The aim of this study was to calculate the incremental cost-effectiveness ratio of the different Disease Modifying Drugs (DMD) used as first-line treatment for Remitting-Relapsing MS (RRMS) in Spain. OBJECTIVES: The aim of this study was to calculate the incremental cost-effectiveness ratio of the different Disease Modifying Drugs (DMD) used as first-line treatment for Remitting-Relapsing MS (RRMS) in Spain. METHODS: A Markov model was developed to simulate the progression of a cohort of patients with RRMS, during a period of 10 years. Seven health states, defined by the EDSS, were considered in the model. Patients with an EDSS score of less than 6.0 were assumed to be treated with one of DMD. In addition, all patients were assumed to receive symptomatic treatment. The monthly transition probabilities of the model were obtained from the literature. The analysis was performed from the societal perspective, in which both direct and indirect (losses in productivity) healthcare costs were included. A discount rate of 3% was applied to both costs and QALYs. RESULTS: GA was the less costly strategy (323,520), followed by IM IFN-β1a (% 329,595), SC IFN-β1b (% 333,925) and SC IFN-β1a (% 348,208). IM IFN-β1a has shown the best efficacy results with 4,176 quality-adjusted life year (QALY), followed by SC IFN-β1b (% 4,157 QALY), SC IFN-β1a (% 4,117 QALY). Incremental costs per QALY gained with IM IFN-β1a were €1,605,194/QALY, €223,397/QALY, and €117,914/QALY in comparison to SC IFN-β1a, SC IFN-β1b and GA, respectively. CONCLUSIONS: First-line treatment with GA is the more cost-effective strategy for the treatment of patients with RRMS. Treatment with IM IFN-β1a is a dominant strategy (lower cost and higher QALY) compared with SC IFN-β1a and SC IFN-β1b. However, IM IFN-β1a is not a cost-effective strategy versus GA, because incremental cost per QALY gained with IM IFN-β1a exceeds the €30,000 per QALY threshold, commonly used in Spain.

PN25

COMPARING THE COST-EFFECTIVENESS OF AVONEX AND BETAFERON IN THE MANAGEMENT OF MULTIPLE SCLEROSIS IN IRAN

Imani A, Golestanl M, Rashekh H
Shahid Beheshti Medical University, Tehran, Iran

OBJECTIVES: Multiple sclerosis (MS) is the neurologic disability that can dramatically affect the quality of life (QoL) of patients and their families. Family life, economic status, and social interaction may be affected by somatic symptoms of the disease. Approximately 70,000 people in the Islamic Republic of Iran are affected by MS. Under budget constraints, cost-effectiveness analyses (CEA/CUAs) are useful tools to assess the tradeoff between the added costs and potential benefits (e.g., improved patient outcomes) of new therapies. METHODS: The primary objective of this analysis was to evaluate the cost-effectiveness of Avonex compared with Betferon from the Iranian Ministry of Health (MoH) over a 5-year decision horizon. The region reduction in relapse rate (RRR) method was used to compare reduction in relapse rates and disease progression data from pivotal randomized double-blind placebo-controlled clinical trials of the DMDDs. The evaluation was conducted from the perspective of a Iranian health care sector (direct medical costs and indirect cost considered). The primary economic endpoint was cost per relapse avoided. Costs and outcomes occurring in the second year were discounted 3% to bring to 2010 present values. One-way sensitivity analyses were conducted on key input variables to assess their impact on cost per relapse avoided. RESULTS: The 2-year reductions in clinical relapses for treatment with Avonex/Betferon were 0.69 and 0.60 relatively. In the base case analysis, Avonex had the most favorable costs per relapse avoided (2652788 Rials) rather than Betferon. Sensitivity analyses showed that these results were robust to changes in key input parameters, such as the number of relapses and disease progression steps in untreated patients, the progression rates, the average cost of relapse. CONCLUSIONS: This evaluation suggests that IFN β-1a SC injection (Avonex) represent the most cost-effective DMDDs for the treatment of RRMS, where cost-effectiveness is defined as cost per relapse avoided, rather than Betaveron.

PN20

COST-EFFECTIVENESS OF EARLY VS. NON-EARLY INTERVENTION IN ACUTE MOXIDE WITH ALMOTRIPTAN IN SPAIN

Slof J, Universitat Autonoma de Barcelona, Bellaterra, Spain

OBJECTIVES: Early intervention in the course of acute migraine attacks has been recommended to reduce the economic burden and suffering of patients due to this condition. The aim of this study was to investigate the cost-effectiveness of such a strategy using almotriptan in the Spanish setting. METHODS: An economic evaluation was conducted from the Spanish societal and public health system perspective based on patient-level data collected in the “Act when Mild” study. Incremental cost-effectiveness ratios (ICER) were determined in terms of attack duration, loss of productive time and quality-adjusted life days (QALDs). Monte Carlo simulation was used to derive cost-effectiveness acceptability curves. RESULTS: Early treatment led on average to shorter attack duration, less productive time lost, better quality of life, and was overall cost-saving from a societal point of view with a probability of 97%. In terms of publicly reimbursed drug costs only, though, non-early treatment was always slightly less expensive. From the public health system perspective the bootstrap mean ICER of early treatment compared to no €0.12 per hour avoided, €0.62 per hour of productive time lost avoided, and €0.62 per QALD gained. Considering willingness to pay values of €1 to reduce attack duration by one hour, €5 to avoid the loss of one productive hour, or €55 to gain one QALD (equivalent to €20,000 per QALY), the probability that early treatment was cost-effective from the public health system perspective was, respectively, 96%, 96%, and 98%. These results remained robust in sensitivity analyses that accounted for the uncertainty surrounding the major elements of the economic evaluation. CONCLUSIONS: Compared to non-early treatment, early treatment of acute migraine attacks using almotriptan when pain is still mild is cost-effective from the public health system point of view.

PN31

A MODELLED ECONOMIC EVALUATION OF FIRAZYR® (ICATIBANT) FOR SYMPTOMATIC TREATMENT OF ACUTE ATTACKS OF HEREDITARY ANGIODEMEA (HAE) IN ADULTS WITH C1-ESTERASE-INHIBITOR (C1-INH) DEFICIENCY

Tilden D, Cotrell S, Tocchini L, Jayaram N, Sinani R, Barnes D, Aventine Consulting, University Place, WA, USA.