OBJECTIVES: Based on evidence from the National Lung Cancer Screening Trial (NLST), the U.S. Preventive Services Task Force(USPSTF) recently recommended annual low-dose computed tomography(LDCT) screening for patients that are age 55-80, have a 30 pack-year smoking history, and currently smoke or quit within the past 15 years. Under the terms of the Affordable Care Act, participating plans must cover this screening procedure. We project the 5-year clinical, resource, and budget impact of implementing this policy. **METHODS:** We developed a forecasting model to estimate the 5-year incremental outcomes of implementing LDCT screening in accordance with USPSTF recommendations versus no screening. We considered commercial (age <65) and Medicare (age 65+) populations with 165.1 million and 51.7 million enrollees, respectively (in accordance with national insurance estimates). Age-specific lung cancer detection rates and stage at diagnosis was derived from the NLST. Included costs were LDCT screening and follow-up, confirmatory bronchoscopy/biopsy, and stage-specific treatment (initial,continuing,terminal care). We estimated lung cancers detected, LDCT scans, and the total and per-member per-month(PMPM) budget impact of covering LDCT screening, assuming 100% adherence to USPSTF recommendations in the base case. Monetary results are reported in 2013 USD and discounted at 3% per year. **RESULTS:** In commercial and Medicare plans, LDCT screening is expected to result in 84,000 and 141,000 more lung cancers detected (predominantly Stage I),22.4 million and 37.5 million more LDCT scans,and increased overall expenditure of $16.4 billion(PMPM=$1.65) and $27.4 billion(PMPM=$8.84), respectively. The most influential parameters were the proportion of "high risk" patients electing to undergo screening, the rate of screening adoption in the community, and the initial treatment cost of early-stage lung cancer. **CONCLUSIONS:** Our analysis suggests that coverage of LDCT lung cancer screening is expected to increase lung cancer diagnoses,result in a greater proportion of early-stage disease diagnoses, and substantially increase health plan expenditure, particularly in Medicare.

PCN48

COST ANALYSIS OF ADVERSE EVENTS ASSOCIATED WITH FIRST LINE TREATMENT FOR METASTATIC RENAL CELL CARCINOMA (MRCC) IN THE PERSPECTIVE OF PUBLIC AND PRIVATE HEALTH INSURANCE IN BRAZIL

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OBJECTIVES: This study analyzes the cost of adverse events associated with metastatic renal cell carcinoma (mRCC) treatments of pazopanib and sunitinib. **METHODS:** A cost analysis was performed based on the published data of the COMPARZ study. All adverse events (AEs) were identified based on the AEs reported in this study, Cost information related to the the treatment of the most frequent adverse events (>15%) in the study population (n= 1,100 individuals) were obtained. These events included in the analysis were hepatotoxicity, anemia, nausea, fatigue and diarrhea. The perspective adopted in this analysis was of the Unified Health System (SUS) and Brazilian Supplementary Healthcare (SS). For reckoning purposes, the Medication Market Regulation Chamber (CMED/ ANVISA) listed prices were used. **RESULTS:** From the perspective of the SUS, the following results are reported: nausea (sunitinib = BRL157.30 *vs* pazopanib = BRL176.49); anemia (sunitinib = BRL33.40 *vs* pazopanib = BRL14.32); fatigue (sunitinib = BRL18.00 *vs* pazopanib = BRL9.36); diarrhea (sunitinib = BRL73.09 *vs* pazopanib = BRL125.87) and hepatotoxicity (sunitinib = BRL416.18 *vs* pazopanib = BRL407.13). When considering costs incurred from private pay perspective such as SS, we observed the values were: nausea (sunitinib = BRL697.00 *vs* pazopanib = BRL782.00); anemia (sunitinib = BRL188.52 *vs* pazopanib = BRL80.79); fatigue (sunitinib = BRL163.11 *vs* pazopanib = BRL84.81) diarrhea (sunitinib = BRL248.66 *vs* pazopanib = BRL428.24) and hepatotoxicity (sunitinib = BRL2,080.90 *vs* pazopanib = BRL2,035.67). Thus, as from total estimated AE events cost, the SUS disbursed approximately BRL697.97 when the first line therapeutic option was sunitinib and BRL733.16 with pazopanib. In SS, it was paid around BRL3,378.18 and BRL3,411.51, respectively. **CONCLUSIONS:** A therapy that has less financial impact on the treatment of adverse events is the choice of sunitinib for both public (5% decrease) and private (1%) targets.

PCN49

EVALUATING COSTS AND UTILIZATION OF PROSTATE CANCER PATIENTS WITH BONE METASTASES IN THE OUTPATIENT HOSPITAL SETTING

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OBJECTIVES: A substantial proportion of prostate cancer care (PCa) is expected to be completed in the outpatient hospital setting, particularly as more hospitals systems acquire oncology practices. However, there is very limited information on practice-specific costs of care for patients receiving chemotherapeutic treatments within this unique setting. This study evaluated the cost of care for chemotherapy treatment in the outpatient hospital setting for PCa patients with bone metastases. **METHODS:** Patients in the Premier Hospital Database between January 2006 and December 2010 treated in an outpatient setting for PCa (ICD-9-CM Codes 185 and 233.4) were selected. Patients were required to be ≥40 years of age and have no additional cancers and evidence of bone metastases (ICD-9-CM code 198.5 or the use of zoledronic acid or pamidronate disodium). Costs of care per visit across cost centers were evaluated and described. **RESULTS:** There were 5,223 outpatient visits for men treated for PCa with bone metastases. The mean age of the sample was 71 years, with 64% being Caucasian. The average visit cost was $4,614. Pharmacy costs ($4,119) represent 89.2% of total visit costs, followed by professional ($190) and laboratory expenses ($77). Chemotherapy costs represented 47% of total pharmacy costs, with the most commonly specified chemotherapies being docetaxel, mitoxantrone, and carboplatin. **CONCLUSIONS:** Men treated for PCa with bone metastases treated in an outpatient setting averaged $4,614 per visit, with pharmaceutical costs representing almost 90% of care.

PCN50

CLINICAL OUTCOMES AND BUDGET IMPACT OF COBAS® EGFR MUTATION TEST VERSUS SANGER SEQUENCING IN THE TREATMENT OF LOCALLY ADVANCED OR METASTATIC NSCLC: A UNITED STATES PAYER PERSPECTIVE

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OBJECTIVES: Personalized medicine has become standard of care in directing treatment with tyrosine kinase inhibitors in locally advanced or metastatic NSCLC patients, but various testing methods for identifying EGFR mutations exist. We compared the clinical outcomes and budget impact of using the FDA-approved cobas® EGFR Mutation Test versus Sanger sequencing for identifying EGFR mutations in locally advanced or metastatic NSCLC patients from a US payer perspective. **METHODS:** A decision-tree model was developed to compare testing methodologies and resulting treatment pathways in a hypothetical NSCLC US population health plan with 5 million covered lives and a baseline EGFR mutation prevalence of 16.6%. Model inputs included parameters describing mutation testing accuracy treatment response (EGFR inhibitor, standard chemo therapy or best supportive care). Inputs were based on published literature and Medicare fee schedule reimbursement. Outcomes of the model included patients with test failures (based on detection limits of testing), average patient survival time and budget impact. **RESULTS:** Patients whose samples were tested with the cobas® EGFR Mutation Test were less likely to experience test failures due to unusable tissue samples compared to Sanger sequencing (6 test failures versus 57, respectively). Patients using the cobas® EGFR mutations testing received more appropriate care compared to Sanger sequencing (90% vs 82%, respectively), resulting in an average total survival increase of 0.6 months. Costs associated with diagnostic testing were $24,562 less than testing with Sanger sequencing, resulting in similar overall costs per member per month ($0.56). **CONCLUSIONS:** Performing EGFR mutation testing with the cobas® EGFR Mutation Test has advantages from both patient outcomes and payer budget impact perspectives. By correctly identifying more patients for proper treatment with less test failures, the cobas® EGFR Mutation Test is a cost-effective strategy for identification of EGFR mutations in locally advanced or metastatic NSCLC patients from a US payer perspective.

PCN51

A CANADIAN COST IMPACT ANALYSIS COMPARING MAINTENANCE THERAPY WITH BORTEZOMIB VERSUS LENALIDOMIDE IN MULTIPLE MYELOMA PATIENTS INELIGIBLE FOR STEM CELL TRANSPLANT

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OBJECTIVES: Approximately 7,000 Canadians have multiple myeloma (MM). Without effective treatment, patients can suffer from a constellation of disease-related symptoms that significantly reduce quality of life and survival. Management of stem cell transplant (SCT) ineligible MM patients is complex and varied. Maintenance therapies (MTs) after various induction regimens have been shown to improve response rate and progression-free survival. We sought to compare Canadian costs between two common approaches to MT, either bortezomib or lenalidomide, in MM patients ineligible for SCT. **METHODS:** The total annual drug cost of the two MT options were calculated and compared. Costs were based on 1.3mg/m^2 of bortezomib on days 1, 4, 8, 11 every three months, plus 50 mg of prednisone every other day, or 10 mg of lenalidomide on days 1 through 21 of each 28-day cycle. Administration costs including oncology nursing time and pharmacist workload, and pharmacy costs including a 10% markup and dispensing fees were added to the acquisition cost of bortezomib and lenalidomide, respectively. Unit and labour costs were obtained from public Canadian sources. Additional analyses were conducted to consider the impact of several variables including the management of adverse events, treatment duration and alternate costing assumptions. **RESULTS:** The total annual costs of treatment per patient were $20,106, and $108,741 for bortezomib and lenalidomide, respectively. The incremental differences were robust to changes in inputs and assumptions (to be presented in poster). **CONCLUSIONS:** The results of this analysis suggest that substantial savings were associated with bortezomib MT when compared with lenalidomide MT. As drug costs represent an increasing proportion of public spending in Canada, it is important to consider both efficacy and cost of treatment. Further studies are required to determine the complete cost-benefit of available MTs.

PCN52

CLINICAL AND ECONOMIC BURDEN ASSOCIATED WITH ANASTOMOTIC LEAK AFTER COLORECTAL SURGERIES IN THE UNITED KINGDOM

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OBJECTIVES: In the UK, anastomotic leak rate after colorectal surgeries has been reported up to 19%. Yet, clinical and economic consequences of anastomotic leak have not been clearly articulated. Our study aims to estimate the clinical/economic burden of anastomotic leak following colorectal surgeries in the UK. **METHODS:** The Hospital Episode Statistics database was used to identify English National Health Service Trust adult patients undergoing colorectal surgeries between January 2007 and December 2011. Anastomotic leak was identified by re-intervention/diagnosis codes within a 30-day window following colorectal surgery, including re-operation, re-anastomosis, stent, colostomy, image guided drainage, washout procedure, abscess/drainage and diagnosis of generalized (acute) peritonitis. Hospital costs were calculated using Healthcare Resource Group and Department of Health reference index costs. Differences in outcomes between groups were compared using a propensity score matching approach, adjusting for age, gender, admission method, surgery type, comorbidity and medical stabilization. **RESULTS:** A total of 131,689 patients received colorectal surgeries (mean age: 65.2±15.4, male: 50.4%). The rate