RETROSPECTIVE COMPARATIVE PHARMACOECONOMIC ANALYSIS OF VARIOUS TREATMENT SCHEMES IN PATIENTS WITH ADVANCED HODGKIN'S DISEASE

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OBJECTIVE: To compare cost and effectiveness of various schemes of treatment patients with advanced Hodgkin’s disease and to determine more cost-effective schemes in Russia.

METHODS: In order to determine quantity of drugs and cost of different treatment schemes we used data from individual medical documentation (history of disease) in Hematological Scientific Center and data from price-lists of pharmaceutical distributors in Moscow. In order to determine effectiveness we analyzed data from clinical trials. We chose data from clinical trials, which is possible to compare. It was data from clinical trial, which guided German Hodgkin Study Group (GHSG). In this trial scientists estimated 3 years Freedom from Treatment Failure (FFTF) of 4 schemes: COPP/ABVD, BEACOPP-baseline, BEACOPP-escalated and BEACOPP-14. In the end, we calculated and analyzed cost-effectiveness rates (CER) of different schemes.

RESULTS: Effectiveness of investigating schemes (3 year FFTF) was 70% for COPP/ABVD, 79% for BEACOPP-baseline, 89% for BEACOPP-escalated and 90% for BEACOPP-14. Cost of treatment by these schemes was 138,600 rubles (€3960), 125,500 rubles (€3586), 537,900 rubles (€15,370), and 503,900 rubles (€14,400) (35 rubles = 1 Euro) for COPP/ABVD, BEACOPP-baseline, BEACOPP-escalated and BEACOPP-14, respectively. CER for these schemes was 1979, 1588, 6043, and 5598 rubles per percent or 57, 45, 173, and 160 euros per percent, for COPP/ABVD, BEACOPP-baseline, BEACOPP-escalated and BEACOPP-14, respectively. BEACOPP-baseline had minimal CER but BEACOPP-escalated and BEACOPP-14 were more effective and more expensive. BEACOPP-14 was less expensive and more effective than BEACOPP-escalated. Thus, BEACOPP-baseline and BEACOPP-14 are more cost-effective than COPP/ABVD and BEACOPP-escalated, respectively.

CONCLUSIONS: We compared cost and effectiveness of 4 therapy schemes of advanced Hodgkin’s disease and determined more cost-effective schemes (BEACOPP-baseline and BEACOPP-14). In order to choose between BEACOPP-baseline and BEACOPP-14 we have to know budget, which payer has, or price, which payer is able to pay for treatment.

COST-EFFECTIVENESS (CE) OF THE PREVENTION OF ORAL MUCOSITIS (OM) WITH KEPIVANCE® (PALIFERMIN) IN PATIENTS UNDERGOING MYELOABLATIVE THERAPY WITH AUTOLOGOUS STEM CELL TRANSPLANTATION (ASCT) IN SPAIN

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OBJECTIVE: OM is a frequent, serious, and one of the most debilitating side effect among patients who undergo myelo-suppressive therapy and hematologic stem cell transplants. Palifermin is the first and only mucosal growth factor indicated to decrease the incidence, duration and severity of OM in patients with haematological malignancies receiving myeloablative therapy associated with a high incidence of severe mucositis and requiring ASCT. Assess palifermin CE in the prevention of OM in patients requiring ASCT in Spain. METHODS: CE was assessed based on a palifermin phase 3 clinical trial (1) comparing palifermin with best supportive care (BSC), local mean hospital costs (1051,50€ per-diem) (2) and assuming palifermin ex-manufacturer price of 4700€/treatment. A sensitivity analysis applying a correction factor of 15% to hospital cost since severity of OM is associated with an increase utilization of health care resources. (3) Effectiveness measured in terms of number days reduction with OM and decrease of grades 3/4 OM incidence. RESULTS: Compared to BSC, palifermin effectively decreased the duration of severe (WHO grade 3 or 4) OM from 9 to 3 days (p < 0.001) (1), and was associated with a lower incidence of severe OM (98% vs 63%; p < 0.001) (1), and reduced post-transplant inpatient stay by 1.9 days (from 17.2 to 15.3; p = 0.008) (4). The CE model shows an incremental cost-effectiveness ratio (ICER) of using palifermin over BSC of 7,720,43€ per episode of grade 3/4 OM avoided and an ICER of 450,36€ per day of grade 3/4 OM avoided. Adjusting for severity of OM, the ICER are €825,60€ per episode of grade 3/4 OM avoided and €48,16€ per day of grade 3/4 OM avoided. CONCLUSIONS: Palifermin is a cost-effective therapy for ASCT patients. When taking into account the impact of OM severity OM on health care resources, palifermin could be a cost-neutral intervention.


ADDING RITUXIMAB TO STANDARD CHEMOTHERAPY IS COST NEUTRAL AND CLINICALLY SUPERIOR IN ADVANCED STAGE NON-HODGKIN'S LYMPHOMA (NHL)

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OBJECTIVES: To identify cost and cost effectiveness of R-MCP (rituximab, mitoxantrone, chlorambucil, prednisolone) vs. MCP in NHL-patients from the perspective of a third party payer in Germany (statutory sickness fund). METHODS: Resource utilization data on 329 patients were collected in parallel to a RCT...
and analyzed for the treatment phase. In addition, an interim analysis of the subsequent observation period was conducted. Patients were treated before the DRG-system was introduced in Germany. Therefore, length of each hospitalisation was used as proxy for case-complexity and as criterion for assignment to one of 3 DRGs relevant for NHL-patients. Several sensitivity analyses were performed to address different DRG-grouping criteria and discounting scenarios. RESULTS: Mean cost per treatment cycle was €2700 for R-MCP and €1900 for MCP (p < 0.0001). Mean observation periods after end of initial treatment were 21.2 months for R-MCP and 17.6 months for MCP (p = 0.02). Hospitalisations for adverse events (~32%), new chemotherapies (~33%), treatment of progressive disease (~53%) and other reasons (~39%) were reduced in the R-MCP arm. This resulted in mean, undiscounted cost per patient in the observation period of €64600 for R-MCP and €7700 for MCP (p = 0.02). To adjust for the difference in length of the observation period overall monthly costs were calculated and amounted to €1230 for R-MCP and €1250 for MCP (p = 0.67). Sensitivity analyses did not result in major changes. Clinically, R-MCP resulted in an objective response rate of 85.6% vs. 65.5% with MCP. After two years event free survival for R-MCP was 69% vs. 44% for MCP alone (p < 0.001). CONCLUSION: Initially higher treatment costs of R-MCP were compensated by savings due to better efficacy. Combined with the clinical superiority of R-MCP, this regime is likely to prevail as the dominant treatment strategy compared to MCP alone at the final analysis.

PCN24
PEGFILGRASTIM PRIMARY PROPHYLAXIS IS MORE COST-EFFECTIVE THAN FILGRASTIM IN WOMEN WITH BREAST CANCER RECEIVING CHEMOTHERAPY IN FRANCE
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OBJECTIVES: In breast cancer, primary prophylaxis with pegfilgrastim has been shown to improve health outcomes but its cost-effectiveness has not been evaluated in the French setting. Filgrastim is often used for less than the recommended 11 days (e.g., 5–6 days), which has been associated with sub-optimal outcomes. This study compared the cost-effectiveness of pegfilgrastim versus 11- and 6-day filgrastim primary prophylaxis in women with stage I–III breast cancer receiving chemotherapy with moderate to high FN risk in France. METHODS: A decision-analytic model was constructed from a health care payer’s perspective. Costs included drugs, drug administration, FN-related hospitalizations and subsequent costs, and were based on ex-factory price listing and DRG Tariff. Effectiveness was measured as FN avoided and life-year-gained (LYG). FN risk (varied by days of filgrastim), FN case-fatality, relative dose intensity (RDI), and the impact of RDI on survival were based on a comprehensive literature review and expert panel validation. Breast cancer mortality and all-cause mortality were taken from official statistics. Model robustness was tested using sensitivity analyses. RESULTS: Compared with 11 days of filgrastim, pegfilgrastim saved costs and was more effective. Compared with 6-day filgrastim, pegfilgrastim avoided 10.5 absolute percentage point of FN (17.5% vs. 7%). The incremental cost-effectiveness ratio (ICER) was €10,295 per FN avoided. The average life expectancy was 16.27 years with pegfilgrastim and 16.16 years with filgrastim, yielding an ICER of €9652/LYG. Age of diagnosis and cancer stage had minimal impact on the results. Key influencing factors included relative costs of drugs and relative risk of FN. CONCLUSIONS: Use of pegfilgrastim in France may dominate 11-day use of filgrastim and is cost-effective compared to 6-day use of filgrastim. The cost-effectiveness ratio is significantly below the commonly used threshold for cost-effectiveness ratios in Europe.

PCN25
TREATMENT OF ACTINIC KERATOSIS (AK) AND BASAL CELL CARCINOMA (BCC) WITH METVIX® (MAL-PDT) IN REAL LIFE PRACTICE: A COST OF ILLNESS AND MODEL VALIDATION STUDY
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OBJECTIVES: An original decision model has shown that methyl-aminolevulinate (MAL) is a cost-effective intervention in AK and better value for money than excision in BCC. The objective of this observational study was to confirm these results in real life in Belgium from a health-care-payers perspective. METHODS: The study was a prospective, multi-centre observational study, in which patients meeting criteria for MAL-treatment were followed for 6 months after first application of methyl-aminolevulinate. Clinical response (CR) and cosmetic outcome (CO) were evaluated at the last available visit during the follow-up period. Socio-demographic data, treatment related data and safety data were collected. Inclusion period was October 2004–October 2005. RESULTS: 247 patients were evaluated (mean age: 69 years; 53% males). 47% of patients had AK with an average of 7.1 ± 0.4 lesions (32% new lesions); BCC-patients had an average of 1.7 ± 0.2 lesions (89% new lesions). As the majority of patients had multiple lesions, on average 0.797 tube of MAL was used per patient. AK patients had a mean of 3.9 dermatologist visits related to diagnosis, treatment and follow-up (BCC: 4.2 visits). In 83% of AK and in 84% of BCC patients, all lesions showed a complete CR. Good to excellent CO was found in 95% and 93% of AK and BCC patients respectively. Total cost of care (MAL-treatment plus follow-up) was €383 in AK and €298 in BCC-patients, with a higher effectiveness compared to the model. The model showed €255 for AK and €303 for BCC. Higher costs in AK were due to a higher mean number of lesions per patient compared to the model population (4.1 lesions per patient). CONCLUSIONS: This observational study confirms the cost-effectiveness shown in the original model for methyl-aminolevulinate in AK and BCC and shows that real-life data can be used to refine original decision models.

PCN26
PHARMACOECONOMIC ANALYSIS IN SPAIN OF THERAPY WITH ERLOTINIB, DOCEТАКЕL, PEМETREХED OR БЕST SUPPORTIVE CARE IN PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER WHO HAVE FAILED PREVIOUS CHEMOTHERAPY REGIMENS
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OBJECTIVE: To compare the cost-effectiveness of therapy with erlotinib (ERL), docetaxel (DOC), pemetrexed (PEM) or best supportive care (BSC) in patients with advanced non-small cell lung cancer (NSCLC) in Spain. METHODS: A Markov model with 3 health states (progression free, disease progression and dead) was developed. Time horizon: 2 years (monthly cycles). Survival and time to progression were obtained from 3 clinical trials. Utilities were obtained from a study performed in UK in 154 patients. National Health System (NHS) perspective (direct health costs) was applied. Resources used were estimated from