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: 5% 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 56.3 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 80%. Weak correlations between cytology and histology findings overall was 426.2, 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 about 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, radiotherapy, 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...
with a 10-year follow-up, an adjuvant therapy with Herceptin® would avoid 49.7 loco-regional recurrences, 179.5 distant recurrences and 133.4 deaths. Incremental cost-utility ratio of Herceptin® was €18,282/QALY gained at lifetime horizon, which is well below the commonly accepted threshold of €45,000/QALY gained. CONCLUSIONS: Utilization of Herceptin® as an adjuvant therapy in patients with primary HER-2 positive breast cancer improves patient survival with an acceptable cost-utility ratio in the French setting.

**PCN40**

**COST EFFECTIVENESS OF RITUXIMAB PLUS CVP IN PREVIOUSLY UNTREATED INDOLENT NON-HODGKIN’S LYMPHOMA**

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**OBJECTIVES:** To estimate the cost-effectiveness of rituximab plus cyclophosphamide, vincristine, and prednisone (RCVP) compared to CVP alone in previously untreated NHL patients with advanced follicular lymphoma from a Canadian perspective.

**METHODS:** A cost-utility analysis was performed from a Ministry of Health perspective over a 10-year time horizon using a Markov health state transition model. All patients (mean age 53 years) enter the model in a progression-free health state. Survival was estimated from Kaplan-Meier curves from a published phase III trial of RCVP versus CVP in patients with stage III or IV follicular lymphoma (median follow-up 31 months) and data from the Scotland and Newcastle Lymphoma Group (SNLG) registry using a line of best fit approach. Utilities for quality of life were assessed using the EQ-5D in a population of NHL patients from the UK. Direct annual medical costs including drug acquisition, administration and preparation were estimated from published sources. All costs are reported in 2005 CAD. Costs and outcomes were discounted at a rate of 5%. In order to address uncertainty in point estimates, one way sensitivity analyses were also performed. RESULTS: The addition of rituximab to CVP resulted in an additional 1.3 years of progression free survival and 0.58 quality adjusted life years (QALYs) over CVP alone. The cost of RCVP therapy was $43,445 compared to $22,891 for CVP. The incremental cost-utility ratio was $35,753/QALY. Results from one way sensitivity analyses ranged from a low of $22,079/QALY to a high of $55,338/QALY. CONCLUSION: The addition of rituximab to RCVP is a cost-effective treatment alternative in previously untreated NHL patients according to conventionally accepted ratios.

**PCN41**

**COST-EFFECTIVENESS OF TAC VERSUS FAC FOR THE TREATMENT OF NODE POSITIVE BREAST CANCER IN THE ADJUVANT SETTING**

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**OBJECTIVES:** The TAC adjuvant chemotherapy regimen compared to FAC improves the disease free survival (DFS) and overall survival (OS) rates significantly in women with operable node positive breast cancer, but the cost-effectiveness of this better efficacy was not evaluated. METHODS: We developed a model describing the clinical history of women with node positive breast cancer that projected improvements in lifetime quality adjusted life years (QALY), long-term costs, and cost-effectiveness of the adjuvant treatment TAC compared to FAC. The base case was a 50 years old woman with unilateral node positive breast cancer submitted to mastectomy and without metastasis. Transition probabilities came from the BCIRG 001 study and other major studies; the quality of life for each health state was based on the medical literature. The local management and costs of each health state was based on a Delphi panel according to the private health care perspective. Outcomes were discounted at 3% annually. Sensitivity analyses and a second order Monte Carlo simulation were performed. RESULTS: The lifetime horizon analysis showed: DFS of 32.5% and 29% and OS of 38% and 33%, for TAC and FAC, respectively; TAC increased life expectancy (LY) in 1.20 years and in quality adjusted life years (QALY) there was a 1.08 year gain, in comparison to FAC; the incremental cost per QALY was R$9476.92; the FAC group expense in the metastasis state, in fifteen years, was bigger than the whole cost for the treatment of recurrence states, for a whole life, with TAC; the Monte Carlo simulation showed that TAC is cost-effective 98% of the times and is cost-saving 18% of the times. CONCLUSION: Improvements in DFS and OS with adjuvant TAC regimen in women with operable node positive breast cancer improves patient outcomes in terms of LY and QALY with an acceptable cost-effectiveness ratio in Brazil.

**PCN42**

**COST EFFECTIVENESS OF FULVESTRANT AS AN ADDITIONAL ENDOCRINE STEP IN THE TREATMENT SEQUENCE FOR HORMONE RESPONSIVE ADVANCED BREAST CANCER**

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**OBJECTIVES:** Fulvestrant (Faslodex) is a well-tolerated estrogen receptor antagonist that is at least as effective as anastrozole in patients who have progressed or recurred on tamoxifen. A health economic model was developed to estimate the incremental cost per quality adjusted life year (QALY) gained when fulvestrant is included as an additional endocrine therapy step for postmenopausal women with hormone receptor positive (HR+) advanced breast cancer (ABC). METHODS: A seven-state Markov model was developed from a UK NHS perspective. This followed patients over their treatment for ABC, simulated over a 10-year time horizon. The model compared the costs and benefits of two cohorts of patients—one with and one without the addition of fulvestrant to the endocrine treatment sequence. Clinical data were collated from published trials. Resource utilization data were obtained from published literature and a survey of five UK physicians. Unit costs were taken from published sources. Each Markov cycle lasted 28 days. Major assumptions were validated via a survey of seven UK physicians. Costs and benefits were discounted at 3.5%. The robustness of results was tested using a probabilistic sensitivity analysis. RESULTS: In a cohort of 1000 postmenopausal women with HR+ ABC, the model suggested that a treatment sequence with fulvestrant as a third endocrine therapy step leads to a gain of 41 QALY’s at an additional cost of £69,910, as compared to a sequence without fulvestrant. The estimated incremental cost-effectiveness ratio (ICER) of including fulvestrant in the endocrine treatment sequence was ≤1705 per QALY. Cost-effectiveness acceptability curves indicated over a 70% probability that the cost per QALY gained would be lower than £20,000, a commonly accepted UK threshold for cost-effectiveness. CONCLUSIONS: Based on this economic model, the use of fulvestrant as an additional endocrine therapy step in the treatment of HR+ ABC is a cost-effective treatment strategy.