objective of this pharmacoeconomic analysis is to access the cost-effectiveness of capecitabine compared to 5-FU/LV in the adjuvant setting in Taiwan from the payer’s [Bureau of National Health Insurance (BNHI)] perspective. METHODS: A state-transition economic model was developed to estimate incremental cost impact and the effectiveness in terms of quality-adjusted life months (QALMs). Clinical outcomes and medical resource utilization were collected during the phase III X-ACT study. Direct medical costs associated with chemotherapy drugs, physician consultations, and adverse events (AEs) management were based on Taiwan’s National Health Insurance fee schedule. Intravenous chemotherapy administration costs and post-treatment costs were estimated from an expert panel survey conducted among 12 colorectal surgeons and medical oncologists. Health-related utility scores were obtained from published literature. Outcomes and future costs were discounted at 1.5% and 6% respectively. Sensitivity analyses were performed on key model parameters. RESULTS: Administration of capecitabine required fewer physician visits per patient (7.4 versus 28.0 with 5-FU/LV). Drug acquisition costs of capecitabine were higher than 5-FU/LV; however, these cost increments were offset by the chemotherapy administration cost of 5-FU/LV. In addition, more expensive medications and longer hospitalization were needed to manage 5-FU/LV-related AEs. As a result, capecitabine demonstrated a significant overall cost savings of $104,546 NTD. Over a lifetime, the survival benefit for capecitabine extends to 9 QALMs. Capecitabine remained dominant under sensitivity testing. CONCLUSION: From a Taiwan BNHI perspective, this pharmacoeconomic analysis showed that the use of capecitabine in adjuvant treatment of colon cancer would not only save direct medical costs but also improve health outcomes compared to 5-FU/LV.

CN4

PSYCHOMETRIC VALIDATION OF A PATIENT SYMPTOM ASSESSMENT-LUNG CANCER (PSALC) INSTRUMENT FOR SMALL CELL LUNG CANCER (SCLC)
Chen L1, Duh M1, Antras L1, Neary MP2, O’Brien ME3
1Analysis Group, Inc, Boston, MA, USA, 2GlaxoSmithKline, Collegeville, PA, USA, 3Royal Marsden Hospital, Sutton, UK

OBJECTIVES: The PSALC is an instrument that was developed for use in patients with SCLC for assessment of nine symptoms (i.e., shortness of breath, cough, chest pain, hemoptysis, appetite loss, sleep interference, hoarseness, fatigue, interference with daily activities) scored on a scale from 1 (not at all) to 4 (very much), but it has not been formally validated. METHODS: A retrospective psychometric validation was conducted using data from a randomized multicenter trial in which 107 patients with SCLC were treated with intravenous topotecan and 104 patients with cyclophosphamide, doxorubicin, and vincristine. PSALC was administered to patients at baseline and at each of the four subsequent clinical visits at 3-week intervals. Factor analysis (FA), internal consistency, construct validity, reliability, and responsiveness were evaluated. RESULTS: Baseline FA (n = 137) indicated that there was only one factor, so the PSALC total score was used for validation. Weighted Cronbach’s alpha from all visits was 0.74 showing an acceptable internal consistency. Construct validity was supported by the high correlation with established measures, with lower baseline PSALC total scores associated with better Eastern Cooperative Oncology Group (ECOG) performance status (12.41, 18.24, and 20.33 for ECOG score = 0, 1, and 2, respectively, p < 0.0001; regression slope estimates = 3.84, p < 0.0001; n = 135). Reliability was supported by an intraclass correlation coefficient of 0.61, calculated using PSALC total scores evaluated before any change in clinical status, and a concordance correlation coefficient of 0.72, calculated using PSALC total scores at baseline and before the first visit. The PSALC total score was responsive to tumor progression (responsiveness statistic = 0.64; n = 33). CONCLUSION: A retrospective analysis suggests that the PSALC is a reliable, valid, and responsive instrument for measuring SCLC symptoms. If feasible in this population, a prospective validation study could be used to further evaluate these findings.

CN3

60-MONTH DATA FROM IRIS USED TO UPDATE ESTIMATES OF SURVIVAL AND COST-EFFECTIVENESS OF FIRST-LINE IMATINIB IN PATIENTS WITH CHRONIC PHASE CHRONIC MYELOID LEUKEMIA
Reed SD, Anstrom KJ, Li Y, Schulman KA
Duke Clinical Research Institute, Durham, NC, USA

OBJECTIVES: With 60 months of follow-up data now available from the IRIS trial, we updated our previous cost-effectiveness analysis of first-line imatinib versus interferon-α plus cytarabine (IFN) in newly diagnosed patients with chronic myeloid leukemia in the chronic phase that was originally based on a median of 19 months of follow-up. METHODS: We used the empirical 60-month data from IRIS for patients randomized to imatinib to calibrate the survival curves generated with the cost-effectiveness model. Due to the high rate of crossover among patients randomized to IFN in IRIS, we relied on historical data to model survival estimates for patients treated with IFN. We updated costs to 2006 values and applied two sets of costs to imatinib and IFN: average wholesale prices (AWP) and wholesale acquisition costs (WAC). RESULTS: Survival at 5 years for patients randomized to imatinib was better than predicted with our original model (89.4% vs. 85.2%). After model calibration, we estimated remaining life expectancy for first-line imatinib patients to be 19.1 years, an increase of 3.8 years over the original model. Remaining quality-adjusted life-years (QALYs) were estimated at 15.2, an increase of 3.1 QALYs. Estimates for patients randomized to IFN were maintained at 9.1 years and 6.3 QALYs. With AWPs, ICERs ranged from $40,300 to $46,100 per QALY. CONCLUSION: Although our analysis revealed that our initial survival estimates were conservative, the updated ICERs were relatively consistent with our original estimate of $43,300 per QALY. Periodically updating cost-effectiveness analyses should be a routine practice in cases where ongoing survival data are collected. Even with 5 years of data, most of the expected survival benefit has yet to be observed.