dominated vemurafenib. For sensitivity analysis, 95% of the variance was accounted for by health state utilities and 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 for vemurafenib into the model without any additional decrease in utility, results in a 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-EFFICACY ANALYSIS OF AFANITIN, 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/peemetrexed 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 a US societal perspective. Probabilities, survival rates and health utilities were obtained from clinical trials (LUX-3, LUX-6, 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 including medication, hospital and side effects expected were calculated. The QALYS were calculated. The impact of varying parameters on model outcomes was examined using probabilistic sensitivity analyses. RESULTS: In the base-case model, treatment with afatinib was less expensive, with lifetime cost of $38,406, followed by cisplatin/peemetrexed ($40,714), and erlotinib ($41,344). Survival was highest with erlotinib (5.7 quality-adjusted-life-months saved [QALMS], followed by afatinib (4.0 QALMS), and cisplatin/peemetrexed (2.5 QALMS). Compared to erlotinib, afatinib had lower monthly drug costs ($5,648 versus $5,853), but higher overall side effects costs ($3,669 versus $1,690). Cisplatin/peemetrexed was dominated by afatinib. Erlotinib was cost-effective compared with afatinib (ICER=$427,755/QALYS). In a model without side effects assessed, 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 $5,300. 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 practice, our model results are likely applicable to the majority of patients on differences in drug and side-effects costs. Thus, afatinib may need to earn its share of the NSCLC market space with more competitive pricing.

PCN97

COST-EFFICACY OF AURES TROPICIN IN THE TREATMENT OF RELAPSED/REFRACTORY ACUTE PROMYELOCYTIC LYMPHOMA LEUKEMIA IN CANADA

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OBJECTIVES: To evaluate the costs of hematologic malignancies (HMs) in relation to survival, 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 stage and could move to other health state 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/QALY from a societal perspective. The probabilities of survival at 2 years were 72.6% and 72.3% for ATO and ATRA+CT, respectively. CONCLUSIONS: This economic evaluation suggests that the cost-effectiveness of ATO compared to ATRA+CT in the treatment of relapsed/refractory APL in Canada 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. Within the constraints of our model, our analyses suggest that Cyclophosphamide/G-CSF is a reasonable stem cell mobilization strategy in patients with myeloma requiring an ASCT, balancing costs and successful mobilization.

PCN98

COST-EFFICACY ANALYSIS OF INHOMOGEOUS MALIGNANCIES

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