pemetrexed arm compared to 0.62 for the gemcitabine arm. The total cost per patient was €20,438 for pemetrexed/cisplatin and €17,605 for gemcitabine/cisplatin. These model outputs result in incremental cost-effectiveness ratios of €24,507 per LYG, and €48,666 per QALY gained. Univariate sensitivity analyses show that the results are most sensitive to overall survival. **CONCLUSIONS:** For oncolytics in Italy, €70,000/QALY is often considered a good indication of willingness-to-pay threshold. According to the model, pemetrexed/cisplatin is a cost-effective alternative to gemcitabine/cisplatin in the first-line treatment of NSCLC patients within the adenocarcinoma population.

PCN115

COST UTILITY ANALYSIS OF 90Y-IBRITUMOMAB TIUXETAN FOLLOWING FIRST-LINE CHEMOTHERAPY COMPARED TO NO FOLLOW-UP IN PATIENTS WITH STAGE III OR IV FOLLICULAR LYMPHOMA IN SPAIN

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OBJECTIVES: A multicenter randomized phase III trial (study 304820) showed patients with stage III or IV follicular lymphoma who achieved a partial or complete response after first-line treatment wtih ^{90}Y-ibritumomab tiuxetan had significantly longer PFS time than patients receiving no treatment. The objective of this study is to compare costs and outcomes of subsequent treatment with a course of ^{90}Y-ibritumomab tiuxetan compared with no treatment in patients with complete or partial response following first-line chemotherapy from a Spanish payer perspective. **METHODS:** A lifetime Markov model was developed to compare ^{90}Y-ibritumomab tiuxetan consolidation therapy vs. 'no consolidation'. The model consists of four states: progression-free with complete response (CR), progression-free with partial response (PR), progressive disease and death. Patients enter the model after an assessment of response to first-line treatment (induction therapy) demonstrates partial or complete response. An important feature of the model is the possibility for response status to convert from PR to CR as shown in study 304,820. Following final response, individuals either remain in their current health state, experience disease progression, or die. PFS data from the trial was used to model disease progression. Costs were calculated from the perspective of the Spanish health care system. Future costs and benefits were discounted at 3.5% per annum. Utilities were calculated using the EQ-5D from study 304,820. **RESULTS:** The incremental cost per additional QALY is estimated to be €18,263 for partial responders and €29,322 for all responders (including those with a complete response after first-line therapy). The parameters which have the greatest impact are the utility estimates, particularly the utility in the progression-free health state. **CONCLUSIONS:** The base case model demonstrates that ^{90}Y-ibritumomab tiuxetan consolidation following induction therapy offers good value for money while significantly prolonging PFS. Sensitivity analyses show the results to be reasonably robust.

PCN116

A SURVIVAL BASED COST-EFFECTIVENESS ANALYSIS OF 5 YEARS LETROZOLE VERSUS TAMOXIFEN AS ADJUVANT THERAPY IN POSTMENOPAUSAL WOMEN WITH EARLY BREAST CANCER: CANADIAN PERSPECTIVE

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OBJECTIVES: The 76 months follow-up of the BIG 1-98 study reported a hazard ratio [HR] for overall survival (OS) of 0.81 and a HR for disease free survival (DFS) of 0.84 in the letrozole (LET) group versus tamoxifene (TAM). **The 100 months** follow-up of the ATAC study reported almost identical results observed at 68 months follow-up for the HR of OS (0,97) in the anastrozole (ANA) group when compared with TAM. The HR for DFS was 0.85. This analysis compares the cost-effectiveness of LET and ANA versus tamoxifen from the Canadian health care perspective using the most recent survival data from the BIG 1-98 and ATAC studies. **METHODS:** A Markov model was used to estimate the cost per quality adjusted life year (QALY) of LET or ANA versus TAM. Annual survival probabilities were extracted from updated BIG 1-98 and ATAC trials, and literature. Cost values representing resource use were informed by a Canadian costing analysis. Utility weights were derived from literature. A time horizon of 20 years and a 5% discount rate were used. **RESULTS:** LET and ANA are predicted to increase QALYs by 0.26 and 0.05 per patient compared to TAM, respectively. Lifetime costs increase by $2710 and $2297 for LET and ANA respectively. The incremental cost-effectiveness ratio (ICER) of LET versus TAM is $10,420. The ICER for ANA versus TAM is $41,569. The model is more sensitive to the variation of the hazard ratios for overall survival. The probability that LET and ANA are cost-effective given a threshold value of 50,000 per QALY is 99% for LET and 58% for ANA. **CONCLUSIONS:** Our model shows that LET has a substantially lower expected ICER of $10,420 compared to ANA, with mean ICER of $41,569 over a 20 year time horizon from the Canadian health care perspective.

PCN117

COST-UTILITY MODEL TO EVALUATE ADJUVANT CHEMOTHERAPY FOR EARLY BREAST CANCER IN THE USA

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OBJECTIVES: Several new interventions have become available recently for the adjuvant treatment of early breast cancer (EBC) which are effective in reducing the incidence of disease relapse. Our objective was to develop a model to evaluate the cost-effectiveness and cost-utility of such interventions in the USA. The model was demonstrated for the comparison of docetaxel (75 mg/m^2), doxorubicin (50 mg/m^2), and cyclophosphamide (500 mg/m^2) (TAC, 6 cycles) with fluorouracil (500 mg/m^2), doxorubicin (50 mg/m^2), and cyclophosphamide (500 mg/m^2) (FAC, 6 cycles) in node-positive EBC patients. **METHODS:** A combined decision tree and Markov model estimated costs and outcomes from initiation of adjuvant chemotherapy to death. Parametric survival functions were fitted to patient-level data from trial BCIRG 001 and time-dependent transition probabilities for disease relapse were estimated. Costs were estimated from US databases (Pharmetrics claims database and Premier hospital database) and a published retrospective analysis of linked SEER-Medicare data for 1580 EBC patients with disease recurrence (cost year 2008). Utility weights were estimated from EORTC QLQ-C30 data collected in trial BCIRG 001 using a published algorithm, and from published literature. Probabilistic and univariate sensitivity analysis (varying all parameters by +/– 50% of base-case values) were performed. Alternative scenarios were programmed to explore uncertainty beyond the trial follow-up period. **RESULTS:** Mean total expected lifetime costs and outcomes were significantly higher for the TAC cohort. Incremental costs were $19,732 (95% CIs $15,869–$31,441); life years were 0.93 (0.87–0.97) and QALYs were 0.74 (0.44–0.91). Incremental cost-effectiveness ratios for TAC versus FAC were $21,318 per life year saved ($16,953–$33,856) and $26,654 per QALY ($18,553–$50,554). In univariate sensitivity analysis, results were most sensitive to the utility weight for remission post-chemotherapy. The incremental cost per QALY remained below $50,000 for all plausible parameter estimates, and all extrapolation scenarios. **CONCLUSIONS:** The model provides a robust framework for estimating cost-effectiveness, allowing exploration of critical areas of uncertainty.

PCN118

COST EFFECTIVENESS OF CETUXIMAB IN FIRST LINE TREATMENT OF METASTATIC COLORECTAL CANCER: DESCRIPTION OF A NICE SUBMISSION

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OBJECTIVES: To calculate the cost effectiveness of the addition of cetuximab to chemotherapy to enable resection of liver metastases in 1st-line metastatic colorectal cancer (mCRC) from the UK NHS perspective. **METHODS:** Cetuximab is licensed for the treatment of mCRC in combination with standard chemotherapy (FOLFIRI and FOLFOX) in patients with wildtype KRAS and EGFR expressing tumours. A semi Markov model was developed to simulate patient outcomes and costs throughout first and subsequent lines of treatment including long-term survival after a successful curative resection of liver metastases. Data for model parameters were mainly derived the CRYSTAL and OPUS studies. The potential for curative-intent liver surgery was estimated using resection rates from CELIM and Tournigand *et al* for cetuximab arms and chemotherapy arms respectively. The long-term benefits of surgery were estimated from Adam *et al*. Extensive scenario and probabilistic sensitivity analyses were undertaken to explore the robustness of the results with regard to various modelling assumptions and model parameter uncertainty. **RESULTS:** In the base case the addition of cetuximab to FOLFIRI/FOLFOX resulted in additional QALYs of 0.78 and 0.59 and incremental cost effectiveness ratios (ICERs) of £19,557 and £21,056 per QALY respectively. The ICER is mainly driven by the number of patients becoming resectable, the acquisition cost of cetuximab, and choice of parametric model for progression-free survival curves. **CONCLUSIONS:** The analysis demonstrates that cetuximab is a cost-effective 1st line treatment option for patients with EGFR expressing, KRAS wildtype colorectal cancer, for patients whose liver metastases have been rendered resectable by cetuximab and. chemotherapy. This analysis resulted in positive draft guidance by NICE on June 1, 2009. Final Guidance will be posted on the NICE website in July 2009.

PCN119

COST EFFECTIVENESS ANALYSIS OF ANASTROZOLE VERSUS TAMOXIFEN IN ADJUVANT THERAPY FOR EARLY STAGE BREAST CANCER BASED ON THE 100-MONTH ANALYSIS OF THE ATAC TRIAL FROM A GERMAN PERSPECTIVE

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OBJECTIVES: Approximately 8.33 years of randomized clinical trial data is now available from the Arimidex, Tamoxifen Alone or in Combination (ATAC) trial, confirming that the advantage of anastrozole in recurrence free survival compared with tamoxifen in hormone receptor-positive (HR+) postmenopausal (PM) early breast cancer (EBC) patients is preserved even after stopping treatment at 5 years. Using the long-term outcome data, this study estimated the cost-utility of anastrozole versus