PCN2
PHARMACOECONOMIC APPLICATIONS IN FORMULATT
MANAGEMENT: BUDGET IMPACT ANALYSIS OF CLORAFABINE AT A MAJOR CANCER CENTER
Miler LA, Liu L, Lai LS, Arbuckle R
University of Texas MD Anderson Cancer Center, Houston, TX, USA
OBJECTIVES: To perform a budget impact analysis of clorafabine (FDA-approved for all in December 2004) to the institution’s Formulary for acute lymphoblastic leukemia (ALL). A post-approval study was performed to assess the accuracy and validity of our model. RESULTS: A pre-approval annual budget impact analysis was developed for an institutional population of 24 ALL patients, and presented to P&T in May 2005. Assumptions regarding clorafabine’s number of doses per cycle and median number of cycles per patient were estimated from published clinical trials. Actual clinicians’ use was estimated. In August 2008, a post-approval economic analysis was conducted to assess the annual actual budget impact of clorafabine. We reviewed all use (including investigational) of clorafabine from June 2006 through May 2007. We also reviewed charge and reimbursement data for clorafabine for the same time period. Health care costs were adjusted to 2008 dollars. For the post-approval study period, we treated 23 patients with clorafabine; of these, only 5 (22%) were for ALL, 13 (36%) for acute myelogenous leukemia and 5 (22%) for other indications. For the ALL population, we had a positive reimbursement margin, and reimbursement to charge ratio was 77%. For all indications, the overall reimbursement to charge ratio for clorafabine was 73%. Actual budget impact was $1,105,598; less than the $2,430,000 projected from the pre-approval model. CONCLUSIONS: The result of the post-approval budget impact analysis of clorafabine was lower than that estimated by the pre-approval model. Our pre-approval model included 48 ALL patients and underestimated the number of patients actually treated. Major factors driving the difference between the pre- and post-approval studies were actual drug cost per dose, actual number of doses per patient, and the addition of DARB to the benefit formulary.

PCN3
BUDGET IMPACT ANALYSIS OF DOCETAXEL REIMBURSEMENT IN THE TREATMENT OF LOCALLY ADVANCED HEAD AND NECK SQUMOUS CELL CARCINOMA IN POLAND
Arta Cancer Institute, Cracow, Poland; Sanofi-Aventis sp. z o.o., Warszawa, Poland
OBJECTIVES: To estimate the impact of docetaxel reimbursement in the induction therapy of locally advanced head and neck squamous cell carcinoma (HNSCC) on the budget of the Public Payer in Poland. Strategy containing docetaxel (TPF = docetaxel + cisplatin+fluorouracil) was compared with the standard strategy of induction treatment (PF = cisplatin+fluorouracil), reimbursed in Poland. METHODS: The budget impact analysis was performed in 5 years time horizon (years 2008-2012). Analysis was performed by the public payer’s perspective (National Health Fund in Poland). Two scenarios were compared: present and future. In the “present scenario” it was assumed that all patients from target population will be treated with standard chemotherapy – PF. In the “future scenario” induction treatment of locally advanced HNSCC with scheme with docetaxel (TPF) was considered. Sensitivity analysis was performed to test the impact of changes in the key assumptions of the analysis. Additionally, the analyses of the best and the worst case scenarios were performed. RESULTS: Estimated number of target population qualified for induction therapy of locally advanced head and neck cancer will amount from 483 patients in 2008 to 488 patients in 2012. Assumption of reimbursement of docetaxel in treatment of locally advanced HNSCC annual expenses from budget of National Health Fund would raise by PLN3.54 million in 2008, PLN3.96 million in 2009, PLN3.97 million in 2010, PLN3.98 million in 2011 and PLN3.99 million in year 2012. Incremental LYG will amount from 299 to 299 years in 2008 to 2012 respectively. CONCLUSIONS: Docetaxel reimbursement in the treatment of locally advanced HNSCC will not considerably influence the expenses of the Public Payer in Poland. Treatment with docetaxel improves survival compared with standard care.

PCN4
THE ECONOMIC IMPLICATIONS OF RASBURICASE TREATMENT IN ADULT TUMOR LYMPH SYMPTOME PATIENTS
Laddi M, Seal B, Tangra M, O’Day N
Weintra, Palm Harbor, FL, USA; Sanofi-Aventis; Bridgewater, NJ, USA; Smith Hanley Consulting Group LLC, Lake Mary, FL, USA
OBJECTIVES: RASburicase is a recombinant urate oxidase enzyme that reduces high levels of plasma uric acid (UA) resulting from tumor lymph syndrome (TLS). RASburicase reduces UA levels within four hours of administration, minimizing TLS-related complications from TLS. Treatment pattern analyses indicate rasburicase is often used in combination with allopurinol; however, no studies have evaluated the clinical and economic consequences of this pattern of care. This study compared hospitalized costs, length of stay, and duration of critical care in patients receiving rasburicase with or without allopurinol. METHODS: Patients within the Premier hospital database administered rasburicase or combination therapy in the first two days of hospital admission were eligible for study inclusion. Patients were excluded if they were aged < 18 years or received hemodialysis on admission. Patients were propensity score matched to rasburicase based on gender, race, hospital type, provider type, payer type, admission source, use of electrolyte modification therapy, critical care admission, and comorbid diagnoses. Differences in health care costs, length of stay, and duration of subsequent critical care were assessed using gamma distribution models with a log link function. Projection weights were used to produce national projected patient counts. RESULTS: There were 280 rasburicase and 310 combination patients matched in the analysis. The mean age was 63.2 years, with 31% being female. No statistical differences existed in matched covariates across the two groups. Rasburicase patients incurred an average total cost of $39,245 per hospitalization compared to $32,402 for combination patients (p = 0.0534). Rasburicase patients also had a lower length of stay (10.2 days) compared to combination therapy (16.1 days, p < 0.0007). Duration of critical care was similar in both cohorts (rasburicase = 2.9 days vs. 3.1 days, p = 0.792). CONCLUSIONS: Combination therapy of rasburicase and allopurinol resulted in higher total hospitalization costs and a longer length of stay compared to rasburicase monotherapy.

PCN5
DRUG UTILIZATION AND COSTS FOR ERYTHROPOIESIS STIMULATING AGENTS (ESA) IN PATIENTS WITH BREAST, LUNG, OR GASTROINTESTINAL CANCER RECEPTOR CHEMOTHERAPY
*Groupe d’analyse, L’ete, Montreal, QC, Canada; **Groupe d’analyse, L’ete, Montreal, QC, Canada; **Groupe d’analyse, L’ete, Montreal, QC, Canada
OBJECTIVES: To evaluate recent utilization patterns and costs for epoetin alfa (EPO) and darbepoitin alfa (DARB) across tumor types in managed care cancer patients receiving chemotherapy. METHODS: Medical claims from the Ingenix Impact National Managed Care Database between January 2006-June 2008 were analyzed. Patients with at least 12 weeks of claims were analyzed. RESULTS: A total 9,790 patients (EPO: 5,812; DARB: 5978) formed the study population. Breast, lung and gastrointestinal cohorts comprised 3277, 2226, and 1755 patients respectively. The EPO group was slightly older (58.5 vs. 56.4 years, p < 0.001), had a lower proportion of women (64% vs. 68%, p < 0.001), and had similar treatment duration (EPO: 68 days; DARB: 67 days; p = 0.191), compared to DARB patients. The mean cumulative dose (SD) was 308,344 (257,539) Units for EPO and 1,222 (1890) mg for DARB, resulting in a dose ratio of 252 :1. Based on the observed utilization of ESAs, drug cost was 28% lower for EPO than for DARB (EPO $4826; DARB $5889; p < 0.001). Stratified analyses by tumor type resulted in similar lower drug costs for EPO-Breast: 29% (EPO $4206; DARB $5883); Lung: 26% (EPO $4606; DARB $6232); Gastrointestinal: 31% (EPO $3,988; DARB $5812); respectively (p < 0.001 for all comparisons). CONCLUSIONS: This observational study of 9,790 cancer patients receiving chemotherapy reported a dose ratio of 252:1 which resulted in a 28% lower drug cost in the EPO group compared to the DARB group. Stratified analyses by major tumor types yielded similar findings.

PCN6
COMPARISON OF EPOETIN ALFA AND DARBEPOETIN ALFA DOSING PATTERNS AND COSTS IN CANCER INPATIENTS RECEIVING CHEMOTHERAPY
*Groupe d’analyse, L’ete, Montreal, QC, Canada; **Groupe d’analyse, L’ete, Montreal, QC, Canada; **Groupe d’analyse, L’ete, Montreal, QC, Canada
OBJECTIVES: To examine recent real-world dosing patterns and associated drug costs of epoetin alfa (EPO) and darbepoitin alfa (DARB), two erythropoiesis-stimulating agents (ESAs), in hospitalized patients with cancer who were receiving chemotherapy. METHODS: An analysis of recent electronic inpatient records (2006-2007) from the Premier Perspective Comparative Hospital Database was conducted. Patients were 218