PSY12

REAL-LIFE BUDGET IMPACT (BI) OF PARENTERAL IRON TREATMENT OF IRON DEFICIENCY ANEMIA/SYNDROME (IDA/IDS) IN SWITZERLAND

Brock E[1], Braunhofer P[2], Troxler J[3], Schneider H[1]

[1]HealthEcon AG, Basel, Switzerland; [2]Vifor Pharma International, Glattbrugg, Switzerland; [3]Vifor AG, Villars-sur-Glane, Switzerland

OBJECTIVES: IDA/IDS is common in pregnancy, postpartum, inflammatory bowel disease, chronic kidney disease, chronic heart failure, menorrhagia/hypermenorrhagia, cancer and following surgery. We estimate the BI associated with substituting iron sucrose (standard) with ferric carboxymaltose (new treatment), which allows for the application of higher dosages in a shorter time. The analysis adopted the perspective of the Swiss mandatory health insurance (MHI) covering the above indications and is based on real-life data to verify the hypothetical BI estimated prior to launch. **METHODS:** Resource use (no. of patients, dosage per application, no. of applications) was based on recent primary data (Polyquest Prescriber Analysis, Anemia Patient Record Study in Switzerland). Personnel costs were estimated using the Swiss Tarmed fee-for-service reimbursement system. Drug costs and costs of materials used were based on official tariffs (Spezialitätenliste, MiGeL). Real-life IMS sales data of both products were used to verify the BI model. **RESULTS:** Ferric carboxymaltose was associated with cost savings of 30–44% compared to iron sucrose based on costs of CHF 101/ 210/ 420 and CHF 144/ 375/ 721 per 200/ 500/ 1000 mg treatment cycle, respectively. This leads to cost savings of CHF 15–33 million per year to the Swiss MHI across all indications in the first 3 years post-launch, due to reductions in personnel costs. Ferric carboxymaltose was shown to be cost-saving in all indications except dialysis (due to flat-fee reimbursement). Sensitivity analyses showed the amount of cost savings to be sensitive to changes in the number of inpatients (10–20% of total) treated with intravenous iron (due to flat-fee reimbursement). **CONCLUSIONS:** Treating IDA/IDS involves substantial costs to the Swiss MHI. Substitution of iron sucrose with ferric carboxymaltose may help to reduce these due to reduced personnel costs. This novel type of real-life BIA will be of increasing interest as conditional reimbursement increases.

PSY13

COST IMPACT FROM INITIATING PREGABALIN TREATMENT IN PATIENTS WITH REFRACTORY NEUROPATHIC PAIN

Myrén KJ[1], Löfroth E[1], Sandelin R[2]

[1]IMS Health, Stockholm, Sweden; [2]Pfizer, Sollentuna, Sweden

OBJECTIVES: To compare the health care costs 6 months prior to and 6 months after initiation of pregabalin in difficult-to-treat neuropathic pain (NeP) patients. **METHODS:** This was a retrospective longitudinal database study in NeP patients from the South-West region of Sweden (1.5 million inhabitants). Individual patient data from the 1st of January 2000 on health care visits (outpatient, inpatient, primary care), costs, mortality and diagnoses were included. Data from the Swedish Prescribed Drug register were included from July 1, 2005 until December 31, 2007. Difficult-to-treat NeP was defined as patients with a NeP diagnosis in 2006, who had had 2 prescriptions of at least three pain medications during one year from the index diagnosis date. The patients should also have had two or more prescriptions of pregabalin preceded by at least a six months pregabalin naïve period. **RESULTS:** A total of 462 difficult-to-treat NeP patients met the above criteria and were included in the analyses. There was a statistically significant reduction in NeP related costs (visits registered with a NeP diagnosis) after initiation of pregabalin (p = 0.0042 Mann-Whitney). The mean per patient NeP related costs were SEK17,684 (€1,845) 6 months before and SEK10,642 (€1,110) 6 months after pregabalin initiation. The mean non-NeP related costs before treatment (SEK46,095; €4,809) did not differ significantly from the non-NeP costs after treatment (SEK 51,632; €5,387), p = 0.8016. The number of NeP-related in-patient visits, primary care visits and the number of days in hospital decreased significantly (p = 0.0475, p = 0.0129, p = 0.0179, respectively) after treatment with pregabalin. **CONCLUSIONS:** Initiation of pregabalin significantly reduced the NeP related health care costs in the 6-month period following initiation. Of note was the non significant difference in non-NeP related costs, probably reflecting the on-going costs associated with management of the patients' concurrent conditions, eg, diabetes.

PSY14

REAL-WORLD USE OF DULOXETINE FOR CHRONIC LOW BACK PAIN: TREATMENT PATTERN AND COSTS

Ivanova JI[1], Birnbaum HG[2], Kantor E[2], Schiller M[2], Swindle R[3]

[1]Analysis Group, Inc., New York, NY, USA; [2]Analysis Group, Inc., Boston, MA, USA; [3]Eli Lilly & Company, Indianapolis, IN, USA

OBJECTIVES: Examine the real-world role of duloxetine versus other treatment for chronic low back pain (CLBP). **METHODS:** Study sample was selected from a U.S. privately-insured claims database (2004–2008). Selection criteria: ages 18–64 years, had a low back pain (LBP) diagnosis (per HEDIS specifications) with a subsequent CLBP-qualifying diagnosis recorded 90 days or more after the initial LBP diagnosis. Duloxetine-treated patients had ≥1 duloxetine prescription within 6 months after CLBP diagnosis, no prior duloxetine claim, and continuous eligibility ≥12 months before first LBP diagnosis and ≥6 months after index duloxetine prescription (study period). 553 duloxetine-treated patients were matched to a total of 553 control patients who initiated another non-surgical LBP treatment based on propensity score and time from first LBP diagnosis to treatment initiation. a subset (n = 103 each) of matched employees was also analyzed. McNemar tests were used to compare LBP treatment rates. Bias-corrected bootstrapping was used to compare direct (medical and drug) costs from third-party payer perspective and employee indirect (workloss) costs. **RESULTS:** During the 6-month study period, matched duloxetine-treated patients had significantly lower rates of other pharmacological therapy than controls (e.g., 56.2% vs. 64.9% narcotic opioids, p = 0.002; 34.9% vs. 49.5% NSAIDs; $P < 0.001$) and non-invasive therapy (28.8% vs. 38.5% chiropractic therapy; 25.5% vs. 35.4% physical therapy; 17.5% vs. 28.4% exercise therapy; all $P < 0.001$). Duloxetine-treated patients versus controls had numerically lower back surgery rates (2.2% vs. 3.8%, p = 0.117) and similar direct costs ($7658 vs. $7439, p = 0.812). Among CLBP employees, duloxetine-treated employees versus controls had lower rates of other non-surgical therapy, numerically lower back surgery rates (0% vs. 3.9%, p = 0.125), lower total direct and indirect costs ($5227 vs. $7229, p = 0.042), and numerically lower indirect costs ($1806 vs. $2664, p = 0.053). **CONCLUSIONS:** Duloxetine treatment in CLBP patients/employees versus other non-surgical treatment was associated with reduced rates of non-surgical therapies and numerically lower surgery rates without increased costs.

PSY15

CONSTIPATION RELATED TO OPIOID THERAPY: A COST-OF-ILLNESS AND PREVALENCE DATABASE STUDY IN THE BRAZILIAN PRIVATE SETTING

Takemoto ML[1], Fernandes RA[1], Passos RB[1], Colombini-Netto M[2], Bertola-Neto A[2], Almeida GR[3], Monteiro R[3]

[1]ANOVA—Knowledge Translation, Rio de Janeiro, RJ, Brazil; [2]Axismed Gestão Preventiva da Saúde, São Paulo, SP, Brazil; [3]Pfizer, São Paulo, SP, Brazil

OBJECTIVES: To estimate the prevalence of constipation concomitant to opioid treatment and related resource utilization and costs from the private payer perspective. **METHODS:** Patients on opioid therapy were identified from a longitudinal insurance claims database consisting in 1,057,033 individuals for a period of 35 months. An algorithm was used to identify patients on opioid therapy with coincident constipation-related claims according to ICD-10 codes, targeted procedures and opioid use criteria. Resource utilization and costs were determined for these individuals and compared with patients on opioid therapy without constipation, without opioid therapy with constipation and without both conditions. Results were compared using ANOVA with a significance level of 0.05 and are presented per individual per month. **RESULTS:** A total of 23,313 patients were classified as opioid treated patients (2.21% of total population) and 6,678 had events related to constipation (29.03% of the opioid population). Compared with opioid treated patients without constipation, incremental mean total costs per month per patients with the condition were 261.18 BRL ($P < 0.001$). The average cost per month for opioid-related constipation patients was 787.84 BRL, significantly higher than patients on opioid therapy without constipation (526.66 BRL), with no opioid therapy but constipated (284.47 BRL) and without both (90.17 BRL) ($P < 0.001$ for all comparisons). Patients with claims related to both conditions had significantly more days in hospital per month (0.25 vs. 0.497, $P < 0.001$), outpatient office visits (1.04 vs. 1.59, $P < 0.001$), outpatient procedures (4.69 vs. 14.05, $P < 0.001$) and tests and therapies (31.95 vs. 36.66, $P < 0.001$) than did patients without opioid-related constipation claims. **CONCLUSIONS:** The economic burden of patients with constipation events coincident with opioid treatment is significantly higher when compared to all other groups. Constipated patients without opioid therapy had also higher costs than those free of both conditions. These results indicate that reducing opioid-induced constipation has potential cost savings for the health care system.

PSY16

CHANGES IN SELF-REPORTED PAIN SCORES ASSOCIATED WITH DULOXETINE VERSUS OTHER ANTIDEPRESSANTS AMONG PATIENTS WITH MAJOR DEPRESSIVE DISORDER IN THE UNITED STATES VETERANS AFFAIRS HEALTH CARE NETWORK

Liu J[1], Zhao Y[2], Happich M[3], Shi L[1]

[1]Tulane University, New Orleans, LA, USA; [2]Eli Lilly & Company, Indianapolis, IN, USA; [3]Eli Lilly & Company, Windlesham, UK

OBJECTIVES: This study compared self-reported pain scores among patients with major depressive disorder (MDD) in the U.S. Veterans Affairs (VA) health system treated with duloxetine versus other antidepressants. **METHODS:** The electronic medical records between October 1, 2004 and October 31, 2008 were obtained from the VA Veterans Integrated Service Network 16 data warehouse. All patients treated with either duloxetine monotherapy or other antidepressants (non-duloxetine) were selected. The first dispense date of the index agent was defined as the index date. All patients must have: 1) 1 + prior MDD diagnosis (ICD-9-CM: 296.2 or 296.3); 2) no prior diabetes (ICD-9-CM: 250.xx) or bipolar (ICD-9-CM: 296.4x-296.8x) diagnosis; and 3) self-reported pain score measured within 60 days both before the index date (baseline pain score) and after the last dispense date of the index antidepressants during the 12-month post-index period. The non-duloxetine-treated patients were matched to the duloxetine-treated patients via propensity scoring (1:1 ratio), controlling for demographics, comorbidities, prior opioid use, prior health care utilization, and baseline pain scores. Opioid utilization and pain scores over the 12-month post-index period were examined between cohorts. **RESULTS:** The study sample included 210 duloxetine- and 210 non-duloxetine-treated patients. Significantly less duloxetine-treated patients than non-duloxetine-treated patients used opioids (20.1%; vs. 34.3%, p = .002) over the 12-month post-index period. Both cohorts had similar morphine-equivalent opioid daily use and pain scores during the follow-up period. Controlling for baseline pain scores and medication duration, duloxetine-treated patients had 1.58