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 multiple sclerosis (MS). The discount rate of 3% was applied to both costs and results.

RESULTS: GA was the less costly strategy (€32,510), followed by IM IFN-1a (€329,595), SC IFN-1b (€333,925) and SC IFN-1a (€348,208). IM IFN-1a has shown the best efficacy results with 4,176 quality-adjusted life year (QALY), followed by SC IFN-1a (4,158 QALY), SC IFN-1b (4,157 QALY) and GA (4,117 QALY). Incremental costs per QALY gained with IM IFN-1a were €1,005,194/ QALY, €253,977/QALY, and €171,914/QALY in comparison to SC IFN-1a, SC IFN-1b and GA, respectively. CONCLUSIONS: First-line treatment with GA is the less costly strategy for the treatment of patients with RRMS. Treatment with IM IFN-1a is a dominant strategy (lower cost and higher QALY) compared with SC IFN-1a and SC IFN-1b. However, IM IFN-1a is not a cost-effective strategy versus GA, because incremental cost per QALY gained with IM IFN-1a exceeds the €30,000 per QALY threshold, commonly used in Spain.

PND29
COMPARING THE COST-EFFECTIVENESS OF AVONEX AND BETAFERON IN THE MANAGEMENT OF MULTIPLE SCLEROSIS IN IRAN
Imani A, Golestanii M, Rashek 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 budgetary constraints, cost-effectiveness and cost-utility analyses (CE/CAUs) 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 Betaferon from the Iranian Ministry of Health (MoH) over a 2-year horizon. The regression-based REE (RBR) method was used to compare reduction in relapse rates and disease progression data from pivotal randomized double-blind placebo-controlled clinical trials of the DMDs. 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/Betaseron were 0.69 and 0.60 relatively. In the base case analysis, Avonex had the most favorable costs per relapse avoided (2652778 Rials) rather than Betaseron. 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 DMDs for the treatment of RRMS, where cost-effectiveness is defined as cost per relapse avoided, rather than Betaferon.

PND30
COST-EFFECTIVENESS OF EARLY VS. NON-EARLY INTERVENTION IN ACUTE MIGRAINE WITH ALMOTRIPTAN IN SPAIN
Slió
Universitat Autònoma de Barcelona, Bellaterra, Spain

OBJECTIVES: Early intervention in the course of acute migraine attacks has been recently advocated as a way to further 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 was €61.12 per hour avoided. 65.62 per hour of productive time lost avoided, and €6.62 per QALD gained. Considering willingness to pay val- ues 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 €10,000 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 intervention in acute migraine attacks with almotriptan when pain is still mild is cost-effective at a willingness to pay of €10,000 per QALY. Considering the high probability cost-saving from the Spanish societal perspective and cost-effectiveness from the public health system point of view.

PND31
A MODELLED ECONOMIC EVALUATION OF FIRAZY® (JCABITRAN) FOR SYMPTOMATIC TREATMENT OF ACUTE ATTACKS OF HEREDITARY ANGIOEDEMA (HAE) IN ADULTS WITH C1-ESTERASE-INHIBITOR (C1-INH) DEFICIENCY
Tilden D, Cotrell S, Tochioni L, Jayaram N, Sinani R, Barnes D

OBJECTIVES: To develop a tool to estimate the first-year per member and total health plan costs associated with monitoring of MS therapies in the United States.

METHODS: Data were incorporated into an interactive tool designed to allow a health plan to estimate their costs for monitoring. MS prevalence was based on the database analysis identifying all individuals with a diagnosis of MS in the i3 InVio database. A probabilistic method was used to calculate the estimated annual costs of monitoring for MS. Based on default values, the estimated annual costs of monitoring for all MS therapies for a million member health plan is $519,451. CONCLUSIONS: Estimating the economic impact of FDA-recommended MS therapy monitoring allows health plans to more closely assess the total cost of MS. This tool allows health plans to individualize inputs to estimate the plan-specific economic impact of MS therapy monitoring.