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# Ofatumumab Improves NEDA-3 Likelihood in Hispanic/Latino Patients Compared With Teriflunomide in Relapsing Multiple Sclerosis: Subgroup Analysis of the ASCLEPIOS Studies

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## SUMMARY

**1** **This post hoc analysis assessed the proportion of patients with RMS who achieved NEDA-3 in the Hispanic/Latino and White subgroups of 2 large, randomized, double-blind, phase 3 clinical trials of ofatumumab vs teriflunomide**

**2** **45% of Hispanic and Latino patients undergoing ofatumumab treatment and 23% undergoing teriflunomide treatment achieved NEDA-3 during the full trial course, with ofatumumab providing an ~3-fold increase in the odds of achieving NEDA-3**

**3** **94% of Hispanic and Latino patients undergoing ofatumumab treatment and 59% undergoing teriflunomide treatment achieved NEDA-3 when assessing Months 12 to 24, with ofatumumab providing an ~12-fold increase in the odds of achieving NEDA-3**



## INTRODUCTION

- Minority groups are persistently underrepresented in clinical trials, resulting in limited data to inform clinical decision-making for these patients[1]
- Hispanic and Latino persons with multiple sclerosis (MS) have been reported to experience greater disease severity and more rapid progression than White people[2-4]
  - Patients with MS of Spanish-speaking heritage have varying racial and ethnic backgrounds and genetic differences that may influence treatment effectiveness[4,5]
- Ofatumumab, a fully human anti-CD20 monoclonal antibody, is approved by the US Food and Drug Administration for the treatment of adults with relapsing MS (RMS)
- ASCLEPIOS I and II were randomized, double-blind, phase 3 trials of subcutaneous ofatumumab vs oral teriflunomide in patients with RMS[6]
  - Previous analysis of ASCLEPIOS results in a Hispanic and Latino subgroup found that relapse rate reduction, pharmacokinetics/pharmacodynamics, and safety outcomes were similar to the overall trial population[7]

## OBJECTIVES

- To report findings of a post hoc analysis from the phase 3 ASCLEPIOS I and II studies assessing achievement of 3-parameter no evidence of disease activity (NEDA-3) with ofatumumab vs teriflunomide in a subgroup of patients with RMS who identified as Hispanic or Latino and to compare findings with those of White patients

## METHODS

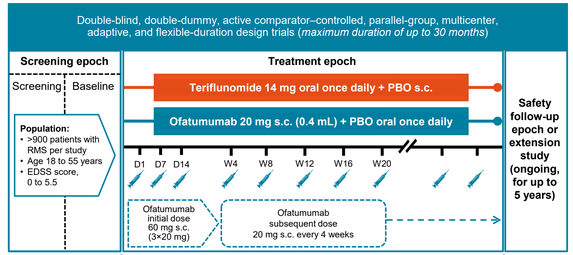
### STUDY DESIGN

- This analysis pooled data from the ASCLEPIOS I and II studies (ClinicalTrials.gov identifiers, NCT02792218 and NCT02792231), which had identical study designs (**Figure 1**)
- Patients received injections of ofatumumab 20 mg or oral teriflunomide 14 mg for up to 30 months

### ANALYSES

- NEDA-3 was analyzed via a logistic regression model in a modified full analysis set[8]
  - NEDA-3 was defined as no 6-month confirmed disability worsening (based on Expanded Disability Status Scale), no confirmed MS relapse, no new/enlarging T2 lesions, and no gadolinium-enhancing T1 lesions
- Race and ethnicity were self-reported by patients
  - Race categories included Black/African American (patients who selected "Black" as race), White (selecting "Caucasian"), and Other (selecting "Native American," "Pacific Islander," "Unknown," or "Other")
  - Separately, patients reported their ethnicity as Hispanic or Latino (termed Hispanic/Latino in this poster) or not Hispanic or Latino
- NEDA-3 outcomes were compared between treatment groups (within the Hispanic/Latino and White subgroups) via Fisher's exact test
  - Hypothesis generation without adjustment for multiple comparison
- Rates of adverse events (AEs) were also reported

### Figure 1. Study Design of ASCLEPIOS I and II




D, day; EDSS, Expanded Disability Status Scale; EOS, end of study; PBO, placebo; RMS, relapsing multiple sclerosis; s.c., subcutaneous; W, week

## RESULTS

### PATIENTS

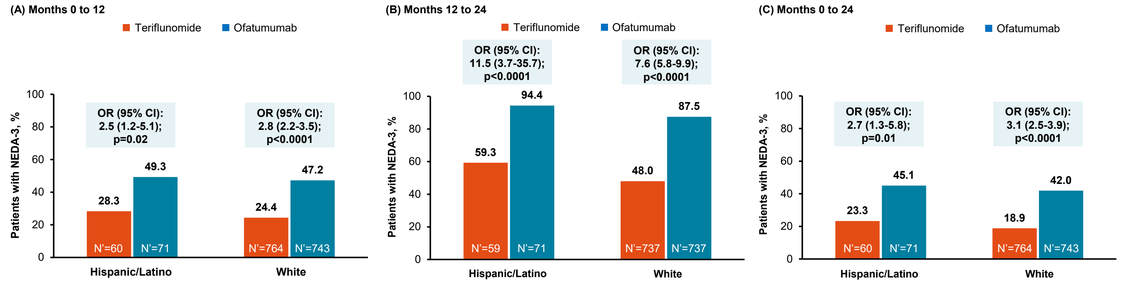
- Of 1882 patients in the overall ASCLEPIOS population, 147 (7.8%) identified as Hispanic/Latino and 1658 (88.1%) as White (122 patients were included in both subgroups)
  - Hispanic/Latino patients had larger T2 lesion volume; otherwise, baseline characteristics were similar across subgroups (**Table 1**)

### Table 1. Baseline Characteristics

| Characteristic<br>Shown as mean±SD or n (%) | Hispanic/Latino* | | White | |
|---|---|---|---|---|
| | Teriflunomide (n=71) | Ofatumumab (n=76) | Teriflunomide (n=829) | Ofatumumab (n=829) |
| Age, years | 37.8±9.2 | 37.5±9.6 | 38.3±9.3 | 38.5±9.0 |
| Female, n (%) | 48 (67.6) | 50 (65.8) | 561 (67.7) | 555 (67.0) |
| Race, n (%) | | | | |
| Black/African American | 0 | 2 (2.6) | 0 | 0 |
| White | 59 (83.1) | 63 (82.9) | 829 (100) | 829 (100) |
| Other† | 11 (15.5) | 11 (14.5) | 0 | 0 |
| Hispanic/Latino ethnicity, n (%) | 71 (100) | 76 (100) | 59 (7.1) | 63 (7.6) |
| MS duration since diagnosis, years | 5.06±4.97 | 5.86±6.05 | 5.57±6.18 | 5.76±6.36 |
| Number of relapses in last 12 months | 1.20±0.58 | 1.18±0.65 | 1.28±0.73 | 1.26±0.71 |
| EDSS score, median (range) | 2.50 (1.0-5.5) | 3.00 (0.0-6.0) | 2.50 (0.0-6.5) | 3.00 (0.0-6.0) |
| T2 lesion volume, $cm^3$ | 14.29±15.50 | 16.42±16.21 | 12.32±13.85 | 13.29±13.71 |
| Free of Gd+ T1 lesions, n (%) | 47 (66.2) | 42 (55.3) | 519 (62.6) | 498 (60.1) |
| Number of Gd+ T1 lesions | 1.2±3.0 | 3.0±6.1 | 1.3±3.5 | 1.6±4.6 |

EDSS, Expanded Disability Status Scale; Gd+, gadolinium-enhancing; MS, multiple sclerosis; SD, standard deviation
*The Hispanic/Latino and White subgroups are not mutually exclusive. †Includes patients selecting "Native American," "Pacific Islander," "Unknown," or "Other"

### Figure 2. Achievement of NEDA-3




CI, confidence interval; mFAS, modified full analysis set; N', patients available for analysis; NEDA, 3-parameter no evidence of disease activity; OR, odds ratio
The mFAS used for NEDA calculations consisted of all patients in the FAS, except those who discontinued from study drug prematurely for reasons other than 'lack of efficacy' or 'death' and had NEDA before early discontinuation. Patients who discontinued from study drug prematurely for reasons 'lack of efficacy' or 'death' were considered as having evidence of disease activity in the analysis (even if no evidence of disease activity was reported)

### ACHIEVEMENT OF NEDA-3

- In both the Hispanic/Latino and White subgroups, ofatumumab increased the odds of achieving NEDA-3 vs teriflunomide during Months 0 to 12 by ~3-fold in both groups (**Figure 2A**), Months 12 to 24 by ~12- and 8-fold, respectively (**Figure 2B**), and Months 0 to 24 by ~3-fold in both groups (**Figure 2C**)
  - In patients treated with ofatumumab, achievement of NEDA-3 was consistent between the Hispanic/Latino and White subgroups

### SAFETY

- Rates of AEs, serious AEs, and AEs resulting in discontinuation were balanced between ofatumumab and teriflunomide in each patient subgroup (**Table 2**)
  - There were no significant differences in types of reported AEs between subgroups
  - Serious AEs of appendicitis occurred in 3 Hispanic/Latino patients treated with ofatumumab

### Table 2. Summary of AEs

| Event, n (%) | Hispanic/Latino | | White | |
|---|---|---|---|---|
| | Teriflunomide (n=71) | Ofatumumab (n=76) | Teriflunomide (n=829) | Ofatumumab (n=829) |
| Any AE | 61 (85.9) | 61 (80.3) | 697 (84.1) | 704 (84.9) |
| Any serious AE | 6 (8.5) | 5 (6.6) | 67 (8.1) | 78 (9.4) |
| Any AE resulting in discontinuation | 6 (8.5) | 6 (7.9) | 44 (5.3) | 52 (6.3) |
| Any serious infection | 2 (2.8) | 3 (4.0) | 16 (1.9) | 19 (2.3) |

AE, adverse event

**ABBREVIATIONS:** **AE**, adverse event; **CI**, confidence interval; **D**, day; **EDSS**, Expanded Disability Status Scale; **EOS**, end of study; **Gd+**, gadolinium-enhancing; **mFAS**, modified full analysis set; **MS**, multiple sclerosis; **N'**, patients available for analysis; **NEDA-3**, 3-parameter no evidence of disease activity; **OR**, odds ratio; **PBO**, placebo; **RMS**, relapsing multiple sclerosis; **s.c.**, subcutaneous; **SD**, standard deviation; **W**, week

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