PHARMACOECONOMIC EVALUATION OF TREATMENT OF HAIRY CELL LEUKEMIA

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OBJECTIVE: To determine the cost-effectiveness of standard strategy (interferon alpha) versus Cladribine (2-chlorodeoxyadenosine) and Cladribine with interferon alpha treatment for patients with hairy cell leukemia. METHODS: A cost-effectiveness analysis was performed. Efficacy of standard treatment strategy, Cladribine and Cladribine with interferon treatment, was estimated from a previous clinical trial held in Moscow HRC RAMS. A total of 160 patients entered the trial. Three group patients with hairy cell leukemia were assigned to receive: 1st group—interferon alpha (3 million units thrice a week), 2nd group—Cladribine (0.1 mg/kg daily as a continuous intravenous infusion over seven days), 3rd group received Cladribine with interferon alpha. Direct medical costs (cost of drug administration, resource utilization, duration of hospitalization) were estimated. Achievement of remission was used as effectiveness. Unit costs were based on detailed data from the Moscow Medical Sechenov Academy. The rate of exchange was 24.4 rubles for USD$1. RESULTS: direct medical costs were RUR93,477 for group 1 (C1), RUR91,756 for group 2 (C2) and RUR40,436 for group 3 (C3). Achievement of remission = 70.0% (E1), 99.0% (E2), 99.0% (E3), for each group respectively. The final calculation of cost / effectiveness ratio (CER) was: CER1 = RUR131,079, CER2 = RUR94,421 and CER3 = RUR40,845 per one patient for group 1, 2, and 3 respectively.

CONCLUSION: Cladribine with interferon alpha usage versus standard therapy is more cost-effective in the treatment of patients with hairy cell leukemia.

THE COST-EFFECTIVENESS OF LYRICA (PREGABALIN) IN PATIENTS WITH CENTRAL NEUROPATHIC PAIN

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OBJECTIVE: Patients with chronic central neuropathic pain (CNP) typically report considerable pain that requires frequent health care resource (HR) utilisation. The purpose of this study was to estimate the cost-effectiveness of pregabalin for the management of CNP in a Canadian practice setting from a Ministry of Health perspective. METHODS: A stochastic simulation model used to determine the effect of adding pregabalin to current treatment on daily pain and associated costs in a hypothetical cohort of 1000 patients with chronic CNP. The model was based on data from a randomized, double blind, placebo-controlled, parallel-group, multicentre clinical trial of pregabalin, in which pain was evaluated using a 0–10 pain scale. Modeled Outcomes of interest included quality-adjusted life-years (QALYs) and mean number of days with no or mild pain (score ≤3) over the trial duration of 12 weeks. HR utilisation (including drug costs) was assessed from a survey conducted with a group of 149 Canadian physicians and included number of physician visits, referral to specialists and waiting times, diagnostic tests and non-pharmacological treatments. Corresponding costs were obtained from Ontario Drug Benefit, London Health Sciences Centre, and the Régie de l’Assurance Maladie du Québec, and are expressed in 2007 Canadian dollars. Sensitivity analyses were conducted on model’s assumptions. RESULTS: Compared with no additional treatment, treatment with pregabalin yielded a cost-utility ratio of $9648/QALY, and a cost-effectiveness ratio of $10/day with no or mild pain. Sensitivity analyses suggested that resulting ratios were very robust to changes. The most prominent variation reported was for the extension of the time horizon up to 52 weeks, with a cost-utility ratio of $23,087/QALY. CONCLUSION: Model simulations demonstrate that adding pregabalin to the current pharmacotherapy received by CNP patients, compared to no additional treatment, is a cost-effective treatment strategy.