adjusted life years (QALYs), and incremental cost-effectiveness ratio (ICER) was calculated. As Japanese Ministry of Health, Labour and Welfare has not yet approved abiraterone due to the delay in development, the drug cost was estimated based on prices in four other countries. In the present study, resource use was estimated using a Japanese claim data set with 2000 claim data of prostate cancer patients from 2005 to 2008. Cost-effectiveness analysis was performed probabilistic sensitivity analysis, which is based on a 2% annual rate. RESULTS: The result of this study revealed that abiraterone plus prednisolone indicated higher QALYs than prednisolone alone. In the base-case analysis, ICER for abiraterone plus prednisolone was roughly EUR 120,000 per QALY gained. One-way sensitivity analysis for the price of abiraterone influenced ICER (JPY 12.5 - 21 million). CONCLUSIONS: The present study suggested that the ICER is more than JPY 10 million. Further detailed discussion on cost-effectiveness of abiraterone in Japan is needed to consider the Japanese price and clinical outcomes.

PCN104
USE OF PSA SLOPE TO GUIDE ADJUVANT RADIOThERAPY IN POST-PROSTATECTOMY PROSTATE CANCER HAS POTENTIAL TO BE COST EFFECTIVE
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OBJECTIVES: Nabla ProVase is a prognostic system developed to identify men at lower risk for clinical recurrence of prostate cancer following radical prostatectomy, as indicated by a prostate-specific antigen (PSA) slope < 2 pg/mL/month. We evaluated the potential cost-effectiveness of using the prognostic system to guide adjuvant radiotherapy (ART) in men considered to be at intermediate- or high-risk for recurrence on the CAPRA-S12 prognostic model.

METHODS: We developed a decision analytic model consisting of a decision tree to stratify men into risk groups and a state transition model to generate long-term costs and outcomes. We derived transition probabilities to estimate patient-level data from the study’s PSMA registration study, the medical literature and other sources. We conducted probabilistic, one-way and two-way sensitivity analyses to examine the cost-effectiveness of the treatment strategies across risk groups (eg, stratified by a slope findings).

RESULTS: The cost-effectiveness of a PSA slope-guided strategy varied widely due to small differences in QALYs at 10 years. Assuming that 20% of men in the intermediate-risk CAPRA-S group receive ART with standard care, the incremental cost-effectiveness ratio (ICER) is less than 50,000 per QALY when use of ART is less than 8.2% among men with PSA slopes < 2 pg/mL/month. Assuming that 40% in the high-risk CAPRA-S group receive ART with standard care, ART would have to decrease to at least 11.5% among men with PSA slopes < 2 pg/mL/month to achieve an ICER < 50,000 per QALY. ICERS were also sensitive to the varying of the prognostic system and ART, varying the benefits of salvage therapy and utility weights for ART toxicities.

CONCLUSIONS: The ProVase system has the potential to provide a cost-effective, clinically meaningful strategy to reduce the incidence of detected cancer, while in the 60-69 the ICER was $255,636. The ICER was sensitive to the lower limit of the range of 1st-line survival, treatment duration, and product acquisition costs.

PCN105
COST-EFFECTIVENESS OF CETUXIMAB AS FIRST-LINE TREATMENT FOR METASTATIC COLORECTAL CANCER IN THE UNITED STATES
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OBJECTIVES: To evaluate the clinical and economic tradeoffs associated with FOLFOX or FOLFIRI over bevacizumab or oxaliplatin monotherapy in the first-line treatment setting for patients with colorectal cancer (CRC) to detect relatives with Lynch syndrome.

METHODS: A decision tree with a time horizon of 30 days is built under the comparison of a scenario an analysis incorporating a base case analysis and two sensitivity analyses. The first will type (WT) metastatic colorectal cancer (mCRC) patients, through a cost-effectiveness analysis incorporating Phase III FIRE3 clinical trial data. METHODS: A deterministic model was developed that included a population-based model of the US population and costs of FOLFIRI used with either cetuximab or bevacizumab. An a priori cohort of 1st-line patients faced risks of adverse events, progression to 2nd-line treatment, or eligibility for curative liver resection. Clinical trial data, published literature, and publicly available databases were used to estimate model inputs. Incremental cost-effectiveness ratios (ICERs) were calculated as 2013 US$ per life year (LY) and per quality-adjusted life year (QALY). We conducted a scenario analysis to analyze the subset of RAS WT patients. The impact of parameter uncertainty was also evaluated with one-way and probabilistic sensitivity analyses.

RESULTS: Compared with 1st-line bevacizumab KRAS WT patients, those treated with cetuximab gained an additional 5.7 months of life (42.9 vs. 17.2) at a cost of $46,303 ($280,933 vs. $224,632), for an ICER of $97,297/1LY ($122,704)/QALY. The benefits of cetuximab were also greater for RAS WT patients for whom the ICER was $77,380/1LY ($99,636)/QALY. Treatment with cetuximab would be cost effective 53.6% of the time, given a willingness to pay threshold of $100,000/1LY. Results were most sensitive to changes in 1st-line survival, treatment duration, and product acquisition costs. CONCLUSIONS: Treatment with cetuximab + FOLFIRI in 1st-line mCRC patients may improve health outcomes and use financial resources more efficiently than bevacizumab + FOLFIRI, given current societal standards. This information can be useful to clinicians, payers, and policy makers in making treatment and resource allocation decisions for KRAS WT and RAS WT mCRC patients.

PCN106
COST-EFFECTIVENESS OF PROPHYLACTIC USE OF FLIGRISTIM IN ADULTS WITH ACUTE LEUKEMIA LYMPHOLASTIC COLONIA
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OBJECTIVES: To determine the cost-effectiveness of prophylactic administration of Fligrastim compared with no use, during the induction phase of chemotherapy in adults with Acute Lymphoblastic Leukemia (ALL) in the Colombian context.

METHODS: A decision tree with a time horizon of 30 days is built under the third-party payer perspective including only direct costs. The costs of procedures and medications were taken from official sources and an institution of national recognition. One-way sensitivity analysis was performed from the literature and two Colombian cohorts (one retrospective and one prospective) with patients older than 15 years. The unit of outcome was the proportion of deaths averted. The incremental cost-effectiveness ratio (ICER) was calculated, univariate and probabilistic sensitivity analysis was performed. Model results indicate that under the scenario of a clinical trial not using factor was a dominated alternative (ICER of - 61,753,681 COP per death averted). In contrast, using data from the clinical trial, cetuximab was the dominated strategy (ICER of - 141,612,602 COP for retrospective cohort and prospective cohort -215,449,438 COP). The variable that most impacted the outcome was the incidence of febrile neutropenia (12% for the clinical trial, 60% retrospective cohort and 83% prospective cohort). The results were robust across univariate and probabilistic sensitivity analysis. With the data from the clinical trial in 94% of cases using factor was cost effective, while in the Colombian data in 10% of cases the factor was not cost effective. CONCLUSIONS: With Colombian information prophylactic use of the factor under the chemotherapy induction in adults with ALL turns out to be not cost-effective. The gap in the results suggests a careful extrapolation of information from clinical trials (ideal world) to develop economic evaluations in Colombia, and its impact on decision making.

PCN110
PARAMETER VALUES ASSOCIATED WITH THE DEVELOPMENT OF THE ECONOMIC MODEL TO VALUE COMPARISON DIAGNOSTICS IN ADVANCED/ METASTATIC CANCER TREATMENT
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OBJECTIVES: Many targeted and/or new drugs under development will be used with a companion diagnostic. The objective of this study was to define parameter values that will be included in a global model estimating the cost-effectiveness of a companion diagnostic and treatment. The research conducted in this study will be generic to allow its use in the most common cancers in Canada (breast, prostate, lung, colorectal, bladder, cervical, non-Hodgkin’s lymphoma), specific parameters for each cancer of interest (including health state utilities and costs) associated with companion diagnostic and treatment were constructed. Consequently, a literature review was conducted using electronic databases from January 2000 until September 2013 to extract these parameters in economic models in advanced/metastatic cancer available. Cross-references studies and governmental publications were also consulted. Canadian costs and disutilities associated with any grade 3-4 treatment-related adverse events (AEs) were also obtained. RESULTS: Lung cancer was associated with the highest inpatient cost ($CAN918.876/case of 3.8 days on average), while patients with prostate cancer incurred the highest cost associated with emergency visits ($CAN721.55/case). Costs associated with end-of-life care were similar among cancer types, with an average inpatient cost ($CAN19,875/stay of 9.9 days on average), while patients with prostate cancer incurred the highest cost associated with emergency visits ($CAN721.55/case).

PCN119
CAN NEXT GENERATION SEQUENCING SAVE LIVES AND PROVIDE A GOOD ECONOMIC VALUE IN COLON CANCER PREVENTION
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OBJECTIVES: Screening of all patients diagnosed with colorectal cancer for Lynch syndrome using a staged testing procedure is currently recommended by the National Comprehensive Cancer Network, the American Cancer Society, and the American Society for Preventive Oncology. Next generation sequencing (NGS) is a disruptive technology that likely offers improved outcomes, but its value is uncertain. The goal of this study was to evaluate the effectiveness of NGS vs. universal testing of patients with colorectal cancer (CRC) to detect relatives with Lynch syndrome.

METHODS: Model results suggest that parameter values should be specific to the cancer of interest.