optimize spending on MS treatments and for clinical experts looking for improved understanding of the therapeutic benefits of natalizumab.

**PND4**

A MIXED-TREATMENT COMPARISON (MTC) TO COMPARE THE EFFICACY OF BOTULINUM TOXIN TYPE A TREATMENTS FOR CERVICAL DYSTONIA

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**OBJECTIVES:** This research was conducted to provide a systematic pairwise comparison of all available botulinum toxin type A treatments for cervical dystonia (CD) as there is a lack of direct head to head clinical trial data evidence. Three botulinum toxin type A products have been approved by the FDA for managing CD: AbobotulinumtoxinA, OnabotulinumtoxinA and IncobotulinumtoxinA. A pair-wise efficacy comparison was performed for all three toxins based on literature-reported clinical outcomes. **METHODS:** Multi-arm randomized controlled trials (RCTs) for inclusion were identified using a systematic literature review. RCTs were assessed for comparability based on patient population and comparable efficacy outcome measures. Each RCT was categorized into one of five different classes based on literature-reported clinical outcomes. **RESULTS:** The network of six RCTs with fourteen arms formed a series of “steps” which facilitated the comparison of all botulinum toxin type A treatments of interest. Due to the limitation of available clinical data, this study only investigated the most efficacious of these treatments without a review of potential confounding factors such as gender and formulation differences. There was reasonable agreement between the number of unconstrained data points, residual deviance and pair-wise results, suggesting a coherent network. The results for TWSTRS total scale change from baseline for all treatments were: Placebo (mean -4.487, SE 1.487, SE 1.402), AbobotulinumtoxinA (mean -11.08, SE 1.41), OnabotulinumtoxinA (mean -1.77, SE 1.37) and IncobotulinumtoxinA (mean -3.79, SE 1.94). A negative number indicates symptom improvement. **CONCLUSIONS:** This research suggests that all botulinum toxin type A treatments were effective compared to placebo in cervical dystonia. However, based on this MTC analysis, there is no significant efficacy difference between AbobotulinumtoxinA, OnabotulinumtoxinA and IncobotulinumtoxinA.

**PND5**

OUTCOMES IN SCHIZOPHRENIA: WHAT DOES “CLINICALLY MEANINGFUL” MEAN TO PAYERS?

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**OBJECTIVES:** The understanding of the clinical meaningfulness of outcomes in schizophrenia is important to determine the value of new treatments for patients, caregivers, practitioners and payers. The aim of this research was to provide an overview of general concepts and methodologies applied to determine meaningfulness of endpoints, to describe how outcomes are measured in schizophrenia and how these clinical meaningfulness measures are defined in schizophrenia from a Health Technology Assessment (HTA) perspective. **METHODS:** We conducted a targeted literature search focusing on antipsychotic treatment and clinical meaningfulness of outcomes studies, a review of HTA submission guidelines, HTA reports in schizophrenia, a survey on individual country requirements in sixteen countries and an analogue analysis to identify payers definitions of clinical meaningfulness of outcomes. **RESULTS:** No consistent approach exists from payers, or in the literature. Clinical meaningfulness of outcomes in schizophrenia is primarily focused on improvement in psychopathology scores with some burden of illness measures being used. **CONCLUSIONS:** Based on this research, payers have varied approaches to determining meaningfulness of outcomes in schizophrenia. Future research may need to focus on specific clinical outcomes including depression.

**PND7**

PHARMACEUTICAL UTILIZATION AND EXPENDITURES FOR PERIPHERAL NEUROPATHIC PAIN, UNITED STATES, 2005–2011

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**OBJECTIVES:** To estimate the annual aggregate expenditures of prescription pharmaceuticals in the treatment of peripheral neuropathic pain in the United States over a seven year period. **METHODS:** We utilized annually compiled data for the years 2005–2011 of the Medical Expenditure Panel Survey (MEPS), a publically available national survey, representative of all payers and healthcare expenses and utilization for the civilian, non-institutionalized US population. We identified cases using International Classification of Disease-Ninth Revision, Clinical Modification (ICD-9-CM) codes which denoted conditions related to peripheral neuropathy (diabetes mellitus and herpes zoster), or indicated peripheral neuropathy directly. These were associated with pharmacy records using Cerner Multum® classification and pharmacy benefits data. **RESULTS:** Prescription costs and costs were aggregated by year. Survey weighting, clustering and stratification variables were used to give unbiased national estimates of prescription utilization and expenditures. All costs were inflated to 2011 dollars using the Medical Consumer Frailty Index. **CONCLUSIONS:** A total of 29,945,926 patients had at least one prescribed medicine associated with treatment of a neuropathic pain diagnosis, representing 2.9 million persons in 2005 and increasing to 3.9 million in 2011 (an increase of 31.3%, p < 0.05). Total prescription expenditures peaked in 2008 ($1.1 billion) and 20.3 million (m) prescriptions, respectively, then declined through 2011. Narcotic analgesics and gabapentinoids were the drug classes with the largest mean annual expenditures ($850m and $211m), followed by benzodiazepines and tricyclic antidepressants. CRP values were significantly associated with CRP that were significantly associated with CRP were: perceived health status, smoking and income. For example, adults with excellent perceived health status had significantly lower CRP values (<0.004) as compared to those with poor health status. **CONCLUSIONS:** In this population-based study, no statistically significant associations were observed between antipsychotic use and CRP. Further research is needed to validate this finding in individuals with an inflammatory condition. Future research may need to focus on specific inflammatory conditions including depression.

**PND8**

PREVALENCE AND TRENDS IN CYSTIC FIBROSIS AMONG THE UNITED STATES MEDICAID POPULATION IN 2008 AND 2009

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**OBJECTIVES:** This study examined patient age and gender as well as geographic variations in the prevalence of cystic fibrosis (CF), a chronic lung disease common in children and young adults, in the U.S. Medicaid population. **METHODS:** A retrospective study was performed among the U.S. Medicaid fee-for-service (FFS) population from 2008 through 2009. CF patients were identified using International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM) diagnosis code 277.0x. Both total and Medicaid FFS enrollments in both 2008 and 2009 were included for analysis. Any managed care enrollment during the period was not permitted. CF prevalence was stratified by region, state, age, gender and race, and for all patients and measured by patient number, and percentage, in each category. **RESULTS:** A total of 2,550 patients were diagnosed with CF among the Medicaid FFS population in 2008 and 2009. Prevalence was the highest (0.15%) for patients under age 40 years, followed by patients age 40 to 59 (0.03%), and 60+ (0.01%). CF prevalence by race was also examined, with the following results: White (0.06%), Hispanic (0.04%), Black (0.03%), Native American (0.02%) and Asian (0.02%). Male patients had a relatively higher prevalence compared to female patients (0.06% vs. 0.05%). Geographic variation was also analyzed, and the highest CF prevalence was observed in Minnesota (0.16%), followed by Ohio, Maryland, North Dakota (all at 0.11%) and West Virginia (0.09%). Patients residing in the South had the highest prevalence rate (0.07%), compared to the Northeast (0.05%), South (0.04%) and West (0.03%). **CONCLUSIONS:** Statistical evidence shows that younger patients have a higher probability of being diagnosed with CF, with male patients more likely to be diagnosed with CF compared to those of other races. Male patients who resided in the Midwest U.S. region were also found to be at higher risk for a CF diagnosis.

**PND9**

TRIFITAN USE FOR MIGRAINE HEADACHE AMONG ADULTS WITH CARDIOVASCULAR RISK

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**OBJECTIVES:** To examine the association between antipressorant use and C - Reactive Protein (CRP) among adults with inflammatory medical conditions after controlling for gender, race, age, income, Non-steroidal anti-inflammatory drug use, smoking, Physical activity status, alcohol use and physical activity. **METHODS:** Retrospective cross-sectional study with linked data from laboratory, prescription medication, medical conditions and demographic files of the National Health and Nutrition Examination Survey (NHANES). The study sample (N = 3,400) consisted of adults (≥20 years) with any inflammatory condition (arthritis, gout, chronic obstructive pulmonary diseases, asthma, coronary artery disease, diabetes, obesity, liver, or cancer). **RESULTS:** Ordinary least square regression (OLS) and multinomial logistic regressions on log odds (log <1.0 mg/l), average (1-3 mg/l) and high (>3 mg/l) were used to analyze the association between antipressor use and CRP. **RESULTS:** Antidepressant use was reported by 13% of the adults and the average change in CRP value for the proportion using CRP was -0.85 mg/l (SE = 0.013), 22% had low CRP, 33% had average CRP and 45% had high CRP values. Average CRP values were not statistically different between antidepressant users and non-users. Other factors that were significantly associated with CRP were: perceived health status, smoking and income. For example, adults with excellent perceived health status had significantly lower CRP values (<0.004) as compared to those with poor health status. **CONCLUSIONS:** In this population-based study, no statistically significant association was observed between antipressor use and CRP. Further research is needed to validate this finding in individuals with an inflammatory condition. Future research may need to focus on specific inflammatory conditions including depression.