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 d) 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: Immuno-modulating 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 y, respectively, P < 0.01) but not with the IFNβ-1b group (44.4 y). 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 (30.7%) or IFNβ-1a IM (48.1%). 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.

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**OBJECTIVE:** The objective of this study 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, role limitations due to emotional problems, energy/fatigue, 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.

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range from 5 to 45 with domains ranging from 2 to 8. Quality of life was assessed by most instruments on the basis of physical disability such as the MIDAS and MIGSEV. However, instruments such as HDI and MSQOL have also included emotional disability in the assessment of quality of life. Cronbach’s alpha of reported ranged from 0.77 to 0.9 and one or more validities was established in all instruments. **CONCLUSION:** Although all instruments claim to assess the quality of life of patients, not all include physical and emotional functions. The MSQ seems most complete in this aspect, considering the psychometric properties that are reported. In the future, instruments assessing response to therapy should include domains measuring emotional and physical disability to improve treatment schedules.

**PND30**

**PERFORMANCE OF THE EURO QOL 5D (EQ-5D) IN PRIMARY CARE PATIENTS WITH CO-MORBID INSOMNIA**

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**OBJECTIVE:** Use of the EQ-5D in an insomnia population has not been reported before. **METHODS:** Primary care patients 18 to 64 years of age in a large hospital outpatient clinic were mailed a survey packet containing EQ-5D, Insomnia Severity Index (ISI), and MOS Short Form 36 (SF-36). Patients were selected based on visit(s) to the clinic in the past six months and grouped into one of the following five groups: cardiovascular (CVD), diabetes (D), gastrointestinal (GI), musculoskeletal (MS), and obstructive airways diseases (OAD) based on presence of diagnostic codes related to these chronic conditions in their medical records. **RESULTS:** Of 2,190 surveys mailed, 1,020 responses were received. After controlling for the relevant potential confounders, mean EQ-5D scores (i.e., average health state utilities) for patients with insomnia were 0.68 in cardiovascular group, 0.69 in diabetes group, 0.54 in musculoskeletal group, 0.75 in obstructive airways diseases group, and 0.61 in patients with gastrointestinal disorders. Utilities in patients, who did not screen positive for insomnia in the above groups, were 0.81, 0.82, 0.72, 0.83, and 0.83, respectively. Utilities for health states experienced by patients with severe insomnia were the lowest, with progressively higher scores in patients with milder insomnia, and no insomnia. Correlations between EQ-5D mobility and SF-36 physical function domains, and SF-36 social functioning domains were 0.58 and 0.52, respectively; between EQ-5D pain/discomfort and bodily pain and physical functioning domains of the SF-36 were 0.55 and 0.57, respectively; between EQ-5D anxiety/depression and the SF-36 mental health domain was 0.64, 0.69, and 0.73, respectively. **CONCLUSION:** EQ-5D utilities in the insomnia and no-insomnia groups, and the direction and strength of correlations with the SF-36 domains were as hypothesized thereby assuring satisfactory psychometric performance of the EQ-5D and confirming its usefulness for studying utilities in an insomnia population.

**PND31**

**CO-MORBID INSOMNIA IN PRIMARY CARE PATIENTS AFFECTS HEALTH-RELATED QUALITY OF LIFE (HRQoL) INDEPENDENT OF OTHER FACTORS**

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**OBJECTIVE:** To understand the association between insomnia and HRQoL after statistically controlling for socio-demographic characteristics, health habits, BMI, a number of medical conditions, and the presence of depressive symptoms. **METHODS:** A sample of primary care patients 18 to 64 years of age in a large hospital outpatient clinic was mailed a survey packet that contained the MOS Short Form 36 (SF-36), and Insomnia Severity Index (ISI). These patients were selected based on their visits to the clinic in the past six months and grouped into one of the following five groups: cardiovascular (CVD), diabetes (D), gastrointestinal (GI), musculoskeletal (MS), and obstructive airways diseases (OAD) based on the presence of diagnostic codes related to these chronic conditions in their medical records. Group differences in SF-36 domain scores were analyzed using ANOVA techniques. **RESULTS:** Based on 1,020 responses (46.58% response rate), in patients with insomnia, mean SF-36 Physical Component Summary (PCS) scores were: CVD: 37.8 ± 2.9; D: 37.6 ± 3.9; GI: 45.3 ± 2.9; MS: 32.4 ± 3.2; OAD: 44.6 ± 3.2. Mean Mental Component Summary (MCS) scores were: CVD: 39.2 ± 2.6; D: 42.7 ± 4.0; GI: 33.9 ± 3.8; MS: 41.1 ± 3.6; OAD: 41.1 ± 3.8. In patients without insomnia, PCS scores were: CVD: 47.0 ± 2.4; D: 46.4 ± 3.3; GI: 49.2 ± 2.2; MS: 39.9 ± 3.0; OAD: 51.7 ± 2.9. In the same patients MCS scores were: CVD: 47.5 ± 2.1; D: 47.0 ± 3.3; GI: 50.0 ± 2.9; MS: 50.0 ± 3.4; OAD: 45.0 ± 3.4. In addition, SF-36 scores for all individual domains in patients with insomnia were lower than those of patients without insomnia across all disease groups. **CONCLUSION:** A significant independent relationship between insomnia and HRQoL remained even after controlling for all relevant potential confounders. No domain of HRQoL was disproportionately influenced by insomnia.

**PND32**

**DETERMINATION OF THE LONGITUDINAL VALIDITY AND MINIMALLY IMPORTANT DIFFERENCE OF THE 8-ITEM PARKINSON’S DISEASE QUESTIONNAIRE (PDQ-8)**

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**OBJECTIVE:** This study was carried out to determine the responsiveness, test-retest reliability and the minimally important difference (MID) of the 8-item Parkinson’s disease Questionnaire (PDQ-8) in Asians with Parkinson’s disease (PD) in Singapore. **METHODS:** A convenience sample of PD patients attending a tertiary neuroscience clinic in Singapore completed the English or Chinese version of PDQ-8 twice during two different clinic visits. On the second visit, patients also rated changes in their health in general, their PD severity, and the overall impact of PD on their life using a 5-point response scale (i.e., a lot better, a little bit better, about the same, a little bit worse, and a lot worse). **RESULTS:** A total of 98 patients participated in the study. For patients who reported better conditions in the second visit, Cohen’s effect size, standardized response mean and responsiveness statistic ranged from 0.21 to 0.58; for patients who experienced worse conditions, the responsiveness index values ranged from 0.24 to 0.68. The intra-class correlation coefficient calculated using stable patients ranged from 0.64 to 0.76. MID values estimated using the anchor-based method ranged from 5.8 to 7.4. **CONCLUSION:** The PDQ-8 instrument is longitudinally valid in Singaporean patients with PD. The MIDs estimated in the study can be used for sample size calculation and interpretation of treatment benefits in clinical trials where the PDQ-8 summary index is used as the primary outcome measure.