case, the costs of therapy are partly offset by reducing the frequency of relapses and the progression of the disease.

**PCN79**

**ECONOMIC MODELING FOR TREATMENT FAILURE PATIENTS USING MULTIPLE ROUNDS OF THERAPY AS COMPARATOR**

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**OBJECTIVES:** Treatment failure patients in various disease areas are often treated by multiple rounds of therapy. However, new treatment options are emerging that have potential to replace that treatment with single-agent or single round of combination treatment. It is challenging to demonstrate cost-effectiveness of these new agents, especially when comparator is not a single regimen but sequential treatment. We presented here a model developed from a study where we developed a model that can accommodate multiple rounds of treatment or relapses to estimate cost-effectiveness of new emerging therapies. **METHODS:** Intervention was chosen as an emerging T-cell lymphoma drug candidate. Comparator was chosen as sequential treatment with 1–3 chemo regimens called DHAP, ESHAP, ICE, HyperCVAD, and EPOCH. All comparator chemo regimens are generics and their prices were obtained from Medispan's PriceRx. Intervention's price was assumed as median price of branded chemotherapy agents. Cost, efficacy, adverse events, and utilities were sourced and estimated from published studies for T and B-cell lymphoma. Relapses and number of chemo regimens for comparators were varied from 1–5. Sensitivity analyses were performed for all base calculations. **RESULTS:** Model results show that a new agent that can replace multiple rounds of treatment is relatively more cost-effective than another agent that replaces relatively fewer rounds of treatments. Our base-case incremental cost-effectiveness with one chemo regimen as comparator was $262,908. However, if there are 2,3,4,5, or more rounds of treatments. Our base-case incremental cost-effectiveness calculations. **CONCLUSIONS:** For newer agents that are indicated for treatment failure patients, the use of sequential treatments as comparator can significantly improve their cost-effectiveness. The model approach described here can be used for arthritis, hepatitis C, and diabetes and oncology TF patients.

**PCN80**

**COST-EFFECTIVENESS ANALYSIS OF OXPLATIN IN ADJUVANT THERAPY FOR STAGE 3 COLON CANCER PATIENTS IN JAPAN**

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**OBJECTIVES:** Oxaliplatin (FOLFOX, folinic acid [l-LV], 5-FU, and oxaliplatin) is a standard therapy for metastatic colorectal cancer. FOLFOX in adjuvant therapy was approved in 2009. However, cost-effectiveness of FOLFOX, which can prolong DFS (disease-free survival), is not known. **METHODS:** We performed cost-effectiveness analysis of FOLFOX in adjuvant therapy for stage 3 colon cancer compared with FU/LV as a standard regimen. Our analysis is based on the patient-level data of MOSAIC (the Multinational International Study of Oxaplatin/5-Fluorouracil/Leucovorin in the Adjuvant Treatment of Colon Cancer) trial. Survival curve of DFS and OS (overall survival) was extrapolated by cure model, which uses parametric regression considering some patients cannot cure without recurrence. Death of any other causes was treated as competing risk. Expected value of mean survival year was gained by calculating area under the survival curve during 15 years. QALY (quality-adjusted life-year) was calculated weighted survival time by utility scores. Since our analysis is from the perspective of health-care payer, only direct medical costs were included. Those three percent annual discount rate was used for both costs and outcome. **RESULTS:** Adjuvant FOLFOX therapy for stage 3 colon cancer patients can gain more QALY than standard FU/LV therapy. The difference of both therapies is about 0.5 QALY. **CONCLUSIONS:** Our cost-effectiveness analysis shows that compared with FU/LV estimated to be less than $2.5 million (US$26,000, US$1 = JPY 90) per QALY. This value is thought to be a little conservative because time horizon of our analysis is 15 years, not lifetime to avoid uncertainty of long-term future. **CONCLUSIONS:** FOLFOX therapy in adjuvant of stage 3 colon cancer is cost-effective. The ICER compared with FU/LV is acceptable from the Japanese health-care payer.

**PCN81**

**COST-EFFECTIVENESS ANALYSIS OF THREE STRATEGIES OF ERLOTINIB TREATMENT IN NON-SMALL-CELL LUNG CANCER: A PROSPECTIVE MULTICENTRIC FRENCH STUDY (ERMETIC)**

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**OBJECTIVES:** Based on several clinical and biological parameters are prognostic factors of NSCLC patients outcome, our medico-economic impact in the prescription of erlotinib has never been evaluated. A French NCRI prospective study aimed to compare cost and effectiveness of three strategies of erlotinib initiation in second line or more treatment of advanced NSCLC patients: initiation in all patients, patients selected on clinical-guided strategy, and patients selected on biological-guided strategy. **METHODS:** A Markov model compared the outcomes and costs (direct to medical costs from the third-party payer perspective) of a prospective multicentric cohort of consecutive advanced NSCLC patients newly treated by erlotinib, to a cohort of clinical-selected patients (non-ex-smoking women with adenocarcinoma histology) and a cohort of biomarker-selected patients (EGFR mutation). Utility data were extracted from literature. Sensitivity analyses were performed. **RESULTS:** A total of 522 patients were enrolled between March 2007 and March 2008. Median age was 63 years (32% were females; 65% had EGFR mutation). The strategy which consists to treat all patients was dominated, as it was both the less effective and the most expensive strategy (0.495 QALY/£22,396). The clinical-guided strategy was slightly more effective than the biological-guided strategy (respectively 0.568 and 0.563 QALY), but it was also more expensive (respectively £16,299 and £15,187). The dominant strategy was then the biological-guided strategy (£26,975/0.563 QALY). The model was robust to variations of biological exam costs, palliative costs, and utility data. Biological-guided strategy appears the most effective and the less expensive strategy when the prevalence of EGFR mutation is less than 50%. **CONCLUSIONS:** Biological-guided strategy appears the dominant strategy if the prevalence of EGFR mutation was >10%. This suggests determining EGFR mutation status in priority to non-smoker females, smokers with adenocarcinoma.