dominated vemurafenib. For sensitivity analysis, 95% of the variance was accounted for by high state utilities of cost of dabrafenib. CONCLUSIONS: Dabrafenib is the most cost-effective treatment for metastatic melanoma in patients with BRAFV600E mutation given our assumptions. Given the similar QALYs and side effects profile of dabrafenib and vemurafenib, but higher drug cost of vemurafenib, a 25% price reduction of vemurafenib into the model was not cost-effective. An insignificant decrease of 63% in utility of progression on dabrafenib or a minimum decrease of 28% for utility of stable disease on dabrafenib is needed to make vemurafenib the most cost-effective option.

PCN96
COST-EFFECTIVENESS OF AFANIB, ERLOTINIB, AND CISPLATIN/PEMETREXED FOR FIRST-LINE TREATMENT OF METASTATIC EGFR-MUTATION POSITIVE NON- SMALL CELL LUNG CANCER

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OBJECTIVES: To evaluate the cost-effectiveness of afatinib, erlotinib, and cisplatin/pemetrexed chemotherapy, for first-line treatment of metastatic EGFR-mutation positive non-small cell lung cancer (NSCLC). METHODS: A Markov model simulated the lifetime progression of EGFR-mutation positive stage IIIB/ IV NSCLC patients, under each treatment option, from an US societal perspective. Probabilities, survival rates and health utilities were obtained from clinical trials (LUX-1, LUX-2, EURTAC and OPTIMAL) and published literature. Progression-free and overall survival in the erlotinib trial were adjusted up to account for differences in poorer ECOG performance status compared to the afatinib trial. Costs included drug costs and side effect-related costs. Results: Cisplatin/pemetrexed was the most cost-effective strategy. Sensitivity analyses were run to test the impact of uncertainties. CONCLUSIONS: As afatinib and erlotinib are not approved in the US, this model without US data assessment is a rare disease compared with erlotinib had an ICER over the WTP threshold (ICER=$542,745/QALYS), with erlotinib remaining the cost-effective option. Afatinib becomes more cost-effective than erlotinib when its monthly drug cost decreased from $5,648 to below $3,802. CONCLUSIONS: Based on our analyses, we recommend erlotinib as the most cost-effective first-line treatment for EGFR-mutation positive NSCLC. Given the potentially similar relative efficacy between afatinib and erlotinib in the clinical development of afatinib, erlotinib would potentially have a cost-effectiveness advantage over afatinib in the presence of differences in drug and side-effect costs. Thus, afatinib may need to earn its share of the NSCLC market space with more competitive pricing.

PCN97
COST-EFFECTIVENESS OF ARSENIC TRIOXIDE IN THE TREATMENT OF RELAPSED/REFRACTORY ACUTE PROMYELOCYTIC LEUKEMIA IN CANADA

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OBJECTIVES: Acute promyelocytic leukemia (APL) constitutes a rare disease characterized by a high mortality rate at early stage of treatment. Current first-line treatments consist of all-trans retinoic acid (ATRA), anthracyclines and conventional chemotherapy (CT). Although APL has currently a good prognosis, 20% to 30% of patients may not achieve remission with these regimens, and ATRA is used as a treat- ment previously administrated. The objective of this study was to assess, from a Canadian perspective, the economic impact of arsenic trioxide (ATO) compared to ATRA+CT in the treatment of relapsed/refractory APL. METHODS: The cost-effectiveness of ATO compared to ATRA+CT in the treatment of relapsed/refractory APL was assessed over a lifetime horizon using a time-dependent Markov model. The model comprises five health states: induction, second remission, treatment failure or relapse, post-failure, and death. The length of each Markov cycle was one month for the first 24 months and one year thereafter. All patients started in the induction state and could move to other health states thereafter, according to the respective efficacy of each treatment. The model also takes into account the incidence of grade 3-4 adverse events reported in clinical trials. Utility or disutility values associated with each health state and adverse events were used to estimate the number of QALYS associated with each treatment. Analyses were conducted from both a Canadian Ministry of Health (MoH) and a societal perspective. RESULTS: Compared with ATRA+CT, ATO was associated with incremental cost-effectiveness ratios of $18,380/QALY from a MoH perspective and $20,156/QALYS from a societal perspec- tive. Results of the probabilistic sensitivity analysis indicated that ATO remains a cost-effective strategy in 99.96% and 92.45% of the simulations, from a MoH and a societal perspective, respectively. CONCLUSIONS: This economic evaluation sug- gests that arsenic trioxide as a rescue strategy compared to ATRA+CT in the treatment of relapsed/refractory APL in Canada.

PCN98
COST-EFFECTIVENESS ANALYSIS OF INHIBITION IN HEMATOLOGIC MALIGNANCIES

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OBJECTIVES: To examine the costs of hematologic malignancies (HM) in relation to survival gains in Medicare beneficiaries. METHODS: Using the Surveillance, Epidemiology, and End Results (SEER)-Medicare data, we identified 9,721