inpatient care and drug costs represented about 50% and 27% respectively of overall expenses. The increase by 24.4% polytherapy patients mean costs as compared to monotherapy raised to 72% [IC 95: 44-106%] after adjustment on age, gender and presence of severe comorbidity. **CONCLUSIONS:** Polytherapy in epilepsy is associated with substantial higher direct costs.

PND26

ESTIMATED COSTS OF FIRST-YEAR MONITORING AND ADMINISTRATION OF MULTIPLE SCLEROSIS THERAPIES IN THE UNITED STATES

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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 literature. The default value for the proportion of MS patients treated with immunomodulators was assumed at 95% and adjusted IMS data were used for default market share inputs. Current Procedural Terminology (CPT) codes corresponding to the monitoring and administration procedures recommended by each product's prescribing information (PI) were identified. Charges associated with each CPT code were assigned using physician fee schedule software based on Medicare charges with default values set at 150%. PI recommendations were used for the proportion being monitored and the frequency of monitoring. In cases where a PI recommended only individuals with specific characteristics undergo monitoring, a database analysis identifying all individuals with a diagnosis of MS in the i3 InVision Data Mart (Ingenix, Eden Prairie, MN) was used to estimate the proportion of patients who may require that specific monitoring. **RESULTS:** The tool yielded average per patient and health plan costs expected with MS therapy monitoring. The tool conservatively estimates that the average per member first-year monitoring and administration costs ranged from $0 for glatiramer acetate to $3279 for natalizumab. 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.

PND27

ECONOMIC ANALYSIS OF COST PER EPISODE OF CARE FOR ARM SPASTICITY AND CERVICAL DYSTONIA: COMPARISON OF TWO BOTULINUM TOXIN A PREPARATIONS IN 20 COUNTRIES

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OBJECTIVES: Botulinum toxin A (BTA) injections are indicated for the management of neurological movement disorders, including arm spasticity (AS) and cervical dystonia (CD). This study calculated the cost per care episode for two BTA: Botox® and Dysport®. The analysis was completed for 20 countries around the world. **METHODS:** Doses of BTA are expressed in non-interchangeable units: Botox® is available in "Allergan units" whereas Dysport® is provided in 500 "Speywood units". Recommended dosages were derived from country SmPCs/PIs. Cost analysis was based on official list prices and expressed in 2011 euros, using exchange rates as of end of May 2011. The cost per care episode was calculated using available recommended dosages for each product (country's own or average of other countries) combined with price per vial in each country. **RESULTS:** For AS, recommended total injection dosage per patient for Dysport is 1000 units in all countries where indicated in SmPCs; for Botox®, it is 300U per patient based on recommended dosages in the USA and France. For CD, dosages for Dysport® are 500U per patient; whereas 200U of Botox® is recommended per patient. Considered with the respective prices per vial in each country, Dysport® cost per patient per care episode for AS was less than Botox® in 17 (89%) of the 19 countries (average 15% less across countries). The difference was 20% or higher in nearly half (47%) of countries. In CD, these differences were even greater with Dysport® cost per patient was 40% or less versus Botox in 45% of countries (average 36% less across countries). **CONCLUSIONS:** Considering cost per patient per care episode based on recommended dosages in SmPCs/PIs, Dysport® remains cheaper versus Botox in most countries. When extrapolated to a national level, substantial savings could be realized by using Dysport® in the treatment of AS and CD.

PND28

COST-EFFECTIVENESS ANALYSIS OF INTERFERONS AND GLATIRAMER ACETATE AS FIRST LINE TREATMENTS IN REMITTING-RELAPSING MULTIPLE SCLEROSIS SPANISH PATIENTS

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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 treatments (interferons IM IFNβ-1a, SC IFNβ-1a, SC IFNβ-1b and glatiramer acetate, GA) in Remitting-Relapsing Multiple Sclerosis (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 (€, 2010) were included. A discount rate of 3% was applied to both costs and results. **RESULTS:** GA was the less costly strategy (€322,510), followed by IM IFNβ-1a (€ 329.595), SC IFNβ-1b (€ 333.925) and SC IFNβ-1a (€ 348.208). IM IFNβ-1a has shown the best efficacy results with 4,176 quality-adjusted life year (QALY), followed by SC IFNβ-1a (4,158 QALY), SC IFNβ-1b (4,157 QALY) and GA (4,117 QALY). Incremental costs per QALY gained with IM IFNβ-1a were €-1,005,194/QALY, €-223,397/QALY, and €117,914/QALY in comparison to SC IFNβ-1a, SC IFNβ-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 IFNβ-1a is a dominant strategy (lower cost and higher QALY) compared with SC IFNβ-1a and SC IFNβ-1b. However, IM IFNβ-1a is not a cost-effective strategy versus GA, because incremental cost per QALY gained with IM IFNβ-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

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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 (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 Betaferon from the Iranian Ministry of Health(MoH) over a 2-year time horizon. The relative risk reduction (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 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,Betaferon 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 Betaferon. 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 Bataferon.

PND30

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

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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 amounted to €0.12 per migraine hour avoided, €0.42 per hour of productive time lost avoided, and €6.62 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 with almotriptan when pain is still mild is with high probability cost-saving from the Spanish societal perspective and cost-effective from the public health system point of view.

PND31

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

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