loss and resource were similar in Brazil and the 5EU (all p>0.05). After adjustments (combined 5EU and Brazil), as the number of seizures decreased, PCS (≥1 seizures/week: 40.9; 1-3 seizures/month: 41.7; 1-4 seizures/year: 46.9; <1seizures/year: 48.4) and health utilities (≥1 seizures/week: 0.58; 1-3 seizures/month: 0.63; 1-4 seizures/year: 0.63; <1seizures/year: 0.69) increased. As the number of seizures decreased, activity impairment (≥1 seizures/week: 58.6%; 1-3 seizures/month: 51.1%; 1-4 seizures/year: 35.7%; <1seizures/year: 25.5%), emergency room visits and hospitalizations decreased. In Europe direct and indirect costs were highest for the ≥1 seizure/week group. **CONCLUSIONS:** POS burden was similar in Europe and Brazil. As the number of seizures increased, economic and humanistic burden increased. Even with the large number of treatment options available, patients and the health care system need additional choices to reduce the frequency of seizures.

PND70

PSYCHOMETRIC ANALYSES TO INFORM ITEM REDUCTION AND EVALUATE SENSITIVITY OF THE EARLY MOBILITY IMPAIRMENT QUESTIONNAIRE FOR MULTIPLE SCLEROSIS

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OBJECTIVES: Mobility impairments affect most multiple sclerosis (MS) patients (93%), yet many patients (~40%) "rarely or never" discuss trouble walking with a health care provider (HCP). To facilitate patient-HCP dialogue and early identification of mobility impairments, the Early Mobility Impairment Questionnaire (EMIQ) was developed based on qualitative research with patients diagnosed with MS and in collaboration with key opinion leaders. To minimize the burden associated with administration of the EMIQ, psychometric analyses were applied to the initial draft to produce a parsimonious yet robust instrument. **METHODS:** The EMIQ's psychometric performance was evaluated in a multi-center, prospective, observational study in subjects with an Expanded Disability Status Scale (EDSS) score of 2.0 to 6.0. Iterative exploratory factor analysis (EFA) was used to guide item reduction; subsequently, an item response theory (IRT) graded response model was applied to confirm the robustness of the instrument. Logistic regression analyses (using EDSS scores) were used to confirm discriminatory power. **RESULTS:** In total, 124 subjects with moderate MS (EDSS mean score = 4.2) were included in the study. Discriminant validity, factor analysis, and IRT modeling identified six items for reduction. The resulting 9-item scale had one strong underlying domain (first eigenvalue explained 60% of variance). The information curve showed sufficient sensitivity ($I>3.3$ for $-2.6\leq\theta\leq2.4$) throughout the scale (mild to severe), with the most precise information provided at ½ SD above the mean ($I=12$ at $\theta=0.4$). Logistic regression showed that the EMIQ was able to discriminate between patients with and without walking impairment ($p<0.05$). **CONCLUSIONS:** The psychometric analyses resulted in a streamlined scale that is appropriate for the screening of subjects experiencing early mobility impairments due to MS. In addition to a potential role in guiding clinical assessment and intervention, the EMIQ may also prove useful in the longitudinal assessment of mobility, as patients' conditions decline.

PND71

COGNITIVE IMPAIRMENT AND HEALTH RELATED QUALITY OF LIFE IN RELAPSING REMITTING MULTIPLE SCLEROSIS

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OBJECTIVES: The impact of Cognitive Impairment (CI) on Health Related Quality of Life (HRQoL) in patients with Relapsing Remitting Multiple Sclerosis (RRMS) is becoming a field of study increasingly relevant due to its implications on the effectiveness and quality research. Since the studies reviewed highlight contradictory results, the aim of this study was to determine the predictive value of CI and other correlated factors on HRQoL in a sample of RRMS patients. **METHODS:** Observational, cross-sectional and multicenter study at 21 Neurology Departments in Spain. Multiple linear regression analysis (stepwise) was carried out to assess if HRQoL (EQ-5D scores) was predicted by CI (Brief Repeatable Battery of Neuropsychological Tests, BRB-N), physical disability (Expanded Disability Status Scale -EDSS), depression (Beck Depression Inventory-BDI-II) and disease duration (years diagnosed). Bivariate, partial and semi-partial correlations and multicollinearity analysis were performed to control confounding factors. **RESULTS:** We included 291 RRMS patients (71.50% female), mean age 41.65 years (SD=10.18). The mild disability group (EDSS 0-3) included 152 (52.20%) patients and the moderate disability group (EDSS 3.5-5.5) included 139 patients (47.80%). All correlations between EQ-5D scores and BRB-N, BDI-II, EDSS and disease duration variables were statistically significant ($p<0.01$), not multicollinearity detected. The results of the regression analysis indicated that two predictors explained 56.9% of the HRQoL variance (Adjusted R squared=0.569, F= 187,251, $p<0.01$). It was found that depression significantly predicted HRQoL (Beta= -0.587, $p<0.01$), as did physical disability (Beta= -0.315, $p<0.01$). **CONCLUSIONS:** The results showed a weak predictive value of CI (measured with the BRB-N battery) in HRQOL scores while depression and psychical disability were important predictors. Future research is needed in order to clarify the relationship between CI and HRQoL.

PND72

EVALUATING WORKING ABILITY AND QUALITY OF LIFE OF PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: Relapsing remitting multiple sclerosis (RRMS) is a chronic inflammatory disease representing the most common chronic neurological disorder in young adults. RRMS usually leads to permanent disability and as a result is a major cause of reduced working capacity due to neurological diseases. This abstract presents methods to evaluate working ability and quality of life in natalizumab-treated RRMS patients. **METHODS:** A non-interventional study was performed in Germany. Patients treated with natalizumab for a maximum of three months prior to baseline were eligible for study participation. Demographic and occupational information was collected; DSS and EQ-5D-questionnaires were used. Data were collected at baseline, after 6 months and after 12 months. Main objective was to evaluate productivity per year, by using the formula: (working hours per day*5 days per week*46 working weeks a year) - (days absent from work*working hours per year). To assess health economic cost savings, productivity has been valued monetarily by calculating a daily rate of working costs. Subgroup analysis divides the study population into employed, unemployed, patients with statutory sick pay and students. Analyses of variance and subsequent post hoc tests will be performed to identify subgroup differences. **RESULTS:** Of 95 patients included by January 2014, 46.3% were employed. Average hours worked/day were 5.3 hours (employed: 6.5 hours); average number of days absent from work during the past half-year was 17.4 days (employed: 16.5 days). Calculated productivity per 6 months results in 569.6 hours (employed: 661.0), meaning 6,5540.40€ (employed: 7,634.55€) in monetarily valued productivity. **CONCLUSIONS:** This non-interventional study aimed at providing new insights in the therapy of RRMS patients treated with natalizumab. The study's intention was to show how an increase in working hours in employed patients as well as a decrease in days absent from work can lead to an increase in productivity. Study was funded by Biogen Idec.

PND73

SIGNIFICANT AND MEANINGFUL IMPROVEMENT IN TREATMENT SATISFACTION WITH TERIFLUNOMIDE VERSUS SUBCUTANEOUS IFNB-1A IN PATIENTS WITH RELAPSING MS RESULTS FROM TENERE

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OBJECTIVES: Teriflunomide is a once-daily oral immunomodulator approved for relapsing–remitting MS. The phase 3 TENERE (NCT00883337) study comparing teriflunomide with subcutaneous interferon beta-1a (sc IFNβ-1a) did not meet its primary endpoint (superiority of teriflunomide vs sc IFNβ-1a on time to treatment failure) although there was no difference in annualized relapse rate between teriflunomide 14 mg and sc IFNβ-1a. The objective of the current analysis was to compare patient treatment satisfaction of teriflunomide with that of sc IFNβ-1a. **METHODS:** Randomized patients (n=324) received once-daily teriflunomide 14 mg or 7 mg or sc IFNβ-1a three times per week; the study was completed 48 weeks after the last patient was randomized. Patient satisfaction with treatment was assessed as a secondary endpoint using the Treatment Satisfaction Questionnaire for Medication (TSQM) version 1.4, a validated generic questionnaire with scores for effectiveness, side-effects, convenience, and global satisfaction. A mixed-effect model with repeated measures was used to analyze TSQM scores at Week 48. Magnitude of effects was assessed using effect size (ES), defined as the difference in treatment effect divided by standard deviation. The ES differences were ranked as follows: <0.2, negligible; ≥0.2–<0.5, small; ≥0.5–≤0.8, moderate; >0.8, high. **RESULTS:** At Week 48, TSQM values showed significantly better patient satisfaction in the teriflunomide 14-mg group vs the IFNβ-1a group in three domains (side-effects, $P<0.0001$; convenience, $P<0.0001$; global satisfaction, $P=0.02$), with no perceived difference on effectiveness ($P=0.28$). High ES values favoring teriflunomide 14 mg vs IFNβ-1a were seen with side-effects (1.09) and convenience (1.81), with a smaller ES for global satisfaction (0.39). **CONCLUSIONS:** A significant and meaningful improvement in treatment satisfaction for teriflunomide 14 mg vs IFNβ-1a was observed with regards to side-effects, convenience, and global satisfaction, which may potentially improve treatment adherence and outcomes in clinical practice.

NEUROLOGICAL DISORDERS – Health Care Use & Policy Studies

PND74

ANTIEPILEPTIC DRUG (AED) TREATMENT SEQUENCING IN THE UK IN PATIENTS WITH EPILEPSY: REAL-LIFE PRACTICE DATA USING CPRD

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OBJECTIVES: Analyze real-life AED treatment sequencing in the UK using prescription data from the Clinical Practice Research Datalink (CPRD), and compare it to the 2012 National Institute for Health and Care Excellence (NICE) clinical guidelines. **METHODS:** Patients were included if they had an epilepsy diagnosis and an AED prescription between January, 2009 and January, 2014. Patients who entered the database untreated were followed from first AED prescription following an epilepsy diagnosis, for up to five lines of treatment until being censored at the end of registration, death, or end of data coverage. Follow-up time could differ substantially between patients. AED treatment changes were classified as add, switch, or stop. The number of patients per treatment line was calculated for each individual AED combination and each regimen, grouped as Monotherapy, Polytherapy, and "No AED". **RESULTS:** Overall, 8931 patients went through 2469 unique AED treatment sequences; 97.1% were started on Monotherapy. 30.8% of patients stayed on their first Monotherapy until censored. 16.5% of initial Monotherapy patients switched to a second Monotherapy; 27% went to "No AED"; 25.7% progressed to Polytherapy. The first treatment line was consistent with NICE guidelines for 70.4% of patients. Thereafter, 14.7% of patients were treated within guidelines in the first 2 lines. The main divergence from guidelines involved prescribing Polytherapy or "No AED" rather than a second monotherapy in line 2. Largely consistent with NICE, the most frequent (87.1%) initial monotherapy AEDs were valproic acid (30.1%), lamotrigine (22.8%), carbamazepine (17.5%), levetiracetam (10.3%), and phenytoin