OCCURRENCE AND 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. The LCx scission-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 percentage of 16.6%. The model included costs describing mutation testing, accuracy and 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 results and treatment costs.

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 vs 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 $24,538 less with Sanger sequencing, resulting in similar overall costs per member per month ($50.56).

CONCLUSIONS: Performing EGFR mutation testing with the cobas® EGFR Mutation Test has advantages from both patient outcomes and 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.

NCN51
A CANADIAN COST IMPACT ANALYSIS COMPARING MAINTENANCE THERAPY WITH ZOLÉDRONIC ACID OR PAMIDRONATE DISODIUM 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 total 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 mg/m² 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 and nursing costs only. All costs were in Canadian dollars. Additional analyses were conducted to consider the impact of several variables including the management of adverse events, treatment duration and alternate cost assumptions. RESULTS: The total annual costs of treatment per patient were $50,106, 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 associated with colorectal anastomotic leaks in the UK. The Hospital Episode Statistics database was used to identify English National Health Service Trust adult patients undergoing colorectal surgeries between January 2007 and October 2010. Anastomotic leak was identified using ICD-10 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 estimated using Healthcare Resource Group and Department of Health reference costs. Distributions of costs and treatment 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 ± 15.4, male: 50.4%). The rate