Conducted to test the robustness of the model. RESULTS: The base-case ICER was $404k/QALY for abiraterone, $585k/QALY for sipuleucel-T, and $311k/QALY for prednisone. The base-case ICER was $388k/QALY for abiraterone, $547k/QALY for sipuleucel-T. Prednisone dominates both abiraterone and sipuleucel-T in terms of NMB at WTP thresholds of $400k. At WTP thresholds of $275k, sipuleucel-T dominates abiraterone for (yearly) survival and utility inputs. Probabilistic sensitivity analyses showed abiraterone to be cost-effective > 50% of the time at a WTP of $800k and sipuleucel-T was cost-effective > 50% of the time at a WTP of $270k. CONCLUSIONS: Neither abiraterone nor sipuleucel-T was found to be cost-effective compared to prednisone in the treatment of asymptomatic, pre-metastatic melanoma.

PCN88 A NOVEL COLORECTAL CANCER MODEL WITH SESSILE SERRATED ADENOMA PATHWAY TO EVALUATE THE COST-EFFECTIVENESS OF VARIOUS SCREENING STRATEGIES

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OBJECTIVES: Sessile serrated adenoma (SSA) was recently recognized as a separate pathway that accounts for 10-35% of colorectal cancers (CRCs). Current CRC screening tests exhibit inferior performance detecting SSAs as compared to other lesion types. Most existing CRC models do not include the SSA pathway; thus, the cost-effectiveness of CRC screening in the face of inferior SSA detection remains uncertain. We developed a novel CRC model that incorporates the SSA pathway to evaluate the cost-effectiveness of various screening strategies. METHODS: We conducted a modelling study in a simulation of a 100,000 individual cohort aged 50 to 75 that were representative of the general US population. We investigated several CRC screening strategies within this cohort: colonoscopy every ten years (Q10 COLO), colonoscopy every two years (Q2 FIT, Q2 FIT+ FIT3), and a hybrid strategy of colonoscopy every ten years with FIT one, two, or three years after negative colonoscopy (COLO/FIT 1, COLO/FIT 2, COLO/FIT 3). The model outcomes included: QALYs gained with trametinib compared with dacarbazine and vemurafenib. The model utilized a resource utilization database from physician survey results, drug costs from the manufacturers' price and Quebec medications lists, and other costs from published sources. Consistent with a prior evaluation of vemurafenib, a 5-year time horizon was used. Costs and QOLs were discounted at 3% per year.

RESULTS: We conducted from both a Canadian Ministry of Health (MoH) and a societal perspective.

CONCLUSIONS: In patients with BRAF V600+ advanced or metastatic melanoma, 1L treatment with trametinib may not be cost-effective vs. dacarbazine but may be cost-effective vs. vemurafenib. There is uncertainty in the vemurafenib comparison given the lack of head-to-head data.

PCN91 COST-EFFECTIVENESS OF ARSENIC TRIOXIDE + ALL-TRANS RETINOIC ACID COMPARED WITH ALL-TRANS RETINOIC ACID + IDARUBICIN IN THE TREATMENT OF NEWLY DIAGNOSED ACUTE PROMYELOCYTIC LYMPHOMA LEUKEMIA IN CANADA

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OBJECTIVES: Acute promyelocytic leukemia (APL) is rare and is a variant of acute myeloid leukemia and is characterized by a high early mortality rate. Although current treatments (all-trans retinoic acid (ATRA), anthracyclines, including idarubicin, IDA, and conventional chemotherapy) are associated with high remission rates, APL mortality remains in the management of newly diagnosed APL. The objective of this study was to assess, from a Canadian perspective, the economic impact of arsenic trioxide (ATO) + ATRA compared to ATRA + IDA in the treatment of newly diagnosed APL. METHODS: The cost-effectiveness of ATO + ATRA compared to ATRA + IDA in the treatment of newly diagnosed APL was assessed over a lifetime horizon using a time-dependent Markov model. The model comprises four health states: complete remission, treatment failure or death, post-failure, and death. The length of each Markov cycle was one month for the first 48 months and one year thereafter. All patients started in the complete remission 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 adverse events reported in a head-to-head trial. Utility or disutility values associated with each health state and adverse events were estimated to be 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 + IDA, ATRA + ATO is associated with ICERs of $84,092/QALY and $80,946/QALY, from a MoH and societal perspective respectively. Sensitivity analyses indicated that ATO remains in the management of newly diagnosed APL.

CONCLUSIONS: This economic evaluation suggests that ATO + ATRA can be considered a cost-effective option for the first-line treatment of newly diagnosed APL patients.

PCN92 PARTIALLY COVERED SELF-EXPANDABLE METAL STENTS ARE MORE COST-EFFECTIVE WHEN COMPARED TO PLASTIC STENTS FOR PATIENTS WITH DISTAL MALIGNANT BILIARY OBSTRUCTION

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OBJECTIVES: Partially covered self-expandable metal stents (SEMS) and polyethylene terephthalate-phenol (PTFE) stents are commonly used for distal malignant biliary obstruction. SEMS are more efficacious yet expensive than PES. The cost-effectiveness of both stents using contemporary estimates was assessed. METHODS: A decision tree comparing initial palliative placement of PES versus SEMS was constructed for patients with distal malignant biliary obstruction requiring palliation with one-year follow-up. Patients underwent an endoscopic retrograde cholangiopancreatography (ERCP) to insert the initial stent, and were followed by a gastroenterologist every 3 months. If the insertion failed, a percutaneous transhepatic cholangiogram was performed. If stent occlusion occurred, a PES was then inserted at repeat ERCP, either in an outpatient setting, or after admission to hospital if cholangitis was present. Effectiveness was expressed as the number of days between the insertion and an event measured in US dollars. Probabilities were derived from a recent published randomized clinical trial. RESULTS: A PES-first strategy was dominated by a SEMS-first approach. The total cost was $6,541/QALY for SEMS and $19,054 for initial PES, associated with respective effectiveness probabilities of 65.6% and 13.9% (likelihood of experiencing no occlusion over 12 months). Sensitivity analyses confirmed the robustness of these results. They are however limited by the randomized trial which compared SEMS to PES, and the cost and effectiveness were derived, with regards to sample size and generalizability.

CONCLUSIONS: At the time of initial endoscopic drainage for patients with malignant biliary obstruction undergoing palliative stenting, an initial SEMS approach is both more effective and less costly than a PES-first strategy, regardless of anticipated survival or cost setting.

PCN90 COST-EFFECTIVENESS OF TRAMETINIB AS FIRST-LINE (1L) TREATMENT FOR BRAF V600 POSITIVE ADVANCED OR METASTATIC MELANOMA — A CANADIAN SOCIETAL PERSPECTIVE

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OBJECTIVES: The METRIC trial demonstrated clinical benefits of trametinib vs chemotherapy (dacarbazine or paclitaxel) in patients with BRAF V600+ advanced or metastatic melanoma overall, and in a subgroup receiving 1L treatment. We evaluated the cost-effectiveness of trametinib as a 1L treatment vs. approved treatments (dacarbazine and vemurafenib) in Canada from a societal perspective.

METHODS: Cost-effectiveness analyses were conducted from a societal perspective with a decision tree model. Resource utilization costs were derived from physician survey results, drug costs from the manufacturers’ price and Quebec medications lists, and other costs from published sources. Consistent with a prior evaluation of vemurafenib, a 5-year time horizon was used. Costs and QOLs were discounted at 3% per year.