comparison with other options for the treatment of patients with CIA in Greece. Of the two DA-based schemes, DA-Q3W appears to be associated with lower therapy cost. Research funded by Genesis Pharma.

PCN39

## BURDEN OF BRAIN METASTASIS IN AN METASTATIC NON-SMALL CELL LUNG CANCER (NSCLC) POPULATION

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**OBJECTIVES:** To assess the impact of brain metastasis (BrMets) on health care costs and survival among metastatic NSCLC patients in a geographically diverse commercially insured US population. **METHODS:** Retrospective analyses were conducted using a US commercial administrative claims database linking data from a lung cancer registry and mortality records from the Social Security Administration Death Master File (2005-2010). Two cohorts were formed – a) with BrMets, and b) without BrMets. Healthcare cost (hospitalization, ambulatory and pharmacy) and resource use (hospitalization, emergency {ER} and ambulatory visits) were compared using a generalized linear model (diagnosis →end of follow-up); a Cox proportional hazard model estimated impact on survival. All models adjusted for stage at diagnosis, pre-diagnosis comorbidity, age, and gender. **RESULTS:** A total of 584 metastatic NSCLC patients were included (mean 60.5 years/56.3% male): 247 (42.3%) had claims-based evidence of BrMets and were more likely to have been diagnosed with stage IV disease (62.8% vs. 52.2% without BrMets). Overall survival was shorter among patients with evidence of BrMets (median = 13.5 vs. 17.0 months; HR=1.29, $p<001$); health plan enrollment duration was similar (median = 11.7 months). With similar lengths of follow-up, average health care costs following diagnosis of