View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Elsevier - Publisher Connector

days, respectively. By frequency of outpatient appointments a combined generic drug fezam (234 appointments, prise $ 5.1), and outpatient cavinton (19 appointments, prise $ 17.27) were used often. **CONCLUSIONS:** In Ukraine, outpatient cerebroprotective drugs consumption is greater than their consumption in hospital due to the lack of prescriptions control.

PND11

UTILIZATION OF ANTI SPASTICITY DRUGS IN MULTIPLE SCLEROSIS: ANALYSIS FROM AN ITALIAN ADMINISTRATIVE DATABASE

Mantovani LG[1], Furneri G[2], Scalone L[3], Ciampichini R[2], Cortesi PA[3], Fornari C[3], Madotto F[3], Chiodini V[3], Cesana G[3]
[1]*Federico II University of Naples, Naples, Italy,* [2]*Charta Foundation, Milan, Italy,* [3]*University of Milano - Bicocca, Monza, Italy*

OBJECTIVES: Spasticity is a common condition among patients with progressive and/or relapsing forms of multiple sclerosis (MS). Current therapies seem to partially control spasticity symptoms, and patients often receive multiple treatments or switch to new treatments to achieve a better control. The objective of this analysis was to assess the current usage of spasticity drugs and relative patterns of utilization among patients with MS, through administrative database analysis. **METHODS:** Using DENALI datawarehouse, we detected MS patients who, during the period January 2000 – December 2009, had at least one disease modifying agent (DMA) prescription Then the usage of drugs commonly used in spasticity (muscle relaxant drugs, baclofen, tizanidine, clonidine, dantrolene) was evaluated in this cohort of patients, in terms of number of subjects receiving at least one prescription, and number of DDD (defined daily doses) per patient per year. **RESULTS:** From 2000 to 2009, the annual number of patients with MS, receiving DMA treatment raised from 10,746 to 12,594. Concomitantly, the annual number of patients receiving at least one muscle relaxant prescription raised from 5.87% (n=631) to 9.42% (n=1,186). The most prescribed drug was baclofen with few patients receiving other drugs commonly indicated in spasticity (dantrolene, tizanidine and clonidine). A relevant number of patients using muscle relaxants also received other drugs for the central nervous system, although its usage achieved a peak in 2005 (8% of MS patients). The analysis of DDD per patient/year suggested that the usage of muscle relaxant might be almost chronic in these patients (in 2009, 303 DDD per patients per year). **CONCLUSIONS:** Only 10% of patients with MS currently receive active pharmacological treatment, although this condition seems affecting more than 20% of MS patients in Europe. Also, there are not relevant alternatives or second line options to baclofen, which is the most commonly prescribed drug in this condition.

PND12

USE OF THE FRENCH CLAIMS AND HOSPITALISATIONS DATABASE TO ESTIMATE THE PREVALENCE AND INCIDENCE OF PARKINSON'S DISEASE IN FRANCE

Blin P[1], Dureau C[1], Grolleau A[1], Corbillon E[2], Jové J[1], Lassalle R[1], Poutignat N[2], Foubert-Samier A[3], Droz C[1], Moore N[4]
[1]*INSERM CIC-P 0005, Université Bordeaux, Bordeaux, France,* [2]*Haute Autorité de Santé, Saint Denis La Plaine, France,* [3]*INSERM U897, ISPED, Université Bordeaux, CHU de Bordeaux, 33076, France,* [4]*INSERM CIC-P 0005, Université de Bordeaux, CHU de Bordeaux, Bordeaux, France*

OBJECTIVES: Few studies have assessed the prevalence and incidence of Parkinson's disease (PD) in France. The objectives of this study were to estimate the prevalence and incidence of PD between 2005 and 2010 using a claims and hospitalisations database. **METHODS:** The EGB database is a 1/97 permanent random sample of the French health care insurance system database linked to the national hospital discharge summary database. Data for all adults with full insurance coverage for PD, or hospitalised with main, related, or associated PD diagnosis, or with at least 3 antiparkinson agent reimbursements over a one-year period were extracted for the years 2004 to 2010. A specific and a sensitive PD criterion were defined: i) patients with a medical diagnosis of PD from full insurance coverage or hospitalisation; ii) same patients plus those without a PD medical diagnosis in the database but a drug pattern compatible with this diagnosis (a second set of at least 3 antiparkinson agent reimbursements over another one-year period and no co-medication with extrapyramidal side effects, as well as no antiparkinson agent pattern specific of another indication). EGB estimations were applied to the French population with age and gender standardization to estimate the prevalence and incidence in France. **RESULTS:** Prevalence of PD increased from 0.27% in 2005 to 0.33% in 2010 using the specific definition of disease, and from 0.38% to 0.46% using the sensitive definition. The incidence rate per year was 0.03-0.04% using the specific definition of disease, and 0.05-0.06% using the sensitive definition. Estimated population size was between 180,000 and 255,000 persons in 2010 with approximately 22,000 to 32,000 new patients per year. **CONCLUSIONS:** The prevalence and incidence of PD in France are likely to be within the range of estimations found in the EGB database using the specific and sensitive definitions of disease; results are consistent with that reported internationally.

NEUROLOGICAL DISORDERS – Cost Studies

PND13

BUDGET IMPACT ANALYSIS OF BOTULINUM TOXIN A THERAPY FOR UPPER LIMB SPASTICITY IN THE UNITED KINGDOM

Kurth H[1], Remak E[2], Hortobagyl L[3], Desai K[3], Abogunrin S[3], Dinet J[4], Gabriel S[4], Bakheit AM[5]
[1]*IPSEN Pharma, Boulogne Billancourt, France,* [2]*Evidera, Budapest, Hungary,* [3]*Evidera, London, UK,* [4]*IPSEN Pharma, Boulogne-Billancourt, France,* [5]*Moseley Hall Hospital, Birmingham, UK*

OBJECTIVES: Upper limb spasticity (ULS) secondary to upper motor neurone lesions has a considerable patient and caregiver burden, particularly with regards to pain, activities of daily living and personal care. BotulinumtoxinA (BoNT-A) injections are effective in treating ULS. We developed a budget impact model (BIM) to assess different BoNT-A treatments available in the UK for reducing ULS. We also assessed annual costs of treating each ULS patient with BoNT-A or best supportive care (BSC). **METHODS:** The BIM was developed from the UK NHS (National Health Service) and Personal and Social Services (PSS) perspective. The status quo scenario assumed the three BoNT-As, Dysport® (abobotulinumtoxinA), Botox® (onabotulinumtoxinA), or Xeomin® (incobotulinumtoxinA), are used in 33%, 52% and 15%, respectively, of patients with ULS receiving BoNT-A in the UK. The new market share scenario assumed an increased proportional use of abobotulinumtoxinA (to 73% in year 5) compared to other interventions. The patients were modelled over a 5-year horizon. Epidemiologic data inputs were from published sources. Unit costs for BoNT-As, other health care costs and non-medical costs came from the *British National Formulary*and PSS. Resource-use inputs were obtained from UK clinicians. One-way sensitivity analyses for model inputs were conducted. **RESULTS:** Total care costs were decreased by between £425,765 in year 2 and £1,854,601 in year 5 by shifting market share to abobotulinumtoxinA. In the base-case scenario, BSC (no BoNT-A treatment) or with incobotulinumtoxinA or onabotulinumtoxinA cost more per patient per year than abobotulinumtoxinA. Sensitivity analyses showed that number of patients treated with BoNT-As, time-to-re-injection, and dose per injection of abobotulinumtoxinA and onabotulinumtoxinA were the most influential parameters on budget impact, impacting both drug acquisition costs and physician visits. **CONCLUSIONS:** Study findings suggest that increased use of abobotulinumtoxinA compared with incobotulinumtoxinA and onabotulinumtoxinA for ULS in the UK could potentially reduce total treatment costs.

PND14

THE BUDGET IMPACT OF INTRODUCING BG-12 (DIMETHYL FUMARATE) FOR TREATMENT OF RELAPSE-REMITTING MULTIPLE SCLEROSIS (RRMS) IN CANADA

Dorman E[1], Kansal AR[1], Sarda S[2]
[1]*Evidera, Bethesda, MD, USA,* [2]*Biogen Idec, Weston, MA, USA*

OBJECTIVES: Multiple sclerosis causes significant disability and mortality globally and is especially prevalent in Canada and across Europe. BG-12 is an orally administered disease modifying treatment for relapsing-remitting MS (RRMS) patients currently on the market in the United States and Canada and under review in Europe. A budget impact model (BIM) was developed to assess the financial consequences of introducing BG-12 for the treatment of RRMS in Canada. **METHODS:** A BIM calculated the financial consequences of introducing BG-12 in Canada over three years based on RRMS prevalence, treatment market share, and clinical effects. RRMS prevalence in Canada was derived from published literature and natural relapse rates and disease state distribution from clinical trial data. It was conservatively assumed that 100% of RRMS patients were treated with a disease modifying treatment. BG-12 was assumed to absorb market share proportionally from the following current treatments: interferon beta-1a IM, interferon beta-1a SC, interferon beta-1b, glatiramer acetate, natalizumab, and fingolimod. Treatment efficacy, in terms of reductions in relapse rate, and treatment discontinuation rates were determined from a mixed treatment comparison. Treatment costs (including costs of acquisition, monitoring, and administration) and the cost of relapse were considered. Deterministic one-way sensitivity analyses were conducted to assess the most sensitive input parameters. **RESULTS:** Over three years, the introduction of BG-12 resulted in an average annual increase of CAD279 per treated patient per year, with reductions in costs associated with relapses (CAD192/patient/year) partially offsetting increased drug acquisition costs (CAD471/patient/year). On a population level, the average annual cost increase was CAD16,494,850. The main drivers of budget impact were cost of BG-12, drop-out rates, proportion of RRMS patients treated, and market share assumptions. **CONCLUSIONS:** The acquisition costs of BG-12 for treatment of RRMS are predicted to be partially offset by reduced costs of relapses in the Canadian health care system.

PND15

BUDGET IMPACT OF EVEROLIMUS FOR TUBEROUS SCLEROSIS COMPLEX (TSC) RELATED ANGIOMYOLIPOMA (AML): UNITED KINGDOM PERSPECTIVE

Whalen JD[1], Srivastava B[2], Ozer-Stillman I[1], Gray L[3], Price L[3], Magestro M[2]
[1]*Evidera, Lexington, MA, USA,* [2]*Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA,* [3]*Novartis Pharmaceuticals UK Limited, Frimley, UK*

OBJECTIVES: AMLs are benign tumors common in patients with TSC, associated with high morbidity (aneurysm, hemorrhage, chronic kidney disease), and can result in death. Complication risk may correlate with increased AML volume. Historically, AMLs were treated surgically with embolization or tissue-sparing resection. In the EXIST-2 trial, everolimus significantly reduced AML volume in TSC patients. This analysis estimates the cost of reimbursing everolimus for TSC-related AML to the UK health care system. **METHODS:** A Markov model was built to analyze budget impact over five years. The treated population is estimated using TSC and AML prevalence. Adult patients with growing AML ≥3 cm are assumed eligible for everolimus. Treatment reference costs are from the UK, resource utilization data from The Netherlands, efficacy and safety assumptions from EXIST-2. The model assumed one-year treatment duration. Responding patients (≥30% AML volume reduction) may restart everolimus upon AML regrowth. Costs are discounted at 3.5% per annum. Sensitivity analyses were conducted. **RESULTS:** Up to 1,474 adults in the UK have TSC-related AML; 30% are assumed eligible for everolimus. On average, 165 patients are estimated to be treated annually with everolimus (Year 1: 88; Year 5: 233) at an average cost of £4,600,000 (Year 1: £2,700,000; Year 5: £6,200,000). Over five years, AML-related medical spending decreased £54,000. Annual per patient treatment cost with everolimus is £31,000. Results were most sensitive to patient prevalence, percent eligible for everolimus, and the percent experiencing ≥30% AML volume reduction. **CONCLUSIONS:** TSC is a relatively rare genetic disease for which everolimus is the only non-surgical treatment that has demonstrated efficacy in reducing AML volume. Reducing AML volume may prevent long-term complications and avoid surgeries, resulting in decreased AML-related medical costs. Further long-term studies are needed to better understand the benefits of everolimus in preventing AML-related morbidity and the associated costs.