NEUROLOGICAL DISORDERS – Clinical Outcomes Studies

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MIXED TREATMENT COMPARISON OF ADVERSE EVENTS FOR BG-12, GLATIOMER, AND TERIFLUNOMIDE FOR THE TREATMENT OF RELAPSING FORMS OF MULTIPLE SCLEROSIS

Zugmüt C1, Carroll CA2
1EGX Analytics, Boulder, CO, USA, 2Pfizer Pharmaceuticals, Kansas City, MO, USA

OBJECTIVES: Clinical trials of two new oral treatments (Teriflunomide and BG-12) for relapsing-remitting multiple sclerosis (RRMS) have been recently published. As efficacy is similar between these products and glatiramer, a comparison of their relative safety is relevant to physicians, patients, and providers. Our objective was to conduct a mixed treatment comparison of adverse event (AEs) in placebo-controlled randomized clinical trials of BG-12 240mg BID and TID, Glatiramer 20mg SID, and Teriflunomide 7mg and 14 mg SID in RRMS. METHODS: Articles were selected and reviewed following the guidelines. Primary outcomes evaluated in placebo controlled trials were eligible for inclusion. Data collected were the total number of patients experiencing at least one AE. The odds ratio (OR) of AEs, Credible Interval (CI), and confidence in OR > 1 for all drug pairs were estimated using a Bayesian random effects model. RESULTS: A total of 384 studies were identified and reviewed, and 3 studies (3737 patients) were included for analysis. Preliminary results are reported. Glatiramer exhibited the lowest AEs of all treatments (OR = 1 for all comparisons with ≥ 90% confidence), except for borderline non-significantly lower AEs vs. placebo (OR = 0.79; 95% CrI: 0.64-0.98). Patients receiving glatiramer had the lowest AEs (rank = 1, PrL = 0.0%, SUCKA = 91.7%), followed by placebo (rank = 4, PrL = 4.2%, SUCKA = 96.2%), BG-12 240mg (rank = 12, PrL = 4.8%, SUCKA = 88.6%), Teriflunomide 7mg (rank = 2, PrL = 5.5%, SUCKA = 35.3%), BG-12 240mg BID (rank = 47, PrL = 1.2%, SUCKA = 26.9%), and Teriflunomide 14mg (rank =47, PrL = 4.0%, SUCKA = 26.7%). CONCLUSIONS: To assess both direct medical and non-medical costs of Brazilian multip...