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NEUROLOGICAL DISORDERS—Patient Reported Outcomes & Patient Preference Studies

PND41 DESCRIPTION OF PROPHECY DRUG UTILIZATION PATTERNS IN SERHALINE PATIENTS
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OBJECTIVES: To describe medication utilization patterns of migraine prophylactics in commercially insured patients. METHODS: Adult migraineurs (ICD-9 code 346.20) newly initiating migraine prophylactics (no claims for 12 months before first index prophylactic prescription) between January 2007 and March 2013 were identified from the OptumInsight employer claims database and followed for 6 months. Prophylactics included antiepileptics (topiramate, divalproex, valproic acid), beta-blockers (propranolol, timolol), antidepressants (amitriptyline) and onabotulinumtoxinA. Continuous enrollment was required for 12 months pre-index and 6 months post-index. To increase the specificity of migraine prophylactics, patients with prior diagnoses for conditions for which their prescribed prophylactics were also indicated (e.g., epilepsy, hyperactivity, depression) were excluded. Outcomes of interest were medication adherence (medication possession ratio [MPR]), discontinuation (>30-day gap between prescriptions, and switching patterns). RESULTS: This study analyzed data from 23,618 migraine prophylaxis prescriptions. 19,881 patients initiated prophylactic treatment with 12,136 (61%), 3,037 (15%), 4,163 (21%), and 545 (3%) patients initiating antiepileptics, beta-blockers, amitriptyline, and onabotulinumtoxinA, respectively. Mean (SD) MPR for any prophylactic was 0.49 (0.31) (0.27)–valproic acid to 0.67 (0.22)–onabotulinumtoxinA with a mean (SD) of 89.2 (54.7) days on treatment over 6 months. Discontinuation rates were high ranging from 74% (topiramate and onabotulinumtoxinA) to 90% (valproic acid, divalproex, timolol, amitriptyline) to 84 days (onabotulinumtoxinA). CONCLUSIONS: Adherence to migraine prophylactic medications was poor with about 50% of patients discontinuing after their first prescription and over 75% discontinuing within 6 months. The large gaps in adherence for many patients suggest that further research is needed on reasons for discontinuation and better tolerated therapies.

PND42 A REVIEW OF METHODOLOGIES USED TO ASSESS ADHERENCE TO DISEASE MODIFYING THERAPIES AMONG PATIENTS WITH MULTIPLE SCLEROSIS
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OBJECTIVES: To review the methods currently used to measure adherence to oral and injectable disease modifying therapies (DMTs) in multiple sclerosis (MS) patients. METHODS: A comprehensive literature search covering major databases including PubMed, CINAHL, PsychINFO, and Cochrane Library to identify articles assessing adherence to DMTs. The purpose of this review is to provide an overview of the methods used in the literature. RESULTS: There are several methods that have been used to measure adherence to DMTs to MS. Measures include self-report surveys, pharmacy data, and direct observation. CONCLUSIONS: There is a lack of standardization in how measures are used to study adherence to DMTs. It is important for researchers to consider the methods used in their studies when interpreting the results. This review highlights the variability in measurement methods and the need for standardized approaches to measure adherence to DMTs.

PND43 MEASURING ADHERENCE AND OUTCOME IN TREATMENT OF MULTIPLE SCLEROSIS IN THE GEISINGER CLINIC
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OBJECTIVES: This study examined the relationship between medication adherence and outcomes in multiple sclerosis (MS), where both concepts are more difficult to measure than in diseases like hypertension where most medications are taken orally. METHODS: We conducted a literature review of studies that assessed adherence to DMTs. The publication time frame was from January 2004 to November 2014. RESULTS: Of the 150 identified articles, 10 met our inclusion criteria. There were no significant differences between groups in reported number of relapses or physical functional status. MPR could only be calculated for 95 patients (37 had claims but not enough data to calculate a PND). DISCUSSION: This preliminary study highlights the need for standardization of adherence measures and the importance of long-term follow-up to assess outcomes in MS. CONCLUSIONS: Medication adherence in the actively treated MS population is very high, whether measured by self-report or MPR. Patients with 100% adherence showed evidence of better medication satisfaction and psychological function than others.

PND44 WHAT ARE PEOPLE WILLING TO PAY FOR WHOLE GENOME SEQUENCING INFORMATION?
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OBJECTIVES: Whole genome sequencing (WGS) can be used to predict future disease risk or inform treatment. Current guidelines suggest only reporting variants that are clinically actionable. Reporting incidental or non-actionable findings could generate anxiety and unnecessary medical tests, but patients could miss valuable information if not reported. Over-treatment may occur by acting on findings prematurely, potentially causing harm and unnecessary resource use. We measure the value of WGS information using contingent valuation methods. METHODS: An online pilot survey (n=26 adults from US general population) was used to evaluate willingness to pay for a basic WGS report (recommended by guidelines), and genetic information excluded from the basic report (non-actionable findings) to inform a national survey. RESULTS: Respondents were initially asked whether they would purchase a basic WGS report for a specified dollar amount. A follow-up question increased or decreased the cost of the report based on the initial response. Responses were used to identify degrees of willingness to pay for a basic report for each value. Paired comparisons were performed to test if respondents were not willing to pay anything for the basic report, and no respondent was willing to pay more than $1000 for the basic report. Most respondents (n=17, 65%) were not willing to pay anything for non-actionable genetic information, and only one person reported willingness to pay more than $400 for this information. CONCLUSIONS: A large number of participants perceived that genetic information can be harmful, as shown by respondents’ lack of interest in this information even if it were free. Our findings also suggest that respondents were willing to pay for more actionable genetic information than for non-actionable findings.

PND45 ADHERENCE AND PERSISTENCE TO ANTI-EPILEPTIC DRUGS AMONG U.S. VETERANS DIAGNOSED WITH EPILEPSY
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OBJECTIVES: To evaluate patient adherence and persistence to anti-epileptic drug (AED) treatment. METHODS: Adherence and persistence was measured using pharmacy claims data (ICD-9-CM 345) or one epilepsy diagnosis claim and one claim for another condition (ICD-9-CM 780.39) from the U.S. Veterans Health Administration database (01/01/2001-03/31/2013). Patients were required to have ≥1 AED prescription post-epilepsy diagnosis, and the first AED prescription date was designated as the index date. Continuous health plan enrollment from 12 months pre- and post-index date was required. Patients assigned to four monotherapy AED cohorts based on drug class: sodium channel blockers (SCs), gamma-aminobutyric acid analogs (GABA), synaptic vesicle protein 2A binding (SV2) and multiple mechanisms (MMs). Adherence was assessed using the proportion of days covered (PDC) and 12 months of follow-up was required. Persistence was defined as continuous treatment with an allowable treatment gap of 45 days without the index AED. Logistic and Cox proportional hazards models were used to compare the results among the four cohorts. RESULTS: Patients’ mean age was 42 years and 95% were male. Patients in the SC cohort were significantly less likely to have a baseline psychiatric disorder (37.6%) than those in the GABA (63.8%, p<0.001) and MM (52.1%, p<0.001) cohorts. Patients treated with GABA (OR=0.44, p<0.001) and MMs (OR=0.63, p<0.001) were significantly less likely to adhere to their medications (PDC<80%) than those treated with SCs. Furthermore, patients treated with GABA (HR 1.59-1.90) and MMs (HR=1.18, 95% CI=1.07-1.29) were more likely to discontinue treatment during the follow-up period compared to those in the SC cohort. CONCLUSIONS: Patients treated with Sodium channel blockers had a higher persistence than the other groups and better adherence than those treated with GABAs and MMs.