standard CEA methodology and found the targeted therapeutics to be cost-effective using generally accepted thresholds. Considering the significance of the value questions regarding cancer care and the interest of policymakers, more health economic studies using standard CEA techniques are warranted for targeted oncology therapeutics.

**PCN13**

**ASSESSMENT OF THE COST-EFFECTIVENESS IN AUSTRALIA OF CETUXIMAB IN THE TREATMENT OF PATIENTS WITH LOCALLY ADVANCED SQUAMOUS CELL CANCERS OF THE HEAD AND NECK**

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**OBJECTIVES:** Cetuximab is an inhibitor of the epidermal growth factor receptor that has been shown in a phase III clinical trial to be effective when used in combination with radiotherapy (RT) in patients with locally advanced squamous cell cancers of the head and neck (LASCCHN). As part of an application to the Pharmaceutical Benefits Advisory Committee (PBAC) in Australia, we assessed whether this represents a cost-effective use of public health resources compared with RT alone for the treatment of patients in whom chemoradiotherapy (RT plus cisplatin) is not a viable treatment option. **METHODS:** Data on the comparative efficacy of cetuximab plus RT versus RT alone were sourced from a completed international phase III study. We applied the comparative efficacy between these therapies observed in this trial to patients for whom chemoradiotherapy is not a viable option. These data were incorporated into a cost-effectiveness analysis taking the perspective of the Australian health care system. Outcomes were assessed as life years gained (LYG) based on an arithmetic extrapolation of the trial observed survival. Costs were restricted to those associated with the concomitant administration of eight weeks of cetuximab and RT, and the treatment of cetuximab related adverse events. All costs and benefits were discounted at 5% per annum. Costs were stated in A$ at 2006 prices. **RESULTS:** The modelled analysis estimated an incremental gain in average survival of 7.2 months. This was achieved at an average incremental cost of A$18,404. The resulting cost per LYG was estimated to be A$32,910. **CONCLUSION:** This analysis resulted in a positive recommendation from the PBAC to fund cetuximab for patients with LASCCHN on the basis of acceptable cost-effectiveness. The outcome of current trials assessing the benefits of cetuximab and chemoradiotherapy will further establish the role of this therapy in patients with head and neck cancer.

**PCN14**

**COST-EFFECTIVENESS OF EXEMESTANE VS. TAMOXIFEN IN POST-MENOPAUSAL WOMEN WITH EARLY BREAST CANCER IN GERMANY**

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**OBJECTIVES:** To assess the cost-effectiveness of switching to exemestane vs. continued tamoxifen therapy for early-stage breast cancer, a markov model was developed. Exemestane has become a widely used medication to treat women with breast cancer. Medical studies showed that switching to exemestane may be effective looking at overall survival. No cost-effectiveness study of exemestane has been conducted for the German health care context to date. **METHODS:** Different markov health states were based on clinical data from the Intergroup-Exemestane-Study (IES). Seven different health states were included from no recurrence over local and distant recurrences to death. In addition, several adverse events (osteoporosis, endometrial cancer, thromboembolism etc.) were factored in. The model population was set as postmenopausal women, who are in remission from early stage breast cancer receiving two to three years of adjuvant treatment with tamoxifen at the time of model entry. Upon model entry either a continuing daily therapy with 20 mg tamoxifen or a switch to 25 mg exemestane for the next two to three years takes place. The model takes a German health care perspective. The cycle length is set at six months, lasting for up to 38 years. Specific German mortality data was applied. Costs and benefits were discounted at 5%. Results were thoroughly tested in deterministic and a probabilistic sensitivity-analysis. **RESULTS:** Total incremental costs of exemestane on a lifetime basis are EUR12,851.35, resulting in an incremental cost ratio of EUR17,632.82 per additional QALY, or EUR16,857.85 per life-year gained. Incremental costs per disease-free year of survival are EUR12,851.35. Sensitivity analyses showed the stability of these results. **CONCLUSION:** Compared to tamoxifen mono-therapy the switch to exemestane after two to three years of tamoxifen therapy resulted to be a cost-effective strategy in adjuvant therapy for early-stage breast cancer in postmenopausal women within the German health care context.

**PCN15**

**ESTIMATING THE COST EFFECTIVENESS OF PROPHYLACTIC CERVICAL CANCER VACCINATION IN IRELAND USING A MATHEMATICAL MODEL**

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**OBJECTIVES:** In Ireland every year, approximately 18,000 women receive abnormal smear results, 1300 are diagnosed with carcinoma in situ, 200 with cervical cancer and 70 die from the disease. The objective of this study was to estimate the impact of implementing prophylactic cervical cancer (CC) vaccination, in Ireland, on CC morbidity and mortality and its cost effectiveness from an Irish health care perspective. **METHODS:** A static Markov cohort model with 12 different health states was used. Transition probabilities and utility values were obtained from the literature. Costs were obtained from an Irish specific study. Under the base case: vaccine coverage was 100%; 49% and 28% of the population undertook regular and irregular screening respectively; and the price of the vaccine was set at parity with a quadrivalent Human Papillomavirus (Types 6, 11, 16, 18) recombinant vaccine. Costs and benefits were discounted at 3.5%. Sensitivity analyses were undertaken to examine the main variables affecting cost effectiveness. **RESULTS:** Vaccinating 12 year old girls was predicted by the model to reduce the number of cases and deaths from cervical cancer by 67%. Prophylactic cervical cancer vaccination was cost effective at an incremental cost of €24,261 per QALY. Results were most sensitive to the total cost of vaccination, longevity of protection and discount rates. If administration and GP fees of €150 are taken into account incremental costs increase to €35,819 per QALY. A booster vaccine at age 22 and discounting benefits at 3% result in incremental costs per QALY of €29,723 and €19,117 per QALY respectively. **CONCLUSION:** Implementing prophylactic cervical cancer vaccination in Ireland is a cost effective way to reduce cervical cancer morbidity and mortality. However, cost effectiveness is sensitive to the longevity of protection and the total cost of vaccination.