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suggest that the cost burden of advanced melanoma to the Medicare system is high. Efforts to address the large unmet treatment need in patients with advanced melanoma may result in cost savings for Medicare.

### PCN52 DIRECT MEDICAL COST OF BREAST CANCER BY STAGE OF CLINICAL DISEASE.A MEXICAN COHORT

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**OBJECTIVE:** To estimate direct medical costs of breast cancer (BC) by stage of clinical disease in the Ginecology Hospital of West Medical Center, Instituto Mexicano del Seguro Social (IMSS), Guadalajara (GH). METHODS: Clinical data and resource utilization were obtained individually from medical records of patients who were breast cancer diagnosed and received attention at GH between March 2005 and February 2007. This data was retrospectively collected with the following inclusion criteria: 1) histopathologic-study confirmed BC, 2) recently diagnosed BC, and 3) absence of any other form of cancer. Only direct medical costs were considered (from the GH perspective) using a bottom up approach (medications, chemotherapy, radiotherapy, hospitalization, laboratory tests and surgery). Unitary costs were obtained from GH's Management. cost are expressed in USD and adjusted to December 2006. A discount rate of 3% was used. Tests were applied in order to define the censoring mechanism (according to Glick) to define the adequate cost analysis method. To compare costs among stage was use ANOVA. Mean Cost estimation (TMC) determinants were obtained using a generalized linear Model (GLM). RESULTS: A total of 160 patients were included, 40 in each stage (I, II, III, IV), mean age 50 years  $(\pm 11)$ , with a therapy duration of 29 months ( $\pm 11$ ). 82% of patients showed ductal-infiltranting histologic type carcinoma. TMC per patient during the follow-up period was (\$20,612.00). Chemotherapy was the most costly resource (\$7526.10) followed by the visit to the specialist and emergency room (\$3581.88) and hospitalization costs (\$3096.45). GLMxs statistically-significant TMC determinants were stage II, III and IV (p < 0.00), disease progression (p < 0.00) death (p < 0.00) and age (p < 0.046). CONCLUSION: The direct cost in medical attention increases with stage, progression of disease or patient death, stage IV, less age, longer duration of treatment and disease progression, effectively predicted major costs.

## PCN53 THE BURDEN OF MANAGING PLEURAL EFFUSIONS IN CML PATIENTS POST-IMATINIB FAILURE: A LITERATURE-BASED ECONOMIC ANALYSIS

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**OBJECTIVE:** To develop an economic analysis of the management of pleural effusions in CML patients receiving dasatinib. **METHODS:** A cost of treatment analysis was developed using resource utilization data published for 48 patients with dasatinib-related pleural effusions at a large cancer center. Costs were derived from median reimbursements for relevant CPT codes for outpatient services and medical literature for inpatient services. The base case analysis assumed 100% incurred two

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additional physician visits, two chest x-rays, and a course of diuretics; 37.5% ECHO; 30% steroids; 24% recurrent effusions; 19% multiple thoracentesis procedures; 4% chest tube; 4% Denver shunt; and 2% pericardial window. Sensitivity analyses were conducted for types of procedures used. All costs were adjusted to 2007 US dollars. RESULTS: Of pleural effusions reported, 58% involved  $\leq 25\%$  of one lung volume and were managed medically costing \$750 per episode, including physician visits, ECHO, chest X-rays and medications. The other 42% of pleural effusions were more significant, involving 26%->75% of one lung volume, with half of those patients requiring invasive procedures. The cost of invasive procedures for inpatient management of pleural effusions was \$10,616 for chest tube, \$15,170 with pleural catheter, and \$15,344 for pericardial window. The cost of invasive outpatient management ranged from \$713 for ultrasound thoracentesis to \$4598 for pleural catheter. The average cost of treating a pleural effusion adverse event (including all severity levels) ranged from \$2062 to >\$3000 depending on whether thoracentesis or placement of pleural catheter was utilized. Important drivers included recurrent effusions. CON-CLUSION: This economic analysis based on actually observed treatment patterns suggests that the management of pleural effusions in CML patients receiving dasatinib is costly and requires intensive resource utilization. Effective tyrosine kinase inhibitors with lower rates of pleural effusions may represent clinically and economically valuable alternatives for imatinib-resistant or -intolerant CML patients.

#### PCN54

## A COST-UTILITY ANALYSIS OF PRIMARY PROPHYLAXIS VERSUS SECONDARY PROPHYLAXIS WITH COLONY-STIMULATING FACTOR IN ELDERLY PATIENTS WITH DIFFUSE AGGRESSIVE LYMPHOMA RECEIVING CURATIVE-INTENT CHEMOTHERAPY USING ONTARIO HEALTH ECONOMIC DATA

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**OBJECTIVE:** The 2006 American Society of Clinical Oncology guideline recommends primary prophylaxis (PP) with colonystimulating factor (CSF) for elderly patients with diffuse aggressive lymphoma receiving chemotherapy, based on the assumption of equal survival and studies showing that CSF saved costs by reducing hospitalization from febrile neutropenia (FN). These analyses examined only one cycle of chemotherapy, and did not consider the costs of CSF in subsequent cycles, the strategy of secondary prophylaxis (SP) or patients' preferences. This study examined the cost-effectiveness of PP with SP. METHODS: We conducted a cost-utility analysis to compare PP with CSF to SP with CSF for diffuse aggressive lymphoma. We used a Markov cohort model with a time horizon of 8 cycles of chemotherapy (i.e. 24 weeks), using a payer's perspective (Ontario Ministry of Health). Ontario's 2006 health economic data was used. The cost of hospitalization for FN was obtained from Ontario Case Costing Initiative. Data for efficacies of CSF, probabilities and utilities were obtained from published literature. Monte Carlo simulation was conducted. RESULTS: The ICER of PP to SP was \$739,999/QALY. One-way sensitivity analyses (willingness-topay threshold =\$100,000) showed that if PP were to be costeffective, the cost of hospitalization for FN had to be >\$31,138 (2.5 times > base case), the cost of CSF per cycle <\$96 (base case = \$1960), the risk of 1st cycle FN >48% (base case = 24%), or the relative risk reduction of FN with CSF >97% (base case = 41%). Our result was robust to all variables. Second order