modrgb therapy than with SOC for both, iABCC and mBCB patients. CONCLUSIONS: Vismodegib could provide an effective treatment for this therapeutic area with high risk of adverse effects. Further development of this agent is warranted.

PCN113 POTENTIAL MONETARY VALUE OF HUMAN PAPILLOMAVIRUS VACCINATION ON HUMAN PAPILLOMAVIRUS-RELATED CANCERS AND GENITAL WARTS IN THE UNITED KINGDOM

Vismodegib: A new option in metastatic breast cancer over a 10-year time horizon from a UK NHS perspective.

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 the HPV 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) model was used to model 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 registry, 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 type-16/18/heterologous for non-type-16/18) and non-vaccine types (HPV-31/33/35/45/52/55/56/58/59) HPV distribution. Costs and QALYs were discounted at 1.5%. Per-course vaccine cost-effectiveness (CE) 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 £90/ £20 (E57), AC £123/ £70, VuC £38/ £15, VaC £58/ £40, GW £26/ £19. Total value of cancer prevention in women (men) was £1,027/ £173 (£77), a proportion of 6:7 for cancer prevention in women (men) was £1,027 (£77) and £790 (£40) for men (women). The total quality-adjusted life-years (QALYs) of adding aprepitant to the standard regimen was 0.998 and 0.990 for EVE (+) and (-) respectively. For the treatment of advanced NSCLC in patients with erlotinib resistance, the results were compared by the following cost-effectiveness analysis. The model showed that everolimus + exemestane results in 0.74 progression free years gained with an incremental cost of £116.8 million (MM) resulting in an incremental cost-effectiveness ratio (ICER) of £26.5M. The PSA showed that the ICER is in the range recommended by WHO. In the case of cost-effectiveness analysis, 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 NSAI is a cost-effective option according to WHO recommendations.

PCN116 COST-EFFECTIVENESS OF 2-DOSE AS04-ADJUVERTED 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 is high, especially among young women. Therefore, the CC burden needs to be reduced. OBJECTIVES: To evaluate the cost-effectiveness of everolimus plus exemestane compared to chemotherapy agents for the treatment of breast cancer over a 10-year time horizon from a UK NHS perspective. Progression-free survival and overall survival for EVE+XE 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+XE versus chemotherapy a naive chained comparison was conducted with the link between EVE+XE established via tamofoxen 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+XE led to a life expectancy of 3.55 years, compared to 3.18 years for chemotherapy agents (DOC, VIN, DOX and CAPE). EVE+XE resulted in 2.06 QALYs, compared to 0.95 for chemotherapy agents. Total costs were £48,085 for EVE+XE 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 chemotherapy agents (docetaxel, vinorelbine, doxorubicin and capecitabine) in UK clinical practice.

PCN117 A COST-EFFECTIVENESS ANALYSIS OF EVEROLIMUS PLUS EXEMESTANE COMPARED TO CHEMOTHERAPY AGENTS FOR THE TREATMENT OF BREAST CANCER

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OBJECTIVES: To evaluate the cost-effectiveness of everolimus plus exemestane (EVE+XE) versus chemotherapy agents [docetaxel (DOC), vinorelbine (VIN), doxorubicin and capecitabine (CAPE)] in UK clinical practice. METHODS: A partitioned survival model was developed to compare treatment with EVE+XE versus DOC, VIN, DOX and CAPE in patients with hormone receptor (HR)-positive (HR+) HER2- metastatic breast cancer in the United Kingdom (UK). METHODS: A partitioned survival model was developed to compare treatment with EVE+XE versus DOC, VIN, DOX and CAPE in patients with HR+ metastatic breast cancer (with or without HER2) in the UK NHS perspective. Progression-free survival and overall survival for EVE+XE 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+XE versus chemotherapy a naive chained comparison was conducted with the link between EVE+XE 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+XE led to a life expectancy of 3.55 years, compared to 3.18 years for chemotherapy agents (DOC, VIN, DOX and CAPE). EVE+XE resulted in 2.06 QALYs, compared to 0.95 for chemotherapy agents. Total costs were £48,085 for EVE+XE 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 chemotherapy agents (docetaxel, vinorelbine, doxorubicin and capecitabine) in UK clinical practice.
Markov model was developed to estimate the health outcome (QALY) and total treatment costs for each cycle of a 21-day lifetime horizon. Markov model data was retrieved from the randomized clinical trial ECOG 4599. Direct costs, including cost of drugs, administration, medical services, hospital bed day and adverse drug reaction management were estimated based on treatment guidelines and NCG-AP. Indirect costs (costs of earnings, loss of earnings) were discounted 3% annually. RESULTS: Bevacizumab was found to be more cost effective compared with C-P, resulting in 0.71 QALYs and 1.28 LYs, per patient, respectively. Mean total costs per patient were: RD$ 5,556,348 for C-P versus RD$ 7,688,910 for C-P, which is 3.5 times higher than the Willingness-To-Donate in 2013 (229,242,416 VND). A probability sensitivity analysis showed that C-P resulted in 0.79 QALYs and 1.38 LYs, per patient, respectively. C-P resulted in 0.71 QALYs and 1.28 LYs, per patient, respectively. Mean total costs per patient were: RD$ 2,040,289 for A-P and RD$ 7,322,365 for C-P. The results of the probabilistic sensitivity analysis showed that, when compared with C-P, A-P was found dominant (associated with reduced costs and increased QALYs) in the majority of the iterations. A-P had a 98% probability of being cost-effective, independent of the willingness to pay, when compared to C-P. CONCLUSIONS: A-P can be considered dominant (cost-saving) when compared with C-P, in patients with Metastatic Castration-Resistant Prostate Cancer that have failed to chemotherapy with Docetaxel, as the perspective of the Public System of Health of Costa Rica.