PRM81

COST-EFFECTIVENESS ANALYSIS OF DELAYED-RELEASE DILMTYL-FUMARATE IN THE TREATMENT OF RELAPSING-REMITTING MULTIPLE SCLEROSIS IN ITALY
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OBJECTIVES: To compare cost-effectiveness of delayed-release dimethyl-fumarate (DMF) (also known as gastro-resistant DMF) vs. pharmacological alternatives indicated for the first-line treatment of relapsing-remitting multiple sclerosis (RRMS), adopting the perspective of the Italian National Healthcare Service (NHS). METHODS: A cost-effectiveness model was used to calculate costs and outcomes of patients treated with DMF vs. interferon beta-1a intramuscular (IFN-beta-1a, IM), interferon beta-1a subcutaneous, at two different doses (IFN-beta-1a, SC 40 µg vs. SC 80 µg) and subcutaneous glatiramer acetate (GA, or glatiramer acetate subcutaneous (GA, or glatiramer acetate subcutaneous (GA, or glatiramer acetate sc)) and interferon beta-1b subcutaneous (IFN-beta-1b SC 44 µg). The Markov model used for the analysis evaluated the effects of disability progression, relapses, and treatment-related adverse events, on direct healthcare costs and quality adjusted life expectancy (QALE). The utility was calculated from a lifetime direct healthcare costs associated with DMF were €276,500 per patient, yielding to 19.50 life-years (LYs) and 6.55 quality-adjusted LYs (QALYs). The incremental cost-effectiveness ratio (ICER) of DMF vs. the analyzed alternatives ranged between €11,272 per QALY gained (DMF vs. IFN-beta 1b SC) to €23,405 per QALY gained (DMF vs. TEIR). DMF was dominant vs. IFN-beta 1a SC 44 µg in all countries. A Probabilistic sensitivity analysis conducted on both clinical and economic data showed that likelihood for DMF of being cost-effective, with a willingness-to-pay (WTP) threshold of €50,000 per QALY gained (DMF vs. TEIR) was 70.0% (DMF vs. TEIR), and 69.7% (DMF vs. IFN-beta 1b, SC). CONCLUSIONS: At the current pricing and reimbursement conditions established by the Italian NHS, DMF represents an effective strategy vs. first-line treatments for RRMS. ICER associated with DMF that is less than €50,000 per QALY gained value, the cost-effectiveness of dialysis, commonly used in Italy as benchmark to issue positive funding recommendation.

PRM82

IMPACT OF UNCERTAINTY IN PREDICTED RISKS ON THE COST-EFFECTIVENESS OF RISK-STRATIFIED PREVENTIVE TREATMENT STRATEGIES
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OBJECTIVES: We demonstrate an approach to assess the impact of uncertainty in risk prediction models on health-economic outcomes in risk-stratified prevention strategies, illustrated for preventive statin treatment based on 10-year coronary heart disease (CHD) risk predicted by the Framingham risk score (FRS). METHODS: We reframed FRS to three random sampler of increasing size (N=500, N=1,000, N=5,000) from a population-based cohort. A Markov decision-analytic model was used to simulate cohorts with preventive statin treatment in high-risk (FRS≥20%) individuals (ATPIII guideline). This treatment threshold was incrementally lowered to T2DM. The cumulative incidence of End-stage renal disease (ESRD) poses a significant burden to both patients and healthcare systems. In patients with type 2 diabetes mellitus (T2DM) improvements in the management of cardiovascular (CV) risk factor management has reduced CV specific morbidity and mortality. Consequently, as patients live longer, the prevalence of T2DM is likely to increase. The cost and prevalence of renal disease is likely to increase over time. The objective of this study was to externally validate the renal specific disease progression rates used in the IMS CORE diabetes model (CDM) to the UKPDS 64 and UK clinical practice. METHODS: A Monte Carlo transition model was used to predict the progression of renal disease population to advanced renal disease probabilities from the CDM (derived from US and Israeli published studies) and the UKPDS 64 nephropathy model. Time to ESRD and the cumulative percentage with ESRD were reviewed to identify areas of uncertainty in submitted economic models. 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of economic modelling (e.g. cycle length), these estimates cannot be incorporated directly. Thus, it is necessary to adapt the remainder to model cycle length using various statistical methods. METHODS: From a systematic review, 4 studies reporting proportions of patients undergoing remission at different time points were identified. One of the studies reported data for 2 populations (CSU/CIU and all chronic ulcerative patients) and 2 were done on ulceration models with the same population as present in previous studies. All studies were used: (1) converting reported data to standard time units; (2) using the extracted data to run the Kaplan-Meier (K-M) analysis; (3) applying four statistical distributions (exponential, log-normal, weibull and log-logistic) to identify the distribution best fitting the literature estimates. Lowest Kolmogorov-Smirnov (KS) distance was chosen as the criterion for the best fit distribution; 4 values obtained from the best fit distribution were further converted into rates for each 4-week cycle length. The analysis was carried out for each population to establish 4 estimations of the cost-effectiveness model. RESULTS: Based on the KS distance, log-normal distribution was the best fit for 2 populations and log-logistic for 3 populations. Remission rates were generated for 5 populations; 1 population was based on such as onset of action, reduction of 5 symptom items and side effects were to be examined in order to test their relevance to health care decision makers. METHODS: On the basis of a literature search and qualitative patient (N=6) and expert interviews (N=6), a questionnaire was developed. By means of the analytic hierarchy process (AHP), the study elicited the priorities regarding various aspects of treatments of dyspepsia and motility disorders. The collection of data from experts of the field of gastroenterology was done in real time within the context of a group discussion using an item-response-system. RESULTS: As a result of the interviews, seven characteristics were established which were judged to be the most important. A total of N=20 experts took part in the group discussion and the AHP survey. For all participants the criterion “reduction of abdominal cramps” was the most important. A total of N=20 experts took part in the group discussion and the AHP survey. For all participants the criterion “reduction of abdominal cramps” was the most important. A total of N=20 experts took part in the group discussion and the AHP survey. For all participants the criterion “reduction of abdominal cramps” was the most important. A total of N=20 experts took part in the group discussion and the AHP survey. For all participants the criterion “reduction of abdominal cramps” was the most important. 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