

RRMS patients treated with natalizumab report better outcomes and treatment satisfaction than patients treated with ocrelizumab

OBJECTIVE

- To describe survey results assessing patients' self-reported changes in their disease activity, symptoms, and social roles and activities since starting natalizumab or ocrelizumab.

CONCLUSIONS

- Patients with relapsing-remitting multiple sclerosis (RRMS) who were treated with natalizumab more commonly reported improvements in their disease activity and MS symptoms (ie, physical, emotional, and cognitive) than did those treated with ocrelizumab.
- A higher percentage of natalizumab-treated patients reported improvements in social roles and activities and treatment satisfaction than did ocrelizumab-treated patients.
- The conclusions of this study are limited by the subjective nature of the survey responses, the potential for selection bias, and the unknown baseline employment status in patients.
- These results provide important comparative patient-reported data for natalizumab and ocrelizumab and may be useful to healthcare providers and their patients considering high-efficacy treatment options for RRMS.



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Introduction

- Natalizumab and ocrelizumab are both highly efficacious disease-modifying therapies (DMTs) for patients with RRMS.^{1,2}
 - Natalizumab received FDA approval in the United States in 2004, followed by ocrelizumab in 2017.^{3,4}
- Natalizumab and ocrelizumab, which are monoclonal antibodies directed against α 4-integrin and CD20, respectively, have different mechanisms of action and side-effect profiles.^{3,4}
- Currently, there are limited comparative patient-reported data on natalizumab and ocrelizumab.
 - A previous real-world survey showed that natalizumab-treated patients with RRMS reported better outcomes on key physical, emotional, and cognitive domains than did those treated with other DMTs, which included platform injectables, orals, and ocrelizumab; however, the percentage of ocrelizumab patients participating in this survey was small.⁵
 - Additional comparative studies would help understand patients' self-reported assessments of these DMTs for RRMS.

Results

Patient demographic and disease characteristics

- Between December 6, 2021, and January 24, 2022, 185 patients with RRMS responded to the survey; 68 patients were receiving natalizumab and 117 ocrelizumab.
- Baseline characteristics were well balanced with the exception that natalizumab patients were younger than ocrelizumab patients (mean age, 47.1 vs 51.7 years; $P=0.0094$; Table 1).
 - A majority of patients in the natalizumab and ocrelizumab treatment groups had been on their current treatment for ≥ 1 year (86.4% vs 80.2%).

Changes in disease activity and MS symptoms

- Improvements in disease activity and MS symptoms were more frequently reported by natalizumab-treated patients than by ocrelizumab-treated patients (Figure 1).
 - A higher proportion of natalizumab-treated patients reported improvement in disease activity in comparison with ocrelizumab-treated patients (83.8% vs 59.8%).
 - Improvements in emotional symptoms were reported more frequently by natalizumab-treated patients than ocrelizumab-treated patients (61.8% vs 34.2%).
 - More natalizumab-treated than ocrelizumab-treated patients reported improvements in their physical symptoms (63.2% vs 43.6%).
 - A higher proportion of natalizumab-treated than ocrelizumab-treated patients reported improvement in cognitive symptoms (55.9% vs 33.3%).

Changes in social roles/activities and work

- Improvements in social roles and activities were reported more frequently by natalizumab-treated patients than by ocrelizumab-treated patients (61.8% vs 36.8%; Figure 2A).
 - Similar proportions of patients in the natalizumab and ocrelizumab treatment groups, regardless of current treatment, reported improvements in their full- or part-time work (14.7% vs 17.1%; Figure 2B).

Treatment satisfaction

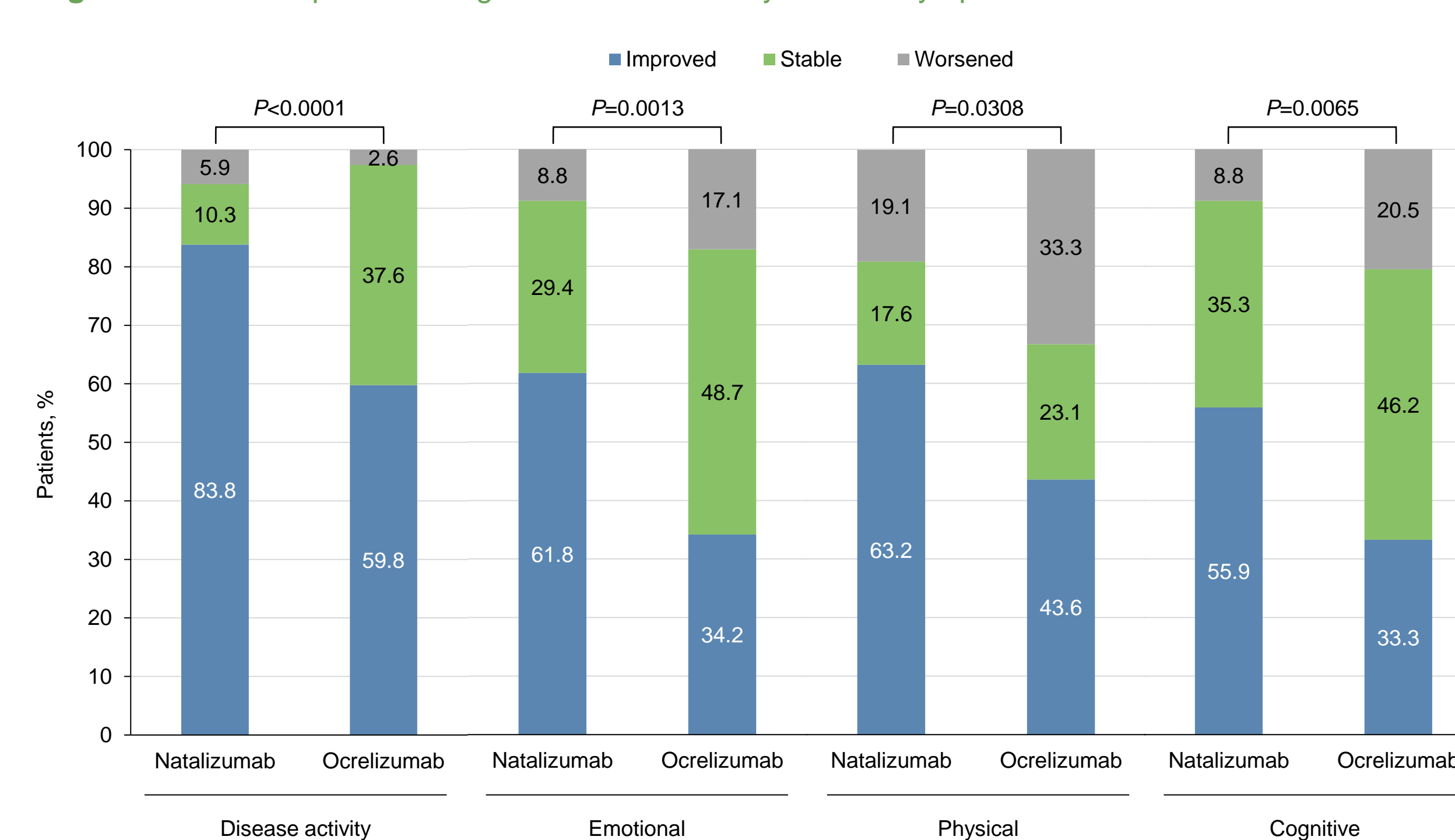
- A greater proportion of natalizumab- than ocrelizumab-treated patients reported that their DMT met (54.4% vs 47.0%) or exceeded (35.3% vs 28.2%) their expectations (Figure 3).

Table 1. Demographic and disease characteristics for natalizumab- and ocrelizumab-treated patients

Characteristic	Natalizumab (n=68)	Ocrelizumab (n=117)	P value
Age, mean (SD), years	47.1 (11.7)	51.7 (11.2)	0.0094
Female, n (%)	46 (67.6)	91 (77.8)	0.1323
Time since MS diagnosis, n (%), years			
<1	3 (4.4)	8 (6.8)	0.2827
1 to 5	28 (41.2)	35 (29.9)	
≥ 6	37 (54.4)	74 (63.2)	
Prior DMT, n (%)			
No	16 (23.5)	25 (21.4)	0.7328
Yes	52 (76.5)	92 (78.6)	
Duration of current treatment, n (%), years ^a			
<1	9 (13.6)	22 (19.8)	0.2953
≥ 1	57 (86.4)	89 (80.2)	

^aData available for 66 patients in the natalizumab treatment group and 111 patients in the ocrelizumab treatment group. SD=standard deviation.

Figure 1. Patient-reported changes in disease activity and MS symptoms



Methods

- MyMSTeam is an online social network that provides educational and other resources to patients with MS.⁶
- Patients with RRMS aged ≥ 21 years completed a voluntary anonymous questionnaire.
- Questions included demographics, disease and DMT history, and self-assessments of disease activity, physical functioning, emotional well-being, cognitive ability, social roles and activities, and treatment satisfaction with their current DMT.
- For the baseline characteristic of age, t test for the mean and Wilcoxon rank sum test for the median were used. Other baseline characteristics, since these were categorical, were analyzed using chi-squared or Fisher's exact test.
- The proportion of patients with RRMS who had different responses (improved, no change, worsened) were compared with those who were taking either natalizumab or ocrelizumab by using a chi-squared or Fisher's exact test.

Figure 2. Patient-reported changes in (A) social roles/activities and (B) work

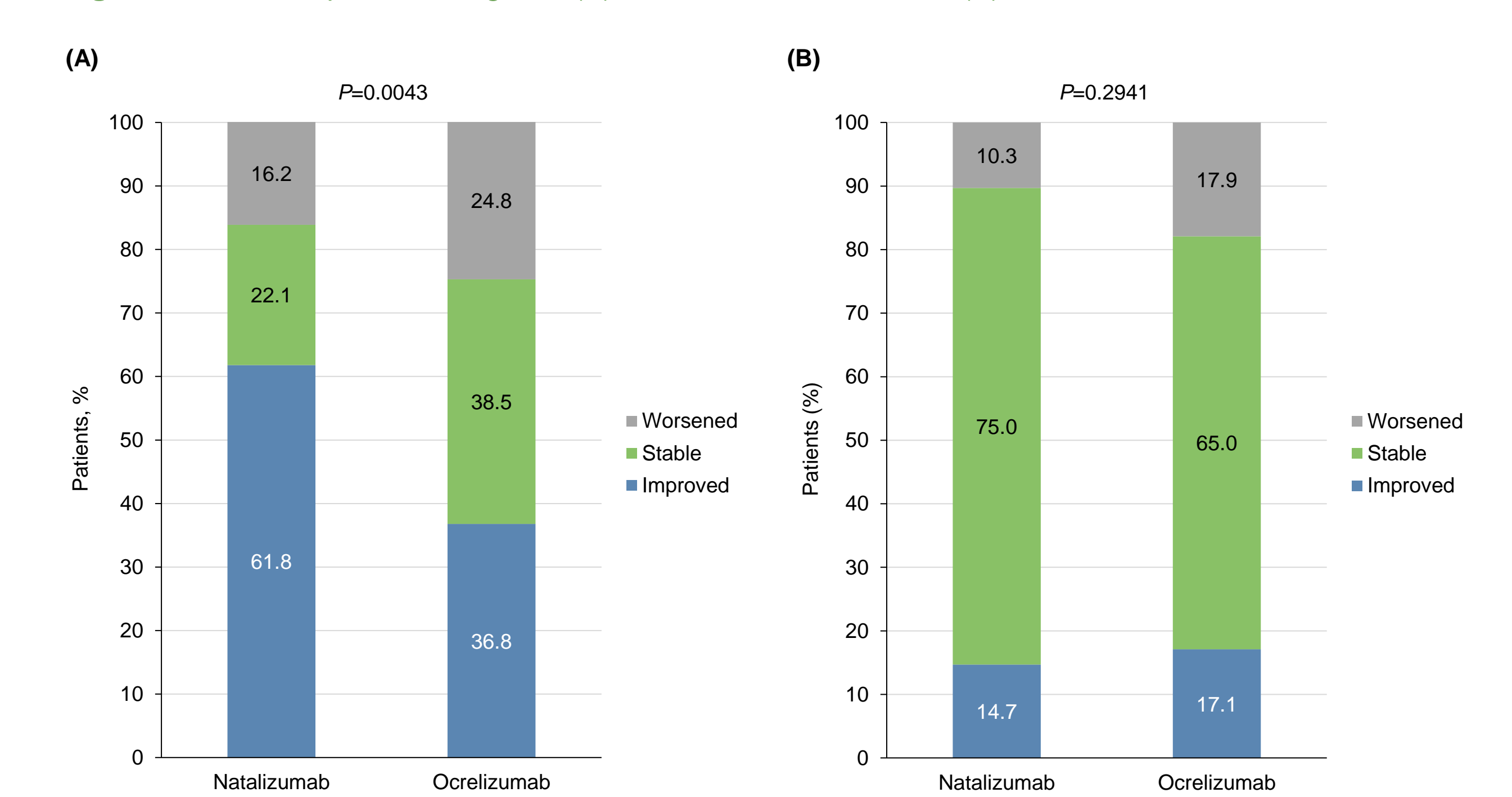


Figure 3. Patient-reported treatment satisfaction

