Long-Term Efficiency and Safety of Teriflunomide: An Analysis of Pooled Clinical Trials

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OBJECTIVES

• To report long-term (up to 12 years) efficacy and safety outcomes in a pooled analysis of teriflunomide 14 mg data from the Phase 2 (CIS, TEMSO, TOWER, TENERE) and Phase 3 (TEMSO, TOWER, TENERE) studies
• To compare the safety and tolerability of teriflunomide 7 mg and 14 mg
• To provide a summary of safety findings in the teriflunomide 7 mg arm

INTRODUCTION

• Teriflunomide is a once-daily immunomodulator approved for the treatment of relapsing forms of MS in over 80 countries, including the United States and those of the European Union. As of August 2018, over 92,000 patients across 115 countries are treated with teriflunomide, with a total real-world exposure of approximately 168,000 patient-years across clinical trials and general practice
• The efficacy and safety of teriflunomide have been established in patients with relapsing MS (in one Phase 2 study and the Phase 3 TEMSO, TOWER, and TENERE studies), and in patients with a first clinical episode suggestive of MS in the Phase 3 TEMSO and TENERE studies

RESULTS

• In the Phase 2 trial, patients treated with teriflunomide 14 mg had fewer combined annual relapses, fewer per-protocol relapses, minimized imaging (2.0 mg: 3.0, 0.5; p = 0.003), and lower mean annualised relapse rate (ARR) compared with placebo (0.55 vs. 0.25). The yearly proportions of patients receiving teriflunomide 14 mg versus placebo demonstrated disability stability (74% ± 21.3%, P = 0.04)

• In TEMSO, TOWER, and TENERE, teriflunomide 14 mg was found to significantly reduce ARR relative to placebo by 83% (1.2% vs. 0.2%); (P < 0.001), respectively, compared with placebo. A lower percentage of patients experienced a relapse and a disability worsening lasting more than 12 weeks with teriflunomide 14 mg compared with placebo in all three studies (20.2% vs. 27.0%, P < 0.001, TOWER; 15.9% vs. 19.7% in TENERE

• In TENERE, patients treated with teriflunomide 14 mg had comparable ARRs to those receiving subcutaneous interferon - beta 1a (NIN 222, 11.2) but had lower ARR than patients treated with natalizumab (13.9% versus 12.2%)

• The cumulative treatment exposure for the core plus extension studies for teriflunomide 14 mg was 186,000 patient-years as of December 2017

CONCLUSIONS

• In this pooled analysis of patients receiving teriflunomide 14 mg over long-term follow-up, overall ARR (0.228) and yearly ARRs were low and stable (ranging from 0.321 in Year 1 to 0.580 in Year 12), and the yearly proportions of patients free from relapse were high and stable (ranging from 0.759 in Year 1 to 0.935 in Years 5 and 6)

• These data show that teriflunomide is generally safe and well tolerated

References