PCN71 
BEVACIZUMAB FOR FRONT-LINE TREATMENT OF EPITHELIAL OVARIAN, FALLOPIAN TUBE OR PRIMARY PERITONEAL CANCER PATIENTS WITH HIGH RISK OF RELAPSE: A COST EFFECTIVE OPTION FOR CANADIAN PATIENTS 
Ghatge P1, Wright E2, Martin Nunez I.1, Abouzaid S.2, Yin L.3, Ray F.4
1University of Calgary, Calgary, AB, Canada, 2Hoffmann-La Roche, Mississauga, ON, Canada, 3F. Hoffmann-La Roche, Basel, Switzerland
OBJECTIVES: In the ICON7 randomized controlled trial, Oza et al. reported that the ICON7 study identified incremental cost effectiveness of adding bevacizumab (7.5mg/kg) during front line setting. The objective of this study is to investigate the cost effectiveness of this proposed change in treatment practices.

METHODS: Long-term PFS and OS were observed using log-logistic time-to-event parametric functions over a time horizon of 15 years. The analysis is based on a Markov model that includes 8 health states (i.e. stage III superficial debulking, stage III unresectable or stage IV disease, could benefit most effectively from the addition of bevacizumab (7.5mg/kg) to chemotherapy (carboplatin, paclitaxel), compared to chemotherapy alone in the front line setting. The objective of this study is to investigate the cost effectiveness of this proposed change in treatment practices. METHODS: Long-term PFS and OS were estimated using log-logistic time-to-event parametric functions over a time horizon of 15 years. The analysis is based on a Markov model that includes 8 health states (i.e. stage III superficial debulking, stage III unresectable or stage IV disease, could benefit most effectively from the addition of bevacizumab (7.5mg/kg) to chemotherapy (carboplatin, paclitaxel), compared to chemotherapy alone in the front line setting. The objective of this study is to investigate the cost effectiveness of this proposed change in treatment practices.

RESULTS: The ICON7 high-risk patients could benefit most effectively from the addition of bevacizumab (7.5mg/kg) to chemotherapy (carboplatin, paclitaxel), compared to chemotherapy alone in the front line setting. The objective of this study is to investigate the cost effectiveness of this proposed change in treatment practices.

CONCLUSIONS: Compared with other innovative drugs for the treatment of advanced cancers, the cost per mean survival year gained by eribulin alone was $22,517 compared to $31,790 by gemcitabine alone. The adjusted mean indirect costs associated with eribulin (vs. gemcitabine) patients were less (6.2±10.8 vs. 8.8±11.0 [gemcitabine], P=0.055; 7.1±10.3 [vinorelbine], P=0.014).

PCN72 
INDIRECT COSTS AMONG METASTATIC BREAST CANCER PATIENTS RECEIVING Eribulin 
Wan Y1, Copher R1, German S1, Abouzaid S.2, Gao X1
1PharmNet International, Bethesda, MD, USA, 2Eisai Inc., Woodcliff Lake, NJ, USA
OBJECTIVES: This study examined indirect costs in terms of productivity loss among patients who received eribulin vs. other commonly used chemotherapy drugs in the treatment of metastatic breast cancer (MBC).

METHODS: The MarketScan Health and Productivity Management Database (2008-2012) was used. Patients who initiated eribulin, or received single-agent gemcitabine/capcitabine/vinorelbine/bvinorelbine as the last chemotherapy during the index period (July 2008-Nov 2012) were defined as each corresponding study cohort. Adult MBC patients eligible for ≥1 month employee benefits of short-term disability (STDI) were identified. Differences in STDI days was compared between study cohorts using Wilcoxon rank-sum test. STDI-related costs were estimated by multiplying leave days by median weekly wages. Two-step generalized linear models were used to estimate adjusted indirect costs by controlling for age, payer, region, comorbidities, prior chemotherapy, and hormone therapy.

RESULTS: A total of 43 patients receiving eribulin, 99 gemcitabine, 54 vinorelbine, and 303 capcitabine were eligible for STDI (mutually exclusive). Eribulin patients had either numerically lower or similar STDI days per-patient-month compared to those receiving other therapies (6.1±10.6 vs. 8.8±11.0 [gemcitabine], P=0.052; 6.1±10.6 vs. 8.8±11.0 [vinorelbine], P=0.291; 6.1±10.6 vs. 8.8±11.0 [capcitabine], P=0.291). In addition, eribulin (vs. gemcitabine) patients were less likely to have any STDI leave (30% vs. 53%, P=0.04). The adjusted mean indirect costs associated with STDI per-patient-month were $370 (95% CI: $470-$1,102), $944 (95% CI: $783-$1,125) and $1,657 (95% CI: $1,025-$2,389) for eribulin, gemcitabine, and capcitabine, respectively.

CONCLUSIONS: Productivity loss, as measured by utilization of STDI and associated costs, tended to be lower in MBC patients treated with eribulin vs. gemcitabine and similar to vinorelbine or capcitabine.
were performed on key variables and different vaccination scenarios. RESULTS: With 20% screening coverage and 20% vaccine coverage, incremental effectiveness of quadrivalent vaccine plus screening by protocol 2 had the most attractive cost-effectiveness ratio ($6,691 per QALY saved) compared to when using a willingness to pay (WTP) for a QALY threshold of $22,433 (three times of GDP per capita in China). The bivalent vaccine and its combination with quadrivalent prophylaxis were cost-saving and mortality of cervical cancer compared to the quadrivalent vaccine, while the cost per QALY acquired of the quadrivalent vaccine is lower. The combined strategies and quadrivalent prophylaxis compared to the combination of quadrivalent vaccine plus screening accomplished more health benefits compared to screening alone. The coverage of the screening and the vaccination serve as a crucial factor in variations of the cost-effectiveness of different strategies. CONCLUSIONS: HPV vaccinations integrated into national cervical cancer screening programs are cost-effective and should be considered a potential strategy to reduce disease burden of cervical cancer in China. Selection of the appropriate strategy can be flexible for policy makers, because of geographical and socioeconomic diversities.

PCN77
USE OF ABIRATERONE IN THE MANAGEMENT OF CASTRATION-RESISTANT PROSTATE CANCER: A REAL-LIFE COST-EFFECTIVENESS STUDY
Rachael J., Vanhuyse M., Apriglian A., Curry F., Kassouf W., Dragomir A.
McGill University Health Centre, Montreal, QC, Canada
Abiraterone acetate (Abi) therapy showed survival and clinical benefits in the treatment of metastatic castration-resistant prostate cancer (mCRPC) in phase III trials. In Quebec, Abi reimbursement was approved for docetaxel-naïve and refractory patients in 2014 and 2012, respectively. OBJECTIVES: Evaluate the cost-effectiveness and survival impact of Abi treatment in the management of CRPC post-docetaxel. RESULTS: Abi treatment was effective in 2L HER2NEG populations. Given the limited number of effective therapies, analysis results were also consistent with the basecase findings. Accor its recent approval, comparator products on the market, and the high cost of care in this setting, there is a need for additional information on the clinical and economic profile of abiraterone to inform decisions about utilization, coverage, and reimbursement. OBJECTIVES: The objective of this study was to evaluate the cost-effectiveness of idelalisib plus rituximab versus rituximab alone from a payer’s perspective. METHODS: We developed a partition survival model to evaluate idelalisib plus rituximab versus rituximab alone. The model included three health states – Pre-Progressed, Progressed, and Death. The pivotal trial Study 116 (Furman et al., 2014) served as the basis for this study by providing data on Progression-Free Survival (PFS) and Overall Survival (OS), dosing, and adverse events. We used longer-term data from a trial of bendamustine plus rituximab in CLL plus Weibull cumulative distribution functions to extrapolate incomplete PFS and OS curves. Cost data was derived from Wolters Kluwer Health, Centers for Medicare and Medicaid Services databases, and publicly available literature. One-way and probabilistic sensitivity analyses were performed to evaluate uncertainty. We used a lifetime horizon, payer perspective, and a 3% discount rate. RESULTS: Total costs were $585,493 and QALYs were 3.54 for the idelalisib plus rituximab group and 2.86 for the rituximab alone group. The total costs were $66,698 and QALYs were 1.20 for the rituximab alone group. This yielded an incremental cost-effectiveness ratio of $242,884/QALY. The result was most sensitive to changes in the hazard ratio for death and idelalisib drug costs. The present value of C/E was > $1 at both a willingness to pay of $100,000/QALY and $150,000/QALY. CONCLUSIONS: Idelalisib plus rituximab does not appear to be cost-effective since it greatly exceeds the commonly cited thresholds of $100,000/QALY and $150,000/QALY. However, it is in line with other commonly used treatments in cancer.

PCN80
COST-EFFECTIVENESS OF EMLA-4L AKG GENE TARGETED FIRST-LINE CETIRINIB TREATMENT AMONG PATIENTS WITH ADVANCED ALK-POSITIVE NON-SMALL CELL LUNG CANCER
Jayaprakasam N., Attire J.
University of Houston, Houston, TX, USA
OBJECTIVES: Mortality associated with the lung cancer is maximum among all forms of cancer in the US. Among all lung cancer patients, 85% have non-small cell lung cancer (NSCLC). Of these NSCLC patients, 5% are EMLA-4L AKG gene positive patients. In these patients, standard therapy [platinum doublet (cisplatin and gemcitabine)] as first-line therapy, pemetrexed as second-line therapy, and erlotinib as third-line therapy [has shown response of 22% in this setting. In 2014, FDA approved ceritinib as a first-line therapy based on the results from phase one study, under the orphan drug category for ALK + NSCLC. Study aims to evaluate the cost-effectiveness of EMLA-4L AKG fusion targeted ceritinib treatment as compared to treatment by standard therapy among ALK + NSCLC patients in the US. METHODS: A decision analytic model with the embedded Markov model was developed to compare the lifetime benefits in terms of quality adjusted life years (QALYS) and direct medical costs of the treatment strategies for ALK+ NSCLC. Progression Free Survival (PFS) and Overall Survival (OS), dosing, and adverse events. We used long-term data from a trial of bendamustine plus rituximab in CLL plus Weibull cumulative distribution functions to extrapolate incomplete PFS and OS curves. Cost data was derived from Wolters Kluwer Health, Centers for Medicare and Medicaid Services databases, and publicly available literature. One-way and probabilistic sensitivity analyses were performed to evaluate uncertainty. We used a lifetime horizon, payer perspective, and a 3% discount rate. RESULTS: The use of EMLA-4L AKG targeted ceritinib treatment for EMLA-4L AKG-positive advanced NSCLC results in added benefits of 0.09 QALYs and extra costs ($1897.82) for the average patient with NSCLC. The ICER was $21,263 per QALY gained. CONCLUSIONS: Study suggests that the treatment by Ceritinib compared to the treatment by standard therapy alone is a cost-effective strategy based upon the decision analysis model. Study limitation includes non-inclusion of the cost of EMLA-4L AKG gene testing, which could change the total cost significantly.

PCN81
COST-EFFECTIVENESS OF SORAFENIB FOR TREATMENT OF RADIOACTIVE IODINE (RAI)-REFRACTORY METASTATIC DIFFERENTIATED THYROID CANCER (DTC) IN TURKEY
Erdal E1, Sayman H2, Turkmen C1, Aral F1, Yildiz O1, Okutur K1, Parali E1, Deger C1, Tunalioglu A1, Sar C1, Asan S1, Sumer F1, Ozal O1.
1Bayer Turkey Kimya San. Ltd. Sti., Istanbul, Turkey, 2Istanbul University Faculty of Medicine, Istanbul, Turkey, 3Istanbul University Faculty of Medicine, Istanbul, Turkey, 4Istanbul University Faculty of Medicine, Istanbul, Turkey, 5Medipol University Faculty of Medicine, Istanbul, Turkey, Istanbul, Turkey, 6Acibadem University Faculty of Medicine, Istanbul, Turkey, Istanbul, Turkey
OBJECTIVES: Sorafenib is the first approved product for treatment of RAI refractory locally advanced/metastatic DTC patients. This study was conducted in order to analyze cost-effectiveness of sorafenib for treatment of patients with RAI refractory locally advanced/metastatic DTC in Turkey. METHODS: A cohort partition model assigning patients to one of three health states according to the proportion of patients who are progression-free, progressed, or dead in each 28-days cycle was adapted to Turkish setting. The incremental cost-effectiveness ratios (ICERs) were calculated per quality-adjusted life years (QALYS) and life-years (LYs) gained. Turkish payer’s perspective was taken and time horizon was set as patient’s lifetime (maximum 15 years). Sorafenib cost was compared to the cost of generic sorafenib (GSO) available in the market since there are no agents for treatment of patients on this stage of the disease. Essential clinical inputs were derived from DECISION trial and local resource consumption data were modeled in expert opinion. Sensitivity of the results was evaluated in terms of key inputs by deterministic one-way and probabilistic sensitivity analyses. All costs were calculated in Turkish Liras (TL) and converted to USD using TL/USD currency rate as 2.2 (mid-2014). RESULTS: Total cost of sorafenib-refractory patients is 24,984 USD higher compared to RSI. Backsorafenib is associated with increments of 1.29 LYs and 0.80 QALYs compared to RSI. The ICER of sorafenib per LYs and QALYS gained compared to RSI were determined as 18,851 USD and 30,485 USD respectively. One-way sensitivity analysis demonstrated that results are not sensitive to the changes in model inputs.