RESULTS: In spite of the same quality of life score at the first session of chemotherapy (74.5 out of 100), after finishing the chemotherapy cycle, patients in TAC arm had the lower score of QOL (64 in TAC vs. 68 in FAC) and higher range of toxicity and their medical costs were higher as well (the average costs in TAC was 391,176,968.2 Rls. vs. 2,427,775.2 in FAC). ICER was negative that showed the dominant result for FAC comparing with TAC. CONCLUSIONS: It seems that because of the short horizon of the study, TAC regimen had the worse impact on the patient’s quality of life during the chemotherapy cycle because of more side effects than FAC. It is believed that there is need for other studies with longer time horizons and specific attention to the effects of these treatments on survival and quality of life.

PCN98

PROJECTING THE POTENTIAL COST-EFFECTIVENESS OF A BREAST CANCER TREATMENT IN COMPARISON TO THE STANDARD TREATMENTS: A DECISION ANALYTIC MODEL

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OBJECTIVES: Breast cancer is known to be one of the leading causes of death among the female population. Preventive measures may provide an economic and outcome advantage by reducing treatment costs and increasing survival. The objective of this study was to evaluate the cost-effectiveness of a breast cancer vaccine versus current standard treatments. METHODS: TreeAge software was used to calculate the cost-effectiveness, a decision tree was constructed for different probabilities of success and failure for the vaccine versus standard treatment. Costs and outcomes (life-years saved) were obtained from published clinical trials. The vaccine effectiveness was projected from clinical studies, with human clinical trials expected within a year. The range of effectiveness of the vaccine was considered between 30% and 90% with a baseline at 80%. The costs included for standard treatments ranged from $20,000 to $45,000 and the cost of the vaccine was assumed at $40 per dose. Therefore, the cost for vaccine ranged from $100 to $200 depending on the number of doses. The incremental cost-effectiveness ratios were calculated from the range of costs and outcomes. Sensitivity analyses were performed to determine the robustness of the findings. RESULTS: Vaccination was found to be a potentially cost-effectiveness option with an ICER of 2.146 per quality-adjusted life-year saved. The incremental cost-effectiveness was 11.8 years saved. The highest cost-effectiveness of the vaccine was at 90% success and a cost of not more than $100 per individual. Sensitivity analyses indicated that the vaccine remained cost-effective over the range of model parameters. CONCLUSIONS: The breast cancer vaccine was projected to be the most cost-effective treatment option in this analysis. It is expected that better screening for breast cancer vaccine patient candidates will be available in the future.

PCN99

COMPARATIVE RETROSPECTIVE NON-RANDOMIZED PHARMACOECONOMIC TRIAL OF EFFICIENCY AND SAFETY OF USE OF PACLITAXELS (PACLITAXEL-LENS OR TAXOL) IN A MONOMODE FOR 2ND LINE OF TREATMENT OF METASTATIC BREAST CANCER PATIENTS

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OBJECTIVES: For the first time in a modern Russian economic conditions, it has been made pharmacoeconomics trial (PE) using Russian generic of paclitaxel (Paclitaxel-Lens (PL)) in comparison with original drug (Taxol (T)) at chemotherapy (ChT) in a monomode protocol. The problem of original drugs substitution on generics presents in the Russian clinical practice. The problem of original drugs substitution on generics presents in the Russian clinical practice. The problem of original drugs substitution on generics presents in the Russian clinical practice. The problem of original drugs substitution on generics presents in the Russian clinical practice. The problem of original drugs substitution on generics presents in the Russian clinical practice. METHODS: Pharmacoeconomic trial which have been included 70 patients for 35 patients of each group (PL or T) at therapy and monitoring, adverse effects, treatment and palliative care were included. Sensitivity analyses testing the influence of length of time horizon, probability of progression, utilities, discounting rates, cisplatin dose, and the length and costs of 2nd line therapy were performed. RESULTS: Bev + Pac + Car results in 1.31 life-years gained per patient compared to Pem + Cis in the treatment of patients with adenosquamous NSCLC. The additional cost per patient was 18,840 pln (1 EURO = 4.1PLN) over patient’s lifetime when Bev + Pac + Car was used instead of Pem + Cis regimen. The incremental cost-effectiveness ratio (ICER) was at an acceptable 91,216 pln. The sensitivity analyses demonstrated that the duration of 2nd line treatment (assumption of 2nd line treatment continuation for more than six cycles) considerably influenced the ICER (1,198 pln). Other sensitivity analyses confirmed the base-case results, proving conclusions’ robustness. CONCLUSIONS: Baseline of this modeling analysis, Bev + Car + Pac therapy is a clinically superior and cost-effective treatment for patients with adenosquamous non-squamous NSCLC when compared to chemotherapies such as Pem + Cis.

PCN100

PHARMACOEPIDEMIOLOGICAL AND PHARMACOECONOMIC EVALUATION OF OXALIPLATIN IN PALLIATIVE CHEMOTHERAPY OF METASTATIC COLORECTAL CANCER (mCRC)

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The problem of original drugs substitution on generics presents in the Russian clinical practice due to rational expenditures allocation. Pharmacoeconomic non-cisplatin based bioequivalece of generic should be confirmed by therapeutic one. Only after such kind of confirmation, the mentioned substitution could be made in different segments of doctors’ practice especially in anticancer chemotherapy. OBJECTIVES: To determine and compare the cost-effectiveness of Bev + Ox + Pac vs. Bev + Car therapy in mCRC. METHODS: The retrospective clinical pharmacoeconomic analysis of FOLFOX (fluorouracil, leucovorin, oxaliplatin; FXO + C) compared to single agent irinotecan (Cis in the treatment of stage III colon cancer, the benefits from fluorouracil (5-FU)-based adjuvant chemotherapy (ChT) in a monomode protocol. specificity and anemia, like arthralgia/myalgia after using of T. will be economically more expedient; and 3) Thus, it is necessary to take into consid-
therapy are well-established and the combination regimens including a fluoropyrimidine + oxaliplatin are the current standard of care. OBJECTIVES: To compare costs of XELOX with FOLFOX-4 as adjuvant treatment for stage III colon cancer under Brazilian private payer perspective. METHODS: Both regimens demonstrated to significantly improve disease-free survival when compared to 5-FU/LV for adjuvant treatment of stage III colon cancer (MOSAiC and XELOXOLA). In the absence of head-to-head trials comparing both regimens, an indirect comparison using Butcher approach (Butcher 1997) was conducted. No difference was found regarding efficacy of outcomes (XELOX vs. FOLFOX-4 in disease-free survival: HR 1.03, 95% CI 0.81, 1.29); therefore, a cost-minimization analysis was used. A modified Delphi panel identified local practices to manage severe adverse events (SAEs) of each scheme. Only direct costs were considered for a patient with 1.7 m². Drug prices were obtained from official public sources (Kaiso Magazine, April 2010) and administration costs from medical society physicians fee list (CBHPM2008, v5). Time horizon was 6 months according to clinical recommendations: eight cycles for XELOX and 12 for FOLFOX-4. Discounting was not applied. RESULTS: XELOX is less costly than FOLFOX-4 (SEK 94,862 vs. SEK 57,846). XELOX has higher acquisition costs which is offset by savings in medical resource utilization. Mean acquisition costs for XELOX were SEK 14185 higher than with FOLFOX-4, but costs to treat SAEs and administration costs were SEK 12,169 higher for FOLFOX-4. One-way sensitivity analysis confirmed the robustness of results. CONCLUSIONS: Findings suggest XELOX as a cost-saving therapy for setting under the private payer perspective in Brazil when compared to FOLFOX-4.

PCN94
CAPECTTABINE + OKALIPLATIN (XELOX) VS. 5-FU/LY + OKALIPLATIN (FOLFOX) IN THE ADJUVANT TREATMENT OF PATIENTS WITH COLON CANCER (ACC): COMPARISON OF DIRECT MEDICAL AND SOCIETAL (INDIRECT) COSTS
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OBJECTIVES: FOLFOX4 has been the chemotherapy of choice for patients with stage III colon cancer. Recently, the international NO16968 study reported results confirming the efficacy of XELOX in this setting, and evidence suggests that both regimens have at least equivalent efficacy. Therefore, medical and societal resource utilization are important factors for providers, patients, and payers. The objective of this analysis was to compare total costs required to treat an average ACC patient with either XELOX or FOLFOX4 in Switzerland. METHODS: In the absence of a direct comparison, detailed medical resource utilization (MRU) data collected for XELOX from study NO16,968 (ACC) and for FOLFOX4 from study NO16,968 (metastatic colorectal cancer) were analyzed. The FOLFOX4 regimen is identical in both indications; therefore, MRU data from NO16,968 were considered valid proxies. In addition to direct MRU (chemotherapy, hospitalizations due to adverse events [AEs], ambulatory encounters, AE medication, and central venous access [CVA] placements), patient time and travel costs for hospitalizations, ambulatory encounters, and drug administration were estimated. Unit costs were derived from official tariffs [Spezialarztdatenbank, Tarmed 2010 for drug costs and physician services], official statistics (hospital cost, mean hourly salary) and tax guidelines (travel costs). Total costs while on treatment (24 weeks) for an average ACC patient with ACC were compared. RESULTS: On average, XELOX saved CHF 11,471 per patient versus FOLFOX4. CHF 883 resulted from savings in direct costs, mainly driven by savings in drug administration (CHF 9312) and CVA placements (CHF 1730); savings in patient time and travel costs amounted to CHF 6419. CONCLUSIONS: XELOX appears to be cost-saving versus FOLFOX4 in ACC from both a Swiss health-care system and the societal perspective, assuming equivalent efficacy for the two regimens. Considering the high incidence of colon cancer in Switzerland, substantial overall savings may be realized by routine use of XELOX in this indication.

PCN95
A MARKOV MODEL TO ESTIMATE THE COST-EFFECTIVENESS OF OMACETAXINE IN CHRONIC MYELOID LEUKEMIA
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OBJECTIVES: In patients with chronic myeloid leukemia (CML), first-line treatment with imatinib therapy is beneficial. In cases of imatinib failure, second-generation tyrosine kinase inhibitors (TKIs) are recommended. Omacetaxine has a novel mode of action and acts independently of TKIs; thus, it may have therapeutic advantages for patients who have developed resistance to TKI therapy and have no available treatment options. The objective was to develop a health economic model to estimate the cost-effectiveness of omacetaxine in the treatment of CML. METHODS: A cost-effectiveness Markov model was developed to capture the progression of CML and treatment effects. The model was developed from the perspective of the French health-care system. Patients entered the model treated either with omacetaxine or standard care, in one of three phases: chronic, accelerated, or blast phase, having failed on imatinib therapy (phase imbalance or intolerance). Patients then moved to states: no response, no response, or death. Survival estimates for nonresponding and responding patients were taken from studies 202 and 203. These were extrapolated using parametric curve fits to estimate survival beyond the end of the trial. Resource use was based on the trial and from the expert opinion of a panel of French clinicians. Unit costs and utilities were elicited from the literature. One-way and probabilistic sensitivity analyses (PSA) were performed. RESULTS: The deterministic results demonstrated that treatment with omacetaxine is cost-effective at a threshold of €30,000. Sensitivity analysis showed that results were most sensitive to cost of omacetaxine, utility score, and survival benefit that the model was sufficiently powered to parameter uncertainty. CONCLUSIONS: The analysis demonstrated that omacetaxine is cost-effective in the treatment of CML patients who are resistant to TKI therapy and have no available treatment options.

PCN96
A UK COST UTILITY ANALYSIS OF PACLITAXEL ALBUMIN COMBINED WITH DOXETAXEL MONOTHERAPY AND DOXETAXEL MONOTHERAPY FOR PRETREATED METASTATIC BREAST CANCER (MBC)
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OBJECTIVES: Paclitaxel albumin (P-A; Abraxane®) is nanoparticle albumin-bound paclitaxel formulated without use of irritant solvents that are responsible for many of the hypersensitivity and dose-limiting adverse events (AEs). Previous research has compared its cost-effectiveness to solvent-based paclitaxel (S-P) and docetaxel (DOC) in a cohort of patients with mixed treatment history. This study examined P-A’s cost-effectiveness for pretreated MBC, the population specified in the European license. METHODS: A Markov model with progression-free, progressed, and mortality states was developed to estimate costs and outcomes over 5 years for all NICE-prescribed regimens. Included from published sources were the costs at 2009 prices of drugs, administration, AEs, and supportive care. Published utility weights were applied to health states to estimate the impact of response, disease progression, and AEs on quality-adjusted life-years (QALYs). Clinical data for pretreated patients receiving P-A were data generated from 260 mg/m² 3-weekly (q3w) and S-P 175 mg/m² q3w are from Gradishar (2005). Using Bucher’s methods, an indirect comparison with Jones (2005) provided estimates of clinical parameters for DOC 100 mg/m² q3w. Weibull extrapolations of survival data generated transition probabilities. RESULTS: Compared to S-P, P-A achieved an extra 0.164 QALYs, 0.263 life-years, and incurred additional costs of £5,137 per patient treated. This translated to an incremental cost-effectiveness ratio of £25,209/QALY. P-A saved £697 when compared to DOC, with a marginal QALY gain of £4,449 and no life-expectancy divergence. Probabilistic sensitivity analysis versus DOC indicated a 58% likelihood of P-A satisfying a willingness-to-pay threshold of £30,000/QALY. Both comparisons were sensitive to drug costs and survival estimates. Accounting for potential drug wastage did not influence interpretation of results from either comparison. CONCLUSIONS: The model found that P-A gave better outcomes than S-P or DOC and was cost-effective compared to both interventions. This depended upon greater efficacy than S-P and a more favorable safety profile than DOC.

PCN97
A COST UTILITY ANALYSIS ON THE USE OF TRASTUZUMAB + ANASTROZOLE COMPARED TO LAPATINIB + LETROZOLE, LETROZOLE MONOTHERAPY OR ANASTROZOLE MONOTHERAPY AS ADJUVANT TREATMENT OF HER2+/HORMONE RECEPTOR POSITIVE (HR+) METASTATIC BREAST CANCER (MBC) FROM THE PERSPECTIVE OF THE UK NATIONAL HEALTH SERVICE (NHS)
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OBJECTIVES: To assess the cost-effectiveness of trastuzumab/anastrozole compared to lapatinib/letrozole, anastrozole, and letrozole for the treatment of HER2+/HR+ mBC patients in whom treatment with an aromatase inhibitor is suitable from a UK NHS perspective. METHODS: An area under the curve model based on the TAnDEM (trastuzumab/anastrozole vs. anastrozole) and EGF30008 (lapatinib/letrozole vs. letrozole) RCTs and the findings of a mixed treatment comparison (MTC) conducted on endocrine treatments in HR+ mBC was developed in Excel, a rank preserving structural model (RPSST) model was utilized to account for the 70% crossover in TAnDEM. In the base-case, no attempt to account for the sizeable additional imbalance in 2nd line chemotherapy was made. The anastrozole PFS and RPSST-adjusted OS curves from TAnDEM were utilized as a baseline from which to implement the required indirect comparisons under the assumption of an AI “class effect” (as suggested by expert clinical opinion and confirmed by the MTC). The present value of all costs and health outcomes attributable to each treatment option were calculated and the efficiency frontier defined. Extensive deterministic and probabilistic sensitivity analyses were conducted. RESULTS: Anastrozole is dominated by letrozole. Lapatinib/letrozole is extensively dominated by a combination of letrozole monotherapy and trastuzumab/anastrozole. Trastuzumab/anastrozole produced the most QALYs of all regimens. Trastuzumab/anastrozole and letrozole define the efficiency frontier for our base case of ICER of £34,363/QALY. The use of the utility values derived from EGF30008 caused this ICER to fall to £44,971/QALY. CONCLUSIONS: Lapatinib/letrozole is not a cost-effective use of finite NHS resources at any cost-effectiveness threshold. As no attempt was made to account for the imbalance of 2nd line chemotherapy in TAnDEM (31% in anastrozole vs. 8% for letrozole) and relatively conservative utility values were used within the model the base-case ICER of trastuzumab/anastrozole vs. letrozole (£34,363/QALY) should be regarded as conservative and the true ICER likely lies below £30,000/QALY gained.