**POST-BASELINE CHANGES IN HEALTH-RELATED QUALITY OF LIFE AMONG MULTIPLE SCLEROSIS PATIENTS IN A REAL-WORLD OBSERVATIONAL OUTCOMES STUDY (ROBUST)**

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**Background:** ROBUST was a 12-month, United States–based, prospective, observational, open-label, single-arm, multicenter outcomes study of interferon beta-1b (IFNβ-1b) given every other day for relapsing forms of multiple sclerosis (MS). **Objectives:** The objective of this analysis was to assess health-related quality of life (HRQOL) over the course of 12 months among MS patients in a real-world observational study. **Methods:** HRQOL was rated at baseline and monthly via the 12-item Short Form Health Status Survey (SF-12) and summarized in the Physical Component Score (PCS-12) and Mental Component Score (MCS-12). A one-sample t test was used to test significance of difference from zero in change from baseline in the SF-12 component scores. Analysis of covariance methods were used to test differences between various clinical substrata of change from baseline in SF-12 score, while controlling for baseline SF-12 score. A total of 184 patients were included in the final analysis. **Results:** At baseline, the mean (SD) PCS-12 was 40.6 (11.15), and the mean (SD) MCS-12 was 42.5 (11.45). Patients experienced improvement in both PCS-12 and MCS-12 from baseline through month 12. While none of the monthly changes from baseline in PCS-12 were statistically significant, the change in MCS-12 was statistically significant at all months except month 2. For PCS-12 and MCS-12, the largest mean increases occurred at month 8 (1.217, P = .1218) and month 9 (3.313, P = .0002), respectively. Post-baseline changes in PCS-12 were greater for patients with higher Expanded Disability Status Scale (EDSS) score at baseline, while changes in MCS-12 were greater with lower baseline EDSS score, although neither of these trends was statistically significant (P = .8107 and P = .0803, respectively). Changes from baseline in MCS-12 were significantly associated with baseline Timed 25-Foot Walk (T25FW): T25FW ≤7 seconds versus >7 seconds (3.78 vs. 0.62, P = .0013). **Conclusions:** The significant improvement in comparison with baseline in MCS-12 that was seen in participants in the ROBUST study suggests a positive role of IFNβ-1b in this improved mental HRQOL. Mental QOL improved more for patients with better ambulation at baseline.

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