PCN43

COST-EFFECTIVENESS OF CETUXIMAB (ERBITUX®) IN COMBINATION WITH RADIOTHERAPY VERSUS RADIOTHERAPY ALONE IN THE TREATMENT OF LOCALLY ADVANCED HEAD AND NECK CANCER IN FRANCE

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OBJECTIVE: To estimate the cost-effectiveness of cetuximab in combination with radiotherapy (ERT) compared to radiotherapy alone (RT), for the treatment of locally advanced head and neck cancer in patients for whom chemoradiotherapy is inappropriate or intolerable in France. **METHODS:** A modelled economic evaluation calculated the incremental cost per quality-adjusted life year (QALYs) gained with ERT compared to RT. Resource utilisation and survival data were extracted from an international phase-III trial of ERT. Assumptions regarding costs of care were drawn from estimates by an expert clinical panel. Overall survival and progression-free survival times were extrapolated beyond the trial period using statistical models. Patient survival was stratified into health states defined by adverse event status in the acute phase and disease status post-treatment. Utility values for the health states were obtained from a survey of oncology nurses using the EQ-5D. Estimates of individual costs and outcomes were estimated for each patient in the trial and overall mean values calculated for the incremental analysis between the treatment groups. The analysis was conducted from the perspective of the public and private French healthcare system. Costs and outcomes were discounted at 3.5%. **RESULTS:** In the lifetime analysis, ERT patients were estimated to gain an extra 1.07 QALYs compared to RT patients. From the public establishment perspective, this translated into an incremental cost per QALY gained of €10,927. Shortening the analysis to the timeframe of the clinical trial (5 years) raised the ICERs to €31,355 per QALY gained respectively. Bootstrap simulation and sensitivity analysis showed that the ICERs were robust to changes in the key variables. **CONCLUSIONS:** Results of the modeled economic evaluation strongly suggest that ERT offers a good value-for-money alternative in the treatment of locally advanced head and neck cancer in France.

PCN44

COST UTILITY ANALYSIS OF PRIMARY PROPHYLAXIS WITH PEGFILGRASTIM VERSUS FILGRASTIM FOR BREAST CANCER IN THE UK

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OBJECTIVES: Primary (first and subsequent cycles) prophylaxis with colony stimulating factors is recommended in the 2006 ASCO and EORTC clinical guidelines when the risk of febrile neutropenia (FN) is ≥20%. In clinical practice, filgrastim has often been used for fewer than the recommended 11 days, which has been shown to compromise clinical outcomes. This study evaluated the cost-utility of pegfilgrastim vs. filgrastim (11- or 6-days) primary prophylaxis in women with breast cancer receiving chemotherapy with ≥20% FN risk in the UK. **METHODS:** We constructed a decision-analytic model from a payer's perspective. Costs were from official list prices or literature and included drugs, drug administration, FN-related hospitalisations and subsequent medical costs. FN risk (varied by days of filgrastim), FN case-fatality, relative dose intensity (RDI), the impact of RDI on survival, and utility scores were based on a comprehensive literature review and expert panel validation. Breast cancer mortality and all-cause mortality were obtained from official statistics. Model robustness was tested using multiway sensitivity analyses. **RESULTS:** Pegfilgrastim was cost-saving in addition to being more effective than 11-day filgrastim. Compared with 6-day filgrastim, pegfilgrastim achieved 0.107 more QALYs (15.139 vs. 15.032 QALY) at a minimal cost increase of ≤446 (≤3193 vs. ≤2747) per person; the incremental cost-utility ratio was ≤4166/QALY. Pegfilgrastim decreased the absolute risk of FN by 10.5% (17.5% vs. 7%), and was associated with ≤4246 per FN avoided or ≤42 per 1% decrease in absolute risk of FN. Age of diagnosis and cancer stage had minimal impact on the results. The results were sensitive to the costs of drugs and risk of FN. **CONCLUSIONS:** Use of pegfilgrastim in the UK appeared to dominate 11-day use of filgrastim. The value of pegfilgrastim vs. 6-day filgrastim at ≤4166/QALY is very favourable compared with the cost-effectiveness threshold commonly used in the UK HTA setting.

PCN45

COST EFFECTIVENESS OF ADDING IMATINIB TO CHEMOTHERAPY IN ADULT PATIENTS WITH PHILADELPHIA CHROMOSOME-POSITIVE ACUTE LYMPHOBLASTIC LEUKEMIA (PH$^+$ALL): AN EXPLORATORY ANALYSIS FOR THE UK

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OBJECTIVES: Imatinib combined with conventional chemotherapy (CC) in Ph$^+$ALL patients has produced encouraging efficacy results with a well-tolerated safety profile. This study explores the cost effectiveness of imatinib plus CC versus CC alone in adult Ph$^+$ALL patients. **METHODS:** A Markov model simulated a hypothetical cohort of adult Ph$^+$ALL patients receiving imatinib plus CC or CC alone. The model included three states: alive without disease progression (DFS), alive with disease progression (DS), and death. State transition probabilities were derived from the published literature. In the absence of relevant data pertaining to Ph$^+$ALL, assumptions about costs and utilities were derived from a cost analysis of CML. Only direct medical costs were included, adopting a UK health care payer perspective. All outcomes were discounted. An adaptation of the model to the US perspective was conducted as well. **RESULTS:** The model projects that the total discounted survival was 1.10 years for CC and 4.31 years for imatinib+CC. Total discounted disease free survival was 0.76 year for CC and 2.77 years for imatinib+CC. The total discounted quality adjusted life years (QALY) were 0.85 v. 3.28 for CC and imatinib+CC, respectively. Thus, the net incremental gain in discounted quality adjusted survival was 2.43 QALYs. The monthly costs of DFS and DS were estimated at £123 and £417, respectively. The net costs associated with imatinib were £51,757 for the UK. The incremental cost per QALY of imatinib+CC v. CC alone was approximately £21,290 (i.e., £51,757 divided by 2.43 QALYs). Adapting the model to the US perspective, the incremental cost per QALY was about $42,000. **CONCLUSIONS:** For adult ALL patients with poor prognosis due to Ph$^+$ALL, our exploratory analysis suggests that, given the underlying data and assumptions, adding imatinib to current chemotherapy regimens is cost-effective compared to chemotherapy alone both from the UK and the US perspectives.

PCN46

EPOIETIN ALPHA TREATMENT FOR CANCER PATIENTS WITH CHEMOTHERAPY INDUCED ANAEMIA—A COST-EFFECTIVENESS ANALYSIS FOR SWEDEN

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