QALY, which indicated that Nilotinib is an advantageous treatment for CML patients in regards to treatment efficacy and cost effectiveness. One-way sensitivity analyses indicated the results to be robust. **CONCLUSIONS:** Based on a willingness-to-pay threshold of $120-$150,000/QALY, Nilotinib treatment in CML patients who were resistant or intolerant to Imatinib is a cost-effective treatment. The results, however, may be less applicable to high-risk patients, the elderly, children and those eligible for bone marrow transplantation.

PCN14

SYSTEMATIC REVIEW OF CLINICAL EFFICACY AND SAFETY OUTCOMES OF ANTI-VEGF THERAPIES FOR METASTATIC COLORECTAL CANCER

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OBJECTIVES: Anti-angiogenic therapy has become an integral component of treatment for metastatic colorectal cancer patients. During last 10 years several studies were conducted to test the safety and efficacy of anti-angiogenic therapies in mCRC patients. This study reviewed the results of randomized controlled trials published in peer-reviewed journals. **METHODS:** We searched the MEDLINE, and abstracts from ECCO, ESMO and ASCO until May 2011. Studies were selected for randomized controlled trials on targeted anti-angiogenic drugs in mCRC. Primary endpoints reviewed were progression-free (PFS) and overall survival (OS). Response rates, toxicity and secondary resectability were secondary endpoints. Aggregated data were further analyzed to understand comparative safety and efficacy. **RESULTS:** Until May 2011, eligible mCRC randomized clinical trials for this review were available for bevacizumab (5 trials including 3101 patients) and vatalanib (2 trial including 2033 patients). Overall, anti-angiogensis therapy for mCRC shows significant OS and PFS benefit versus comparators. The median OS and PFS benefit for regimens containing Bevacizumab were 3 and 3.15 months, versus background chemotherapy. The median OS and PFS benefit for vatalanib containing regimens were statistically insignificant versus background chemotherapy. **CONCLUSIONS:** Anti-angiogensis therapy with Bevacizumab for mCRC shows significant OS and PFS benefit versus comparators.

PCN15

A LONGITUDINAL REVIEW OF TREATMENT PATTERNS IN PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC) FROM COMMUNITY PRACTICE IN THE UNITED STATES

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OBJECTIVES: The main objective of this study was to analyze the treatment patterns in patients with advanced NSCLC treatment in a regional community setting: The Georgia Cancer Specialists Network. **METHODS:** Patients were included in the study if they were newly diagnosed with NSCLC as of the first practice visit and diagnosed with stage III or stage IV disease between January 1, 2005 and June 2010. Patients treated with chemotherapy were followed from initial NSCLC diagnosis until death, end of study period or lost to follow up. The network's Electronic Medical Record (EMR) was used to identify chemotherapy agents and sequencing of therapy. **RESULTS:** A total of 291 patients were identified with advanced NSCLC (Stage IIIB or IV). Patients ranged in the age of 40 to 85 years with 125 females and 166 males. Of the 291 patients who received first line therapy, 122 (41.9%) were treated with Carboplatin/Paclitaxel, 45 (15.5%) with Carboplatin/Paclitaxel/Bevacizumab, 24 (8.2%) with Paclitaxel and 19 (6.5%) with Bevacizumab. Of the 125 patients who received second line therapy, 52(17.9%) were treated with Pemetrexed, 13 (4.5%) with Docetaxel and 8(2.7%) with Carboplatin/Gemcitabine. The most common therapies used in the 40 patients who received third line were Pemetrexed with 11 patients (3.8%), Docetaxel with 10 patients (3.4%), Gemcitabine with 4 patients (1.4%) and Vinorelbine with 3 patients (1%). **CONCLUSIONS:** Of these patients with advanced NSCLC, 13.7% received third line therapy after previous treatment with first and second line therapies. The majority of the agents prescribed follow NCCN guidelines. In the third line the wide variation suggests a lack of standard of care. Additional rigorous clinical effectiveness trials of drugs in third line treatment are warranted to understand the benefit in NSCLC patients.

PCN16

DESIGN AND RATIONALE OF THE MULTIPLE MYELOMA PREAMBLE STUDY: A PROSPECTIVE, NON-INTERVENTIONAL, MULTI-CENTER COHORT STUDY

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BACKGROUND: Multiple myeloma (MM) is a B cell malignancy, of fully differentiated plasma cells, and is the second most prevalent hematological malignancy (10%) after non-Hodgkin's lymphoma. Despite recent advances in the treatment options for patients with MM, it remains incurable and the vast majority of patients will relapse or become refractory to treatment. To date there is little information on real world treatment outcomes for many of existing regimens. **OBJECTIVES:** The objective of this multi-center observational study is to assess treatment outcomes of patients with relapsed or refractory MM receiving either single or combination novel therapies in real-world clinical practice. **METHODS:** This is a prospective, non-interventional, cohort study that includes patients with relapsed or refractory MM who will receive treatment for MM between 2012 and 2018 in North America and Europe. In order to reflect real-world clinical practice patterns, patients currently enrolled in clinical trials are not eligible for this study. Patients will be followed for up to three years, until death, enrollment in an investigational trial, or withdrawal of consent, whichever comes first. The primary endpoints of this real world study, include disease progression/response, progression-free survival (PFS), overall survival (OS), secondary malignancy, and occurrence of adverse events. Data on patient demographics, clinical characteristics, treatment patterns, health care resources utilization, and patient-reported outcomes (e.g., EQ-5D) will also be collected by using electronic case report throughout the study. The potential association between PFS and OS in this patient population will be also assessed. The anticipated study population across multiple geographic regions is approximately 1000 patients. **RESULTS:** Findings from this prospective, non-interventional, multiregional study will contribute to the knowledge of treatment patterns for relapsed or refractory MM in real-world clinical practice.

PCN17

CHEMOTHERAPY TREATMENT AND IMPACT OF SECOND LINE CHEMOTHERAPY ON OVERALL SURVIVAL (OS) IN METASTATIC CASTRATE RESISTANT PROSTATE CANCER (CRPC) IN SOUTHEASTERN ONCOLOGY COMMUNITY PRACTICE

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OBJECTIVES: Prostate cancer represents the 2nd most common cause of cancer mortality[1]. Clinical studies showed that chemotherapy (CT) had survival benefits for Metastatic CRPC[2-6]. This study described 1st-line and 2nd-line CT and investigated OS benefits of 2nd line CT using a real-world data. **METHODS:** The Georgia Cancer Specialist Database containing CT, medical and pharmacy information, and lab results for patients (PTs) with cancer (2005-2011) was used. PTs greater than 18 years old with initial stage IV CRPC who received one type CT protocol (PL), as first-line group, and two types of PLs, as second-line group, were followed from the first administration of CT (index date, ID) to the earlier of death or loss to follow-up. CT use was described. Kaplan-Meier survival curve was compared between first-line and second-line groups using log-rank test. The impact of second-line CT on OS was further examined using multivariate Cox model with adjustment of PTs' baseline age, race, Charlson Comorbidity Index (CCI), bisphosphonate use, and ECOG performance scores. **RESULTS:** The study included 124 PTs, with 86 (69.4%) as first-line PTs, range in age from 18-90 (median 74 years of age), 52.4% of race White, 32.3% African American, and 15.3% other or unknown race, average weight was 185LB (ranging 100-365LB), average baseline PSA 731 ng/ml (ranging 0.05-21,743ng/ml), 107(86.3%) PTs with one or more CCI comorbid conditions, 10 (8.1%) PTs with ECOG score as 3 or 4. 96 (77.4%). Docetaxel was used as first-line CT. Other first-line CT drugs were: Denosumab, vinorelbine, sipuleucel-T,mitoxantrone/Prednisone, and Cisplatin. Second-line CT drugs were: denosumab, Novantrone/Prednisone, Cabazitaxel, and Carboplatin. Median survival was 17 months for all, 14 and 19 months for first-line and second-line PTs, respectively (P=0.0654). Multivariate COX model found a higher survival for second-line PTs (HR=0.361, P=0.010). **CONCLUSIONS:** This study suggested that second-line CT was associated with prolonged OS in metastatic CRPC.

PCN18

ASSESSING THE CLINICAL AND ECONOMIC BURDEN OF VETERAN BREAST CANCER PATIENTS IN THE UNITED STATES

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OBJECTIVES: To assess the clinical and economic burden of breast cancer patients in the US veteran population. **METHODS:** A retrospective study of patients diagnosed with breast cancer between October 1, 2005 and September 30, 2010 was conducted using the Veterans Health Affairs Medical SAS Datasets. Health care resource utilization and costs were assessed in the 12-month follow-up period. Patients' demographic, clinical and discharge statuses were compared using Chi-square testing and standardized differences. Mortality and survival rates were calculated using the Kaplan and Meier method and the PROC LIFETEST procedure. **RESULTS:** In patients identified with breast cancer (n=11,719), the total mortality rates in the 12-month follow-up period were 17.04% (n=1,993), with 26.07% (n=1,192) for patients age 65 and over, 10.64% for age 40 to 64, and 20.22% (n=90) for patients under age 39. The medications most commonly prescribed 1 year after breast cancer diagnosis were sodium chloride (2.43%), anastrozole (1.61%), tamoxifen (1.23%), dextrose (1.15%) and hydrochlorothiazide (1.07%). The most commonly prescribed laboratory tests were for glucose quant (3.99%), sodium (3.88%), potassium (3.81%), creatinine (3.75%), and chloride (3.73%). The percentage of patients who had follow-up inpatient visits was 19.00%, which translated into $22,220 in inpatient costs per patient, while the percentage of patients who had follow-up emergency room (ER) visits was 18.79%, which translated into $140.53 ER costs per patient. **CONCLUSIONS:** The risk of developing breast cancer increases with age. The mortality rate is relatively low for US veteran breast cancer patients between the ages of 40 and 64, but more than doubles for patients over age 65.