relationship between RMU and migraine symptom end points was also assessed. **RESULTS:** This post hoc analysis included 794 patients randomized (1:1) to receive double-blind treatment with MAP0004 or placebo. The primary results of the study were previously published. Patients were well matched for demographic and baseline characteristics. Patients receiving MAP0004 experienced statistically significant migraine symptom reduction compared with patients receiving placebo. RMU in the double-blind period was consistently lower with MAP0004 than with placebo at 2 hours (4% vs. 8%, $P=0.0261$), 4 hours (19% vs 37%, $P<0.0001$), 24 hours (36% vs. 54%, $P<0.0001$), and 48 hours (42% vs. 59%, $P<0.0001$) after study-drug administration. RMU was also significantly lower with MAP0004 than with placebo across demographic and baseline characteristics. Among patients who reported pain relief at 2 hours, MAP0004-treated patients had significantly lower RMU at 4, 24, and 48 hours than placebo-treated patients. The overall adverse event rate was comparable to that of placebo. **CONCLUSIONS:** In this study, RMU was significantly lower with MAP0004 than with placebo overall and across demographic and baseline characteristics.

PND48

REAL WORLD TREATMENT PROFILE OF PATIENTS WITH TUBEROUS SCLEROSIS COMPLEX

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OBJECTIVES: To profile real world treatment patterns of patients with tuberous sclerosis complex (TSC) which is a genetic disease that can affect multiple organ systems in the body. **METHODS:** We conducted a retrospective cohort study with a large national healthcare claims database that consists of 39 million commercially insured Americans between 2000 and 2009. Patients with a TSC claim and continuous enrollment 12 months before and 12 months after their first TSC diagnosis were included in the study (these selection criteria lead to the exclusion of those at age less than one). Resource utilization rates (measured as number of claims per patient) were examined for different provider types and places of services, and compared between the year before and after the first TSC diagnosis. Two-tail paired sample dependent t test and Chi-square test were used for pre-post comparisons as well as cross-region comparison. **RESULTS:** The included patients ($N=1249$) had a mean age of 33.9 years at their first TSC diagnosis, and 57.5% were female. Resource utilization rates with significant pre-post differences were inpatient admissions (0.16 vs. 0.08, $p<0.01$), emergency care (1.14 vs. 0.78, $p<0.05$), hospital outpatient care (12.68 vs. 6.66, $p<0.05$), neurologist care (0.60 vs. 0.32, $p<0.05$), neurological surgeon care (0.06 vs. 0.02, $p<0.05$), oncologist care (0.32 vs. 0.12, $p<0.05$), and the use of anti-epilepsy medications (2.45 vs. 2.10, $p<0.05$). The most common places of care were physician offices (21.44), hospital outpatient departments (12.68) and specialty care facilities (8.37); the most common provider specialties were primary care providers (6.07), neurologists (0.60), oncologists (0.32), surgeons (0.29); and the most common class of medications were anti-epilepsy medications (2.45). Significant cross-region variations in TSC medication utilization and costs were also observed ($p<0.05$). **CONCLUSIONS:** TSC patients had a very diverse treatment profile due to its multi-organ involvement. Future research is needed to explore the driving forces behind cross-region variations in TSC treatment.

PND49

TREATMENT FOR PATIENTS DIAGNOSED WITH PARKINSON'S DISEASE: DIFFERENCES BASED UPON DIAGNOSING PHYSICIAN

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OBJECTIVES: To investigate Parkinson's disease (PD) medication initiation patterns based upon diagnosing physician specialty. **METHODS:** Data were obtained from the i3 InVision™ Data Mart database from January 1, 2006 through March 30, 2011. Patients included in the analyses were diagnosed with PD (initial diagnosis identified as index date) and had continuous insurance coverage from 6 months prior through 12 months post index date, and were at least age 35. Categorical variables were examined using chi-square statistics while continuous variables were examined using t-tests; all are descriptive. **RESULTS:** A total of 5967 patients fit the study criteria. Patients diagnosed by a neurologist ($N=3173$), compared to those diagnosed by another physician specialty, were more likely to be male (58.86% vs. 53.72%; $P=0.0002$), younger (66.53 years vs. 70.81 years; $P<0.0001$), and in better health, as proxied by the Charlson Comorbidity Index (1.14 vs. 1.28; $P=0.0034$). Patients diagnosed by a neurologist were significantly more likely to be treated with a PD medication during the study period (48.91% vs. 30.06%; $P<0.0001$). A neurologist was significantly more likely to initially prescribe a monoamine oxidase B inhibitor (MAO-B) (21.07% vs. 12.86%; $P<0.0001$) or carbidopa/levodopa/entacapone (9.86% vs. 6.43%; $P=0.0004$), than a physician of another specialty, but significantly less likely to initially prescribe carbidopa/levodopa (27.90% vs. 42.38%; $P<0.0001$). There was no difference in the rates of switching from initial class of PD medication or adjunctive use of an additional class of PD medication, although among patients prescribed multiple classes of PD medications, patients diagnosed by a neurologist were more likely to be prescribed a dopamine agonist in combination with a MAO-B (40.08% vs. 27.34%; $P=0.0147$). **CONCLUSIONS:** These analyses found differences in treatment patterns based upon the specialty of the diagnosing physician. Additional studies are warranted to raise awareness of differences in PD treatment by diagnosing physician and to address potential health care disparities.

PND50

THE IMPACT OF PATIENT AGE ON PATTERNS OF DIAGNOSIS AND TREATMENT AMONG PATIENTS WITH PARKINSON'S DISEASE

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OBJECTIVES: Evaluate diagnosis and treatment initiation patterns in Parkinson's disease (PD) based upon age. **METHODS:** Data were obtained from the i3 InVisionTM Data Mart database from January 1, 2006 through March 30, 2011. Patients were diagnosed with PD (initial diagnosis identified as index date), had continuous insurance coverage from 6 months prior through 12 months post index date and were at least 35 years old. Cohorts were divided into those under 65 and over 65 years of age. These analyses are descriptive, with continuous variables examined using t-tests and categorical variables examined using chi-square statistics. **RESULTS:** A total of 5,967 patients fit the inclusion criteria. More individuals (58.22%) were age 65 or older, and in worse physical health, evidenced by a significantly higher pre-period Charlson score (1.52 vs. 0.77; $P<0.0001$) and had higher rates of pre-period cerebrovascular disease (21.53% vs. 9.07%; $P<0.0001$), cardiovascular disease (22.86% vs. 8.10%; $P<0.0001$), dementia (10.22% vs. 1.60%; $P<0.0001$), diabetes (22.77% vs. 14.64%; $P<0.0001$), hypertension (56.99% vs. 35.10%; $P<0.0001$), and psychoses (15.03% vs. 9.51%; $P<0.0001$). Individuals age 65+ were significantly less likely to be treated with PD medication (35.69% vs. 46.21%; $P<0.0001$), and more likely to be diagnosed by a neurologist (61.37% vs. 48.29%; $P<0.0001$). Older individuals were more likely to be initially prescribed carbidopa/levodopa (44.27% vs. 20.83%; $P<0.0001$), a catechol o-methyltransferase inhibitor (5.08% vs. 2.25%; $P=0.0003$), or carbidopa/levodopa/entacapone (10.81% vs. 6.34%; $P<0.0001$), but significantly less likely to be initially prescribed a dopamine agonist (32.42% vs. 47.14%; $P<0.0001$), a monamine oxidase B inhibitor (12.50% vs. 24.31%; $P<0.0001$), or an anticholinergic (3.31% vs. 6.83%; $P<0.0001$). There was no significant difference between rates of switching from initially prescribed medication (18.63% vs. 21.53%; $P=0.0767$), although younger individuals were more likely to add an additional class of therapy (18.40% vs. 13.15%; $P=0.0004$). **CONCLUSIONS:** These analyses highlighted potential age disparities in treatment patterns.

PND51

THE IMPACT OF PATIENT SEX ON PATTERNS OF DIAGNOSIS AND TREATMENT AMONG PATIENTS WITH PARKINSON'S DISEASE

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OBJECTIVES: To evaluate diagnosis and treatment initiation patterns in Parkinson's disease (PD) based upon patient sex. **METHODS:** Data used for these analyses were obtained from the i3 InVisionTM Data Mart database from January 1, 2006 through March 30, 2011. Patients were included in the analyses if they were diagnosed with PD (initial diagnosis identified as index date) had continuous insurance coverage from 6 months prior through 12 months post index date, and were at least 35 years old. The analyses are descriptive, with differences in continuous variables examined using t-tests and differences in categorical variables examined using chi-square statistics. **RESULTS:** A total 5967 patients who fit the inclusion and exclusion criteria. Results revealed significant differences based on sex. More men (56.29%) than women were diagnosed with PD, and men were in worse overall physical health as evidenced by a significantly higher pre-period Charlson score (1.10 vs. 1.29; $P<0.0001$) and higher rates of pre-period diagnoses of cardiovascular disease (21.05% vs. 11.08%; $P<0.0001$), diabetes (20.06% vs. 17.71%; $P=0.0043$), and high cholesterol (38.67% vs. 34.05%; $P=0.0002$). Female patients, however, were more likely to be diagnosed with mental-health comorbidities, such as anxiety (8.93% vs. 5.45%; $P<0.0001$), depression (16.53% vs. 11.34%; $P<0.0001$), or psychoses (14.46% vs. 11.37%; $P=0.0004$). Males were significantly more likely to receive PD medication (43.55% vs. 35.68%; $P<0.0001$) and were more likely to be diagnosed by a neurologist (55.31% vs. 50.42%; $P=0.0008$). Males were also found to be more likely to be initially prescribed a monamine oxidase B inhibitor (20.16% vs. 15.07%; $P=0.0016$). There was no significant difference between males and females with regards to rates of switching from initially prescribed medication (20.37% vs. 19.48%; $P=0.5978$) or adding an additional therapy to their initial regime (16.47% vs. 14.42%; $P=0.1792$). **CONCLUSIONS:** These analyses highlight potential sex disparities in treatment patterns.

PND52

DETERMINING THE EXISTENCE OF RACIAL AND ETHNIC DISPARITIES IN ALZHEIMER'S DISEASE PHARMACOTHERAPY EXPOSURE: AN ANALYSIS ACROSS FOUR STATE MEDICAID POPULATIONS

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OBJECTIVES: The objective of this study was to determine if an association existed between race/ethnicity and exposure to Alzheimer's disease (AD) pharmacotherapy across four state Medicaid populations. **METHODS:** Data from the Centers for Medicare and Medicaid services was used in this retrospective study. Individuals had to have an AD diagnosis (ICD-9 code 331.0) and be enrolled in a California, Florida, New Jersey, or New York Medicaid program during 2004. Outcomes of interest were exposure to a cholinesterase inhibitor (ChEI) or memantine. Multivariate logistic regression was used to test for the association between race/ethnicity and the exposure to a ChEI or memantine. Variables of interest included demographic characteristics and resource utilization factors. The Oaxaca-Blinder decomposition method to test for disparities was used to determine if exposure to a ChEI or memantine was influenced by race. **RESULTS:** Approximately 158,974 individuals qualified for this study. Race, age, long-term care admittance, inpatient