Phase 3 REMODEL I/II Trials: Efficacy, Safety & Tolerability of Remibrutinib in RMS

Short title: Efficacy and Safety of Remibrutinib in RMS

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INTRODUCTION

Inhibition of Bruton's Tyrosine Kinase (BTK) results in reduced activation of B cells and innate immune cells offering an alternative mechanism to modulate immune regulatory networks and related neuroinflammation. Remibrutinib is a potent, highly selective, covalent BTK inhibitor with a promising pharmacological and safety profile.

OBJECTIVES

To present the design of the REMODEL I and II Phase 3 trials aimed to evaluate the efficacy, safety, and tolerability of remibrutinib versus teriflunomide in patients with relapsing multiple sclerosis (RMS).

METHODS

REMODEL I and II (NCT05147220 and NCT05156281) are identical randomized, double-blind, double-dummy, active comparator-controlled, parallel-group, event-driven, multicenter studies in RMS patients. Patients aged 18–55 years with evidence of recent disease activity and an Expanded Disability Status Scale (EDSS) of 0.0–5.5 will be enrolled. The studies consist of an

initial double-blind Core Part with a flexible duration of up to a maximum of 30 months, followed by an open-label extension for up to 5 years. The primary endpoint is annualized relapse rate. Key secondary endpoints include 3- and 6-month confirmed disability progression, the number of new/enlarging T2 lesions per year, the number of Gd+ T1 lesions per scan, serum neurofilament light chain (sNfL) concentration, and the percentage of participants with no evidence of disease activity (NEDA-3).

RESULTS

Both studies are currently enrolling participants, and each aims to enroll 800 participants. An interim analysis is planned on pooled 6-month MRI data (new/enlarging T2 lesions) from a subset of at least 200 participants. Further details on study design will be presented at the congress.

CONCLUSIONS

The REMODEL I and II studies will investigate the efficacy, safety, and tolerability of remibrutinib versus teriflunomide to support regulatory approval worldwide as a potential new oral treatment for patients with RMS.

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