A COST-CONSEQUENCE ANALYSIS OF DARBEPOETIN ALFA ADMINISTERED EVERY 3 WEEKS (Q3W_DA) COMPARED TO WEEKLY EPOETIN ALFA (QW_EA) OR EPOETIN BETA (QW_EB) IN PATIENTS WITH CHEMOTHERAPY-INDUCED ANEMIA (CIA): A RETROSPECTIVE STUDY
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OBJECTIVE: Anemia, a common chemotherapy complication, is often treated with erythropoiesis-stimulating agents (ESAs), DA, EA or EB. The objective of this study was to assess, from a French societal perspective, the cost consequence of Q3W_DA administration (500 µg) compared to QW_EA or QW_EB at the European label doses, based on the results of a European retrospective observational study. METHOD: A decision-tree model making explicit the conduct of the patients in the 16-week observational study (drug administrations, transfusion and response to treatment) was developed in Excel®. Transition probabilities, average Hb value over treatment period, number of blood transfusions and ESA administration settings were extracted from the observational study. Unit costs were applied to medical resources used (red blood cells packs, health care professional visits, hospital stays) and to patients’ time, further specified by a panel of 20 French clinical experts. Time was valued at gross hourly wage rate. Both time and medical costs were extracted from official sources (AMELI; INSEE) and adjusted to €2006. A 5000-replications probabilistic sensitivity analysis was performed with @RISK® using distributions for probabilities (binomial), medical resources used (triangular), time (triangular) and outcome measures (normal). RESULTS: Compared to either EA or EB, DA showed slightly greater increases in Hb levels (0.128 g/dL [95% CI: −0.160; 0.411] vs. EA; 0.186 g/dL [−1.995; 0.384] vs. EB) and a lower cost (€422 [−920; 42.9] vs. EA; −€114 [95% CI: −452; 211] vs. EB). Probabilistic sensitivity analysis revealed for DA Q3W 80% of the replications vs EA and 73% vs EB with better Hb values and lower costs (dominant); 3% vs EA and 22% vs EB with higher costs and better Hb values. CONCLUSION: This analysis provides real-life information to decision makers about the costs and consequences of Q3W_DA compared to QW_EA and QW_EB. A decision in favor of Q3W_DA has the highest probability to be beneficial from a health economic viewpoint.

EFFECT OF METASTASIS LOCALIZATION ON SYMPTOMS AND ASSISTANCE COSTS IN ADVANCED NSCLC PATIENTS. FURTHER EVIDENCE FROM THE HABIT STUDY
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OBJECTIVES: Study aim was to compare symptom severity and home assistance burden in advanced non-small-cell-lung cancer (NSCLC) patients with no metastasis (NM), bony and/or cerebral (BCM) metastases and other metastasis localization (OM). METHODS: A total of 104 advanced NSCLC patients were enrolled in 18 Italian oncology departments and followed up for 3 months. Main caregiver workload was assessed monthly by a task scale; activities of other caregivers were also registered and a main caregiver was defined as being the principal caregiver. Three-monthly mean total per patient assistance costs amounted to €4431 in BCM, to €2617 and €2716 in OM and NM patients. Cerebral and/or bony metastases caused, upon each monthly check, significantly higher assistance costs referred to the main caregiver (p < 0.0001). Higher percentages of patients reported symptoms deterioration in the NM and BCM (45% and 43%) respectively, while only 23% of patients referred symptom worsening in OM. CONCLUSION: Home assistance burden was higher in patient with bony and/or cerebral metastases, other metastasis localization showed no impact on caregiving costs and symptom severity measured by the LCS subscale.

BURDEN OF ILLNESS OF RENAL CELL CARCINOMA IN SPAIN
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OBJECTIVE: The incidence of renal cell carcinoma (RCC) in Spain is about 4000 patients per year. RCC patients have limited treatment options and low survival rates at 5 years in advanced-stage patients. Despite the growing importance of RCC, data on its economic burden are limited. METHODS: An incidence-based approach was used to estimate the aggregate annual cost burden from a societal perspective, including costs of medical treatment and lost productivity due to RCC in Spain. The annual numbers of patients treated for RCC were classified by age, gender and cancer stage (I–IV). The utilization of cancer specific treatments, unit costs of these treatments, work-days missed by these patients and wage rates were included in the model. Data source included the linked Surveillance, Epidemiology, and End-results. Data were obtained from publications literature and experts’ opinion. RESULTS: The annual cost of RCC in Spain (€2006) was found to be €41.8 million (€10,607 per patient). Health-care costs and lost productivity accounted for 66.3% (€27.8 million) and 33.7% (€14.1 million) of the total cost, respectively. The total cost associated with RCC stage II accounted for the highest portion (43.4%) of the total cost of illness, at €18.2 million. This reflected the highest incidence of RCC at stage II (54% of all incident cases). Other stages (I, III and IV) accounted for 11.1% (€4.6 million), 12.1% (€5.1 million) and 33.4% (€14.0 million) of the overall cost. Per patient cost was remarkably high for stage IV patients (€177,478), attributable to the high resource utilization for this stage. CONCLUSIONS: The economic impact of RCC in Spain is substantial. New therapies for RCC have the potential to yield considerable economic and social benefits.

BURDEN OF CERVICAL CANCER IN POLAND
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OBJECTIVES: To assess the costs of cervical cancer in Poland in 2006 measured from the public payer or the societal perspective. METHODS: The time horizon of the analysis was 12 months and a retrospective approach based on Polish oncology register was applied. Calculations were performed from the public payer (direct costs) or societal perspectives (both direct and indirect costs). Direct medical costs cover diagnostic tests, surgery, physician consultations and rehabilitation; the unit costs were obtained from the Polish National Health Fund. Data source included the linked Surveillance, Epidemiology, and End-results. Data were obtained from publications literature and experts’ opinion. RESULTS: The annual cost of cervical cancer in Poland (€2006) was found to be €27.6 million (for non-invasive disease, €17.7 million; for invasive disease, €9.9 million). Direct medical costs accounted for the majority of the total cost (65.4%), with €17.6 million for non-invasive disease and €9.7 million for invasive disease. Indirect costs accounted for 34.6% of the total cost, with €9.7 million for non-invasive disease and €8.0 million for invasive disease. CONCLUSIONS: The economic burden of cervical cancer in Poland is substantial. New therapies for cervical cancer have the potential to yield considerable economic and social benefits.
cancer cases was based on the National Cancer Register conducted by the Institute of Oncology in Poland. All calculations were performed for 2006 (1 Euro = 3.8 PLN. RESULTS: Cost of yearly treatment of one standard patient was 13.270 PLN ($3.492) from public payer and 26.429 PLN ($6.955) from societal perspective respectively. Taking into account cervical cancer prevalence in Poland (3.439 cases in 2003) and cost per each case, the total burden of cervical cancer in 2006 was 45.635.530 PLN ($12.009.350) from public payer and 92.290.068 PLN ($24.286.860) from societal perspective respectively. CONCLUSIONS: Cervical cancer is a fatal and costly disease. Indirect costs are about 50% of total burden of cervical cancer in Poland in 2006.

PCN37
COMPARING MANAGEMENT PATTERNS AND ASSOCIATED COSTS FOR WOMEN WITH ABNORMAL CERVICAL CYTOLOGY IN 5 DIFFERENT COUNTRIES
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OBJECTIVE: To evaluate the management and the management cost of follow-up of women with abnormal Pap result in 5 countries (UK, Australia, Germany, Spain & Italy). METHODS: A retrospective chart review of resource use was conducted in 33 centres within the five countries. Historical data was collected on >3000 women with an abnormal Pap smear over a 2-year treatment and follow-up period starting from year 2002. The study population was stratified to include a minimum number of subjects per cytology category: 35% mild, 25% moderate, 25% severe dyskaryosis, and 15% cervical cancer. If not enough cancer cases were enrolled in a country additional cases were searched for. Unit costs for treatment were calculated from country-specific cost databases. We compare overall and between-countries overall age and age distribution; correlation between cytology and histology; resource use and cost per histology group after purchasing power parity adjustment. RESULTS: Overall mean age of patients (n = 3380) was 36.3 y old (min = 16 y, max = 90 y). Patients with histologically confirmed invasive cancer (n = 333) were on average 48.8 years (min = 21 y, max = 85 y). Proportion of patients in each confirmed pre-cancer group was: CIN-1 = 17.1%; CIN-2 = 18.6%; CIN-3 = 29.9%. Negative evaluations after first inspection and/or biopsy were 24% and cancer cases seen and confirmed were 9.9%. The correlation coefficient between cytology and histology findings overall was 62.6, but varied widely across countries. Resource use such as number of pap smears per stage, colposcopies, and LEEPs shows significant differences across countries and per histology stage (p < 0.05). The initiation of treatment and type of treatment per histology stage varied considerably within each country and across the aggregate database. CONCLUSION: Weak correlations between cytology and histology across all countries were observed. Average cost per histology varies by country and can be substantial. Large cost SDs per histology stage indicate that it remains difficult to standardise treatment for early stages.

PCN38
“COST OF ILLNESS” ANALYSIS OF RENAL CELL CARCINOMA
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OBJECTIVES: Renal cell carcinoma (RCC) represents 2–3% of all malignancies, and is associated with limited treatment options and low survival rates (median survival for advanced metastatic disease is estimated at 8–12 months). Despite its importance, data on the economic burden of RCC are limited. METHODS: A global, prevalence-based burden-of-illness model was developed and used to estimate the annual, societal economic burden of RCC in selected European countries (UK, Spain, France, and Germany). Key relationships represented in the model include the annual numbers of patients treated for RCC by age group and cancer stage; utilization of cancer-specific treatments; unit costs of these treatments; work-days missed by these patients, and wage rates. Local-area data sources were used to populate the model parameters for each country. Methodological differences across countries resulting from differences in data availability are explained. RESULTS: The annual numbers of cases of RCC include 24,834 in the UK, 3945 in Spain, 35,714 in France, and 39,864 in Germany. Corresponding estimates of the aggregate annual burden of RCC (€ 2005) are €541 million, €41.8 million, €171 million, and €1.6 billion, respectively (per-patient costs of €21,792, €10,607, €4781, and €26,397). Health care costs account for between 66% and 89% of the burden in each country, with lost productivity accounting for the remainder. Inpatient care for major surgery, radiofrequency ablation, arterial embolization, systemic therapy (chemotherapy, radiation, immunotherapy), and associated complications is the largest driver of health care costs, accounting for approximately 80% or more of the burden in each country. Sensitivity analyses indicated that results were most sensitive to assumptions regarding health care utilization and unit costs of treatments. CONCLUSIONS: The economic burden of RCC in Europe is substantial. Interventions to reduce the prevalence of RCC have the potential to yield considerable economic benefits to EU health systems.

PCN39
COST-UTILITY ANALYSIS IN A FRENCH SETTING OF ADJUVANT THERAPY WITH HERCEPTIN IN PATIENTS WITH HER-2 POSITIVE BREAST CANCER
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OBJECTIVES: Trastuzumab (Herceptin®) combined to chemotherapy has demonstrated significant improvement in time to progression and survival in metastatic breast cancer patient overexpressing the receptor of the human growth factor (HER-2). Herceptin® has recently received a new indication as an adjuvant therapy in localised invasive breast cancer and the cost-effectiveness of this new add-on therapy needs to be evaluated. METHODS: An analytic Markov Model was established based on the results of the pivotal clinical study (HERA) and expert opinion to simulate for an early breast cancer patient the course of disease until death. The health states included loco-regional and distant recurrences (metastasis), cardiac events (side-effects), disease free survival and death respectively. This simulation model projected long-term clinical outcomes and costs, of adding Herceptin® during one year sequentially to standard adjuvant therapy versus standard alone (observation). According to current practices in France, Herceptin® was also supposed to be used in case of distant recurrences in both arms. Improvements in lifetime quality adjusted life years (QALY) were also estimated. Transition probabilities were adjusted on HERA results. Yearly costs of each health state came from published sources and from detailed costs observed in one French Oncology Centre (G.-F. Leclerc in Dijon). Direct costs and outcomes were projected over patients’ lifetimes from a French Sickness Fund perspective. They were both discounted at 3% annually. Sensitivity analysis was performed. RESULTS: For 1000 patients