

time as for comparator. The price sensitivity analysis of comparators was done. The reassessment of CEA after price cut of comparators (up to—10%, due to international price referencing) has showed the positive results for agomelatine and robustness of previous price sensitivity analysis. **CONCLUSIONS:** The focus of the MoH drug policy is on more rational spendings, especially on reference pricing and HTA. There are first results of these new procedures, where the real impact of the HTA in the decision processes is demonstrated. Agomelatine, a new agent in therapy of depression fulfilled, the necessary legislative conditions including pharmacoeconomic aspects to be listed in the positive reimbursement list.

**PMH75****PREDICTORS AND COSTS OF MDD TREATMENT WITH DULOXETINE COMPARED WITH VENLAFAXINE EXTENDED RELEASE**Swindle R<sup>1</sup>, Ye W<sup>2</sup>, Robinson RL<sup>1</sup>, Zhao Y<sup>1</sup><sup>1</sup>Eli Lilly and Company, Indianapolis, IN, USA, <sup>2</sup>Lilly USA, LLC, Indianapolis, IN, USA

**OBJECTIVES:** To examine whether non-generic duloxetine and venlafaxine XR are essentially interchangeable in patients with major depressive disorder (MDD) or used selectively for patients with different treatment histories, costs, demographics, and comorbidities. **METHODS:** Using the US PharMetrics Database, we studied commercially insured individuals aged 18–64 initiating treatment with duloxetine or venlafaxine XR between July 2005 and July 2006, with  $\geq 1$  prior MDD diagnosis and continuous enrollment for 12 months prior to initiation date. Initiation was defined as the first use of either medication preceded by 3 months no prescription for or use of the same medication. Chi-square and logistic regression analysis of patients' demographics, past-year medication use, and comorbidities were used to assess predictors of initiations with duloxetine versus venlafaxine XR. **RESULTS:** A total of 9641 patients (73.6% female) initiated treatment with duloxetine and 8514 (71.5% female) with venlafaxine XR. Compared to venlafaxine XR patients, duloxetine patients were older (45 vs. 42.4 years), had  $\geq 3$  unique prior pain medications (25.5% vs. 15.6%), SSRIs (59.5% vs. 52.7%), TCAs (12.6% vs. 7.8%), analgesics (63.1% vs. 51.3%), anticonvulsants (30.1% vs. 17.9%), hypnotics (30.2% vs. 22.3%), and had  $\geq 8$  unique comorbid medical conditions (38.6% vs. 29.1%) and pain diagnoses (76.3% vs. 67.8%) (all p-values <0.005). Logistic regression results revealed that 61% of duloxetine initiators and 61% of venlafaxine XR initiators were predictable from prior patient and treatment factors. The prior 6-month total health care costs were \$1731 higher for future duloxetine patients than for future venlafaxine XR patients, and despite higher subsequent pharmacy costs, total health care costs declined for both medications after treatment with each drug began. **CONCLUSIONS:** MDD patients treated with duloxetine tended to have a more complex and costly antecedent clinical presentation compared with venlafaxine XR-treated patients, suggesting physicians do not use the two medications interchangeably and both may have unique roles on formularies.

**PMH76****PREDICTORS FOR DULOXETINE TREATMENT FOR PATIENTS WITH MAJOR DEPRESSIVE DISORDER IN VETERANS AFFAIRS HEALTH CARE NETWORK**Shi L<sup>1</sup>, Liu J<sup>1</sup>, Zhao Y<sup>2</sup><sup>1</sup>Tulane University, New Orleans, LA, USA, <sup>2</sup>Eli Lilly and Company, Indianapolis, IN, USA

**OBJECTIVES:** This retrospective study aimed to explore predictors of duloxetine versus other antidepressants for treating patients with major depressive disorder (MDD) in the Veterans Affairs (VA) health system. Duloxetine was not on the VA national drug formulary. **METHODS:** The electronic medical records from October 2004 to October 2008 were extracted from the VA Veterans Integrated Service Network 16 data warehouse. All patients were treated with either duloxetine monotherapy (duloxetine) or other antidepressants (non-duloxetine) over the study period, with the first dispense date of the index agent as the index date. All patients must have at least 1 prior MDD diagnosis (ICD-9-CM: 296.2 or 296.3), but no prior diabetes (ICD-9-CM: 250.xx) or bipolar disorder (ICD-9-CM: 296.4x-296.8x) diagnosis. Logistic regression was used to examine the predictors of treatment of duloxetine versus other antidepressants, controlling for demographics, comorbidities, prior opioid use, and pain level in the 12 months pre-index period. **RESULTS:** The logistic regression sample included 12,077 patients (duloxetine: n = 448; non-duloxetine: n = 11,629). Patients who were female (odds ratio [OR] = 3.15, 95% Confidence Interval [CI]: 2.48–4.00), white (OR = 1.48, CI: 1.15–1.91), with non-VA insurance (OR = 1.69, CI: 1.24–2.31), or prior emergency department (ED) visit (OR = 1.64, CI: 1.21–2.22) were more likely to use duloxetine. Patients comorbid with dyslipidemia, hypertension, or substance abuse were 1.60 (CI: 2.08–3.25), 0.35 (CI: 1.09–1.68), and 0.41 (CI: 1.14–1.75) times more likely to use duloxetine. Prior short-acting and long-acting opioid users were 3.32 (CI: 2.60–4.23) and 8.98 (CI: 6.95–11.60) times as likely to use duloxetine as those with no prior opioid use, respectively. Patients with self-reported moderate or severe pain were 1.43 (CI: 1.07–1.90) or 1.50 (CI: 1.16–1.92) times as likely to use duloxetine as those with no pain. **CONCLUSIONS:** The VA patients who were treated with duloxetine appeared to have more ED visits, more comorbid conditions, prior substance abuse or opioid use, and higher pain levels.

**NEUROLOGICAL DISORDERS – Clinical Outcomes Studies****PND1****RELATIONSHIP BETWEEN ADHERENCE TO INTERFERONS TO TREAT MULTIPLE SCLEROSIS AND THE NUMBER AND SEVERITY OF RELAPSES**Paris R<sup>1</sup>, Steinberg S<sup>1</sup>, Chang CF<sup>2</sup>, Tang J<sup>1</sup>, Tankersley MA<sup>1</sup><sup>1</sup>Accredo Health Group, Memphis, TN, USA, <sup>2</sup>University of Memphis, Memphis, TN, USA

**OBJECTIVES:** To determine if patients are adherent with interferons used to treat patients with Multiple Sclerosis (MS), the optimal adherence rate to maximize clinical outcomes, and the impact of adherence on the number and severity of relapses. **METHODS:** A retrospective cohort study design was used. Pharmacy and medical claims data were extracted for 2006–2008. Adherence was measured using two standard methods for Medication Possession Ratio (MPR), one that incorporates persistence and one that does not. Threshold analyses were run to determine an optimal adherence rate to minimize relapses. Patients were considered adherent if they met a predefined standard cut-off point and reanalyzed with the newly determined cut point. The number and severity of relapses were measured for each patient year, with 2008 being the critical outcomes point. A series of regression models were used to assess the impact of adherence on the number and severity of relapses. **RESULTS:** A total of 3590 patients were included in the study. Based on the method, the average MPR varied between 77.6% and 89.8%. The threshold analysis determined that the optimal adherence rate is around 85%. Patients receiving interferon through a specialty pharmacy are more adherent than those who did not. Patients who were classified as adherent through 2007 had a significantly lower risk of relapse in 2008. Patients who were adherent also had a significantly lower risk of severe relapse than those who were non-adherent. Complete MPRs, adherence rates, individual year descriptives, and inferential statistics will be included in the presentation. **CONCLUSIONS:** Patients with MS are generally adherent with their interferon therapy, although opportunities for improvement exist. Patients who receive special pharmacy services are more adherent than those who receive standard retail services. The effect of adherence on the number and severity of relapses demonstrated the positive impact of interferons for MS treatment.

**PND2****A BAYESIAN META-ANALYSIS COMPARING TREATMENTS FOR ALZHEIMER'S DISEASE**Gilligan A<sup>1</sup>, Malone DC<sup>2</sup><sup>1</sup>University of Arizona, Tucson, AZ, USA, <sup>2</sup>University of Arizona, College of Pharmacy, Tucson, AZ, USA

**OBJECTIVES:** The aim of this study was to evaluate the efficacy for five FDA approved drugs for Alzheimer's disease. **METHODS:** MEDLINE and the International Pharmaceutical Abstracts databases were searched for studies addressing functional outcomes with Alzheimer's disease. The primary outcome was cognitive efficacy and must have been measured on a validated scale. To report one consistent scale value, values were transformed into z-scores to obtain a dichotomized output, categorized as either improvement or a lack thereof in treatment. Odds ratios were calculated for success for each drug treatment. Winbugs version 1.4 statistical software was used to conduct a mixed treatment comparisons Bayesian analysis along with a sub-analysis to examine whether or not the cognitive measurement scale used in the studies effects the ranking of drug treatments. **RESULTS:** The mixed treatment comparisons results showed that galantamine OR = 2.518E+7, 95%CRI: 447,300–7.034E+9 was highly favored above all other Alzheimer's treatments, followed by donepezil OR = 1557, 95%CRI: 315.4–8341, tacrine OR = 212.8, 95%CRI: 28.47–1604, rivastigmine OR = 23.57, 95%CRI: 5.397–104.8, memantine OR = 3.775, 95%CRI: 0.639–23.09 compared to placebo. The sub-analysis also showed that galantamine OR = 2.832E+7, 95%CRI: 483900–2.326E+10 as highly favored, but yielded slightly different results with tacrine OR = 1434, 95%CRI: 148.2–15830 ahead of donepezil OR = 471.2, 95%CRI: 83.48–2935 in ranking, followed by rivastigmine OR = 19.54, 95%CRI: 4.781–83.19 and memantine OR = 2.836, 95%CRI: 0.2196–37.96. This analysis removed the eight studies that did not use the ADAS-Cog measurement scale, suggesting that the selection of the cognitive measurement scale changes the ranking of drug treatments. Odds ratios for galantamine were high due to the favorable response ( $\geq 95$ ) for the drug. The severity of Alzheimer's disease was not taken into account in this study. **CONCLUSIONS:** The consistency between drugs in terms of cognitive efficacy is present in all five drugs; all demonstrating effectiveness over placebo. Future research in this area is needed, including clinical studies comparing the agents directly.

**PND3****EFFICACY AND TOLERABILITY OF NATALIZUMAB IN RELAPSING MULTIPLE SCLEROSIS; A META-ANALYSIS**Nikfar S<sup>1</sup>, Rahimi R<sup>2</sup>, Rezaie A<sup>3</sup>, Abdollahi M<sup>2</sup><sup>1</sup>Iranian Ministry of Health and Medical Education, Tehran, Iran, <sup>2</sup>Tehran University of Medical Sciences, Tehran, Iran, <sup>3</sup>University of Alberta, Edmonton, Alberta, Canada

**OBJECTIVES:** The aim of this meta-analysis was to evaluate the efficacy and tolerability of Natalizumab in relapsing multiple sclerosis (MS). **METHODS:** "Mean change in Expanded Disability Status Scale (EDSS)", "number of patients with at least one relapse", and "number of patients with at least one new gadolinium (Gd)-enhancing lesion" were the key outcomes of interest for assessment of efficacy. "Any adverse events", "serious adverse events", "death", and "withdrawal because of adverse events" were the key outcomes for tolerability. **RESULTS:** Amongst existing trials, four randomized placebo controlled clinical trials met our criteria and were included.