PCN38  
SIMULATION MODEL OF IBRUTINIB IN TREATMENT OF RELAPSING OR REFRACTORY MANTLE CELL LYMPHOMA (MCL)  
Peng F1, Sorensen S2, Pan F1, Dorman E1, Sun S1, Van Sanden S1, Sengupta N3, Gaudig M3  
1Evidera, Bethesda, MD, USA, 2Janssen, Pharmaceutical Companies of Johnson and Johnson,  
Kratz, NJ, USA, 3Janssen Pharmaceuticals, Inc, Neus, Germany

OBJECTIVES: For patients with relapsed or refractory (R/R) mantle cell lymphoma (MCL), prognosis is poor, with a median survival of one to two years, and treat-  
ments are limited. This study aimed to evaluate the probability of survival for R/R MCL patients, largely driven by the significant incremental improvement in  
duration of OS. The model for R/R MCL patients, mainly driven by the significant incremental improvement in duration of PFS. Currently a phase III trial is ongoing, the data from which will be used to validate the model.

PCN39  
THE BENEFIT OF HER-2 TARGETED THERAPIES ON OVERALL SURVIVAL OF PATIENTS WITH METASTATIC BREAST CANCER — A SYSTEMATIC REVIEW  
Alves C1, Mendes D2, Andrade S2, Batel Marques F3  
1ABELL, Coimbra, Portugal, 2Roche Farmacéutica Química, Amadora, Portugal, 3University of Coimbra, Portugal

METHODS: This study was aimed at evaluating the overall survival (OS) gains associated with HER-2 directed therapies in patients with metastatic breast cancer. METHODS: A bibliographic search was conducted in the MEDLINE (PubMed) and EMBASE databases, using the following keywords: breast cancer and HER-2 targeted therapies, and related controlled terms. The search was performed from inception to March, 2014. Only phase III clinical trials (RCTs) including HER-2-positive metastatic breast cancer patients have been included in this review, irrespective of the treatment administered (i.e., chemotherapy and/or hormone therapy and/or targeted therapy and/or radiotherapy), or the choice of survival endpoint. OS was defined as time from randomisation until the occurrence of the event of interest. Studies have been grouped according to the following time of treatment, i.e. first-line or second-line or beyond. RESULTS: The HER-2 targeted therapies had an undeniable beneficial impact in the overall survival of patients with HER-2 positive metastatic breast cancer. Three combination of docetaxel, pertuzumab and trastuzumab is associated with a survival extent of more than 3 years, compared with a life expectancy of 1.5 years achieved 13 years ago.

PCN40  
SIMULATION MODEL OF IBRUTINIB FOR CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) WITH PRIOR TREATMENT  
Sun L1, Peng F2, Sorensen S2, Dong E1, Sun F1, Gaudig M3, Sengupta N3  
1Evidera, Bethesda, MD, USA, 2Janssen, Pharmaceutical Companies of Johnson and Johnson,  
Kratz, NJ, USA, 3Janssen Pharmaceuticals, Inc, Neus, Germany, 4Janssen Pharmaceuticals, Inc, Cariton, NJ, USA

OBJECTIVES: For patients who received prior therapy are limited; no standard of care exists. In a recent phase III clinical trial (PCYC-1104), ibritumomab (Imbruvica™), a first-in-class oral once a day covalent Bruton’s tyrosine kinase inhibitor, was associated with a median progression-free survival (PFS) of 13.9 months. After a median follow-up of 15.3 months, 63% of patients were alive. The aim of the current study was to evaluate the projected life years (LYs) and quality-adjusted LYs (QALYs) associated with ibritumomab and other treatments for R/R MCL. METHODS: Patients with R/R MCL were simulated to receive treatment in a first-line, survival benefit only model. Patients received ibritumomab, bendamustine and rituximab (BR), fludarabine, mitoxantrone, and cyclophosphamide (FM'C), temsirolimus, or other comparators until death or until progression of disease, at which time they were allocated to: 1) concordant to best supportive care. Clinical inputs for ibritumomab were informed by PCYC-1104 trial data; OS was extrapolated to estimate survival outcomes. Clinical inputs for comparators were informed by the available literature review. Utility values were informed by published studies. Outcomes were discounted by 3.5%. RESULTS: Treatment with ibritumomab resulted in better health outcomes, incrementally increasing overall LYs by 0.92, 0.86, and 0.92 and PFS by 0.79, 0.70, and 0.72 overall incremental QALYs compared to BR, FM'C, and temsirolimus, respectively. Ibritumomab was associated with 0.71, 0.70, and 0.72 overall incremental QALYs compared to BR, FM'C, and temsirolimus, respectively. CONCLUSIONS: Compared with other therapies, ibritumomab yielded an average incremental benefit of 0.051 QALYs for R/R MCL patients, largely driven by the significant incremental improvement in duration of PFS. Currently a phase III trial is ongoing, the data from which will be used to validate the model.