cancer, and the general population, respectively (0 = worst; 52 = least fatigue). Ten-year total per patient costs (drug, monitoring, physician visits, adverse events) for managing GIST patients with molecularly targeted treatment were estimated at £47,086–£70,811 compared to £3674–£4230 with best supportive care.

**CONCLUSIONS:** Data suggest the incidence of GIST is similar across countries; lower incidence in one study is likely explained by differences in method of case ascertainment. Although patients with GIST present with fatigue comparable to other cancers, additional research is needed to comprehensively understand its HRQL burden. The increased cost associated with new therapies must be balanced against their expected benefits.

**PCN2**

**INCIDENCE AND SURVIVAL STUDY BY STAGE AND ESTIMATED PREVALENCE OF RENAL PARENCHYMA CANCER IN FRANCE**

Danzon A1, Langlois C2, Grosclaude P3, Colonna M1, Delafosse P4, Martin E5, Molinié F6, Tretarre B7, Velten M1, Levet F8

1Registre des tumeurs du Doubs, Besançon, France, 2Tarn Cancer registry, Albi, France, 3Izer cancer registry, Meylan, France, 4Somme cancer registry, Amiens, France, 5Loire Atlantique and Vendée cancer registry, Nantes, France, 6Herault cancer registry, Montpellier, France, 7Univesité Louis Pasteur; strasbourg, France, 8Pfizer, Paris, France

**OBJECTIVES:** To determine incidence and five years survival rate of renal parenchyma tumours by TNM stage using cases recorded in seven French departments cancer registries. To estimate overall and with metastasis cancer prevalence, at the end of 2004, when diagnosed over the period 2000–2004. METHODS: Identification of patients using the databases of seven cancer registries. Data collected trough medical records and administrative data (vital states). Assessment of raw global survival rate using Kaplan Meier curves. Determination of global prevalence by summing incidence of prevalence without metastases. Prevalence with metastases is global prevalence minus prevalence without metastases. Prevalence with metastases is global prevalence minus prevalence without metastases.

**RESULTS:** A total of 597 cases were identified and analyzed. 84% of cases consisted of clear cell adenocarcinoma. Thus, the standardised levels of incidence (worldwide reference population) are estimated to be 9.91 per 100,000 men and 3.75 per 100,000 women. Stages I, II, III and IV had specific incidences respectively of 4.7, 1.1, 1.9 and 2.7 per 100,000 subjects. The 5 years survival rate in men and women was respectively 55% (CI95: 50–60) and 65% (CI95: 58–71). Survival decreased with age and with metastasis cancer prevalence, at the end of 2004, when diagnosed over the period 2000–2004 annual incident cases for which corresponding global survival data have been applied. Same method for the estimation of prevalence without metastases. Prevalence with metastases is global prevalence minus prevalence without metastases. Prevalence with metastases is global prevalence minus prevalence without metastases.

**CONCLUSIONS:** The increased cost associated with new therapies must be balanced against their expected benefits.

**PCN3**

**EPIDEMIOLOGIC, HUMANISTIC AND ECONOMIC BURDEN OF PATIENTS WITH METASTATIC RENAL CELL CARCINOMA (mRCC)**

Banks J1, Gupta K1, Balu S1, Chen E2, Komatsuzaki Y2, Charbonneau C1, Pashos CL1

1Abt Associates Inc, Lexington, MA, USA, 2Abt Associates Inc, Bethesda, MD, USA, 3Pfizer, New York, NY, USA

**OBJECTIVE:** Renal cell carcinoma is an asymptomatic course and 25–30% of patients present with metastatic disease at time of diagnosis. Molecularly targeted therapies (MTTs) represent a breakthrough in treatment of mRCC, prolonging life, reducing toxicity and the negative impact of treatment on health-related quality of life (HRQOL), and offering viable therapeutic options to a broader patient population relative to immunotherapy. The objective of this study was to explore the burden of mRCC and the potential clinical, economic and humanistic value of MTTs.

**METHODS:** PubMed, scientific meeting and online databases were searched for articles relating to the epidemiologic, humanistic and economic burden of mRCC. Thirty-five articles were selected. Epidemiology and economic statistics for mRCC were estimated from international registries and published data sources. RESULTS: Approximately 1500–8600 new mRCC cases occur annually in major European and North American countries, and Japan. Standard immunotherapy is largely ineffective (less than 10% response rates; no benefit in most patients, especially the elderly) despite a high annual cost of treatment (e.g., $13,500–$82,000 across countries). In the absence of effective treatment, mRCC is rapidly fatal with 13% or fewer patients surviving a median survival of less than 1 year. Two-year costs of care for mRCC have been estimated at $35,735/year (US$). HRQOL of mRCC patients is comparable to congestive heart failure, diabetes and other cancer patients and may be further diminished by systemic immunotherapy. Recent studies show that MTTs produce marked improvements in response rates/survival, and tolerability without negative impact on HRQOL. CONCLUSIONS: The need for MTTs for mRCC is characterized by the lack of effective treatment for the vast majority of patients, high mortality, and considerable humanistic and economic burden. Meaningful improvements in effectiveness and tolerability in this patient population suggest that MTTs offer economic and humanistic value in the treatment of mRCC.

**PCN4**

**A COMPARATIVE BUDGET IMPACT (BI) ANALYSIS OF ARANESP® (DARBEPOETIN ALFA) 500 µG Q3W VERSUS OTHER ERYTHROPOIESIS STIMULATING PROTEINS (ESP) IN CHEMOTHERAPY-INDUCED ANEMIA (CIA) IN SPAIN**

Pérez Alcántara E, Badia X, Arocho R

1Health Outcomes Research, Barcelona, Spain, 2Health Outcomes Research Europe, Barcelona, Spain, 3Amgen SA, Barcelona, Spain

ESP are standard treatment options for CIA. In this setting, both Epoeitin (EPO) alfa and EPObeta are administered three times/week (ITW) or once/week (QW), while darbepoetin alfa (DA) is the only ESP approved to be administered as once every three weeks (Q3W). For ESP administered ITW or QW the SPCs states to double the dose if hemoglobin increases <1 g/dL after 4 weeks. Doubling the dose is not needed with starting dose DA 500 µg Q3W. These administration differences might result in different treatment costs for each agent. **OBJECTIVE:** Estimate BI (mean cost/patient) of administering the different ESP in the treatment of CIA in Spain. **METHODS:** The following variables were considered in the economic model: ESP ex-manufacturer price in Spain, administration pattern, weeks of treatment (12 weeks), weeks of evaluation before increments of dose (4 weeks), dose increases, and overall cost of one administration (£59.72). In addition, a two-way sensitivity analysis was performed to test the robustness of the results, considering the following variables: 1) administration cost from a minimum of 0 to +25%, and 2) the lowest and highest percentage of patients needing to increase dose for EPOalfa and EPObeta from six studies found in the literature where this data was reported. **RESULTS:** In the base case scenario, assuming an incidence of doubling the dose with both EPOalfa and EPObeta of 29.60%, which was the mean value
found in the literature (min 22.90%, max 42.80%), treatment with starting dose DA 500 mg Q3W resulted in a BI that were 35.64% and 27.64% lower than EP0Ha2 10,000 UI ITW and 40,000 UI QW respectively and 35.59% and 17.11% lower than EP0Ha3 10,000 UI ITW and 30,000 UI QW respectively. The results of the base case did not change in any of the sensitivity scenarios. CONCLUSION: The model shows that treatment of CIA with starting dose DA 500 mg Q3W is the therapeutic strategy with lower mean cost per patient for all the analyzed scenarios in Spain.

HEXVIX FLUORESCENCE CYSTOSCOPY FOR SUPERFICIAL BLADDER CANCER DIAGNOSIS: ANALYSIS OF BUDGET IMPACT ON THE SWEDISH HEALTH SERVICE
Thompson G,1 Durrant H,2 Kloster T1
1Bridgehead International Ltd, Melton Mowbray, Leicestershire, UK, 2Bridgehead International Limited, Melton Mowbray, Leicestershire, UK

OBJECTIVE: Development of a decision analytic model to estimate the budget impact on the Swedish health service of using a more effective diagnostic tool in conjunction with white light cystoscopy (WLC) in the management of superficial bladder cancer (SBC). Hexvix (hexaminolevulinate) fluorescence cystoscopy potentially allows more complete detection and delineation of tumours compared with WLC in bladder cancer diagnosis. METHODS: Model inputs, including procedure costs and clinical algorithms, are based on the bladder cancer diagnosis and treatment guidelines of the European Association of Urology (EAU), literature review and Swedish clinical practice. Several trials report less residual tumour at early re-resection following 5-ALA fluorescence-assisted TURB with 59% to 80% relative reduction in recurrence in the fluorescence group compared to WLC. Based on these findings, the model assumed a conservative 40% reduction in recurrence rate when Hexvix was used alongside WLC to guide TURB. The model projects the flow of all newly diagnosed SBC patients, following histological risk classification at first TURB, through treatment one year after diagnosis. It covers Hexvix use in the operating room to guide first TURB in all patients with suspicion of bladder cancer and all follow-up TURBs in patients with recurrent SBC. RESULTS: In the Swedish population of newly diagnosed bladder cancer patients, the model projects a reduction in the number of procedures required in the first year compared to WLC alone, i.e. 29 cystectomies and 1961 TURBs with Hexvix compared to 52 and 2141 with WLC. Avoidance of these procedures would result in $212,895 (SEK 1,561,908) reduction in costs to the Swedish health service the first year after diagnosis. CONCLUSIONS: The model predicts that use of Hexvix as an adjunct to WLC for all initial and follow-up TURBs in the first year following diagnosis will result in substantial cost savings for the Swedish health service.

PRIMARY PROPHYLAXIS WITH PEGFILGRASTIM IS COST-SAVING COMPARED WITH FILGRASTIM FOR BREAST CANCER IN SPAIN
Mayordomo J1, Lopez Pousa A2, Aracho R3, Doan QV4, Dubois RV5, Liu Z4
1Hospital Clínico Lozano Blesa, Zaragoza, Spain, 2Hospital Sant Pau, Barcelona, Spain, 3Aügen SA, Barcelona, Spain, 4Cerner Health Insights, Beverly Hills, CA, USA

OBJECTIVE: Primary (first-cycle) prophylaxis with filgrastim or second generation pegfilgrastim has been recommended in the 2006 ASCO and EORTC clinical guidelines when the risk of febrile neutropenia (FN) is >20%. Recent studies reported significantly greater reduction of FN with pegfilgrastim than with filgrastim, yet no study has compared their cost-effectiveness. The study purpose was to evaluate the cost-effectiveness of primary prophylaxis with pegfilgrastim versus 11-day use of filgrastim (as recommended) in women with stage I-III breast cancer receiving chemotherapy with moderate to high risk of FN in Spain. METHODS: We constructed a decision-analytic model from a health care payer’s perspective. Costs included costs for drugs, drug administration, FN-related hospitalizations and subsequent care, and were based on ex-factory price listing and literature. Effectiveness was measured as FN avoided and lifetime-gained (LYG). FN risk (varied by days of filgrastim), FN case-fatality, relative dose intensity (RDI), and the impact of RDI on survival were based on a comprehensive literature review and expert panel validation. Breast cancer mortality and all-cause mortality were from national cancer registries and vital statistics report. Sensitivity analyses were conducted on key variables. RESULTS: In addition to being more effective, pegfilgrastim primary prophylaxis produced an average cost-savings of €32 per patient (€4243 pegfilgrastim versus €4275 filgrastim). Pegfilgrastim reduced the absolute risk of FN by 5.5% (12.5% versus 7%) and had a LYG of 0.06 (16.48 versus 16.42 years). Age of diagnosis and cancer stage had minimal impact on the results. Key influencing factors included drug costs, relative risk of FN, and drug administration cost. CONCLUSION: Primary prophylaxis with pegfilgrastim in Spain appeared not only to be more effective but also cost-saving compared with filgrastim used for 11 days per cycle.

IMPACT OF CHANGES IN THE FINANCING OF THE HEALTH SERVICES ON COSTS STRUCTURE ON THE EXAMPLE OF CHEMOTHERAPY OF ADVANCED OVARIAN CANCER
Skowron A1, Pazdziora J2, Brandys J3
1Jagellonian University, Cracow, Poland, 2The Beskid Center of Oncology, Bielsko-Biala, Silesian region, Poland, 3Jagellonian University, Cracow, Malopolska, Poland

In 2002, the medical services in Poland has been paid by the independent public insurance institutions—Regional Cash of Ills. In 2003 the government established The National Fund of Health, which integrate all regional insurance institutions and provide identical availability of medical services for every patient in Poland. OBJECTIVES: To assess the impact of changes in financing of health services on costs structure from the payer perspectives on the example of advanced ovarian cancer. METHODS: Two regimens of chemotherapy were assessed: cisplatin-cyclophosphamide (CC) and cisplatin-paclitaxel (CP). The data of medical resources consumed were collected retrospectively in two oncology centers in Poland. All medical care consumption (diagnostic tests, hospitalization, ambulatory care and medications) were estimated from the patients' chart. Costs were derived from the hospitals’ Financial Departments for the year 2002. And from the system used by National Fund of Health for 2006. All cost were in polish zloty. RESULTS: The total cost of chemotherapy per patient in CP group in 2002 was 21,658 zł and in 2006—14,594 zł, while the standard chemotherapy with CC scheme were 9008 zł in 2002 and 6000 zł in 2006. In CP group in 2002 the 72.5% of the total cost were the cost of cytostatics, while in 2006 they decreased to 52.2%. In CC group the main costs (36%) in 2002 were additional medications such as antiemetics and GCSF, while in 2006—51% of total costs was the cost of hospitalization. CONCLUSIONS: The changes in financing of the health system decreased the total costs of ovarian cancer chemotherapy. The main reason of it in PC group could