13,396 males representing 212.7 million American adults aged 18 to 85+ years. Nonparametric regression models were employed to express migraine prevalence as a function of age separately for each sex group. The salient characteristics of the fitted functions were evaluated by examining the first and second derivatives, corresponding to the velocity and the acceleration of prevalence over the age continuum. **RESULTS:** Study results suggest that migraine prevalence increases with age until about 34 years, where it reaches a maximum, then starts declining until 75 years where it reaches a plateau for both sexes. For females, the greatest rate of decline in migraine prevalence starts at 41 years and continues until age 63 where it reaches its minimum. The rate of decline in migraine prevalence for males, on the other hand, seems to be decreasing in a smooth monotonic fashion starting age 34 and reaches the female rate of change at 78 years. The dramatic change in both the slope and the curvature of the function for females around the perimenopausal age range warrants attention. **CONCLUSIONS:** These findings provide indirect evidence for the phenomenon of menstrual migraine. The inflection points on the female curve correspond to the age range of perimenopause and menopause in U.S. women. These inflection points are not observed on the male curve.

PND11

MODELING LONG-TERM "REAL WORLD" OUTCOMES OF DISEASE-MODIFYING THERAPY IN RELAPSING-REMITTING ONSET MULTIPLE SCLEROSIS

Skedgel C[1], Brown MG[2], Bhan V[1]
[1]Dalhousie University, Halifax, NS, Canada, [2]Capital Health Nova Scotia, Halifax, NS, Canada

OBJECTIVES: Phase III clinical trials showed novel drugs introduced in the 1990s modified the natural history (NH) of relapsing-remitting onset definite multiple sclerosis (MS). A Nova Scotia Phase IV "real world" observational study confirmed the short-term effectiveness of these disease modifying therapies (MS-DMT), measured by Extended Disability Status Scale (EDSS) increase avoided per patient per year. This analysis projects these short-term results over a 20-year horizon to estimate long-term health outcomes of MS-DMT. **METHODS:** A probabilistic Markov model estimated EDSS progression for NH and MS-DMT cohorts with relapsing-remitting onset MS over a 20-year horizon. The model was based on 591 patients receiving MS-DMT from the Dalhousie MS Research Unit, stratified into three subgroups by final classification and disability severity: 1) mild relapsing-remitting MS (RRMS), 2) mild secondary-progressive MS (SPMS) and 3) mild or moderate SPMS. Health outcomes were measured as EDSS disability adjusted life years (DALYs) avoided per patient compared to NH. Relative benefit was defined as DALY burden avoided relative to expected DALYs given NH. The baseline analysis was a "best-case" scenario with full compliance for 20 years. **RESULTS:** The model found statistically significant benefit in all three subgroups. Among the mild severity subgroups, there were 1.7 (95% CI:1.2–2.2) DALYs avoided among RRMS patients and 2.6 (1.5–3.6) DALYs avoided among SPMS patients, for a combined benefit of 1.9 (1.2–3.2) DALYs avoided, or a 42% (20%–91%) relative benefit. Among the mild or moderate SPMS patients there were 1.1 (0.3–1.9) DALYs avoided (14%; 3–30%). Overall, the combined cohort had a benefit of 1.5 (0.5–2.1) DALYs avoided (29%; 6–63%). **CONCLUSIONS:** MS-DMT can have significant long-term benefit in terms of DALYs avoided, particularly in mild subgroups. This analysis is the first to model long-term change in mean EDSS, rather than delayed time to specific EDSS endpoints, and may help guide MS-DMT coverage decisions.

PND12

A LITERATURE REVIEW OF PATIENT-REPORTED OUTOMES (PROS), NEUROPSYCHOLOGICAL AND COGNITIVE INSTRUMENTS IN PARKINSON'S DISEASE

Staniek V, Emery MP
Mapi Research Trust, Lyon, France

OBJECTIVES: To describe and compare the domains and psychometric properties of selected Patient Reported Outcomes (PROs) instruments, neuropsychological and cognitive, developed and/or used in patients with Parkinson's disease (PD). **METHODS:** A systematic literature review of published studies was conducted using MEDLINE (1990–2006), EMBASE (1990–2006) and the Mapi Research Trust databases. Only studies describing the development or use of a referenced instrument assessing Health-Related Quality Of Life (HRQL), Activities of Daily Living (ADL), Fatigue/sleep, Neuropsychological and cognitive measures were included in the review. Instruments were selected if they were specifically developed for Parkinson's disease, or used in clinical trials and for which psychometric properties were available. Caregiver reports were not included. **RESULTS:** Sixty instruments were identified and 35 were selected for in-depth review. Seven questionnaires measured HRQL (2 generic and 5 PD specific). Of these, the PDQUALIF and the PDQ-39 are well validated but are not always sensitive to changes in RCTs. Four instruments assessed ADL/disability, with the UPDRS being generally used as a primary endpoint in RCTs. Six instruments measured sleep or fatigue, most of them have been validated in PD patients and are sensitive to change. Two symptoms (motor & non-motor) scales were selected, but lack evidence of good psychometric properties. Four psychological instruments and 12 neuropsychological/cognitive instruments were also selected. Most of these were not validated in PD patients and failed to demonstrate their sensitivity to change in clinical trials. **CONCLUSIONS:** The selected PRO instruments are very heterogeneous in their levels of validation, psychometric properties and sensitivity to change in clinical trials, depending on the dimension measured. For HRQOL, ADL/Disability and Sleep, reliable measures are available whereas advances are still needed to assess symptoms, psychological well-being or cognition.

PND13

PSICOMETRIC PROPERTIES OF THE TREATMENT SATISFACTION WITH MEDICINES QUESTIONNAIRE (SATMED-Q) IN PATIENTS WITH REFRACTORY EPILEPSY

Ruíz MA[1], Rejas J[2], Palacios G[2], Pardo A[1], Soto J[2]
[1]Universidad Autónoma de Madrid, Madrid, Spain, [2]Pfizer Spain, Madrid, Spain

OBJECTIVES: Treatment of epilepsy is still challenging to the scientific community. Usually, these patients require more than one drug. Hence satisfaction with antiepileptic drugs becomes a major goal, as it is of crucial relevance for seizures control and patient wellbeing, particularly at the level of anxiety, depression and quality of life. This study assessed the psychometric properties of a recently developed questionnaire of Treatment Satisfaction (SATMED-Q) in subjects with refractory epilepsy. **METHODS:** patients with refractory epilepsy from epilepsy and neurology outpatient clinics, representative of the national distribution in Spain were included. Sociodemographic, anthropometric data, and the SATMED-Q (Treatment Satisfaction), and HAD (Anxiety and Depression) questionnaires were collected. Reliability and validity were determined. Factor analysis was used to check the instrument original structure. **RESULTS:** A sample of 768 consecutive patients [average age of 40.5 (13.5) years, 50.8% males and 24.3 (13.4) years of disease evolution]