multiple sclerosis heading term or by using quality of life and multiple sclerosis as separate MeSH terms. Urinary bladder was entered as a heading term, and all associations with fatigue and cognitive function were examined using the 6-question Fatigue Impact Scale-3 (FIS-3; score range 0–20) with lower scores indicating lower impact of fatigue on physical, cognitive, and psychosocial functioning; cognitive function is measured by the 6-question Modified Fatigue Impact Scale-5 (MFI-S; score range 0–20) with lower scores indicating lower impact of fatigue on physical, cognitive, and psychosocial functioning. The current analysis reports change in fatigue and cognitive functioning from baseline through the 12th infusion after controlling for covariates. RESULTS: Data from this ongoing study are presented for 192 patients completing the BL through the 12th infusion follow-up surveys. The mean number of years since MS diagnosis was 10.16 (SD = 8.23). Most patients were female (78%) and the mean age was 46.09 (SD = 10.78). On average, MFIS scores decreased significantly (BL 12.23 ± 2.2, 12th infusion score 10.97 ± 2.2, p < 0.001) and MFI-Cog scores increased significantly over time (BL 25.8 ± 1.4, 12th infusion score 26.91 ± 1.4, p < 0.001) after controlling for covariates. CONCLUSIONS: MS patients reported improvements in the impact of fatigue and overall cognitive function after one year of natalizumab treatment.

PND19 NATALIZUMAB TREATMENT IS ASSOCIATED WITH AN IMPROVEMENT IN PATIENT-REPORTED FATIGUE AND COGNITIVE FUNCTION OVER TIME Stephenson JJ1, Hou L2, Agrawal SS2, Rajagopalan K2, Kamar SA2
1HealthCore, Inc., Wilmington, DE, USA, 2Biogen Idec, Wellesley, MA, USA
OBJECTIVES: To evaluate changes in patient-reported fatigue and cognitive function after one year of natalizumab treatment in MS patients. METHODS: The study population consists of MS patients initiating natalizumab treatment who agreed to participate in a 12-month longitudinal study. The study assessed patient experiences with natalizumab using validated patient-reported outcome (PRO) measures prior to treatment initiation and after 3rd, 6th and 12th infusions. The current analysis reports change in fatigue and cognitive functioning from baseline through the 12th natalizumab infusion. Results from this on-going study are presented for 192 patients completing the BL through the 12th infusion follow-up surveys. The mean number of years since MS diagnosis was 10.16 (SD = 8.23). Most patients were female (78%) and the mean age was 46.09 (SD = 10.78). On average, MFIS scores decreased significantly (BL 12.23 ± 2.2, 12th infusion score 10.97 ± 2.2, p < 0.001) and MFI-Cog scores increased significantly over time (BL 25.8 ± 1.4, 12th infusion score 26.91 ± 1.4, p < 0.001) after controlling for covariates. CONCLUSIONS: MS patients reported improvements in the impact of fatigue and overall cognitive function after one year of natalizumab treatment.

PND20 IMPROVEMENT IN HEALTH-RELATED QUALITY OF LIFE IN MULTIPLE SCLEROSIS PATIENTS RECEIVING NATALIZUMAB IN THE UNITED STATES Hou L1, Stephenson JJ2, Agrawal SS1, Rajagopalan K2, Kamar SA2
HealthCore, Inc., Wilmington, DE, USA, 2Biogen Idec, Wellesley, MA, USA
OBJECTIVES: To assess the change in general health-related quality of life (HRQoL) of multiple sclerosis (MS) patients after one year of natalizumab treatment. METHODS: MS patients, newly starting natalizumab, were recruited to participate in a longitudinal observational study to assess general health-related quality of life using the SF-12v2 prior to natalizumab initiation and after the 3rd, 6th and 12th infusions. Higher physical component summary scores (PCS) and mental component summary scores (MCS) on the SF-12v2 indicate better HRQoL. Statistical regression models were used to evaluate changes in PCS and MCS scores from baseline through the 12th infusion after controlling for baseline patient-level and treatment characteristics. RESULTS: Data for 192 patients who had completed the baseline through 12th infusion assessments of this ongoing study are reported. The mean age was 46.09 (SD = 10.78) and the majority of patients were female (78%). The mean number of years since MS diagnosis was 10.16 (SD = 8.23). The PCS score improved significantly from baseline (BL 33.30 ± 7.12, 12th infusion 35.91 ± 7.12; p < 0.001); similar improvements were observed in the MCS scores which also improved significantly from baseline (BL 43.12 ± 1.53, 12th infusion 47.95 ± 1.53; p < 0.001). CONCLUSIONS: Patient-reported improvements in general health-related quality of life after 1 year of natalizumab treatment in the usual care setting. These results are consistent with results from pivotal clinical trials and document the beneficial impact of natalizumab on HRQoL of MS patients.

PND21 NEUROLOGICAL DISORDERS – Health Care Use & Policy Studies

PND22 ANALYSIS OF DULOXETINE UTILIZATION AMONG COMMERCIALLY-INSURED FIBROMYALGIA PATIENTS Chen SY1, Wu N1, Boulanger L2, Rao P1, Peng X3, Zhao Y3
1Abt Bio-Pharma Solutions, Inc., Lexington, MA, USA, 2Abt Bio-Pharma Solutions, Inc, Wellesley, MA, USA, 3Eli Lilly and Company, Indianapolis, IN, USA
OBJECTIVES: To assess the change in general health-related quality of life (HRQoL) of fibromyalgia patients. METHODS: This study analyzed administrative claims for fibromyalgia patients aged 18–64 who initiated duloxetine in 2006. Initiation was defined as no duloxetine coverage in the prior 90 days, with the first duloxetine prescription dispense date defined as the “index day.” Patients were excluded if they had less than 30 duloxetine supply days in the 12-months post-index period, or diagnosis of diabetic peripheral neuropathic pain or depression in the 12 months pre-index period. All duloxetine patients were classified in five cohorts based on index dosage: <30 mg, 30 mg, 30–60 mg, 60 mg, and >60 mg. Changes in dosage, average daily dosage (ADD), and adherence to duloxetine (medication possession ratio ≥0.8 as high adherence) were compared across cohorts. Multivariate regression models were performed to examine the association between index dosage and health care costs, controlling for demographics and clinical characteristics. RESULTS: Of 4,869 fibromyalgia patients identified, 4.4% had an index dosage of <30 mg, 22.4% of 30 mg, 5.9% of 31–59 mg, 60.4% of 60 mg, and 7.0% of >60 mg, 28% of total patients experienced any increase in dosage, while 15.9% experienced any decrease. Among those with any dosage change (n = 1,651), patients with an index dosage of 31–59 mg had the shortest duration before any dosage change (89 days), followed by those in the <30 mg, >60 mg, 30 mg, and 60 mg (95, 100, 104, and 139 days, respectively) cohorts. ADD increased with index dosage. Patients with <60 mg index dosage were less likely to be adherent than those in the 60 mg cohort (odds ratios ranged 0.61 to 0.78, all p < 0.05). Patients in the >60 mg cohort had higher total health care costs compared with those in the 60 mg cohort (adjusted difference: $3,747, p < 0.05). CONCLUSIONS: About one-third of duloxetine treated fibromyalgia patients experienced any dosage change. Duloxetine adherence and ADD, and health care costs differ by duloxetine index dosage.

PND23 PREDICTORS OF PAIN MEDICATION SELECTION AMONG PATIENTS DIAGNOSED WITH FIBROMYALGIA Zho Y1, Chen SY1, Boulanger L2, Nagar S1, Fraser K1, Wu N2
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OBJECTIVES: Multiple pharmacologic therapies have been recommended for managing fibromyalgia. However, the factors associated with each treatment initiation have not been well established. This study assessed demographic and clinical predictors of duloxetine versus other pain medications dispensed among patients with fibromyalgia. METHODS: Employing a retrospective cohort design and data from commercial insurance, this study examined predictors of treatment among fibromyalgia patients who were 18 to 64 years old and initiated duloxetine versus selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), venlafaxine, gabapentin, pregabalin, the ampa or n-methyl-D-aspartate (NMDA) receptor ligands, and tricyclic antidepressants (TCAs), venlafaxine, gabapentin, or pregabalin over the 1-year pre-index period were generally more likely to initiate duloxetine versus each of the other fibromyalgia therapies. RESULTS: Commercially insured fibromyalgia patients (n = 117,305) were on average 48 years of age, and 76% were females. Common fibromyalgia-related comorbidities were low back pain (35%), osteoarthritis (17%), and diabetes (12%). After controlling for demographic and clinical characteristics, those 35+ years of age, females, and patients who received SSRIs, TCAs, venlafaxine, gabapentin, or pregabalin over the 1-year pre-index period were generally more likely to initiate duloxetine than the other study medications. Other predictors of duloxetine initiation included higher prescription copayment and history of thiamine deficiency, osteoporosis, and sleep disturbance. CONCLUSIONS: These findings indicate that age, cost sharing, presence of selected comorbidities, and prior use of certain medications to treat pain were significant predictors of duloxetine initiation among working age, commercially insured fibromyalgia patients.

PND24 UTILIZATION, PRICE, AND EXPENDITURE TRENDS FOR ANTI-MIGRAINE DRUGS IN THE US MEDICAID PROGRAM FROM 1991 THROUGH 2008 Chu CH1, Guo J1, Wilge P1, Lin AC1
1University of Cincinnati, Cincinnati, OH, USA, 2University of Cincinnati, Cincinnati, OH, USA
OBJECTIVES: To evaluate changes in patient-reported fatigue and cognitive function after one year of natalizumab treatment in MS patients. METHODS: The study population consists of MS patients initiating natalizumab treatment who agreed to participate in a 12-month longitudinal study. The study assessed patient experiences with natalizumab using validated patient-reported outcome (PRO) measures prior to treatment initiation and after 3rd, 6th and 12th infusions. The current analysis reports change in fatigue and cognitive functioning from baseline through the 12th infusion after controlling for covariates. RESULTS: Data from this ongoing study are presented for 192 patients completing the BL through the 12th infusion follow-up surveys. The mean number of years since MS diagnosis was 10.16 (SD = 8.23). Most patients were female (78%) and the mean age was 46.09 (SD = 10.78). On average, MFIS scores decreased significantly (BL 12.23 ± 2.2, 12th infusion score 10.97 ± 2.2, p < 0.001) and MFI-Cog scores increased significantly over time (BL 25.8 ± 1.4, 12th infusion score 26.91 ± 1.4, p < 0.001) after controlling for covariates. CONCLUSIONS: MS patients reported improvements in the impact of fatigue and overall cognitive function after one year of natalizumab treatment.