This analysis aimed to assess if the early switch from IFNB to fingolimod impacts MS global health. It promotes better resource utilization from a Portuguese hospital perspective. METHODS: This analysis was based on TRANSFORMS phase III trial extension data. A cost-effectiveness model was developed to calculate the cost per relapse avoided with 4.5 years of continuous treatment with fingolimod (early treatment) versus 1 year of treatment with IFNB followed by a 3.5 years of treatment with fingolimod (delayed treatment). A Portuguese hospital perspective was adopted addressing only direct costs: drug, monitoring and relapses' treatment. Drug costs were based on Portuguese list prices, while in a Hospital Unit costs for the resources used were taken from the EIBOTPLUS 2.0 database and available literature. The cost analysis is expressed in euros as of 2014, and a price discount of 7.5% was applied as set forth in Spanish Royal Decree 8/2010. RESULTS: The costs associated with the management of RMS, spasticity, and relapses using IFNB vs. fingolimod were €4,671.31 and €7,078.02, respectively, generating a cost savings of €2,406.72/patient, in favour of GA. CONCLUSIONS: The use of GA in the first-line treatment of patients with RRMS not only improves spasticity but it could be an option for many patients and caregivers who want to avoid the burden of regular pump refills at home. Moreover, the use of specially trained nurse practitioners to receive the pump refill at home is expected to result in better clinical outcomes associated with a more efficient health care resources allocation.

PND21 COST ANALYSIS OF TWO AFTER-CARE STRATEGIES IN CHRONIC CONTINUOUS INTRATHecal BACLOFEN THERAPY IN PATIENTS WITH INTRACTABLE SPASTICITY

Burgers LT1, Goslinga-van der Gaag S.M.E2, Delhaas EM3, Redepok WK3
1Erasmus University, Rotterdam, The Netherlands, 2Erasmus University, Rotterdam, The Netherlands

OBJECTIVES: Intrathecal baclofen (ITB) therapy is indicated for use in the management of intractable spasticity. Patients receiving ITB treatment receive a pump refill at least once every three months in the hospital (standard care (SC)). Since SC can be very burdensome for both patients and informal caregivers, an alternative approach (Care4homecare) has been developed which enables patients to receive pump refills at home. Moreover, a role of specially trained nurse practitioners ensures that there is no reduction in effectiveness. We compared the costs of both strategies. METHODS: Resource use in both strategies was estimated using a probabilistic model of 38 adult patients with spasticity (due to e.g., multiple sclerosis or spinal cord injury) that are currently living at home. We then combined this data with expert opinion and the Dutch costing manual to estimate the total one-year costs from a societal perspective. RESULTS: Patients included in the pump refill strategy manage an age of 65.29 years and patients in the Care4homecare strategy scored on average 44±2.5 points on the Care Dependency Scale. The Care4homecare strategy involves care that is almost identical to SC and therefore can result in comparable direct medical costs. However, patients receiving Care4homecare do not incur any travel costs compared with SC patients (±489). In addition, the productivity costs of informal caregivers (SC €195, Care4homecare €40) and of patients treated with Care4homecare are less than the costs of patients receiving SC. From a societal perspective, the total costs of Care4homecare are lower compared with SC. CONCLUSIONS: Care4homecare is an alternative approach to treat patients with intractable baclofen that can be cost-neutral from a health care sector perspective. Moreover, it is a welcome option for many patients and caregivers who want to avoid the burden of regular hospital visits.

PND22 COST ANALYSIS OF THE USE OF GLATIRAMER ACETATE COMPARED TO INFERNON-Å IN PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS (MS) - A SYSTEMATIC REVIEW

Sanchez de la Roga R1, Garcia Bujalance L1, Meca Lallana J3
1Toua Pharma, Madrid, Spain, 2Toua Pharmaceuticals, Madrid, Spain, 3Virgen de la Arrixaca Hospital, Murcia, Spain

OBJECTIVES: To analyze the costs associated with first-line use of glatiramer acetate (GA) compared to interferon-B (INF-β) in patients with relapsing-remitting multiple sclerosis (RRMS) and spasticity from the perspective of the National Health System of Spain. METHODS: A cost analysis of treatment and spasticity management with GA compared to INF-β was performed for 6 months. The clinical data were taken from the ESCALA study, which showed an improvement in spasticity in terms of spasticity index and galantamine treatment. The total costs achieved were €80,820 for early treatment versus 79,257,091 for delayed treatment. This represents an average incremental investment of 1,933 per patient per year. The early strategy resulted in an incremental cost effectiveness ratio of 19,358 per relapse avoided compared with the delayed strategy. CONCLUSIONS: Under the Portuguese hospital perspective, early treatment with fingolimod is expected to result in better clinical outcomes associated with a more efficient health care resources allocation.

PND24 ALZHEIMER’S DISEASE: MEDICATION COSTS AND IMPACT OF GENERIC SUBSTITUTION

Tuñer I, Nelson Mandela Metropolitan University; Port Elizabeth, South Africa

OBJECTIVES: To assess the substantial economic impact on patients, their caregivers and society. There are four cognitive enhancers commonly used in the treatment of Alzheimer’s disease: three cholinesterase inhibitors (donepezil, rivastigmine and galantamine) and a monoclonal anti-amyloid antibody (natalizumab). Since GA has been increasingly used. Disease modulating therapies are predominantly limited to PRoNOS and tardive dyskinesia. Studies have indicated that the cost of cholinesterase treatment may be offset by savings in other health care costs. METHODS: The cost of medication on the South African market for Alzheimer’s disease was analysed using June 2014 retail prices with and without discount, daily dose costs for rivastigmine and galantamine. RESULTS: The cost per DDD for memantine was R26.20 (±2 mg, 10 mg tablets). For rivastigmine, the cost was R41.02 per DDD and for galantamine R27.72 per DDD (using the most convenient dosage strengths). Three of these products were originator products. For donepezil, the originator and three branded generics were available. The cost of the originator was R27.86 per DDD, and for the three generics R27.00 per DDD (±2 mg, 10 mg tablets). Only memantine is available as a generic (gliclazide R27.84 for donepezil. The most frequent FDDs for memantine was 20 mg (62.96% of prescriptions) and 10 mg (35.76% of prescriptions) and 5 mg (29.79% of prescriptions). CONCLUSIONS: More South African studies on Alzheimer’s disease treatment cost are needed that include the stage of the disease and adherence to treatment.

PND25 COSTS ASSOCIATED WITH THE USE OF ENZYME-INDUCING ANTI-EPILEPTIC DRUGS VERSUS NON-ENZYMEE-INDUCING ANTI-EPILEPTIC DRUGS: A SYSTEMATIC REVIEW

Xiong T1, Gallagher E2, MacCullocrist RS3, Tsitsika A
1Akubus International, Oxfordshire, UK, 2CIB Ventures, CIB Ventures, CIB Ventures, 3CIB Ventures, CIB Ventures, CIB Ventures

OBJECTIVES: Several commonly prescribed enzyme-inducing anti-epileptic drugs (EIAEDs) stimulate the synthesis of some hepatic enzymes responsible for drug metabolism. This synthesis can lead to complications by altering endogenous metabolic pathways or by affecting the elimination of concomitant drugs thus increasing health care costs. This study aimed to systematically review published estimates of direct and indirect costs associated with the use of EIAEDs compared with non-enzyme-inducing anti-epileptic drugs (nEIAEDs) in patients with focal and generalised seizures, and to evaluate methodological differences between the studies. METHODS: Comprehensive electronic searches were undertaken using EMBASE, EMBASE, Cochrane Library, EconLit, relevant conference proceedings and cost effectiveness analysis registries. All studies reporting any direct and indirect costs of AEDs for the treatment of patients with epileptic seizures were included. Study quality assessment was performed for every included study using a predesigned check list. RESULTS: Thirty-three full-length articles and two abstracts reporting costs were reviewed. Two studies reported AED costs, drug-specific adverse event costs and non-drug health care costs subsequent to the adverse events. The study has a sub-sample of 40 patients. One study reported specific AED costs and the overall subsequent non-drug health care cost without stratification by event. Eighteen studies reported AED acquisition costs but did not report any other subsequent AED-related health care costs stratified by treatment. Thirteen studies reported the whole cost of illness with only a list of AEDs included. To date, no study has been specifically designed to compare the total costs between EIAED and nEIAED use, although some studies compared direct and indirect cost costs between a few newer AEDs versus older AEDs. CONCLUSIONS: Insufficient data and heterogeneity in methodology prevent valid comparisons being made between the total cost of EIAEDs and nEIAEDs. More research is required to identify meaningful differences in the total cost of treatment exist between EIAEDs and nEIAEDs.
PHARMACOECONOMIC STUDY OF BOTULINUM TOXIN TYPE A IN TREATMENT OF POST-STROKE SPASTICITY IN THE RUSSIAN FEDERATION: COST-EFFECTIVENESS ANALYSIS

Yusupov K., Kulikov A., Ugarkelevich D

M: St. John’s First Moscow Medical University, Moscow, Russia

OBJECTIVES: To assess the cost-effectiveness of abobotulinumtoxinA, onabotulinumtoxinA, incobotulinumtoxinA, and standard treatment. Data was obtained from clinical trials [1–3]. Physical therapy was used in all therapy schemes. METHODS: A decision tree was used to simulate the effects of abobotulinumtoxinA, onabotulinumtoxinA, incobotulinumtoxinA and standard treatment. The data on costs and efficacy (measured as decrease in the Modified Ashworth scale (MAS) score) was obtained from available clinical trials [1–3]. The following costs were taken into account, the costs of BTA and other drugs, costs of inpatient and outpatient care in the Russian Federation, costs of adverse events, disability persistency, and post-stroke spasticity-related costs. Additionally, side effects of BTA were taken from the essential drug list and the database of drug prices. Medical care costs were estimated from the Standard of treatment of stroke consequences developed by Ministry of Health of the Russian Federation. Costs of adverse events were calculated based on Russian clinical guidelines and database of drug prices. Disability pensions were taken from Russian Pension Fund database. GDP loss was based on the GDP information from World Bank. Cost-effectiveness ratio (CER) of BTA and standard therapy was calculated and compared in four treatment schemes.

RESULTS: Therapy with abobotulinumtoxinA showed most prominent decrease of Modified Ashworth score equal to 1.67, as for onabotulinumtoxinA – 1.17, incobotulinumtoxinA – 0.87, standard therapy – 0.67. The calculated CER in USD per 1 spasticity point according to MAS was lowest for abobotulinumtoxinA ($385926/RUB/11356.6) in comparison with onabotulinumtoxinA ($365631/RUB/18532.9), onabotulinumtoxinA ($78750/RUB/32587.8) and standard therapy ($73312/RUB/25461.0).

CONCLUSIONS: The cost-effectiveness of abobotulinumtoxinA compared with standard therapy, onabotulinumtoxinA and incobotulinumtoxinA was associated with decrease of spasticity. Transfer to abobotulinumtoxinA is considered cost-effective in patients with post-stroke spasticity, given a cost-effectiveness ratio 389524€/MAS.

PND27 COMPARISON OF DEEP BRAIN STIMULATION (DBS) AND CONTINUED SUBCUTANEOUS APOMORPHONE INFUSION (CSAI) IN PATIENTS WITH ADVANCED PARKINSON’S DISEASE

Walter S., Martini L., Peltoniemi T., Nyhia A.1

1Medtronic International Trading Sarl, Tolochenaz, Switzerland. 2Medtronic Ltd UK & Ireland, Woodford, UK

OBJECTIVES: Deep Brain Stimulation (DBS) for the treatment of advanced Parkinson’s Disease (PD) is a therapy supported with high level evidence, however no direct comparative studies exist of DBS against other therapy options, such as continued subcutaneous apomorphine infusion (CSAI) exists. The objective of this study was to evaluate the 5-year cost profiles of two therapies for advanced PD, DBS and CSAI, from a UK payer perspective.

METHODS: A Markov model, previously used to model cost-effectiveness of DBS+iBMT vs BMT alone (Enggiong 2013), served to evaluate the cost profile of DBS and CSAI over five years. Equal efficacy of the two therapies was assumed. The unit cost price of DBS+iBMT was obtained from previous economic studies of interventions for PD. The cost profile for CSAI was estimated based on an updated database Oblikue (http://www.oblikue.com) and pharmacy costs from the BotPlus database.

RESULTS: Total discounted costs over 5 years were £69,566 and €1,219.55-2,735.10 and €3,606.66 HYIV (95%CI: 6,319.35) compared to year 1, £5,255.20 HYI and €6,645.27 HYIV (95%CI: -53.12-4,805.73) in year 1 to £909.96 HYIV (95% CI: 942,431,327.49) and €2,768.49 HYIV (95% CI: 34,215,527.76) at year 4. Direct non-medical cost variation was estimated by PD tempiers, increasing between year 1 and 4 within each stage, £273.43 to €4,255.20 HYI and €635.27 to €1,675.35 HYIV.

CONCLUSIONS: The economic burden of PD rises with duration and severity of the disease, progressively increasing the direct, indirect and non-medical costs. It is important to improve patients’ HRQoL therapies aimed at controlling the symptoms severity will favor a more efficient management of the disease.

PND30 DOES CURRENT PORTUGUESE FINANCING MODEL FOR MULTIPLE SCLEROSIS COVER FOR ESTIMATED NEEDS?

1, Paz S. 2, Lizán L. 3, Viana R. 4, Frades B. 5, Moreno R. 6, Eggington S. 1, Baser O. 2, Viana I. 3, Eggington S. 4, Baser O. 5, Moreno R. 6, Eggington S. 1, Eggington S. 4, Baser O. 5, Moreno R. 6

1UNIVERSITY SAINS MALAYSIA, Pinang, Malaysia, 2Mashhad University of Medical Sciences, Mashhad, Khorasan, Iran, 3Portuguese Multiple Sclerosis Society, Lisbon, Portugal, 4European MS Platform, Brussels, Belgium, 5University of Michigan, Ann Arbor, MI, USA

OBJECTIVES: To examine the health care utilization and costs of long-term care facility patients diagnosed with Parkinson’s disease (PD). METHODS: Patients diagnosed with PD (International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM) diagnosis code 332) were identified using the Minimum Data Set (MDS) linked to 5% Medicare data from 01JAN2006 through 31DEC2010. The initial diagnosis date was designated as the index date. A comparison cohort was created for patients without a PD diagnosis, using 1:1 propensity score matching (PSM) to control for age, region, gender, index year and baseline Charlson Comorbidity Index score. The index date for the comparison group was randomly chosen to reduce selection bias. Patients in both cohorts were required to be at least 65 years old, with at least two cost quarters and quarterly assessment of MDS data in the 6 months prior to the index date, and have continuous medical and pharmacy benefits 1 year before and after index date. Study outcomes, (health care costs and utilities) were compared between the disease and comparator cohort using the following items: (i) health care costs, (ii) utilities, (ii) prevalence of MS. Although much is known about the MS cost in the world, there is a very paucity of the MS cost study in Iran. The aim of study was to estimate the cost of QOL in MS individuals and determine whether these costs increase as disability progress. METHODS: We studied 160 MS patients who attended in the MS