patients without CM ($1,756). There were more CM patients with accompanying pain at all levels (moderate 15.5% vs. 9.16%, moderate to severe 13.10% vs. 10.00%, severe 16.26% vs. 12.0%, all p<0.0001). **CONCLUSIONS:** CM patients in the VHA population had substantial health care resource utilization, incurred higher costs and suffered worse pain compared to those without the disease.

**PND30 HEALTH CARE RESOURCE UTILIZATIONS AND COSTS AMONG MIGRAINE PATIENTS WITH ADVANCED PARKINSON DISEASE**

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**OBJECTIVES:** To examine the health care resource utilizations and costs among migraine patients in the U.S. Medicaid population. **METHODS:** Migraine patients were identified using International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM) diagnosis code 346 using Medicaid data from January 01, 2009 through December 31, 2009. The first diagnosis date was designated as the index date, and patients were required to have at least a 1-year baseline (pre-index date) and 1-year follow-up (post-index date) period. A comparison cohort was created for patients without a migraine diagnosis during the study period, using a 1:1 propensity score matching to control for age, region, gender and baseline Charlson Comorbidity Index score. The comparison cohort’s index date was chosen at random to minimize selection bias. Patients in both cohorts were required to be age ≥18 years and have continuous medical and pharmacy benefits 1-year pre- and post-index date. Study outcomes (health care resource utilizations and costs) were compared between the migraine and comparison cohorts. **RESULTS:** After applying PSM, 380,751 patients were assigned to each cohort, and baseline characteristics were well-balanced. A higher percentage of patients with migraines had inpatient stays (21.5% vs. 11.9%, p<0.0001), other therapy (98.6% vs. 65.78%, p<0.0001) and pharmacy visit claims (90.52% vs. 48.35%, p<0.0001), compared to those without a migraine diagnosis. The patients in the migraine cohort also incurred significantly higher therapy cost ($4,111 vs. $2,312, p<0.0001) and pharmacy visit costs ($1,074 vs. $512, p<0.0001) than those in the comparison cohort. **CONCLUSIONS:** Migraine patients incurred significantly higher costs and had higher health care resource utilizations than those without one.

**PND31 COST-EFFECTIVENESS ANALYSIS OF IPX066 IN ADVANCED PARKINSON’S DISEASE**

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**OBJECTIVES:** Parkinson’s disease (PD) is a progressive disease associated with substantial economic and societal burden. Immediate-release (IR) carbidopa-levodopa (CD-LD) is the gold standard in treatment for advanced PD patients. However, effectiveness of IR CD-LD diminishes with long-term treatment and is associated with increased “off” time (time spent in state of PD symptoms) and the advent of complications. CD-LD plus entacapone (CL-E) has produced some clinical improvement over IR CD-LD alone. IPX066 is an extended-release oral formulation of CD-LD designed to address some of the limitations of IR CD-LD by rapidly attaining and maintaining therapeutic LD concentrations for a prolonged duration. The aim of the study was to evaluate the comparative cost-effectiveness of IPX066 against CL-E. **METHODS:** A Markov model was developed comparing IPX066 with branded and generic CL-E based on a US Medicare Part D claims database. Health states included Unified Parkinson’s Disease Rating Scale (UPDRS) Parts II (activities of daily life) and III (motor) scores to disease progression and clinical disease activity outcomes. Costs included drug, administration, monitoring, relapse, and EDSS state costs. Incremental cost-effectiveness ratios (ICERs) were estimated for each of the outcomes measured. **RESULTS:** Costs ranged from $477,158 (DMF) to $526,667 (INT) NAT, DMF, and FEG were less expensive with respect to INT. **CONCLUSIONS:** IPX066 was more cost-effective compared to FGN and GA, respectively. The actual impact to a particular plan will vary based on drug pricing and other factors affecting drug cost coverage.

**PND32 COST-EFFECTIVENESS ANALYSIS OF IPX066 IN ADVANCED PARKINSON’S DISEASE**

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**OBJECTIVES:** Evaluate the short-term cost-effectiveness of IPX066 in advanced PD patients with severe motor fluctuations from an Irish health care perspective. **METHODS:** An economic model was created to predict the course of patients following a first initiation of a DMF Natalizumab (NAT), dimethyl fumarate (DMF), and peginterferon beta-1a (PEG), were compared with fingolimod (FEG), glatiramer acetate (GA), 40 milligrams thrice weekly, and interferon beta-1a (INT, 44 micrograms thrice weekly), respectively. The Markov state transition cohort model predicted disease progression across IRDS Expanded Disability Status Scale (EDSS) states and for secondary progressive (SPMS) EDSS states in 3-month cycles over a 10-year time horizon. The patient cohort was at risk of death, relapse, or discontinuation (due to reaching EDSS level 6 or following DMF relapse rates) in each cycle. Outcome measures were relapses, relapse-free time, MS progression, and progression and clinical disease activity-free years. Costs included drug, administration, monitoring, relapse, and EDSS state costs. Incremental cost-effectiveness ratios (ICERs) were estimated for each of the outcome measures. **RESULTS:** Costs ranged from $477,158 (DMF) to $526,667 (INT) NAT, DMF, and FEG were less expensive with respect to INT. **CONCLUSIONS:** IPX066 was more cost-effective compared to FGN and GA, respectively. The actual impact to a particular plan will vary based on drug pricing and other factors affecting drug cost coverage.

**PND33 THE COST-EFFECTIVENESS OF TREATMENT WITH RELAPSE-REMITTING MULTIPLE SCLEROSIS**

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**OBJECTIVES:** Compare the cost-effectiveness of current disease modifying therapies (DMT) for patients with relapsing-remitting multiple sclerosis (RRMS) in the US. **METHODS:** An economic model was created to predict the course of patients following a first initiation of a DMF Natalizumab (NAT), dimethyl fumarate (DMF), and peginterferon beta-1a (PEG), were compared with fingolimod (FEG), glatiramer acetate (GA), 40 milligrams thrice weekly, and interferon beta-1a (INT, 44 micrograms thrice weekly), respectively. The Markov state transition cohort model predicted disease progression across IRDS Expanded Disability Status Scale (EDSS) states and for secondary progressive (SPMS) EDSS states in 3-month cycles over a 10-year time horizon. The patient cohort was at risk of death, relapse, or discontinuation (due to reaching EDSS level 6 or following DMF relapse rates) in each cycle. Outcome measures were relapses, relapse-free time, MS progression, and progression and clinical disease activity-free years. Costs included drug, administration, monitoring, relapse, and EDSS state costs. Incremental cost-effectiveness ratios (ICERs) were estimated for each of the outcome measures. **RESULTS:** Costs ranged from $477,158 (DMF) to $526,667 (INT) NAT, DMF, and FEG were less expensive with respect to INT. **CONCLUSIONS:** IPX066 was more cost-effective compared to FGN and GA, respectively. The actual impact to a particular plan will vary based on drug pricing and other factors affecting drug cost coverage.

**PND34 COST-EFFECTIVENESS ANALYSIS OF IPX066 IN ADVANCED PARKINSON’S DISEASE**

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**OBJECTIVES:** To analyze cost-effectiveness of amitriptyline and propranolol in the management of migraine. **METHODS:** A total of 60 patients with migraine were enrolled in a prospective, observational, exploratory study based on the inclusion and exclusion criteria. Migraine headache frequency, duration and use of the counter drugs per month migraine headache pain score and headache impact test questionnaire. The patients were given either amitriptyline or propranolol. After the completion of one month of drug score of patients were measured using the same questionnaire and in addition cost of propranolol and drugs were calculated. **RESULTS:** Outcome of treatment on patients was evaluated by comparing the mean scores before and after treatment by applying paired sample t-test and independent sample test to compare means between the two treatment groups. **CONCLUSIONS:** The actual impact to a particular plan will vary based on drug pricing and other factors affecting drug cost coverage.
comparison to evaluate the efficacy and safety, with the study of Jiao and cols., an hypothesis was placed in accordance with this efficacy and the Hoehn and Yahr states, an analysis of incremental cost-effectiveness ratio (ICER) was performed. We used a markov model to estimate the CE and performed sensitivity analyses and varying disease progression parameters and costs. The outcome of effectiveness was considered incidence density. RESULTS: For patients with a prior DMD therapy, treatment with levdopas had lower costs and more effectiveness than pramipexole, rasagiline and selegiline treatments. With a time horizon of 5 years, levodopa was 5.04 life years gained and cost $336,750.52, the cost of selegiline was $247,094.21 with 4.1 life years gained, pramipexol had a cost of $247,420.46 with 4.1 life years gained and finally rasagiline $254,006.56 with 3.17 life years gained, all values of ICER were less than one GDP per capital. This resulted showed that levodopa was the dominant alternative. The sensitivity analysis confirmed the results. CONCLUSIONS: Findings of this study indicate that levodopa provides the major effectiveness and the lower cost compared to pramipexole, rasagiline and selegiline treatment option in patients with early Parkinson disease (measured by UFRDS) in monotherapy.

**PND36**

THE COST-EFFECTIVENESS OF LISDEXAMETANINE DIMELOYATE FOR THE TREATMENT OF BINGE EATING DISORDER

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OBJECTIVES: Lisdexametanine dimeloyate (LDEX) demonstrated efficacy in terms of reduced binge eating days per week in adults (18–55 years old) with binge eating disorder (BED) in a 12-week controlled trial (RCT). This study examined the effectiveness of LDX compared to placebo for the treatment of adult BED patients in the United States (U.S.). METHODS: A decision-analytic Markov cohort model comparing LDX to placebo was developed using 3-week cycles and a 52-week time horizon. Based upon the 5th Edition of the Diagnostic and Statistical Manual of Mental Disorders criteria of BED, the model comprised the following health states: non-remitted BED, remitted BED. Claims data were collected using the Health Risk Institute research database to identify MS patients initiating natalizumab (index date) between 1/1/2009 and 12/31/2012. Patients had 24 months of continuous enrollment (12 months before [pre-period] and 12 months after [post-period]) and at least one natalizumab prescription in the 4th quarter after the index date. Furthermore, patients with and without other disease-modifying treatment (DMT) during the pre-period were examined. Patien characteristics, MS-related inpatient stays, and corticosteroid use were compared in both periods using paired statistical tests, where appropriate. RESULTS: The study included 193 patients, mean age 37.1 years (standard deviation 10.2), 64.8% female. The majority (75.1%) used a DMT during the pre-period. After initiation of natalizumab, there was a significant reduction in the percentage of patients with MS-related inpatient stays (49.7% versus 14.0%, P<0.001), MS-related inpatient costs (mean $3,759 versus $815, P<0.001), and length of stay (mean 7.0 days versus 2.7 days, P<0.001) compared to the pre-period. In patients without pre-period DMT's, there was a significant reduction in the percentage of patients with MS-related inpatient stays (~77.3% P<0.001) and costs (~$5025.0, P<0.001) and patients with DMT's in the pre-period also showed similar significant reductions (~78.7%, P<0.001 and ~75.0%, P<0.001 respectively). Compared to the pre-period, there were significant reductions in corticosteroid use for all natalizumab initiators (~62.3%, P<0.001), which correspond to mean corticosteroid per-patient prescription of ~480.75 % across all natalizumab users (P<0.001). CONCLUSIONS: In Germany, the initiation of natalizumab was associated with significant decreases in MS-related inpatient stays, and corticosteroid use with corresponding decreases in the average length of stay and costs among natalizumab users with and without DMTs in the prior year.

**PND37**

THE IMPACT OF NEUTRALIZING ANTIBODY TESTING ON THE COST-EFFECTIVENESS OF INJECTABLE DISEASE MODIFYING TREATMENTS FOR RELAPSING REMITTING MULTIPLE SCLEROSIS (RRMS) AND SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS (SPMS)

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OBJECTIVES: To evaluate the cost-effectiveness of glatiramer acetate (COPAXONE®) for relapsing-remitting multiple sclerosis (RRMS) compared to interferons-β (IFNs) in scenarios with and without routine testing for the presence of neutralizing antibodies (NAbs) in patients receiving IFNs. METHODS: A decision-analytic Markov cohort model was used to compare the cost-effectiveness of treating IFN-β naïve patients with glatiramer acetate (GA, NUEDEXTA®) and interferons-β (IFNs) in scenarios with and without routine testing for the presence of neutralizing antibodies (NAbs) in patients receiving IFNs. The model was based on the 5th Edition of the Diagnostic and Statistical Manual of Mental Disorders criteria of BED, the model comprised the following health states: non-remitted IFNs, remitted IFNs. Claims data were collected using the Health Risk Institute research database to identify MS patients initiating natalizumab (index date) between 1/1/2009 and 12/31/2012. Patients had 24 months of continuous enrollment (12 months before [pre-period] and 12 months after [post-period]) and at least one natalizumab prescription in the 4th quarter after the index date. Furthermore, patients with and without other disease-modifying treatment (DMT) during the pre-period were examined. Patient characteristics, MS-related inpatient stays, and corticosteroid use were compared in both periods using paired statistical tests, where appropriate. RESULTS: The study included 193 patients, mean age 37.1 years (standard deviation 10.2), 64.8% female. The majority (75.1%) used a DMT during the pre-period. After initiation of natalizumab, there was a significant reduction in the percentage of patients with MS-related inpatient stays (49.7% versus 14.0%, P<0.001), MS-related inpatient costs (mean $3,759 versus $815, P<0.001), and length of stay (mean 7.0 days versus 2.7 days, P<0.001) compared to the pre-period. In patients without pre-period DMT's, there was a significant reduction in the percentage of patients with MS-related inpatient stays (~77.3% P<0.001) and costs (~$5025.0, P<0.001) and patients with DMT's in the pre-period also showed similar significant reductions (~78.7%, P<0.001 and ~75.0%, P<0.001 respectively). Compared to the pre-period, there were significant reductions in corticosteroid use for all natalizumab initiators (~62.3%, P<0.001), which correspond to mean corticosteroid per-patient prescription of ~480.75 % across all natalizumab users (P<0.001). CONCLUSIONS: In Germany, the initiation of natalizumab was associated with significant decreases in MS-related inpatient stays, and corticosteroid use with corresponding decreases in the average length of stay and costs among natalizumab users with and without DMTs in the prior year.

**PND40**

SKULL MUSCLE ACTIVITY AND RESOURCE TOOL FOR SPORADIC INCLUSION BODY MYOSITIS (SIBM): CHARACTERIZATION OF RESOURCE UTILIZATION AND FINANCIAL BURDEN EXPERIENCED BY SIBM PATIENTS

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OBJECTIVES: sIBM is a progressive idiopathic inflammatory myopathy characterized by atrophy and weakness of proximal and distal muscle groups, knee extensions and wrist/finger flexors and dysphagic processes are frequently involved. Progressive weakness results in loss of independence and need for assistive devices and support care. The progressive nature of sIBM leads to increasing medical expenses, many of which are not covered by third-party payers, making quantification difficult using existing databases. SMART-sIBM, a self-report tool, was developed to better characterize outcome-of-pocket expenses and non-reimbursable items not captured by health care systems. METHODS: SMART-sIBM was developed based on in-depth interview data from 20 sIBM patients, review of existing resource-use measures, and input from clinical experts (n=9). SMART-sIBM captures resource utilization and cost-of-illness over a 6-month period and includes out-of-pocket costs and third-partypayer expenses. A cross-sectional study (n=102 sIBM patients) was conducted in the US to gather preliminary resource utilization and patient-reported data. Draft versions of the SMART-sIBM were reviewed by two independent patients independently, and were refined before use in the cross-sectional study. RESULTS: Patients had a mean age of 66 years, disease duration of 1-18 years, and varied physical limitations. All patients reported need for frequent health care visits, and 80% indicated a need for housekeeping assistance. In the previous month, patients had an average of 1.6 hospitalizations and took an average of 7 medications. CONCLUSIONS: Results of