

modereg therapy than with SOC for both, laBCC and mBCC patients. **CONCLUSIONS:** Vismodegib could provide an effective treatment for this therapeutic area with high rate of unmet need. During the adaptation process Delphi-panel surveys seemed to be an appropriate method to earn consensus statement to ensure estimation and help interpretation.

## PCN113

#### POTENTIAL MONETARY VALUE OF HUMAN PAPILLOMAVIRUS VACCINATION ON HUMAN PAPILLOMAVIRUS-RELATED CANCERS AND GENITAL WARTS IN THE UNITED KINGDOM

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**OBJECTIVES:** The United Kingdom (UK) runs a successful human papillomavirus (HPV) girls vaccination programme. Debate is ongoing on the value of including boys in the programme. This study aims at quantifying the potential value associated with genital warts (GW) and HPV-related cancer prevention in UK males and females based on a willingness-to-pay threshold of £20,000 per quality-adjusted life-years (QALY) gained, representing the potential value a government places on the prevention of these diseases. **METHODS:** A static vaccine steady-state (VSS) population model, stratified by age, with a 1-year time horizon, replicated the incidence of GW and HPV-related cancers in females (cervical (CC), anal (AC), vulvar (VuC), vaginal (VaC), oropharyngeal (OP)) and males (penile (PC), AC and OP) pre-vaccination and at VSS. Data were retrieved from UK cancer registries, sexually transmitted diseases reports and HPVcentre. Costs and utilities were identified from the literature. The VSS vaccine effectiveness for GW and HPV-related cancers was estimated combining efficacies (AS04-adjuvanted HPV-16/18 vaccine for cancers; HPV-6/11/16/18 vaccine for GW) weighted by vaccine-types (HPV-6/11/16/18) and non-vaccine types (HPV-31/33/35/39/45/51/52/56/58/59) HPV distribution. Costs and QALYs were discounted at 1.5%. Per-course vaccine cost-effective price (vCE-p) was determined by increasing vaccine course price until £20,000 per incremental QALY gained at VSS was reached. Sensitivity analyses on key variables were performed. **RESULTS:** The vCE-p in women (men) was: CC £790, OP £20 (£57), AC £123 (£77), VaC £37, VuC £58, PC £40, GW £26 (£27). Total value of cancer prevention in women (men) was £1,027 (£173), a proportion of 6:1. The value of CC alone is 4.5 times larger than the total value of cancer prevention in men. Sensitivity analyses showed results were robust while influenced by potential herd protection. **CONCLUSIONS:** The vCE-p was estimated to be up to 6 times higher in women than in men due to the higher burden and frequency of HPV-related cancers in women.

## PCN114

#### COST-EFFECTIVENESS OF APREPITANT IN EGYPTIAN PATIENTS RECEIVING HIGHLY EMETOGENIC THERAPY FROM THE THIRD PARTY PAYER PERSPECTIVE

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**OBJECTIVES:** to evaluate the cost-effectiveness of aprepitant as add-on therapy to the standard Egyptian regimen in patients receiving highly emetogenic therapy. **METHODS:** A decision tree model was developed based on the Egyptian clinical practice, and was derived from published sources. This decision analytical model was constructed to assess the costs and consequences associated with aprepitant containing regimen compared with standard therapy for Chemotherapy-Induced Nausea and Vomiting. The clinical parameters were derived from a randomized trial previously published. The utility of the health states was derived using the available published data. Direct medical costs were obtained from the third party payer tariff in Egypt. Deterministic sensitivity analyses were conducted. All costs (in 2014 EGP) and outcomes were discounted at 3.5% annually. **RESULTS:** The total quality-adjusted life-years (QALYs) of adding aprepitant to the standard regimen was estimated to be 0.0082, whereas that of the standard regimen was estimated to be 0.0072 (with a net difference of 0.001QALYs). The total costs for aprepitant plus standard regimen and standard regimen alone were EGP 414.25 and EGP 346.62 respectively (with a net difference of EGP 67.63). Thus the incremental cost-effectiveness ratio (ICER) for aprepitant was EGP 66,004/QALY gained. The probability of complete protection and incomplete response of both arms were found to have the greatest effect on the results. **CONCLUSIONS:** The present study concludes that adding aprepitant to the standard regimen is cost effective based on the threshold stated by world health organization (3xGDP/capita) for patients with severe vomiting after chemotherapy.

## PCN115

#### COST EFFECTIVENESS ANALYSIS OF EVEROLIMUS + EXEMESTANE FOR PATIENTS WITH ADVANCED BREAST CANCER WITH POSITIVE ESTROGEN RECEPTOR (ER +), HER2-, REFRACTORY TO NON-STEROIDAL AROMATASE INHIBITORS (NSAIs) IN CHILE

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**OBJECTIVES:** To evaluate the cost-effectiveness of everolimus plus exemestane in patients with ER+, HER2- advanced breast cancer, who have failed on NSAIs. **METHODS:** A Markov model was developed with monthly cycles and a time horizon of five years. The model compares progression free survival (PFS) of exemestane + everolimus (EVE+EXE) to exemestane monotherapy (EXE). Transition probabilities for PFS of EVE+EXE and EXE were based on BOLERO-2 study and calculated using a fitted Weibull distribution. The R-squared values for the Weibull fits were 0.998 and 0.990 for EVE+EXE and EXE alone respectively. The Weibull parameters used in the model were: 0.067 and 1.118 for EVE+EXE and 0.191 and 1.006 for EXE. Costs considered included drugs and cost of treating neutropenia (other AEs are not covered by the National Formulary). The analysis was designed from the perspective of the Chilean Public Healthcare. Results are shown in 2014 Chilean pesos. A 5% discount rate for costs and efficacies was applied. A probabilistic sen-

sitivity analysis (PSA) was run with thousand repetitions and a one-way sensitivity analysis was calculated showing its results in a tornado chart. **RESULTS:** The model showed that everolimus + exemestane results in 0.74 progression free years gained with an incremental cost of \$18.6 million (MM) resulting in an incremental cost-effectiveness ratio (ICER) of \$26 MM. The PSA showed that the ICER is within the range recommended by WHO (1-3 GDPs per capita) in 71% of cases (Currently the GDP per capita in Chile is \$10 MM). **CONCLUSIONS:** This analysis showed that using everolimus plus exemestane in patients with ER+, HER2- advanced breast cancer who have failed on NSAIs is a cost-effective option according to WHO recommendations.

## PCN116

#### COST-EFFECTIVENESS OF 2-DOSE AS04-ADJUVANTED HUMAN PAPILLOMAVIRUS 16/18 VACCINATION SCHEDULE IN SLOVAKIA

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**OBJECTIVES:** Slovakia is a country with high incidence and mortality of cervical cancer (CC). Despite the improvements in screening (22.9% coverage rate), the CC incidence has increased over the past 30 years in Slovakia. Human Papillomavirus (HPV) vaccination could help to reduce this CC burden. The objective of this analysis was to assess the cost-effectiveness of adding the AS04-adjuvanted HPV-16/18 vaccine (AS04V), using a 2-dose administration schedule, to the current CC screening programme in Slovakia. **METHODS:** A previously published Markov cohort model, reproducing the natural history of HPV infection, the impact of screening and vaccination, was adapted to the Slovakian settings. Local data on health care costs of pre-cancer lesions and CC, obtained from the expert panel, were used. Transition probabilities and utilities were estimated from published data. Costs were from a health care payer perspective. The incremental CC cases avoided, cost, quality-adjusted life-years (QALYs) and resulting cost-effectiveness ratio (ICER) of AS04V added to the current CC screening programme versus the current CC screening in Slovakia was estimated. The base case assumes a 100% vaccination coverage among 12-year-old girls (N= 24,859). A discount rate of 5% was used. Univariate sensitivity analyses were carried out on key parameters. **RESULTS:** Compared to screening alone, adding AS04V to the current screening programme was estimated to reduce the lifetime CC cases by 328 at an ICER of 11,621 €/QALY gained. Compared to the official cut-off of 19,320€/QALY gained, it can be considered as cost-effective. Undiscounted analysis shows that AS04V generates more QALYs with similar cost versus screening alone (ICER=5€/QALY gained). Parameters most driving the results were discount rate, vaccine efficacy and duration of protection. **CONCLUSIONS:** AS04V vaccination of 12-year-old girls in a 2-dose schedule was estimated to be a cost-effective CC prevention strategy in Slovakia.

## PCN117

#### A COST EFFECTIVENESS ANALYSIS OF EVEROLIMUS PLUS EXEMESTANE COMPARED TO CHEMOTHERAPY AGENTS FOR THE TREATMENT OF ER+ HER2- METASTATIC BREAST CANCER IN THE UNITED KINGDOM

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**OBJECTIVES:** To evaluate the cost-effectiveness of everolimus plus exemestane (EVE+EXE) versus chemotherapy agents [docetaxel (DOC), vinorelbine (VIN), doxorubicin (DOX) and capecitabine (CAPE)] for the treatment of hormone receptor positive (HR+) HER2 negative (HER2-) advanced or metastatic breast cancer in the United Kingdom (UK). **METHODS:** A partitioned survival model was developed to compare treatment with EVE+EXE versus DOC, VIN, DOX and CAPE in patients with ER+ HER2- metastatic breast cancer over a 10-year time horizon from a UK NHS perspective. Progression-free survival and overall survival for EVE+EXE were taken from the BOLERO-2 trial. Log-logistic functions were used to extrapolate trial data beyond the follow-up period. In the absence of head-to-head evidence comparing EVE+EXE versus chemotherapy a naïve chained comparison was conducted with the link between EVE+EXE established via tamoxifen using the Bucher method. A class effect was assumed for the four chemotherapy agents. Background health state and terminal care resource use were derived from NICE Clinical Guideline 81. Drug costs were taken from the British National Formulary. Utilities for stable and progressive states were obtained from the literature (Lloyd et al. 2006). **RESULTS:** Over a ten year time horizon, EVE+EXE led to a life expectancy of 3.55 years, compared to 1.88 for chemotherapy agents (DOC, VIN, DOX and CAPE). EVE+EXE resulted in 2.06 QALYs, compared to 0.95 for chemotherapy agents. Total costs were £48,085 for EVE+EXE compared to £31,835 vs. DOC, £25,021 vs. VIN, £23,743 vs. DOX and £21,851 vs. CAPE. The incremental costs per QALY were £14,550 vs. DOC, £20,653 vs. VIN, £21,797 vs. DOX and £23,491 vs. CAPE. Results were most sensitive to changes in PFS for chemotherapy and disease related costs. **CONCLUSIONS:** Everolimus in combination with exemestane is a cost effective option compared with commonly used chemotherapeutic agents (docetaxel, vinorelbine, doxorubicin and capecitabine) in UK clinical practice.

## PCN118

#### COST-EFFECTIVENESS ANALYSIS OF BEVACIZUMAB- PACLITAXEL-CARBOPLATIN (PC) VERSUS PC IN FIRST-LINE THERAPY OF ADVANCED NON-SMALL CELL LUNG CANCER FROM PATIENTS' PERSPECTIVE IN VIETNAM

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**OBJECTIVES:** Bevacizumab in combination with carboplatin/paclitaxel (BCP) was approved to be the first-line therapy of advanced NSCLC due to its high clinical efficacy. However, economic effectiveness of BCP has been controversial. This study aimed to estimate the cost-effectiveness of BCP versus PC in treatment of advanced NSCLC patients from patients' perspective in Vietnam. **METHODS:** A