from peer reviewed literature. A multivariate sensitivity analysis using a Monte Carlo simulation was conducted to ensure scientific rigour. RESULTS: VATS lobectomies are associated with higher procedural costs, but this is offset by a shorter length of stay and a lower postoperative complication rate. The model establishes that for a Canadian hospital performing 50 lobectomies increasing the proportion of VATS cases from 25% to 75% allows for a potential $256,661.01 in annual savings. CONCLUSIONS: In a Canadian hospital, VATS lobectomy is a more cost-effective procedure than open lobectomy for early stage lung cancer.

PCN36 ESTIMATING THE ECONOMIC IMPACT OF RADIONUclide Ra 223 DICHLORIDE (RADIUM-223) IN TREATMENT OF CASTRATION-RESISTANT PROSTATE CANCER (CRPC) WITH SYMPTOMATIC BONE METASTASES AND NO KNOWN VISCERAL METASTATIC DISEASE Valertana A., Bilis SP, Wehrer EA, Seal BS, Wen L, Yaldo A, Mukunaka J

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OBJECTIVES: Radium-23, an intravenously injected radioactive agent, is a new therapeutic option for CRPC patients with symptomatic bone metastases and no known visceral disease. This budget impact model (BIM) was developed to estimate the economic impact of adding radium-223 to current treatment options in this population. METHODS: An Excel-based BIM evaluated costs of treating CRPC with symptomatic bone metastases and no known visceral metastatic disease with available treatment options (chemotherapies, radionuclides, and oral antiandrogens) in a health plan with and without radium-223. One-year incremental costs were estimated for a hypothetical health plan with 1 million members. The prevalence of metastatic CRPC (mCRPC) patients was obtained from the national registry and published literature. Cost of therapy was obtained from Medicare average sales prices (ASP). Assumptions of outpatient settings and Medicare (mCRPC) was estimated to be 12,139. Of those patients 82.5% were estimated to have metastatic disease.

The estimated one-year cost for treating these patients without crizotinib was estimated to be $205,874,409. In the scenario including crizotinib, 154 patients (market uptake of 20%) were treated, resulting in an estimated one-year cost of $224,651,145. The incremental total cost between these scenarios was $18,776,736 while the incremental costs per ALK+ patient and per member per month (PMPM) was $221 and $4 respectively. These results were robust under standard uncertainty and sensitivity analyses. RESULTS: The budgetary impact of using OChem for the eligible patients was calculated. Only acquisition costs were taken into account. We analyzed two scenarios: one with a total substitution of metastatic OChem for when OChem treatment was less expensive than OChem and another, using a “worst case scenario” approach, were OChem was used only in cases where it added costs. RESULTS: During the one-year period, 2,104 patients that received intravenous chemotherapy also had formal indication to receive OChem. If OChem had been used in a rational protocol-based manner, there would have been an economy of $0.10 (USD 0.42) per HIC user per month. In the worst-case scenario, the incremental cost would be an additional $0.39 (USD 0.16) per HIC user per month. CONCLUSIONS: The budgetary impact second to OChem adoption may vary from decreasing costs to increasing them, depending on how they are used and to which patient they are prescribed. HIC should pay close attention to the profile of use of OChem in order to avoid unnecessary costs.

PCN39 BUDGETARY IMPACT OF ORAL CHEMOTHERAPY IN BRAZIL: A REAL WORLD DATA ANALYSIS FROM THE PRIVATE PAYERS’ PERSPECTIVE

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OBJECTIVES: In Brazil, health insurance companies (HIC) must, according to the law, offer coverage for intravenous (IVChem) antineoplastic drugs. The obligation to pay for chemotherapy allows for comparison of incremental costs associated with the incremental costs and budgetary impact of the incorporation of OChem, using real world data, from the private payers’ perspective. METHODS: During one year (Jun 2011-Jun 2012), we prospectively collected data on chemotherapy use in 25 HIC, with a population of 3 million people from different regions in Brazil. First we calculated the costs of IVChem actually used. After that, we identified which patients would have formal indication for OChem either as a substitution treatment or in association with IVChem (IVChem + OChem). For the patients associated OChem, the incremental total cost between these scenarios was $18,776,736 while the incremental costs per ALK+ patient and per member per month (PMPM) was $221 and $4 respectively. These results were robust under standard uncertainty and sensitivity analyses.

PCN40 BUDGET IMPACT OF ALBUMIN-BOUND PACLITAXEL + GEMCITABINE IN THE TREATMENT OF METASTATIC PANCREATIC CANCER

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OBJECTIVES: In a Phase III clinical trial (Von Hoff, NEJM 2013) albumin-bound paclitaxel (nab-P) plus gemcitabine (nab-G) significantly improved median overall survival (OS) in first-line metastatic pancreatic cancer (1LmPanc) patients versus gemcitabine (G) alone (8.7 vs. 6.4 months, hazard ratio 0.72, P<0.001). The objective of this analysis is to estimate the budget impact of adding nab-G/P for 1LmPanc treatment at a US health plan. METHODS: A budget impact model was built to estimate 1LmPanc costs for nab-G/P, G + Gemcitabine (G), Other G combinations (OG), and FOLFIRINOX (F), from a US health plan perspective in 2013 US dollars. Inputs for drug, administration, G-CSF, and adverse events were derived from prescribing information, publications, Medicare reimbursement rates, and other public sources. Sensitivity analysis assessed mixes and elderly populations.

RESULTS: A 1,000,000-member health plan mirroring the US population age mix would have 70 patients with 1LmPanc annually. The model assumed equal proportions of G, EG, and F (25% of patients each) at baseline, and equal use (20% each) after nab-G/P 1LmPanc approval. Total cost of therapy costs were $2,634, EC $22,555, OG $0,840, F $39,417. Baseline total MPPM costs were $1.3 million, or $0.11 per member per month (PMPM). Adding nab-G/P at $29,096 per course of therapy added $42,610, or $0.01 PMPM, to the baseline. In a sensitivity analysis with 50% of patients using nab-G/P, incremental cost was $0.03 PMPM. For a health plan population age 65-79, baseline cost of $40 PMPM rose $0.05 PMPM for 1LmPanc. Adding only 70% of 1LmPanc patients received drug, costs from nab-G/P rose $0.01 from $0.08 PMPM at baseline.

CONCLUSIONS: The budget impact of adding albumin-bound paclitaxel plus gemcitabine for a US health plan’s first-line metastatic pancreatic cancer patients was estimated at $0.01 PMPM, the impact was consistent across several sensitivity analyses.

PCN41 BURDEN OF DISEASE ATTRIBUTABLE TO SMOKING IN COLOMBIA

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OBJECTIVES: Smoking is a major risk factor for cancers, cardiovascular disease, and chronic respiratory disease. To estimate the burden of disease attributable to smoking in Colombia, we developed two separate scenarios from a payer’s perspective. The model compared scenarios with and without crizotinib in the crizotinib scenario all patients testing positive for the ALK mutation were given crizotinib. Comparators were platin-containing regimens (ex pemetrexed, platni/peumetrex, erlotinib/gefitinib, and carboplatin/vinorelbine). Initial costs and drug costs were informed through ten local physician questionnaires and published literature. The survey was administered to oncologists in six different private and public settings of varying size across the country. Costs are in 2012 USD ($1 USD = 5.88 ARS).

RESULTS: Considering the population of Argentina (42,610,981) and applying age based incidence rates, the number of lung cancer patients was estimated to be 12,139. Of those patients 62.5% were estimated to be have metastatic NSCLC (M-NSCLC), and 74% were likely to receive OSCT. In our model.

Objectives: The 1-year budget impact of covering the 14-gene RS assay was estimated at $0.01 PMPM; the impact on health plan age mix would have 70 patients with 1LmPanc annually. The model assumed equal proportions of G, EG, and F (25% of patients each) at baseline, and equal use (20% each) after nab-G/P 1LmPanc approval. Total cost of therapy costs were $2,634, EC $22,555, OG $0,840, F $39,417. Baseline total MPPM costs were $1.3 million, or $0.11 per member per month (PMPM). Adding nab-G/P at $29,096 per course of therapy added $42,610, or $0.01 PMPM, to the baseline. In a sensitivity analysis with 50% of patients using nab-G/P, incremental cost was $0.03 PMPM. For a health plan population age 65-79, baseline cost of $40 PMPM rose $0.05 PMPM for 1LmPanc. Adding only 70% of 1LmPanc patients received drug, costs from nab-G/P rose $0.01 from $0.08 PMPM at baseline.

CONCLUSIONS: The budget impact of adding albumin-bound paclitaxel plus gemcitabine for a US health plan’s first-line metastatic pancreatic cancer patients was estimated at $0.01 PMPM, the impact was consistent across several sensitivity analyses.