

Quantifying the avoided costs of a switch to ofatumumab from low/moderate efficacy disease modifying therapies in patients with relapsing-remitting multiple sclerosis in Colombia

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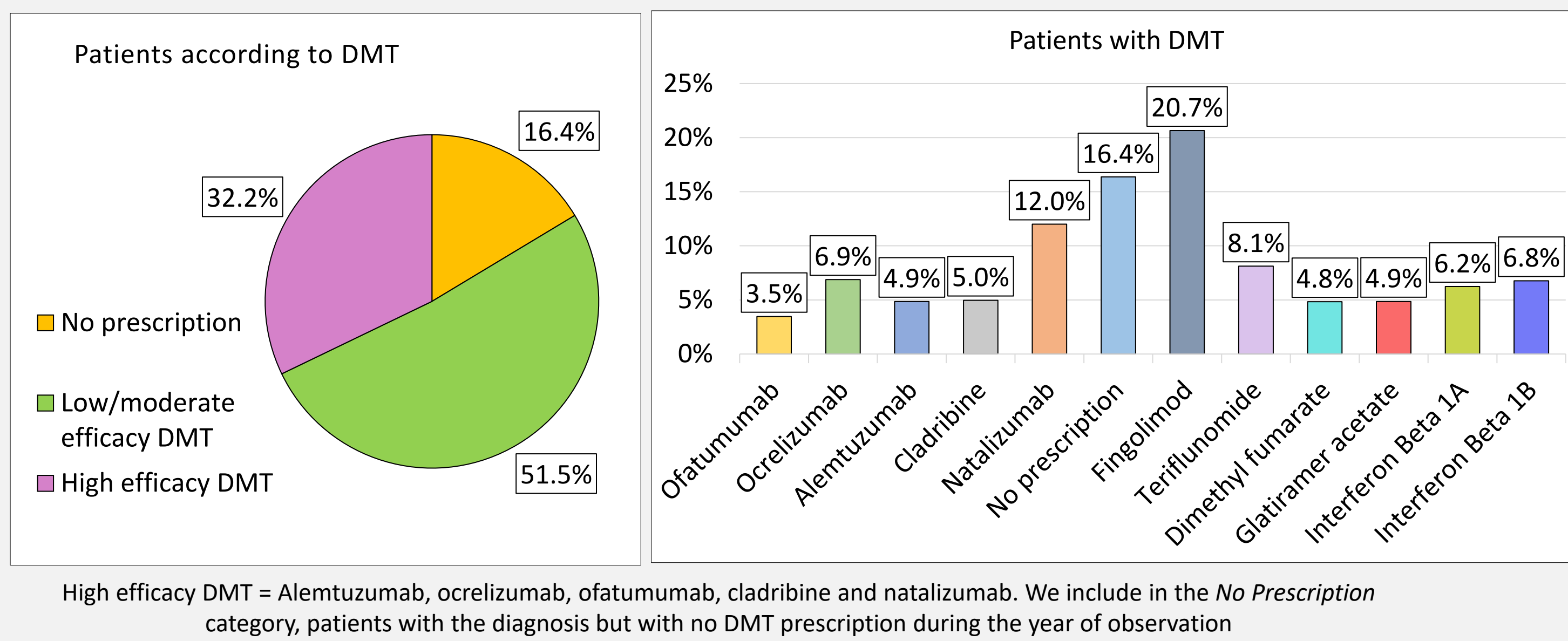
Introduction

- Ofatumumab is the first fully human monoclonal anti-CD20 approved in Colombia for the treatment of adults with Relapsing-Remitting Multiple Sclerosis (RRMS) with active disease defined by clinical characteristics or imaging.
- Network Metanalysis (NMA) have shown that ofatumumab is more efficacious than low/moderate efficacy Disease Modifying Therapies (LME-DMT) (fingolimod, teriflunomide, glatiramer acetate, dimethyl fumarate, interferon beta 1A, interferon beta 1B) in reducing annual relapse rates and confirmed disability progression without an increase in adverse events^{1,2}.
- Colombia has around 3,750 patients with RRMS, of which more than 50% were prescribed with low/moderate efficacy DMT in 2022 (Figure 1)^{3,4}.

Objective

- To quantify the avoided direct medical costs for the Colombian healthcare perspective by switching patients currently treated with LME-DMT to Ofatumumab.

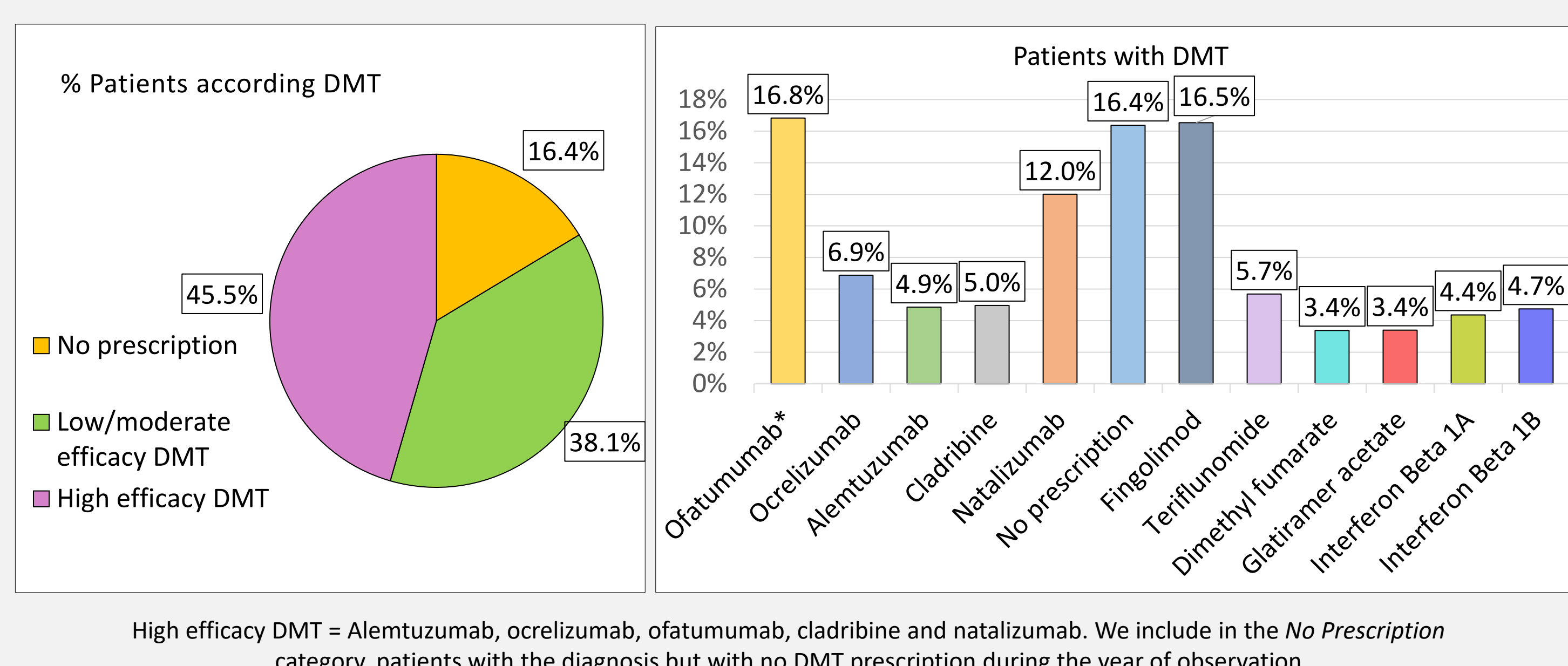
Figure 1. Current market share of DMT for RRMS in Colombia



Methods

- To compare a scenario of switching vs no switching, we used a cohort Markov model based on Confirmed Disability Status Scale (EDSS) with a third payer perspective.
- A 5-year time horizon was considered to show the avoided costs in the medium term; ; therefore, we did not consider a discount rate or mortality and discontinuation treatment adjustments.
- Each year patients could transition between EDSS states, experience a relapse or an adverse event.
- Baseline patients' distribution was based on the pooled analysis of ASCLEPIOS trials⁵.
- Transition probabilities were extracted from a natural history database in UK^{6,7}, and treatment effects on disability progression, relapses, and adverse events from published NMA¹.
- Relapses were classified as mild, moderate, or severe⁸, and adverse event as serious or non-serious⁹.
- Direct costs of disability, relapses and adverse events were estimated using a micro-costing approach¹⁰. We considered published economic literature^{9,11-13} and the opinion of local clinical experts to identify and measure relevant resources for each event of the model, and national sales and prescription databases^{4,14} for the valuation of this resources
- To calculate the number of patients within each DMT, we used Colombian public prescription databases^{3,4}.
- Colombian pesos (COP) were converted to US dollars (USD) using average quarterly exchange rate from January to May 2023¹⁵.
- We assume a switch to ofatumumab of 30% of the patients currently in LME-DMT, based on clinical experts' opinion (Figure 2).

Figure 2. Hypothetical market share assuming a switch to ofatumumab of 30% patients in LME-DMT in Colombia



Results

- A switch of 30% of the patients in LME-DMT to ofatumumab produce a reduction in the percentage of patients experience disability progression in 23,3% after 5 years of treatment a reduction in the percentage of patients experience at least 1 relapse in 33,3% (67% was mild, 21% moderate and 12% severe); and a reduction in some non-serious adverse events in 3,73% with no increasing in serious adverse events (Figure 3)
- These clinical effects imply avoided costs of USD \$249,832 and USD \$942,975 (1USD = 4,464COP) related to disability progression and relapses, respectively, without increasing costs associated to adverse events (Figure 4). The total avoided costs produced by the switch to ofatumumab were calculated in USD \$ 1,383,499 in 5 years

Figure 3. Clinical benefits of a switch to ofatumumab of 30% patients in LME-DMT

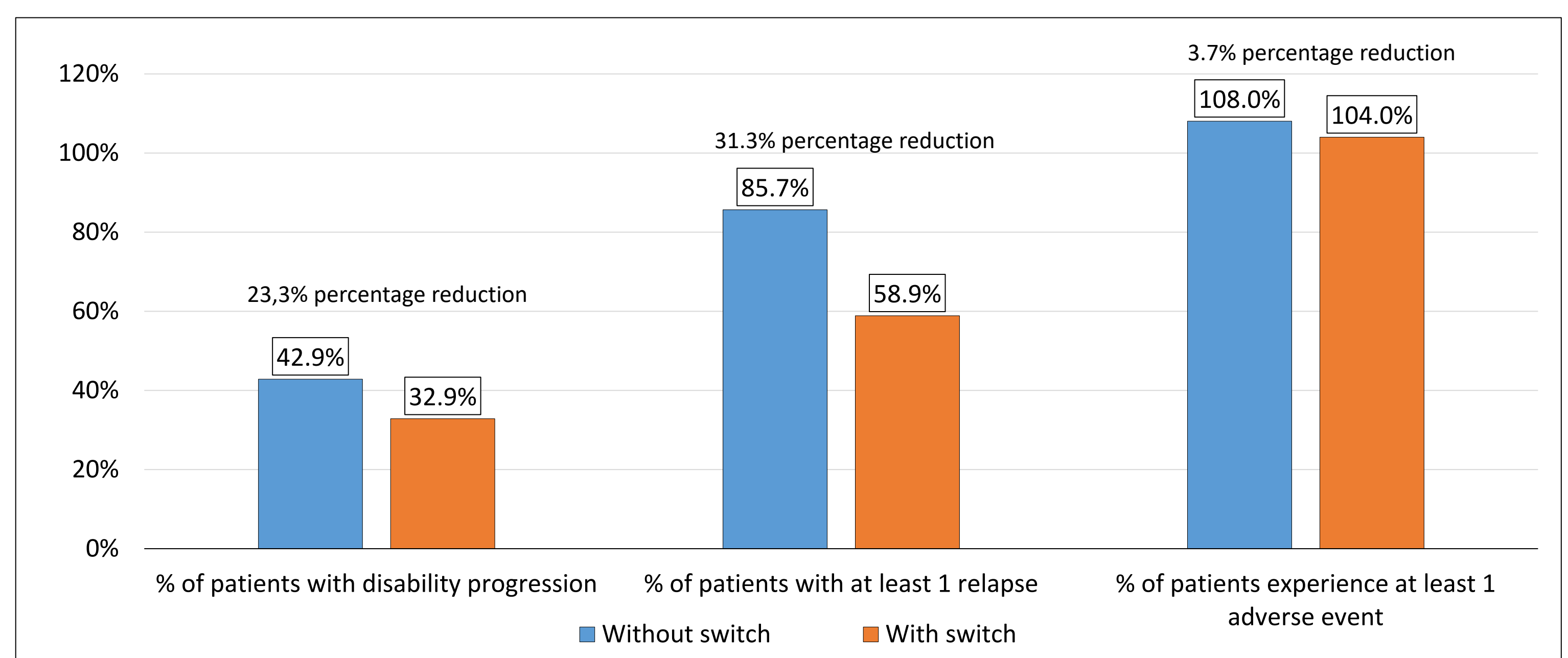
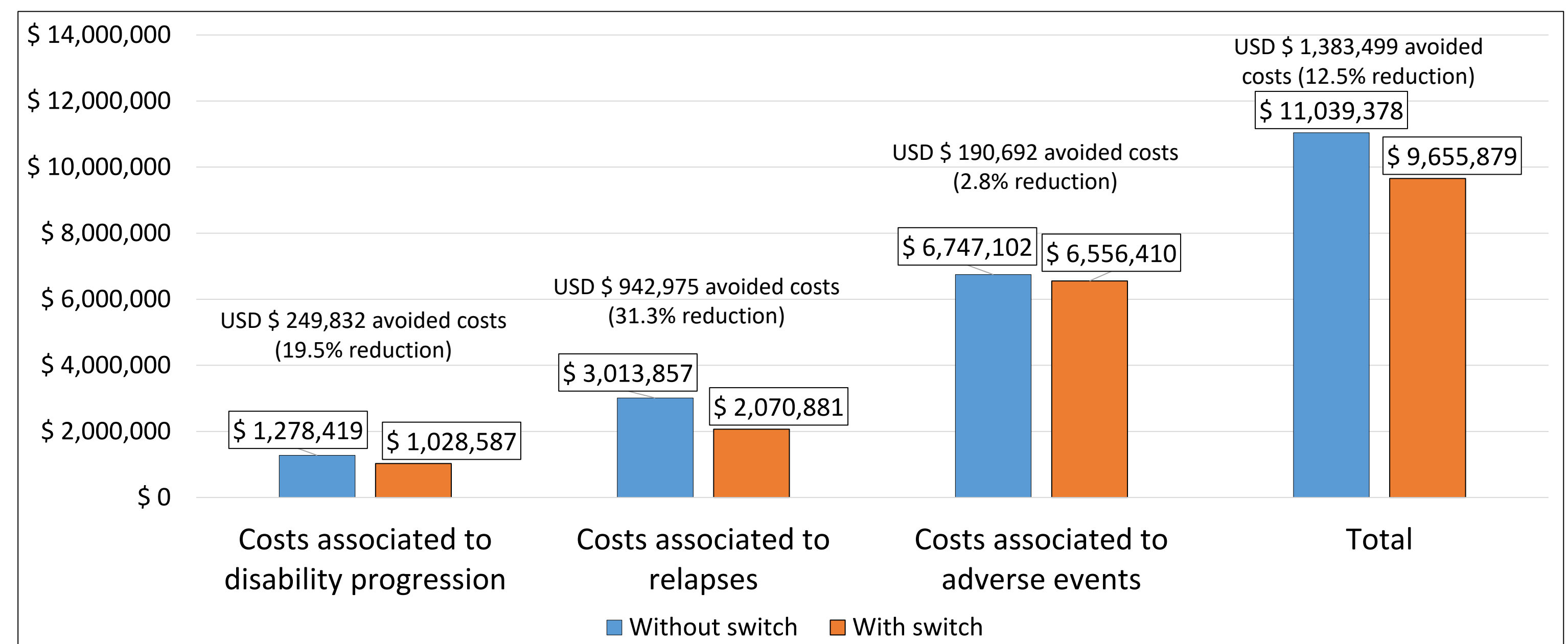


Figure 4. Avoided costs of a switch to ofatumumab of 30% patients in LME-DMT



Conclusions

In addition to Ofatumumab's clinical benefits for patients with RRMS, switch patients from LME-DMT to Ofatumumab generates avoided costs to the Colombian healthcare system, due to reductions in disability and relapses, without increasing the occurrence and costs of serious adverse events.

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Disclosures

M.C and P.C are employees of Novartis Pharmaceutical Colombia.

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