Insurance Company (Všeobecná zdravotná poisťovna, VšZP). We used the "bottom-up" approach that helped us identify, quantify and value resources in a disaggregated way, so that each element of the cost was estimated individually and they were summed up at the end, similarly to our first research conducted previously. We calculated real direct costs for the model patient with MM from the diagnosis to death. ***Results:*** Based on internal cost resources provided upon request from VšZP, we identified real direct costs associated with MM from the diagnosis till death (% from total direct costs, EUR 1 = USD 1.1332, European Central Bank): the diagnostics costs (incl. CT, MRI, blood tests) €21 481 (8,2%, $24 342), special medical procedures (incl. BMT) €23 120 (8,8%, $26 199), hospitalization €61 229 (23,4%, $69 384) and pharmacotherapy costs €155 645 (59,5%, $176 376). Total direct costs were €261 475 ($296 303). ***Conclusions:*** For the first time ever, we calculated and verified real direct costs associated with model patient with MM in Slovakia from diagnosis till death, thanks to cooperation with key stakeholder (VšZP). The key focus was on MM patients in productive age (average survival 4,5 years), that create almost 56% of all MM patients in Slovakia. Accuracy and reliability due to verification of direct cost data is very high and create important base for evaluation of existing and new innovations coming to MM segment.

PCN142
LIFETIME INDIRECT COSTS ASSOCIATED WITH MULTIPLE MYELOMA: ANALYSIS OF THE MODEL PATIENT IN SINGLE EU JURISDICTION IN 2018

Babela R,[1] Fedorova K,[1] Smatana M,[2] Ivanova J,[3] Rusnak R,[4] Suvadova A[5]
[1]*University of Scranton, PA, USA & St. Elizabeth University, Bratislava, Slovakia,* [2]*Ministry of Health of the Slovak Republic, Bratislava, Slovakia,* [3]*St Elizabeth University & MZSR, Bratislava, Slovakia,* [4]*Central Military Hospital, RUZOMBEROK, Slovakia,* [5]*Janssen, Bratislava, Slovakia*

Objectives: To calculate the real indirect costs associated with the multiple myeloma (MM) from diagnosis till death. To establish the national base for indirect costs for model patient with MM obtained from key state stakeholders and payers in coordination with the Institute for Health Policy, Ministry of Health (MoH). ***Methods:*** It was the retrospective case-study analysis, conducted by using real life data delivered directly from state Social Insurance Agency, The Ministry of Labour, Social Affairs and Family, Ministry of Health and National Health Information Center – all based in Slovak Republic. We performed the "bottom-up" approach, which helped us identify, quantify and value resources in a disaggregated way, so that each element of the indirect costs was estimated individually and they were summed up at the end. Indirect costs were calculated for a model patient with MM from the confirmed diagnosis till death. ***Results:*** Thanks to direct cooperation with key stakeholders and payers, we identified (% from total indirect costs, EUR 1 = USD 1.1332, European Central Bank) following indirect costs associated with MM: sickness benefit costs €2 198 (1,4%, $2 490), disability pension €15 188 (10,3%, $17 211), state allowances (e.g. transportation, diet, hygiene) €2 598 (1,7%, $2 944), costs associated with productivity loss due to premature death due to MM €127 611 (86,4%, $144 608). Total real and verified (MoH) indirect cost associated with MM in productive patient were in 2018: €147 596 ($167 255). ***Conclusions:*** Thanks to broad cooperation with key stakeholders and payers and additional verification with MoH, we were able to establish important base for the indirect costs associated with patient in productive age with MM from diagnosis till death. Indirect costs – as additional payer cost – should play important role in complex evaluation of existing and new technologies coming to MM segment.

PCN143
HOW MUCH DO INDIVIDUALS VALUE ACCESS TO INNOVATIVE LUNG CANCER THERAPIES? A REVEALED PREFERENCE SURVEY OF HEALTHY ADULTS IN THE UNITED STATES (US)

Bognar K,[1] Shafrin J,[1] May SG,[1] Zhao L,[1] Yuan Y,[2] Penrod JR,[2] Romley JA[3]
[1]*Precision Health Economics, Los Angeles, CA, USA,* [2]*Bristol-Myers Squibb, Princeton, NJ, USA,* [3]*University of Southern California, Los Angeles, CA, USA*

Objectives: To measure the value healthy individuals place on coverage of novel therapies that improve survival in the event they develop lung cancer. ***Methods:*** A recent web-based survey was administered to US adults without cancer to measure the incremental insurance premium respondents were willing to pay to access lung cancer therapies that improve survival. The survey used a 'multiple random staircase revealed preference' method to elicit willingness to pay—in terms of monthly premiums—for coverage of novel therapies associated with survival gains. Survival was calibrated based on a clinical trial comparing nivolumab to standard-of-care chemotherapy among patients with non-small cell lung cancer. ***Results:*** Of 84,937 individuals invited via email, 1,191 responded and 163 completed the survey and met all eligibility criteria. The mean age of respondents was 50.0 (SD: 14.6) years, and 55.2% were female. On average, respondents were willing to pay an additional $57.00 (95% confidence interval (CI): $51.62-$62.37) monthly for coverage of novel therapy providing a 5-year survival of 15%, compared to standard-of-care therapy with a 5-year survival of 4%. Assuming risk neutrality, a lognormal survival distribution and annual lung cancer incidence of 0.07%, the mean survival gain conditional on being diagnosed with lung cancer is 1.95 years and the implied ex-ante value of a life-year under the expected utility framework is $500,066 (95% CI: $452,867-$547,177). ***Conclusions:*** Individuals place a higher value on insurance coverage for lung cancer treatments than previously estimated. Potential explanations may include: high valuations of life year gains for lung cancer and/or large risk premium individuals place on an insurance reducing future mortality risks.

PCN144
IBRUTINIB TREATMENT IS ASSOCIATED WITH LOWER HEALTHCARE RESOURCE UTILIZATION AND TOTAL COST REDUCTION COMPARED TO CHEMOIMMUNOTHERAPY IN PATIENTS WITH MANTLE CELL LYMPHOMA

Iyengar R,[1] Malangone-Monaco E,[2] Sugg C,[3] Arthur D,[3] Sainski-Nguyen A,[2] Gelwicks S,[2] Giafis N[3]
[1]*Pharmacyclics LLC, an AbbVie Company, Milpitas, CA, USA,* [2]*IBM Watson Health, Cambridge, MA, USA,* [3]*Pharmacyclics LLC, an AbbVie Company, Sunnyvale, CA, USA*

Objectives: Compare all-cause healthcare resource utilization (HRU) and costs between single-agent ibrutinib and chemoimmunotherapy (CIT) in patients with first-line (1L) and second-line (2L) mantle cell lymphoma (MCL) in the US. ***Methods:*** Adult patients with newly diagnosed (index) MCL were identified using IBM MarketScan® claim databases between 11/13/2013 and 12/31/2017. Patients were required to have at least 6 months of continuous enrollment pre-index and no pre-index evidence of other primary malignancies, antineoplastic agents, or hematopoietic stem-cell transplantation. Baseline demographic and clinical characteristics as well as mean per-patient-per-month (PPPM) HRU and mean monthly cost difference (MMCD) were compared for ibrutinib- and CIT-treated patients in 1L and 2L in the follow-up period. ***Results:*** 1L and 2L cohorts had 40 and 22 ibrutinib-treated, and 253 and 38 CIT-treated patients, respectively. Mean follow-up times stratified by 1L were 801 days for ibrutinib and 528 days for CIT. Both cohorts had comparable baseline characteristics across lines. CIT-treated 1L patients had higher inpatient visits (0.1 vs. 0.03, $P<0.05$) and outpatient services (3.65 vs. 1.96, $P<0.01$), mainly driven by other outpatient services including antineoplastic-drug-administration–related visits. Compared to CIT-treated patients, 1L ibrutinib-treated patients had lower medical costs which fully offset higher pharmacy costs, resulting in a significant net-monthly-total-cost reduction of $6,723 ($P<0.01$). 2L HRU and medical cost findings were similar. The $4,619 ($P<0.01$) lower outpatient PPPM costs and $2,032 ($P<0.01$) higher pharmacy PPPM costs for ibrutinib-treated patients resulted in an overall net-monthly-total-cost of $2,761 lower for ibrutinib compared to CIT, but this difference was statistically insignificant in 2L patients with MCL. ***Conclusions:*** Ibrutinib was associated with lower healthcare resource utilization compared to chemoimmunotherapy in patients with MCL. Higher ibrutinib pharmacy costs were fully offset by lower medical costs mainly driven by outpatient cost differential resulting in net-total-cost reduction compared to chemoimmunotherapy.
FUNDING: Pharmacyclics LLC, an AbbVie Company.

PCN145
COST EFFECTIVENESS OF FRUQUINTINIB VERSUS REGORAFENIB AS THE THIRD-LINE THERAPY FOR PATIENTS WITH METASTATIC COLORECTAL CANCER IN CHINA

Xin G,[1] Li HC,[2] Peng C,[3] Wang N,[3] Ma X,[4] Xiong XM,[5] Ma AX[2]
[1]*China Pharmaceutical University, Nanjing, 32, China,* [2]*China Pharmaceutical University, Nanjing, China,* [3]*Eli Lilly and Company China Affiliate, Shanghai, China,* [4]*Lilly Suzhou Pharmaceutical Co., Ltd Shanghai Branch, Shang Hai, China,* [5]*China Pharmacuetical University, Nanjing, China*

Objectives: This study aimed to assess the cost-effectiveness of Fruquintinib versus Regorafenib as the third-line therapyfor patients with metastatic colorectal cancer in China. ***Methods:*** A Three-state Markov model with monthly cycle was developed to estimate lifetime incremental cost-effectiveness ratio (ICER) of Fruquintinib versus Regorafenib as the third-line therapy for patients with metastatic colorectal cancer from Chinese health-care system perspective. Survival analysis was conducted to calculate transition probabilities using the data from two clinical trials (FRESCO and CONCUR) from which we also extracted the incidence of adverse events. Mortality rate and drug costs were derived from government published data. Costs for medical services were obtained from published literatures and a real world study about economic burden of Chinese metastatic colorectal cancer patients. Utilities applied to calculate the quality adjusted life years (QALYs) were obtained through literature review. Costs and QALYs were discounted at a 5% annual rate. One way sensitivity analysis and probabilistic sensitivity analysis were conducted to demonstrate the robustness of the results. ***Results:*** Fruquintinib provided 0.74 QALYs at a cost of CNY 177863.75, whereas Regorafenib provided 0.79 QALYs at a cost of CNY 248277.29. Compared to Fruquintinib, the ICER of Regorafenib was CNY 1416749.10/QALY, which was above three times GDP per capita of China in 2017 (CNY 59660) as the threshold to define the cost-effectiveness. One-way sensitivity analysis showed the results were generally robust. Cost-effectiveness acceptability curves derived from the probabilistic sensitivity analysis demonstrated that Fruquintinib was 100% more cost-effective, when the threshold was three times GDP per capita of China. ***Conclusions:*** Compared to Regorafenib, Fruquintinib can be regarded as a cost-effective choice as the third-line therapy for patients with metastatic colorectal cancer in China.