PCN185

COST-EFFECTIVENESS OF NIVOLUMAB IN SECOND-LINE TREATMENT OF LOCALLY ADVANCED UNRESECTABLE OR METASTATIC UROTHELIAL CARCINOMA IN ADULTS AFTER FAILURE OF PRIOR PLATINUM-CONTAINING THERAPY IN GREECE

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OBJECTIVES: The objective of this study was to assess the cost-effectiveness of nivolumab for use in Greece as second line treatment in adult patients with locally advanced unresectable or metastatic urothelial carcinoma after failure of prior platinum-containing therapy. **METHODS:** A cost-effectiveness model using a partitioned survival structure was assessed from a Greek health-care payer perspective over a 20-year time horizon. The model used progression-free and overall survival data from the CheckMate 275 and 032 clinical trials and an outcome-regression based comparison to estimate time varying hazard ratios. Utility values were derived from Checkmate 275 data and were based on UK EQ-5D tariffs. Drug acquisition, administration, monitoring, subsequent therapy and adverse event costs were taken from published prices and clinical expert input. Adverse event probabilities were based on the CheckMate 275 clinical trial and published literature. In the base case, nivolumab was compared to vinflunine and best supportive care (BSC). An additional comparison was run versus methotrexate, vinblastine, doxorubicin, and cisplatin (MVAC) and gemcitabine plus cisplatin. **RESULTS:** When nivolumab was compared to vinflunine the ICUR and ICER were €25,878 per QALY and €19,332 per LYG respectively and when nivolumab was compared to BSC the ICUR and ICER were €39,282 per QALY and €27,363 per LYG respectively. When nivolumab was compared to gemcitabine plus cisplatin the ICUR and ICER were €43,232 per QALY and €31,586 per LYG respectively and when nivolumab was compared to MVAC the ICUR and ICER were €36,414 per QALY and €25,715 per LYG respectively. **CONCLUSIONS:** Nivolumab is cost-effective versus both single agent and combination regimen comparators at a €50,000 per QALY gained threshold in the second-line setting of locally advanced unresectable or metastatic urothelial carcinoma in Greece.

PCN188

ASSESSING THE ROBUSTNESS OF A COST-EFFECTIVENESS ANALYSIS OF LENVATINIB VERSUS SORAFENIB IN UNRESECTABLE HEPATOCELLULAR CARCINOMA IN JAPAN

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OBJECTIVES: In the REFLECT trial, lenvatinib demonstrated non-inferiority in overall survival (OS) compared with sorafenib in the first-line treatment of unresectable hepatocellular carcinoma (uHCC). At baseline, a greater proportion of lenvatinib patients had an α-fetoprotein (AFP) level of ≥ 200 ng/mL, an adverse prognostic factor. We evaluated the cost-effectiveness of lenvatinib versus sorafenib in uHCC in Japan over a lifetime horizon, adjusting for this imbalance in patient AFP levels. **METHODS:** A partitioned survival model was developed with 3 health states: progression-free, post-progression, and death. Clinical outcomes, adverse events, and health state utilities were obtained from the REFLECT trial. Direct medical costs were based on Japanese data. We carried out deterministic sensitivity analysis (DSA), probabilistic sensitivity analysis (PSA), and scenario analyses to explore the potential influences of the different parameters in our analysis. **RESULTS:** The estimated quality-adjusted life years (QALYs) for lenvatinib were 1.46 QALY, and 1.23 QALY for sorafenib, respectively. The total costs of lenvatinib therapy were estimated at 5,088,957 JPY, while the sorafenib costs were 5,495,264 JPY. Therefore, treatment with lenvatinib led to 0.23 QALY improvement and lowered costs by 406,307 JPY. In DSA, the three most significant model parameters were OS curves, progression-free survival curves, and progression-free utility; varying these parameters still resulted in lenvatinib being favourable over sorafenib. In PSA, lenvatinib was favourable to sorafenib in 81% of 1,000 simulations, at the 5 million JPY willingness-to-pay per QALY threshold and 77% at the 10 million JPY per QALY threshold. Our conclusions were robust in scenario analyses. **CONCLUSIONS:** Results of this analysis suggested lenvatinib offered improved health outcomes (i.e., QALYs) with lower costs for uHCC patients compared with sorafenib. Our results were robust to sensitivity analyses and scenario analysis.

PCN189

ANALYSIS COST / UTILITY OF THE THERAPEUTIC THERAPY TREATMENT OF LUNG CANCER IN A UNIVERSITY HOSPITAL OF SPAIN

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OBJECTIVES: 1º. Analyze the cost of parenteral cancer chemotherapy. 2º. Analyze the utility in terms of quality of life for each treatment scheme. 3º. To evaluate the hospital treatment of cancer by means of a cost / utility analysis. **METHODS:** A prospective study of patients with lung cancer since December 31, 2007 in a University hospital in Spain. A cost-utility analysis has been carried out that represents the natural history of the treatment of lung cancer for studies III and IV with chemotherapy. The model compares 2 lines of pharmacological treatment along with the alternative that consists in letting patients follow their natural evolution without treatment. The utility with QALYs and the cost of the different alternatives have been calculated and compared using the cost-utility ratio. The decision tree was developed with the Treeplan® Excel® program. **RESULTS:** The average cost of adjuvant parental cancer chemotherapy is € 1,318.9 for microcytic lung tumors and € 3,467.35 for non-small cell tumors. The average cost of palliative cancer chemotherapy for small cell lung tumors is € 1,106.73, and non-small cell lung tumors is € 10,761.35. The QALYs as average utility of the adjuvant parental cancer chemotherapy treatment in small cell lung cancer is. And in the non-small cell it is 0.24940491 The usefulness of palliative parental cancer treatment is 0.332014 AVAcs for small cell lung tumors and 0.85423611 for non-small cell tumors. The usefulness of patients with lung cancer without parental cancer treatment is 0.22344972 months for microcytic and 0.41841813 for non-small cell. **CONCLUSIONS:** For small cell lung tumors, the therapeutic decision that presents a better cost / utility ratio, is the adjuvant parental oncological chemotherapy treatment. 2. For non-small cell lung tumors, the best cost / utility ratio is not to apply any oncological or adjuvant treatment.

PCN190

COST-EFFECTIVENESS OF NIVOLUMAB + IPILIMUMAB IN FIRST-LINE TREATMENT OF ADVANCED OR METASTATIC RENAL CELL CARCINOMA IN THE NETHERLANDS

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OBJECTIVES: CheckMate-214 (NCT02231749) has demonstrated overall survival benefits and enhanced quality of life for nivolumab in combination with ipilimumab (N+I) relative to sunitinib as first-line (1L) treatment in patients with advanced or metastatic renal cell carcinoma (RCC) with intermediate or poor prognostic risk. The objective of this study was to conduct a cost-effectiveness analysis comparing N+I to sunitinib for 1L treatment of RCC in the Netherlands. **METHODS:** A three-state partitioned survival model was developed, with pre-progression, progressed disease, and death health states. Survival data were sourced from CheckMate-214 and extrapolated to a 30-year time horizon. Per clinician feedback, time on 1L treatment data were extrapolated up to 2 years to estimate costs related to drug acquisition and administration incurred by patients. Cost of nivolumab was based on list price. Utility estimates were derived from CheckMate-214, and resource use for disease management was estimated based on the literature. Scenario analyses were conducted to explore key assumptions regarding survival extrapolations and health state utility estimates. **RESULTS:** Treatment with N+I was estimated to result in a mean discounted quality-adjusted life years (QALYs) gain of 5.0 over a 30-year time horizon. Treatment with sunitinib was estimated to result in 3.6 QALYs, yielding an incremental benefit of N+I versus sunitinib of 1.4 QALYs. Total costs were estimated at €311,359 and €236,000 for N+I and sunitinib, respectively. The incremental cost-utility ratio (ICUR) was estimated at €54,831 per QALY. Scenario analyses demonstrated that the selected survival extrapolations were conservative as most alternative extrapolations demonstrated higher net benefit for N+I. Alternative health state utility estimates had little impact on the health-economic results. **CONCLUSIONS:** In this model-based analysis, N+I was a cost-effective treatment option for the 1L treatment of RCC in the Netherlands. It would thus provide a valuable treatment option for a disease area with high unmet need.

PCN191

COST-EFFECTIVENESS OF MONITORING ENDOXIFEN LEVELS IN BREAST CANCER PATIENTS ADJUVANTLY TREATED WITH TAMOXIFEN

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OBJECTIVES: Breast cancer is the most common malignancy in women worldwide. Recurrence rates in breast cancer are considered to be dependent on the serum concentration of endoxifen, the active metabolite of tamoxifen. The goal of this study is to investigate the cost-effectiveness of periodically monitoring serum concentrations of endoxifen in adjuvant estrogen receptor alfa (ERα) positive breast cancer patients treated with tamoxifen in the Netherlands. **METHODS:** A Markov model with disease free survival (DFS), recurrent disease (RD) and death states was constructed. The benefit of drug monitoring was modeled via a difference in the fraction of patients achieving adequate serum concentrations. Robustness of results to changes in model assumptions were tested through deterministic and probabilistic sensitivity analyses. **RESULTS:** Monitoring of endoxifen added 0.0115 quality-adjusted life years (QALYs) and saved € 1,564 per patient in the base case scenario. Deterministic sensitivity analysis demonstrated a large effect on the incremental cost-effectiveness ratio (ICER) of the differences in costs and utilities between the DFS and RD states. Probabilistic sensitivity analysis showed that the probability of cost-effectiveness at a willingness to pay of € 0 per quality-adjusted life year (QALY) was 89.8%. **CONCLUSIONS:** Based on this model, monitoring of endoxifen in adjuvant ERα+ breast cancer patients treated with tamoxifen is likely to add QALYs and save costs from a healthcare payer perspective. We advise clinicians to consider integrating serum endoxifen concentration monitoring into standard adjuvant tamoxifen treatment of ERα+ breast cancer patients.

PCN192

ROBOTIC VERSUS LAPAROSCOPIC DISTAL PANCREATECTOMY: A COMPARATIVE STUDY OF CLINICAL OUTCOMES AND COSTS ANALYSIS

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OBJECTIVES: The robotic surgery cost presents a critical issue which has not been well addressed yet. This study aims to compare the clinical outcomes and cost-effective outcomes of robotic distal pancreatectomy (RDP) versus laparoscopic distal pancreatectomy (LDP). **METHODS:** This is a clinical and cost-effectiveness