conducted to test the robustness of the model. RESULTS: The base-case ACR was $600k/QLY for abiraterone, $85k/QLY for sipuleucel-T, and $113k/QLY for prednisone. The base-case ICER was $389k/QLY for abiraterone, $647k/QLY 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 for transthyretin and ACRs revealed that the model was most sensitive to overall survival and utility inputs. Probabilistic sensitivity analyses showed abiraterone to be cost-effective > 50% of the time at a WTP of > $500k, while 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-malignant melanoma.

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

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OBJECTIVES: 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 modeled a cohort of 500,000 simulated individuals 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 (Q1 COLO), every five years (Q5 COLO), FIT every one, two, or three years (Q1 FIT, Q2 FIT or Q3 FIT); 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). These outcomes were compared with a base case of no screening and an adjusted life-year (QALY), and incremental cost-effectiveness ratio (ICER) per QALY. We assumed full screening compliance. All economic outcomes were discounted at 3% per year. RESULTS: All screening strategies were cost saving compared to no screening. The effective hybrid strategy reduced cancer incidence the most (59% compared to no screening) and gained the most QALYs compared to no screening (15,200 QALYs for every 100,000 people). Compared with the standard Q10 COLO strategy, COLO/FIT hybrid strategies produced ICERs of approximately $3,300 per QALY. CONCLUSIONS: Despite the comparatively poor performance of colonoscopy and FIT in detecting SSAs, our simulation results suggested that CRC screening would save costs and increase QALYs. Hybrid screening strategies with colonoscopy and FIT were cost-effective compared to screening with colonoscopy alone.

PCN89 COST-EFFECTIVENESS ANALYSIS OF BENDAMUSTINE-RITUXIMAB TREATMENT COMPARED WITH FLUDARABINE-RITUXIMAB TREATMENT, IN PATIENTS WITH INDOLENT NON-HODGKIN’S LYMPHOMA IN PAKISTAN

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OBJECTIVES: Indolent non-Hodgkin’s lymphoma (NHL) is a rare variant of acute myeloid leukemia and is characterized by a high early mortality rate. Although current treatments (all-trans retinoid acid (ATRA), anthracyclines, including daunorubicin, IDA, and conventional chemotherapy) are associated with high remission rates, they result in disease recurrence in the majority of patients even 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 due to disease progression, post-remission 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 used to estimate the number of QALYs associated with each treatment. Analyses were conducted from both a Canadian Health System (MoH) and a societal perspective.

RESULTS: Compared with ATRA + IDA, ATRA + ATO is associated with ICERS of $84,922/QALY and $60,946/QALY, from a MoH and societal perspective respectively. Sensitivity analysis indicated that the ICER remains below $100,000 in 99.82% and 99.98% of the simulations from a MoH and a societal perspective respectively.

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 (PET) stents (PES) 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 1-year survival, estimated using contemporary estimates to be 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 base-case incremental cost was $6,541, with incremental SEMS and $19,054 USD 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 where SEMS and PES were driven, with respect 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.