However, a study assessing the economic impact of IO introduction found a small difference in the PPPM cost ($12,123 [pre-IOs] vs $12,028 [post-IOs]). Adjusting for treatment-related differences, costs of AEs were lower with IOs than with CHOP. Incremental assessed HCRU with IOs. Hospitalization rate was lower in IO-treated patients (25%-29%) than in patients treated with IO-CTx combinations (35%) or CTx (37%). Statistically significantly fewer hospitalizations and emergency department visits were reported post IO (p < 0.001). Conclusion: The economic impact of IOs due to increased drug costs appears balanced by lower HCRU and AE management cost. The evidence was limited and US-focused. Given recent approvals of new single-agent and combination IOs, future studies should further assess the economic impact of IOs in patients with advanced/metastatic NSCLC.

PCN118 BUDGET IMPACT ANALYSIS OF INOTUZUMAB OZOGAMICIN FOR THE TREATMENT OF ADULTS WITH RELAPSED OR REFRACTORY B-CELL PRECURSOR ACUTE LYMPHOCYTIC LEUKAEMIA IN THE NETHERLANDS

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Objectives: Inotuzumab ozogamicin (INO) and blinatumomab (Blina) are therapies approved for relapsed/refractory acute lymphoblastic leukaemia (rALL) in the EU. INO and Blina were associated with higher response and survival compared to standard of care (SoC) chemotherapy in their trials, and INO was also associated with lower rates of related stem cell transplantation (HSCT) rates; hence, INO and Blina use is likely to increase over time. We modelled the budget impact of increasing market shares of INO and Blina in the Netherlands. Methods: A budget model impact model with a 5-year time horizon including treatment, adverse event management, and end-of-life costs was developed. The eligible annual population was 20 patients. It was assumed INO, Blina and FLAG-lda (SoC) each cover one-third of the market. This base case was compared to two scenarios where 1) only INO is used, and 2) only Blina is used. Subsequently, the budget impact of scenarios 1 versus 2 was determined. Dutch cost inputs for 2020 were based on the Z-Index, previous all EU economic evaluations, the Dutch costing manual, and literature. Recent real-world hospitalization data was used for INO and FLAG-lda. Results: When all therapies are used equally, Blina is associated with the highest average total costs at €1,83 million annually; INO was less at €1,77 million and FLAG-lda at €1,03 million (total: €4,63 million). In scenarios 1 and 2, where either only INO or Blina was used, average annual costs were €53.1 million and €54.9 million, respectively. The corresponding budget impact versus the base case was €0.68 and €0.86 million per year. The 5-year cumulative budget savings from treating all patients with INO instead of Blina is €0.9 million, rising to €6.1 million saved when HSCT-related costs are excluded. Conclusions: Blina was associated with the highest annual costs. Treating every patient with INO over Blina potentially saves €6.1 million pre-HSCT over 5 years.

PCN119 COST-EFFECTIVENESS OF INOTUZUMAB OZOGAMICIN COMPARED TO STANDARD OF CARE CHEMOTHERAPY AND BLINATUMOMAB FOR TREATING RELAPSED REFRACTORY ACUTE LYMPHOCYTIC LEUKAEMIA PATIENTS IN THE NETHERLANDS

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Objectives: Inotuzumab ozogamicin (INO) is a novel therapy approved in Europe for relapsed or refractory acute lymphoblastic leukaemia (rALL). It was associated with higher response rates, progression-free survival (PFS), overall survival (OS), and hematopoietic stem cell transplantation (HSCT) rates compared to treatment with standard of care (SoC) chemotherapy in the INO-VATE Phase III trial. An indirect treatment comparison (ITC) of INO versus blinatumomab (Blina) showed INO patients have higher odds of responding and reaching an HSCT compared to Blina. This study assesses the cost-effectiveness of INO versus SoC or Blina in rALL in Philadelphia chromosome-negative (Ph-) rALL for the Netherlands. Methods: A partitioned survival model with states defined based on treatment response, HSCT, progression, and death was developed. Parametric survival curves were used to extrapolate PFS and OS Kaplan-Meier trial data for INO and SoC. As response- and HSCT-stratified OS and PFS were not available for Blina, OS and PFS of INO and Blina were assumed to be equal within each health state and the treatments were differentiated based on response and HSCT rates from the ITC. Trial- and literature-based utilities and Dutch costs were included in the model. Discount rates of 4.0% and 1.5% were applied for costs and utilities. Results: The discounted results showed treating Ph- patients with INO produced 3.0 life years (LYs) and 2.2 quality-adjusted life years (QALYs) per patient versus SoC at a lifetime incremental cost of €102,138, an ICER of €46,940 per QALY. Versus Blina, INO was associated with a lifetime expected gain of 1.8 QALYs at an incremental cost of €15,562, a dominant ICER. Conclusions: The ICERs of INO versus SoC and Blina were below the Dutch willingness to pay threshold of €80,000. Versus Blina, INO improved health benefits while reducing cost. Longer-term survival for blinatumomab would further inform the comparison.

PCN121 A SYSTEMATIC LITERATURE REVIEW OF MEDLINE AND EMBASE TO IDENTIFY PHARMACOECONOMIC MODELS EVALUATING CHRONIC LYMPHOCYTIC LEUKAEMIA IN ADULTS


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Objectives: Chronic lymphocytic leukaemia (CLL) is the most common form of leukaemia in adults. This study aims to review pharmacoeconomic evaluations of CLL treatments in adults. Methods: A systematic literature review was conducted using MEDLINE and EMBASE to identify pharmacoeconomic models evaluating CLL treatment. Results: 24 studies published between 2015-2020 in English were included. Data extracted included countries, interventions, data sources, outcomes, and results. Conclusions: A total of 721 publications were reviewed. There were 21 cost-effectiveness/utility analysis studies (10 manuscripts, 11 abstracts) with 49 separate evaluations, cost per life-year (LY) (n=21) or quality-adjusted life-year (QALY) (n=47) involving chemotherapies and newer target therapies. The majority (76%) were industry-sponsored, 7 studies were in the United Kingdom, 2 studies in Portugal, 2 studies in Japan and the rest in 10 other European countries. Markov models were utilized in 12 studies, partition-survival models in 7 studies, and decision-analytic models in 3 studies. For model input, clinical data were from trials and network meta-analyses while utility data were sourced from time trade-off studies to clinical trial patient-reported outcomes. Economic and resource utilization data were mostly from government sources. Study population focused on various CLL populations including first-line only (n=2), relapsed-refractory CLL (n=9), and CLL unsuitable/unable to tolerate fludarabine (n=9). ICERs ranged from 3,045 to 4,415 per QALY. There were 4 other studies evaluating budget impact (n=10) or cost comparison/minimization (n=2) in Russia, the Czech Republic, the United States and the Netherlands. Results: Increasing market shares of INO and Blina in the Netherlands.

PCN122 COST-EFFECTIVENESS OF BRENTUXIMAB VEDOTIN FOR THE FRONTLINE TREATMENT OF PERIPHERAL T-CELL LYMPHOMAS IN CANADA


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Objectives: Health Canada recently expanded the use of brentuximab vedotin in combination with cyclophosphamide, doxorubicin, prednisone (A+CHP) for the frontline treatment of adult patients with systemic anaplastic large cell lymphoma (sALCL), peripheral T-cell lymphoma-not otherwise specified (PTCL-NOS) or anaplastic large cell lymphoma (ALCL), whose tumours express CD30. The approval was based on results from the ECHOLOT-2 trial that compared A+CHP to CHOEP in PTCL-NOS. Median progression-free survival (PFS) for A+CHP was 48.2 vs 20.8 months for CHOEP, providing a significant improvement in PFS and overall survival. This economic evaluation estimated the cost-effectiveness of A+CHP for its newly-approved indication by Health Canada. Methods: A partitioned survival model with a 5-year time horizon and lifetime time horizon was developed to simulate the disease course for the modelled population. The 3 health states modelled were PFS, post-progression survival, and death. Efficacy, safety and quality of life data were obtained from ECHOLOT-2 for the 3 subgroups combined. Medical resource use and costs were derived from Canadian literature and standard sources. Incremental cost-effectiveness ratios (ICERs) per life years (LYs) gained and per quality-adjusted life-years (QALYs) gained were calculated. Deterministic and probabilistic sensitivity analyses were performed to account for uncertainty in key parameters. Results: A+CHP was associated with an estimated mean gain of 2.90 LYs and 2.38 QALYs and an estimated mean incremental cost of $76,491 vs CHOEP; resulting ICERs were $26,340 per LY gained and $32,177 per QALY gained. In sensitivity analyses, time horizon, patient starting age, regimen cost for A+CHP, and discount rate had notable impacts on the results as the ICER was driven by long-term survival gains associated with A+CHP vs CHOEP. Conclusions: A+CHP provides a cost-effective and clinically-meaningful improvement in treatment options for adults with previously untreated, CD30-expressing ALCL, PTCL-NOS or ALCL in Canada, and is within acceptable ICER ranges for oncology medicines.

PCN123 5-YEAR HEALTH CARE COSTS OF SEPSIS IN CANCER PATIENTS: RESULTS FROM A POPULATION-BASED CASE-CONTROL MATCHED COHORT

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Objectives: To estimate the short- and long-term health care costs associated with sepsis in cancer patients using individual-level linked-investigative data to