Patients had continuous health plan enrollment for ≥12 months before and ≥15 months after their first MS prescription. The proportion of patients with MPR >85% (appropriate compliance) and 12-month persistence rates (proportion of patients with drug therapy at month 12 without a lapse of therapy >90 days) were evaluated across 4 treatment groups: interferon beta (IFNβ-1a subcutaneous (SC), IFNβ-1a intramuscular (IM), IFNβ-1b, and glatiramer acetate (GA)). Treatment comparisons were evaluated by using Wilcoxon rank sum and chi-square tests for continuous and dichotomous variables, respectively. RESULTS: Immunomodulating treatment was initiated in 3195 patients (IFNβ-1a SC, n = 799; IFNβ-1a IM, n = 905; IFNβ-1b, n = 344, and GA, n = 1147). Sex, geographic region, and health plan and product types were similar across all treatment groups. Mean age was statistically higher in the IFNβ-1a IM groups vs the IFNβ-1a SC and GA groups (44.9 vs 43.5 and 43.8 years, respectively, P < 0.01) but not with the IFNβ-1b group (44.4 years). Compliance (MPR ≥ 85%) was significantly higher with IFNβ-1a SC vs IFNβ-1b (49.7% vs 39.8%; P = 0.002) but not with GA (45.7%) or IFNβ-1a IM (45.1%). IFNβ-1a SC patients had a persistence rate of 60.3%, significantly higher than that of IFNβ-1a IM (54.9%) and IFNβ-1b (52.9%; P < 0.03, for both) but not GA (60.5%; P = 0.936).

CONCLUSION: All 4 groups were comparable in terms of demographic characteristics. Although differences in compliance were less pronounced, the IFNβ-1a SC and GA treatment groups had the highest persistence rates.

**PND27**

**RELATIONSHIP BETWEEN GAPS IN DRUG TREATMENT FOR MULTIPLE SCLEROSIS AND INCIDENCE OF EXACERBATIONS: FINDINGS FROM A NATIONAL MANAGED CARE DATABASE**

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OBJECTIVE: This study examined the relationship between medication gaps and severe MS relapses. METHODS: Subjects were selected from the PHARMetrics database if they had at least one MS drug (Avonex®, Betaseron®, Copaxone®, Rebif®) claim from January 1, 2000 through December 31, 2004, and were continuously eligible for 24-months following their first disease modifying prescription (index date), in addition to 6-months prior to the index date. Subjects were excluded if the were <18 or >65 years of age, exposed to Tysabri® after the index date, had evidence of study medication use in a health care facility, or lived in a long-term care facility. A severe MS relapse was defined as an “MS-related” hospitalization or emergency room visit. Maximum gap in therapy (Maxgap), was defined as the longest continuous period with no evidence of study medication availability (based on dispensing date and days supply). Maxgap was categorized as 0–10 days, 11–89 days, and 90+ days. Covariates included, age, gender, region, and treatment status (new or existing), comorbidity, and therapy type (mono- or multi-drug therapy). RESULTS: Subjects (N = 2388) had a mean age of 43.9 years, 76.7% were new patients, 8.1% had at least 1 severe MS relapse over the 24-month study period, and 76.4% were female. Maxgap had a significant odds ratio (OR) of 1.923 (p = 0.007) for the 90+ day group (0–10 day reference). Monotherapy use for the 4 study drugs was associated with reduced risk of severe relapse (ORs between 0.450 and 0.532). Other significant covariates were comorbidity and East region (ORs = 1.090 and 1.495 respectively). Age, gender, and the other regions were not significant at alpha = 0.05.

CONCLUSION: Gaps in MS drug therapy longer than 90 days are associated with a higher risk of severe MS relapse compared to short or no gaps in treatment.

**PND28**

**IMPROVEMENTS IN QUALITY OF LIFE FOLLOWING TREATMENT WITH BOTULINUM TOXIN TYPE A FOR CERVICAL DYSTONIA**

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OBJECTIVE: The objective of this analysis was to evaluate the effect of botulinum toxin type A on quality of life in patients with cervical dystonia. METHODS: The study consisted of a 10-week, nonrandomized, open-label period followed by a 10-week, randomized, double-blind, placebo-controlled, multicenter, parallel-group period. Patients were randomized to receive either botulinum toxin type A, at a dose determined by the physician based on the patient’s established prestudy treatment regimen and the patient’s presentation, or placebo. Patients completed the SF-36 Health Survey to evaluate the following quality of life attributes: physical functioning, role limitations due to physical health, social functioning, emotional well-being, social functioning, pain, and general health. RESULTS: A total of 170 patients were randomized to treatment. A significant difference was seen in the change from week 0 to week 6 for the physical functioning domain in which the botulinum toxin group had a mean change of 2.00 (improvement) and the placebo group had a mean change of −3.03 (worsening) (P = 0.036). Botulinum toxin produced greater improvement than placebo for all other domains except social functioning; however, the differences between groups were not significantly different. Rates of adverse events were nearly equivalent between groups (59.1% BoNT-A vs. 58.5% placebo group). CONCLUSION: Prior literature indicates that the SF-36 is not a sensitive measure of the change in quality of life due to treatment in the cervical dystonia population. Despite this, the botulinum toxin type A treatment group showed significantly improved physical functioning. Furthermore, important trends were identified in other domains.

**PND29**

**REVIEW OF QUALITY OF LIFE INSTRUMENTS IN MIGRAINE**

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OBJECTIVE: Migraine, affecting 11% of the US population, is a vastly under diagnosed and underreported disease. Migraine can impact patients’ work and studies, family relationships, social relationships and emotional well-being thus undermining quality of life. A review of quality of life instruments in migraine is summarized. METHODS: Review of literature using Pubmed with combinations of search terms ‘migraine’, ‘quality of life’, ‘questionnaire’ was conducted. Articles were selected based on measurement of disability or quality of life in migraine. Fields extracted from articles for each instrument and on the basis of which analyzed included name and type of instrument, applicable age group, types of respondent, means of administration, items and domains, scaling, item selection and psychometric properties. Pediatric versions of questionnaires were not included in the study. RESULTS: Of the instruments that were identified 3 were generic, 11 were migraine specific questionnaires for quality of life in migraine and 3 were migraine specific questionnaires testing patients’ response to therapy. The average age of participants ranged from 36.5 years to 44 years. The items varied in...