P613

Efficacy and Safety of Ocrelizumab in Patients with Relapsing-Remitting Multiple Sclerosis with a Suboptimal Response to Previous Disease-Modifying Therapies (1-Year Interim Results)

Patrick Vermersch[1], Juha-Pekka Erälinna[2], Richard Nicholas[3], Celia Oreja-Guevara[4], Aksel Siva[5], Bart Van Wijmeersch[6], Heinz Wiendl[7], Regine Buffels[8], Robert Kuhelj[8], Wei Wei[8],

[1]University of Lille, Lille, France, [2]NEO Research, Turku, Finland, [3]Imperial College Healthcare NHS Trust and Imperial College, London, United Kingdom, [4]Hospital Clinico San Carlos, Madrid, Spain, [5]Cerrahpasa School of Medicine, Istanbul University, Cerrahpasa, Turkey, [6]University Hasselt and Rehabilitation & MS-Centre Overpelt, Overpelt, Belgium, [7]University of Münster, Münster, Germany, [8]F. Hoffmann-La Roche Ltd, Basel, Switzerland, [9]The Vita-Salute San Raffaele University, Milan, Italy

Background: Patients with relapsing-remitting multiple sclerosis (RRMS) often experience disease activity despite receiving a disease-modifying therapy (DMT).

Objective(s): The aim of the prospective, multicentre, single-arm Phase IIIb CASTING study (NCT02861014) is to evaluate the efficacy and safety of ocrelizumab (OCR) in patients with RRMS who had a suboptimal response to an adequate course of 1 or 2 DMTs.

Method(s): Patients in CASTING (Expanded Disability Status Scale [EDSS] ≤4.0; disease duration ≤10 years; discontinued prior DMT of ≥6 months' duration due to suboptimal disease control) received intravenous OCR 600 mg/24 weeks (first dose, 2×300 mg, 14 days apart) for 96 weeks. The proportion of patients with NEDA was measured by an absence of protocol-defined relapses (PDRs), 24-week confirmed disability progression (24W-CDP), T1 gadolinium-enhancing lesions and new/enlarging T2 lesions and were calculated using the modified intent-to-treat population (mITT; patients receiving any dose who discontinued early without a protocol-defined event were imputed as having an event if the treatment discontinuation reason was lack of efficacy or death; others were excluded). MRI outcomes were rebaselined at Week 8 (prespecified analyses).

Result(s): A total of 680 patients (female, 64%; mean [SD] baseline EDSS score, 2.1 [1.1]; disease duration, 5.0 [2.7] years; pretreated with one DMT, n=411 [60.5%]; pretreated with two DMTs, n=265 [39.5%]) were enrolled in CASTING, most commonly for reasons of relapse on prior DMT, and are included in the mITT population. At Week 48, most patients had NEDA (N=586/674 [86.9%]). Rates of 24W-CDP (N=32/673 [4.8%]), PDR (N=28/674 [4.2%]), T1 gadolinium-enhancing lesions (N=19/673 [2.8%]) and new/enlarging T2 lesions (N=42/673 [6.2%]) were generally low; MRI outcomes were rebaselined at Week 8. The adjusted annualised relapse rate (negative binomial model) was 0.048. A total of 591 patients (86.9%) experienced ≥1 adverse event, and 34 patients (5.0%) experienced ≥1 serious adverse event (includes infusion-related reactions).

Conclusion: Most patients in CASTING had no evidence of MS disease activity. As future data become available and are reported, CASTING will describe additional data on the efficacy and safety of ocrelizumab treatment in patients who had ongoing disease activity while receiving another DMT.