

# Therapy Selection Considerations During the COVID-19 Pandemic Among Patients With Progressive Multiple Sclerosis: Analyses from Retrospective Patient Chart Audit

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## Background

In March 2020, the onset of the COVID-19 pandemic in the United States introduced new concerns related to the treatment of multiple sclerosis (MS).

## Objective

To assess the impact of COVID-19-related concerns on disease-modifying therapy (DMT) selection patterns for progressive MS.

## Methods

In July-August 2020, US neurologists contributed chart reviews for a retrospective, cross-sectional audit of DMT-treated patients diagnosed with secondary progressive (SPMS) or primary progressive (PPMS) MS (n=169 physicians; n=764 charts). Analyzed data include 277 patients prescribed a DMT between March and August.

## Results

Prescribing physicians considered at least one DMT an inappropriate option because of COVID-19 concerns, whether clinical or non-clinical, for 45% of PMS patients (CP; Figure 1). CP patients were more likely to have had a negative COVID-19 test (30% vs. 20%; Figure 2) and to have discussed COVID-19 safety/risk related to their therapy (39% vs. 26%) compared to patients whose therapy selection was not impacted by COVID-19 concerns (NI; Figure 3).

Cladribine (26%), alemtuzumab (25%), natalizumab (24%), and ocrelizumab (23%) were most frequently considered inappropriate options due to COVID-19 (Figure 4). More CP than NI patients were prescribed teriflunomide (9% vs. 3%; Figures 5). Although nonsignificant, more CP patients were prescribed an S1P receptor modulator (22% vs. 14%; Figure 5b) and fewer were prescribed a monoclonal antibody (38% vs. 50%; Figure 5a), specifically ocrelizumab (27% vs. 37%). Drivers of therapy selection did not differ between groups, apart from managed care preference being more impactful among CP versus NI patients (Figure 6).

At the subtype level, CP patients diagnosed with not active SPMS were more frequently prescribed teriflunomide (24% vs. 4%) and PPMS patients siponimod (11% vs. 0%; Figure 7). Among active SPMS patients, COVID-19-appropriate option, managed care preference, low monitoring burden, and appropriate in JCV seropositive patients were significantly more influential therapy selection drivers for CP compared to NI patients (Figure 8a). Tolerability, initiation ease, and manufacturer support appeared to play more of a role for CP not active SPMS patients (Figure 8b), while convenience was significantly less impactful among CP PPMS patients (Figure 8c).

## Conclusions

The COVID-19 pandemic has impacted treatment choice among MS patients, especially related to immunosuppressant and infusion DMTs. When COVID-19 restricted the range of viable options, patients were more likely to be prescribed oral DMTs. Pandemic-related practice operational cuts may have also played a role in greater prescribing of therapies with low payer requirement burden and low monitoring burden.

Figure 1 Patients Prescribed a DMT Between March and August 2020 for Whom at Least One DMT was Considered an Inappropriate Option Because of COVID-Related Concerns

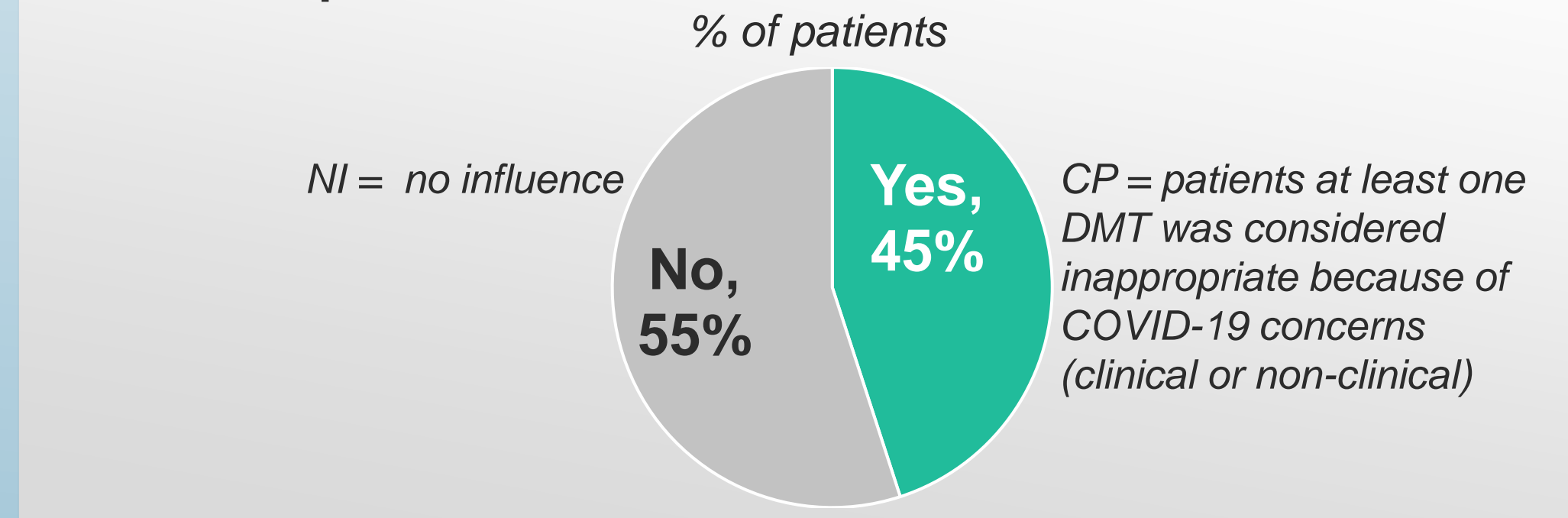


Figure 2 Percent of Patients who Have Been Tested for Coronavirus and Found Negative: CP vs. NI

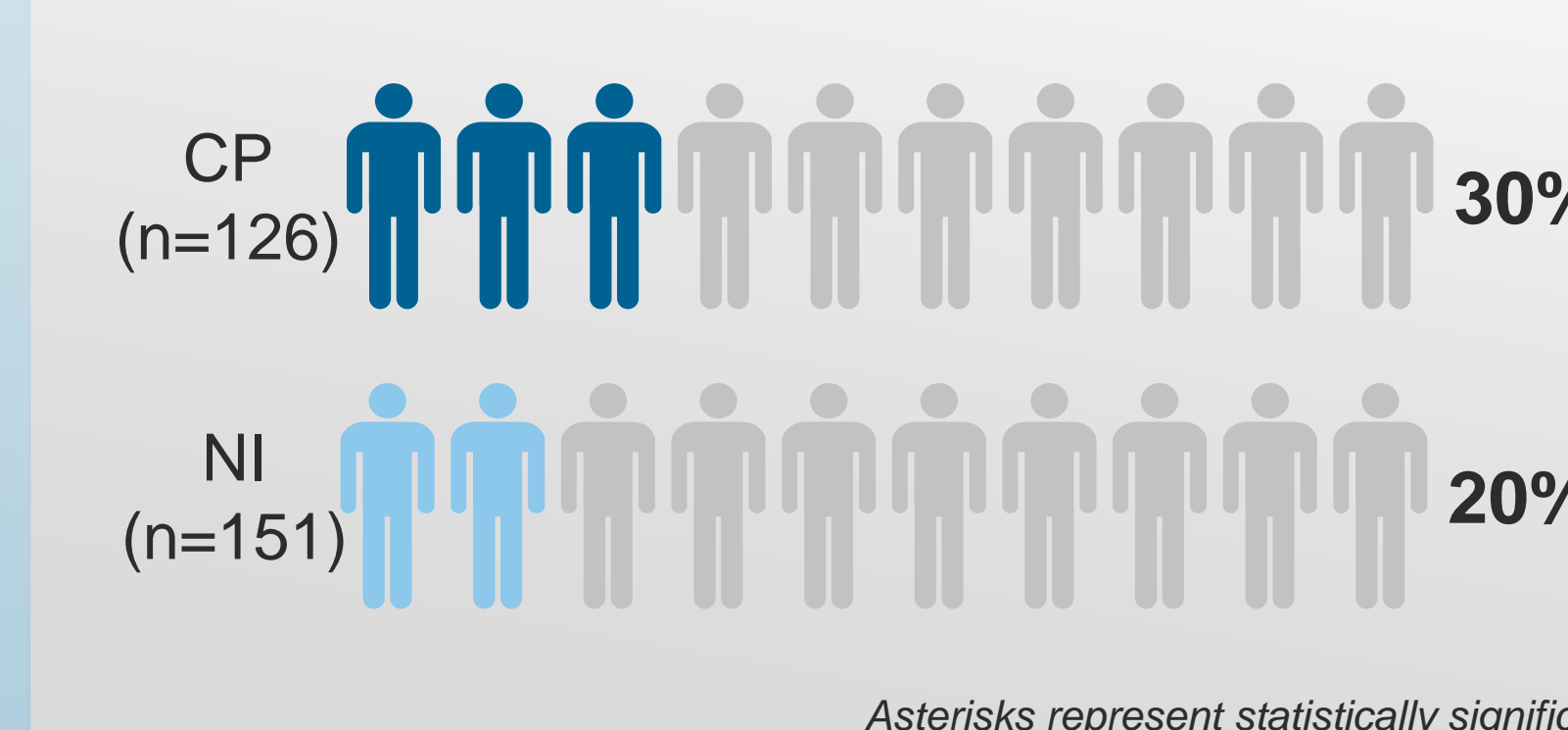


Figure 3 Percent of Patients who Discussed COVID-19 Safety/Risk as it Relates to their Therapy Regimen: CP vs. NI

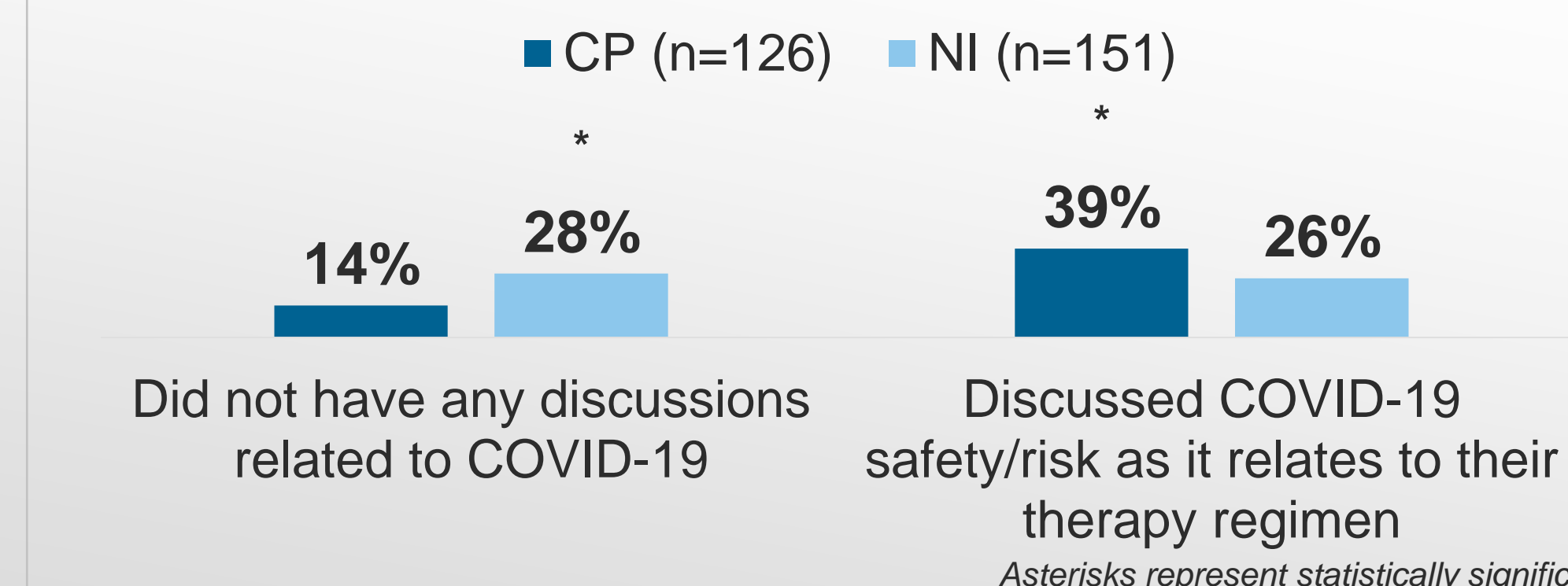


Figure 4 DMTs Most Commonly Considered Inappropriate Options for Patients Due to COVID-19-Related Concerns Among CP Patients

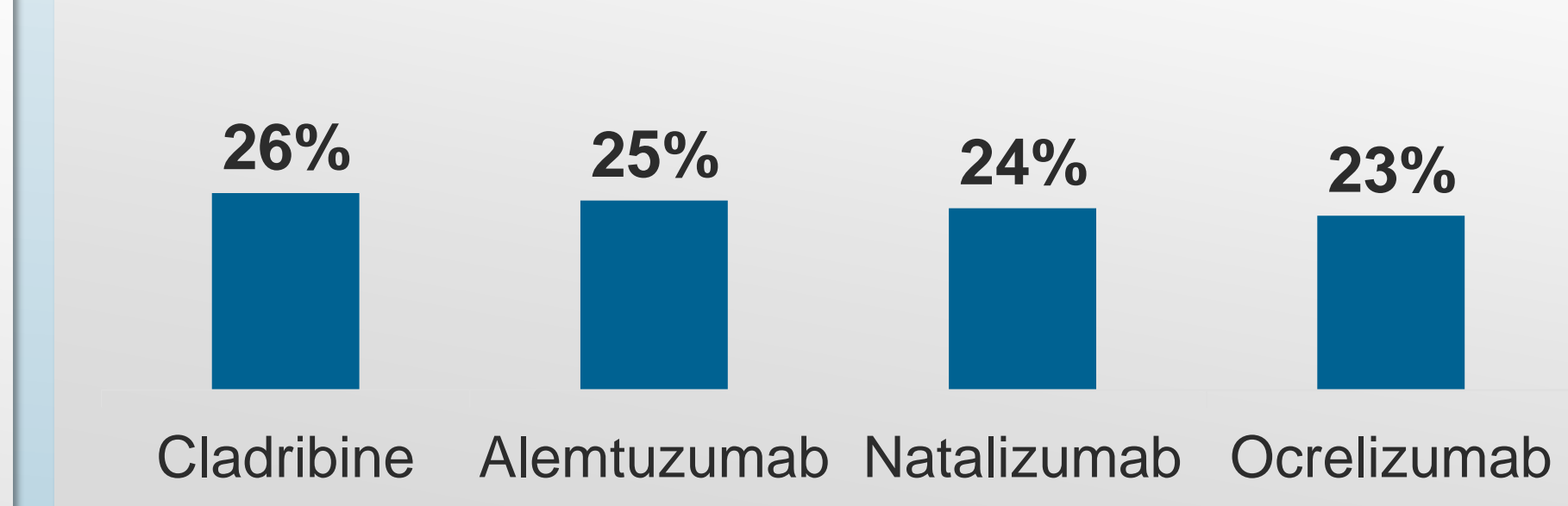


Figure 5 Current DMT Share: CP vs. NI Patients

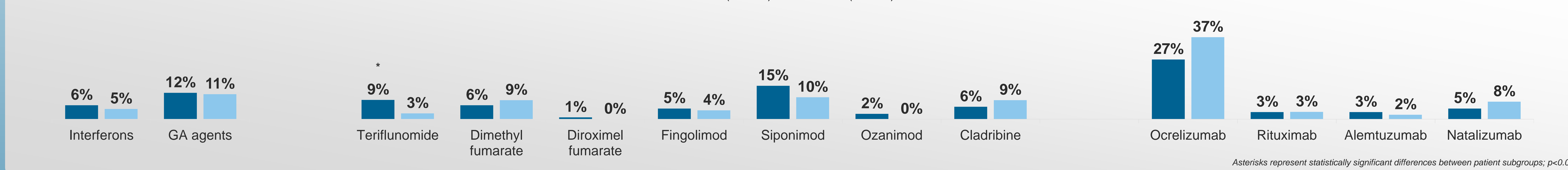


Figure 5a Current DMT Class Share: CP vs. NI Patients

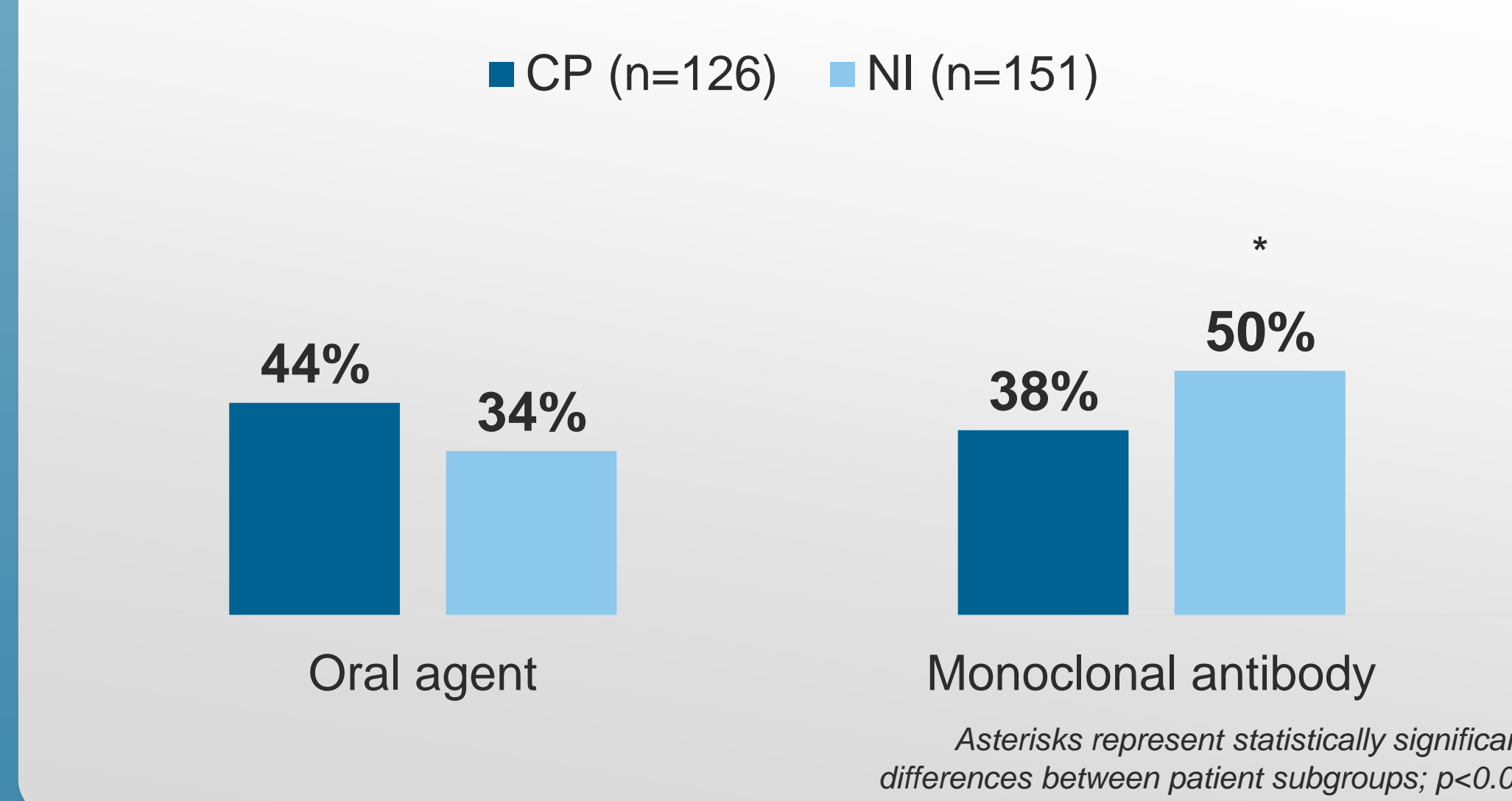


Figure 5b Current S1P Receptor Modulator and Anti-CD20 Therapy MoA Share: CP vs. NI Patients

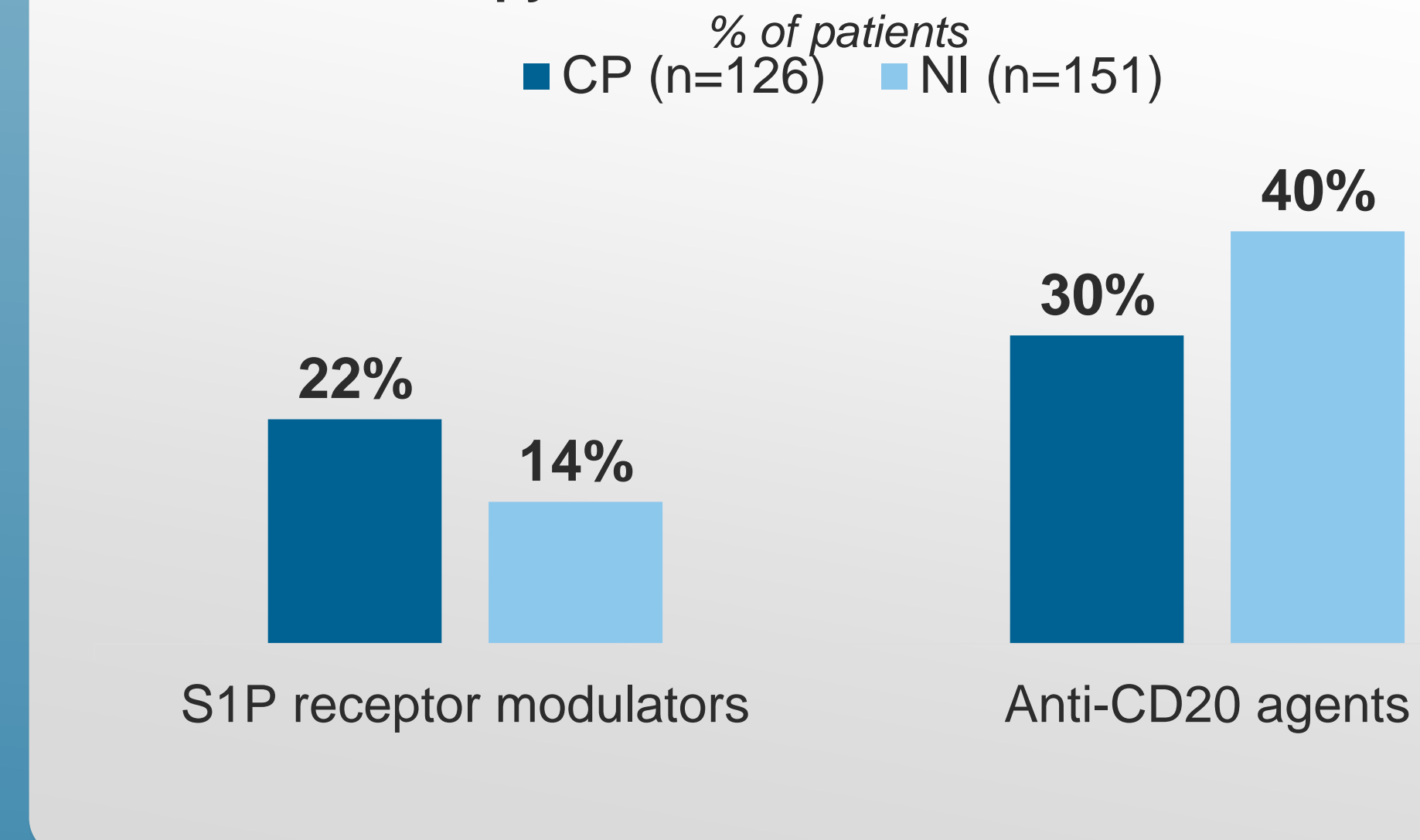


Figure 6 Select Reasons for Current DMT Selection: CP vs. NI Patients

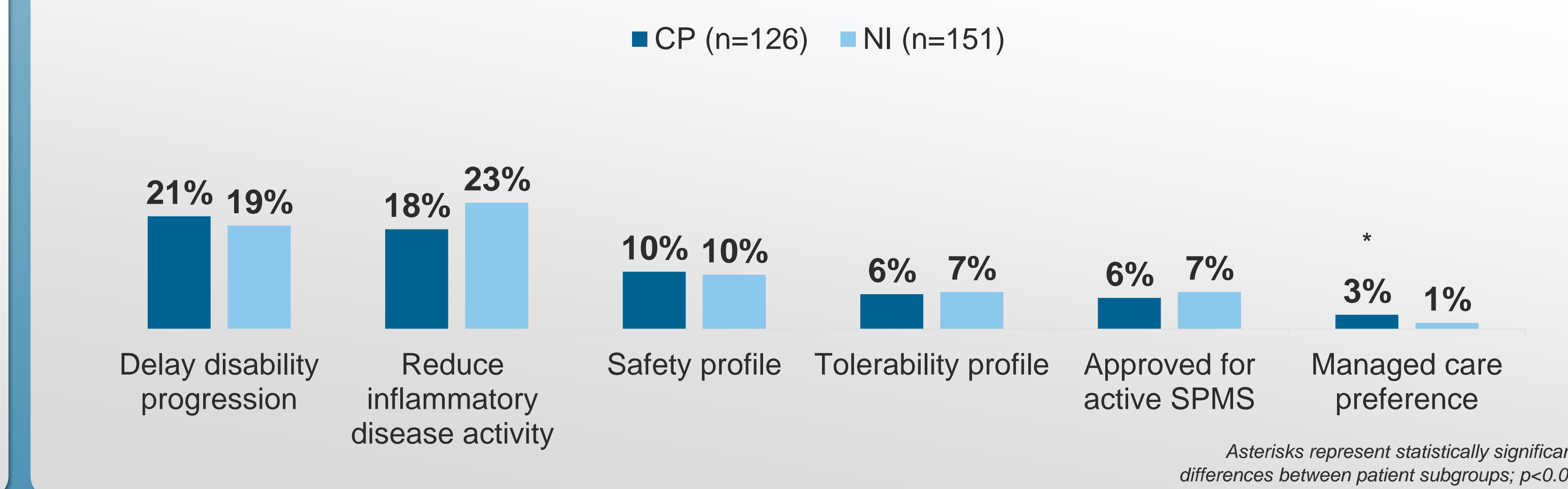


Figure 7 Current DMT Share: CP vs. NI Patients

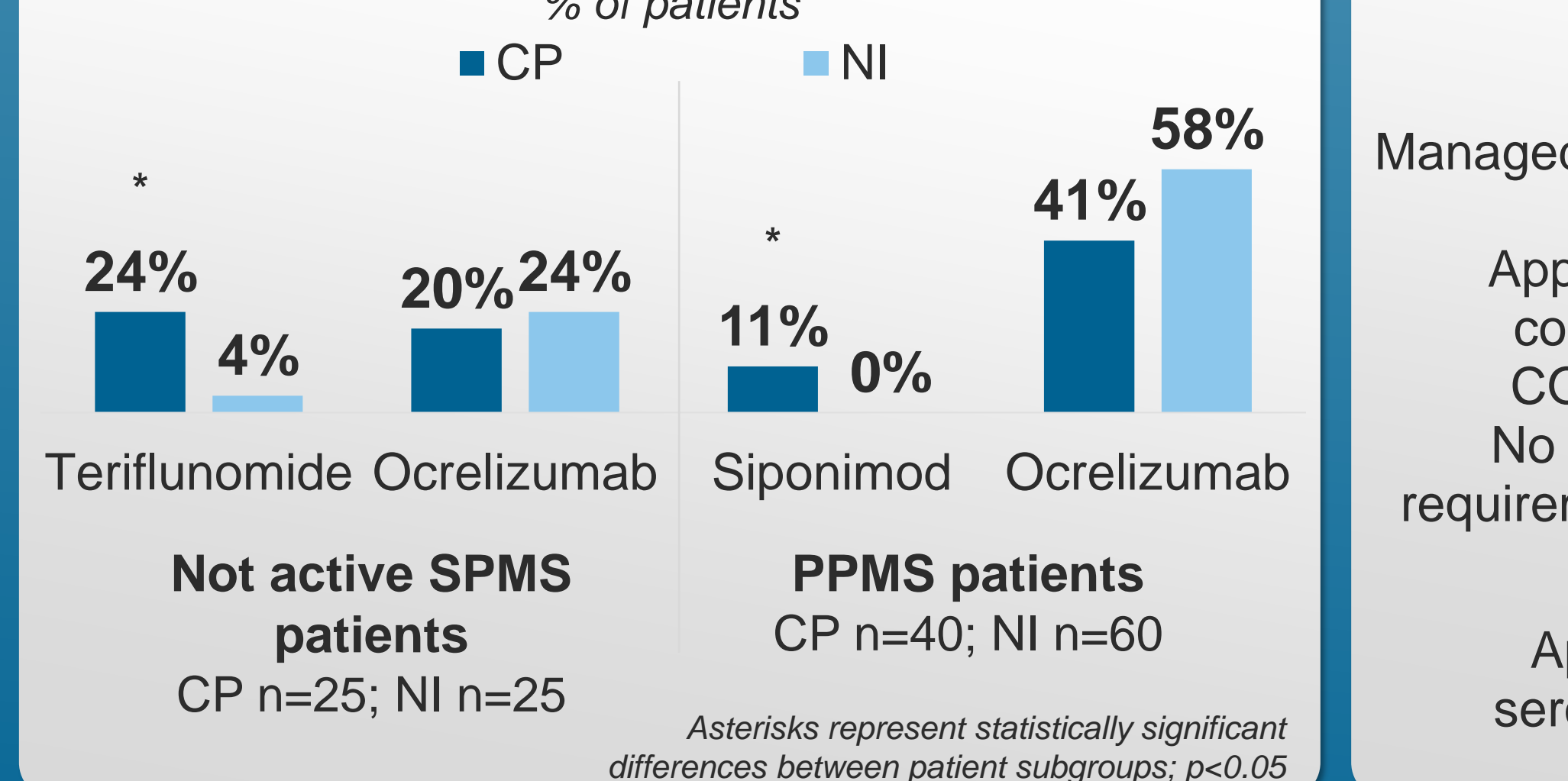


Figure 8a Select Reasons for Current DMT Selection for Active SPMS: CP vs. NI Patients

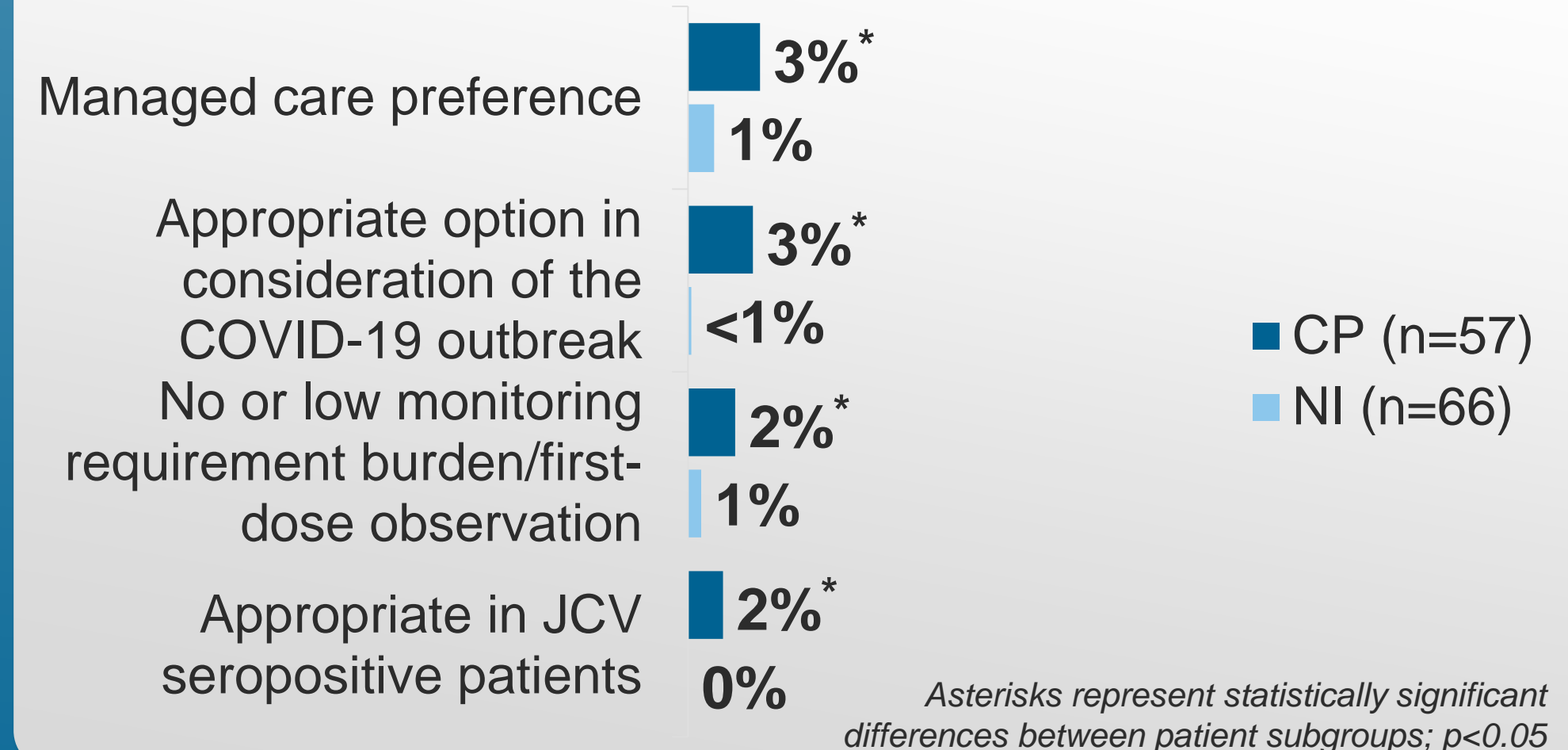


Figure 8b Select Reasons for Current DMT Selection for Not Active SPMS: CP vs. NI Patients

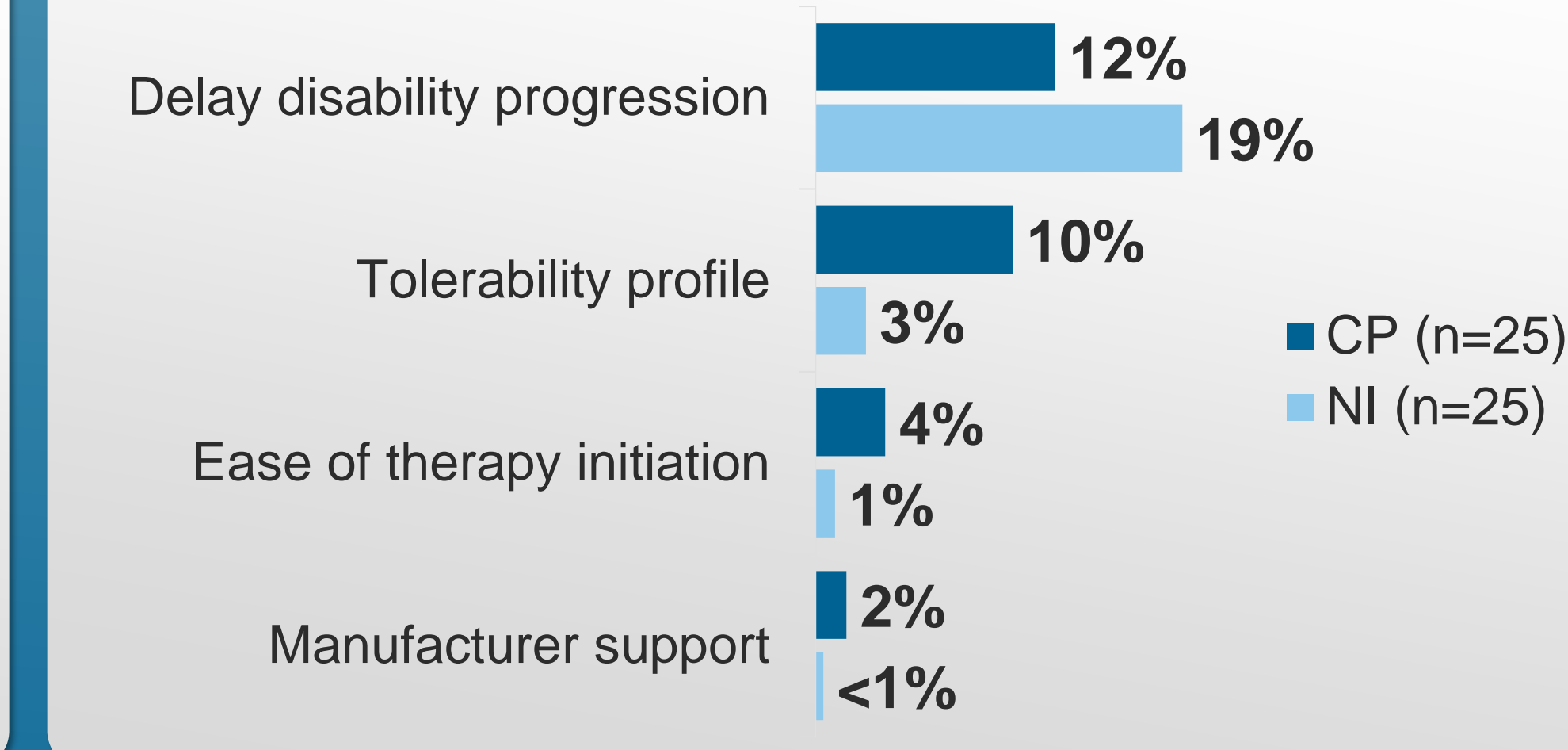


Figure 8c Select Reasons for Current DMT Selection for PPMS: CP vs. NI Patients

