blind, placebo controlled, clinical trial to develop a model to assess the utility and costs associated with eszopiclone treatment of primary insomnia. Treatment of insomnia was evaluated using the Insomnia Severity Index, which categorizes insomnia as not clinically significant, subthreshold, moderate, and severe. Quality of life data were collected in the trial using the SF-36. From these responses, preference-based utility scores were derived using an algorithm published by Franks et al. (2004). Insomnia costs were based on published data, and included the additional health care costs of patients with insomnia versus patients with no insomnia, the additional absenteeism costs due to insomnia, and the “presenseeism” (lost productivity while at work) costs as measured by the Work Limitations Questionnaire. Eszopiclone cost was based on the average wholesale price. Changes in the average quality-adjusted life years (QALYs) and costs from baseline to 6 months for patients in both treatment groups were calculated and 95% credible intervals generated by a bootstrapping algorithm. All costs are presented in 2006 US dollars. RESULTS: The average 6-month changes in QALYs were 0.010514 and −0.003201 for eszopiclone and placebo groups, respectively, for a mean net gain of 0.013714 (95% CI: 0.0053525, 0.021885). The average 6-month costs per patient including indirect productivity were $490 and $421, respectively, indicating a net cost of $69 (−$436, $325). Incremental costs per QALY gained associated with eszopiclone were $5,003 (−$12,603, $41,376) per patient over the 6-month time period when absenteeism and presenteeism costs were included and $33,110 ($20,679, $83,846) when excluded. CONCLUSION: Based on this model, eszopiclone treatment of insomnia was cost effective considering lost productivity, and remained cost effective even when excluding productivity costs.

COST-EFFECTIVENESS ANALYSIS OF AMBULATORY CARE STRATEGY FOR PATIENTS WITH TRANSIENT ISCHEMIC ACCIDENT (TIA) VERSUS THE STANDARD PROTOCOL BASED ON HOSPITALISATION

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OBJECTIVES: The purpose of this study is to evaluate the cost-effectiveness of an ambulatory care strategy for patients with TIA by using a neurosonological study at emergency department versus the standard protocol based on inpatient care. METHODS: This is a partially stochastic cost-effectiveness analysis where effectiveness data were collected by means of a follow-up cohort study. Period of study cover from 1st January of 2002 to 30th June 2005, when 338 patients with TIA were treated in the Neurology department of the University Hospital Virgen de las Nieves (Granada, Spain). Effectiveness variables were survival, disability degree, relapse, sequels and cardiac event after TIA. Cost analysis adopts the hospital perspective, including overheads and direct costs. Economic data were obtained from hospital’s analytical accounting. The cost-effectiveness analysis was carried out considering the 5 effectiveness variables mentioned. A one-way sensitivity analysis was performed. RESULTS: Costs of ambulatory and hospitalization care were 428.08€ and 2,297.87€ respectively. Considering survival and relapse, hospitalization treatment is more effective than ambulatory, but regarding disability, sequels and cardiac events ambulatory outcomes were more favourable in ambulatory protocol. None of these differences was statistically significant. Cost-effectiveness analyses based on disability, sequels and cardiac events show strongly dominance of ambulatory protocol. Cost-effectiveness analyses on survival and relapse report an incremental cost-effectiveness ratio (ICER) of 93,489€ and 46,745€ respectively. Sensitivity analysis confirms the robustness of previous results. CONCLUSION: The effectiveness equivalence of both ambulatory and hospitalisation treatments and the much fewer costs of ambulatory care, support the recommendation of a spread of the ambulatory treatment instead of the hospital one.

LEVETIRACETAM ADJUNCTIVE THERAPY FOR THE TREATMENT OF REFRACTORY PRIMARY GENERALISED TONIC-CLONIC SEIZURES: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: Choosing an antiepileptic drug (AED) can be a complex decision for clinicians. This study aims to estimate the cost-effectiveness of levetiracetam adjunctive therapy compared to topiramate adjunctive therapy for the treatment of refractory primary generalised tonic-clonic seizures (PGTCS) in the Scottish health care setting. METHODS: A Markov model was developed to assess the clinical and economic outcomes of levetiracetam adjunctive therapy compared to topiramate adjunctive therapy in patients with refractory PGTCS. The model simulates the treatment pathway of a hypothetical cohort of 1000 patients over one year. Efficacy data were drawn from five randomized clinical trials. Data for each three-month cycle on risk of withdrawal, adverse events and mortality were obtained from the published literature. Resource use data and costs were obtained from published data and were based on the Scottish NHS perspective. Only direct costs relating to the management and treatment of refractory PGTCS and adverse events were considered. Health benefits were assessed in terms of seizure-free cycles and quality-adjusted life years (QALYs). Deterministic and probabilistic sensitivity analyses explored the robustness of the results. RESULTS: In the base case scenario, the model predicts approximately 3800 seizure-free cycles for topiramate versus 4000 for levetiracetam. QALYs gained are slightly higher for levetiracetam than topiramate (990 vs. 980). Total costs relating to topiramate and levitiramet are similar (€1,555,000 and €1,500,000 respectively). Consequently, levetiracetam adjunctive therapy dominates topiramate adjunctive therapy. Varying AED costs did not have a major impact on the results of the cost-effectiveness analysis. Using a threshold of €30,000 per QALY, levetiracetam is cost-effective compared to topiramate in 85% of refractory PGTCS patients. CONCLUSION: Lvetiracetam adjunctive therapy appears to be cost-effective for the treatment of refractory patients with PGTCS. Lvetiracetam adjunctive therapy dominates topiramate adjunctive therapy, its acquisition cost being offset by reduced seizure management costs and a better tolerability profile.