

threshold improvement in MSWS-12 and in Timed Up and Go (TUG) speed, and mean changes from baseline in MS Impact Scale physical subscale (MSIS-29 PHYS) and Berg Balance Scale (BBS).

**Results** Over 24 weeks, significantly more PR-FAM-treated PwMS achieved  $\geq 8$ -point mean improvement in MSWS-12 (44.3% vs 33.0%; OR: 1.68 [95%CI: 1.23, 2.29];  $P < 0.001$ ) and  $\geq 15\%$  mean improvement in TUG speed (44.1% vs 34.5%; OR: 1.54 [95%CI: 1.13, 2.11];  $P = 0.007$ ) vs placebo. Significant improvements from baseline were also registered in MSIS-29 PHYS (least square mean [LSM] difference: -3.18 [95%CI: -4.84, -1.52];  $P < 0.001$ ) and BBS (LSM difference: 0.62 [95%CI: 0.09, 1.14];  $P = 0.021$ ) vs placebo.

**Conclusions** This post-hoc pooled analysis strengthens evidence that PR-FAM produces clinically meaningful improvements in self-reported walking and benefits self-reported physical function, mobility, balance, and quality of life over 24 weeks for PwMS.

Support: Biogen. Disclosures to be included on poster.

#### 192 DOES SOCIOECONOMIC STATUS IMPACT ON THE PRESCRIPTION OF DISEASE-MODIFYING TREATMENTS IN PEOPLE WITH MULTIPLE SCLEROSIS?

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**Objective** To examine the association between socioeconomic status (SES) and prescription of disease-modifying treatments (DMTs) in people with multiple sclerosis (pwMS).

**Methods** A cross-sectional study was conducted among 734 pwMS aged  $\geq 18$  years attending the neuroinflammation service at The Royal London Hospital (Barts Health NHS Trust) between 1997 and 2017. SES was determined by patient income and education extracted from the English Index of Multiple Deprivation. Multinomial logistic regression was performed to assess differences between SES and prescription of DMTs.

**Results** DMTs were categorized as follows: moderate efficacy therapies included Glatiramer Acetate and Beta-Interferons ( $n=81$ , 11.04%), high efficacy therapies included Cladribine, Fingolimod and Dimethyl Fumarate ( $n=409$ , 55.72%), and very-high efficacy therapies included Natalizumab and Alemtuzumab ( $n=244$ , 33.24%). Medians for income and education deciles were 4 (IQR 3–7) and 6 (IQR 4–8), respectively. Patient income was not associated with increased odds of being prescribed high efficacy (OR, 1.02; 95% CI, 0.91–1.14;  $p=0.814$ ) or very-high efficacy DMTs (OR, 1.01; 95% CI, 0.90–1.14;  $p=0.732$ ). Similarly, patient education was not associated with the prescription of high efficacy (OR, 0.96; 95% CI, 0.84–1.10;  $p=0.585$ ) or very-high efficacy DMTs (OR, 0.96; 95% CI, 0.84–1.10;  $p=0.538$ ).

**Conclusions** SES was not predictive of prescription of DMTs in this single-centre study. It would be of interest to compare our data with other MS services, and to map these results onto the inequity in access to DMTs across the UK.

#### 194 NATALIZUMAB TREATMENT FOR MS: UK AND GLOBAL RESULTS FROM TOP

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**Introduction** The TYSABRI Observational Program (TOP) is the largest real-world study in natalizumab-treated relapsing-remitting MS patients. Country-specific data, alongside global data, can provide information on natalizumab's effectiveness in local practice.

**Methods** Annualised relapse rate (ARR) and cumulative probability of 24-week confirmed disability worsening (CDW; Expanded Disability Status Scale [EDSS] score increase from baseline of  $\geq 1.5$  from 0.0,  $\geq 1.0$  from 1.0–5.5, or  $\geq 0.5$  from  $\geq 6.0$ ) and improvement (CDI; decrease  $\geq 1.0$  from baseline EDSS score  $\geq 2.0$ ) over 6 years were analysed in TOP UK ( $n=134$ ) and global ( $N=6149$ ) cohorts using data from July 2007 to November 2017.

**Results** ARR decreased in UK patients from 2.21 in the year before initiation to 0.21 on natalizumab, paralleling the global decrease from 1.99 to 0.21. At 6 years, probabilities of CDW and CDI were, respectively, 27.8% and 34.4% in UK patients and 24.2% and 32.0% globally.

**Conclusions** Consistent with global TOP results, natalizumab ARRs and disability worsening rates remained low and disability improvement rates exceeded 30% at 6 years in the UK cohort. These results support natalizumab's long-term effectiveness in real-world settings.

Support: Biogen. Disclosures will be included on the poster.

#### 195 MS DISEASE MODIFYING THERAPY (DMT) SEQUENCING – TYSABRI TO MAVENCLAD DE-ESCALATION IN JC-VIRUS POSITIVE MS PATIENTS

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**Background** There is a significant UK variation in the DMT sequencing strategies for high PML risk patients on Tysabri. In Greater Manchester Neuroscience centre we gradually reduced the number of high PML risk patients on Tysabri from 89 in 2016 to 26 in 2018. From our experiences de-escalation strategy from Tysabri to Fingolimod or Lemtrada seemed safe. Fingolimod, less efficacious switch, tends to be delivered quicker than Lemtrada (requiring lesser safety checks), but the efficacy of Lemtrada in MS patients with disease duration  $>10$  years remains uncertain.

**Method** Between January 2018 and November 2018 we switched 14 high risk PML patients from Tysabri to Mavenclad. All patients underwent MDT discussion, lumbar puncture with JCV PCR and MRI checks prior to DMT switch.

**Results** We present the first UK MS patient cohort de-escalating from Tysabri to Mavenclad. Older (average age of 44) and more disabled patients (average EDSS=4.75) opted for Mavenclad, with equal gender distribution (7:7). Average disease duration was 7.5 (2–10) and patients received 52 (6–

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