

COST-PER-EVENT ANALYSIS OF RISANKIZUMAB IN COMPARISON TO USTEKINUMAB FOR THE TREATMENT OF PATIENTS WITH MODERATE-TO-SEVERE CROHN’S DISEASE IN BRAZIL

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INTRODUCTION AND OBJECTIVE

Crohn’s disease (CD) is a chronic condition that requires lifetime treatment and has an important social and economic impact on patients and healthcare systems.¹ Risankizumab (RZB), an interleukin-23p19 inhibitor, and ustekinumab (UST), an interleukin-12/23p40 inhibitor, are approved for the treatment of moderate-to-severe CD in Brazil.^{2,3} This study aims to evaluate the cost-per-event (clinical remission, endoscopic response and endoscopic remission) of risankizumab versus ustekinumab over 52 weeks (induction and maintenance) for the treatment of patients with active moderate-to-severe CD who have failed tumor necrosis factor inhibitor (TNFi) therapy in the Brazilian private healthcare perspective. The endoscopic remission is defined as Simple Endoscopic Score for Crohn’s Disease (SES-CD) of at least 6 for ileocolonic or colonic disease (or an SES-CD of ≥4 for isolated ileal disease and considered as the highest treatment target).

METHODS

A cost-per-event (CPE) model was developed to estimate the average cost for one patient with CD to achieve the outcomes in the Brazilian private healthcare system. Efficacy inputs were obtained from phase 3b SEQUENCE trial comparing efficacy of RZB every 8 weeks (Q8W) vs UST Q8W.⁴ Induction + maintenance periods are modeled as 52-week duration, although event rates were drawn from trials that ranged in duration from 48 to 64 weeks. Treatment costs were based on RZB and UST dosage in the head-to-head trial (average 71kg patient weight) and drug acquisition on Brazilian list price (year-base 2024), tax rate 18%.^{2,3,5} An exploratory budget impact analysis was performed based on 100 patients treated, from the perspective of a Health Maintenance Organization (HMO).

RESULTS

Risankizumab demonstrated significantly higher rates (P<.0001) of clinical remission (60.8% vs 40.8%), endoscopic response (45.1% vs 21.9%); and endoscopic remission (31.8% vs 16.2%) compared to ustekinumab, in the SEQUENCE trial (Figure 1).⁴

Modelling the cost-per-event compared to UST, risankizumab revealed a lower cost per patient to achieve each outcome: –9% for clinical remission; –30% for endoscopic remission; and –34% for endoscopic response (Figure 2).

Figure 1: Risankizumab demonstrated significantly higher rates (P<.0001) of clinical remission, endoscopic response and endoscopic remission compared to ustekinumab, in the SEQUENCE trial.⁴

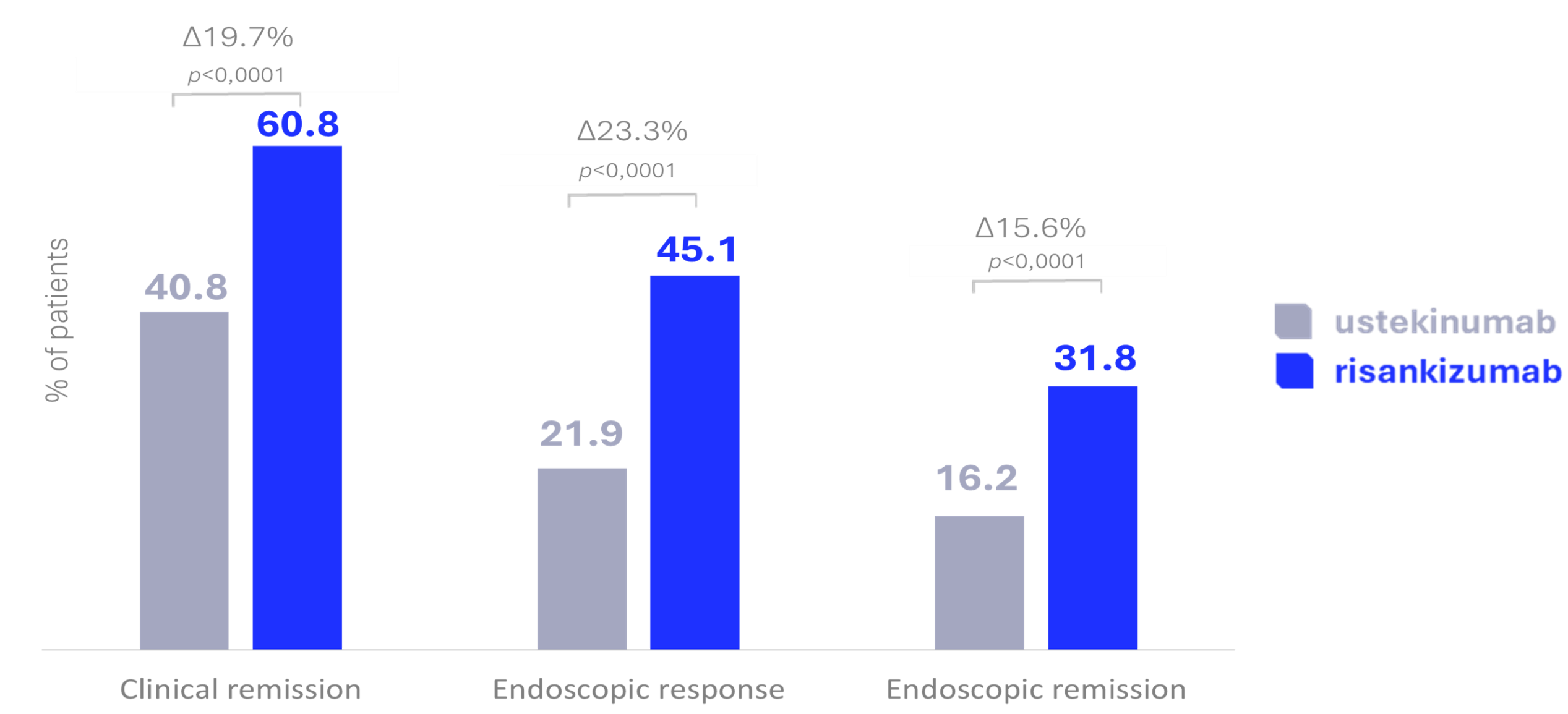
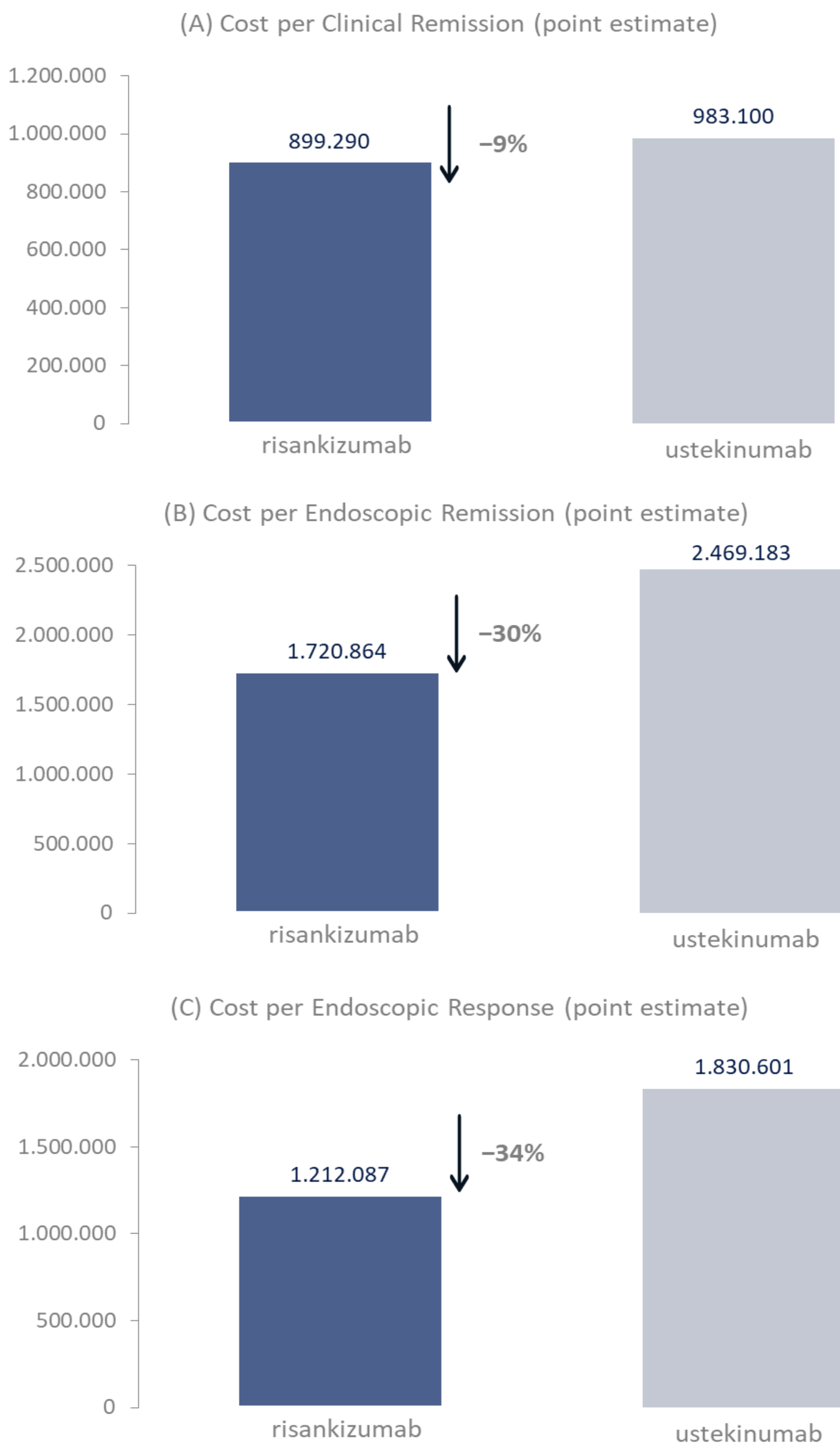
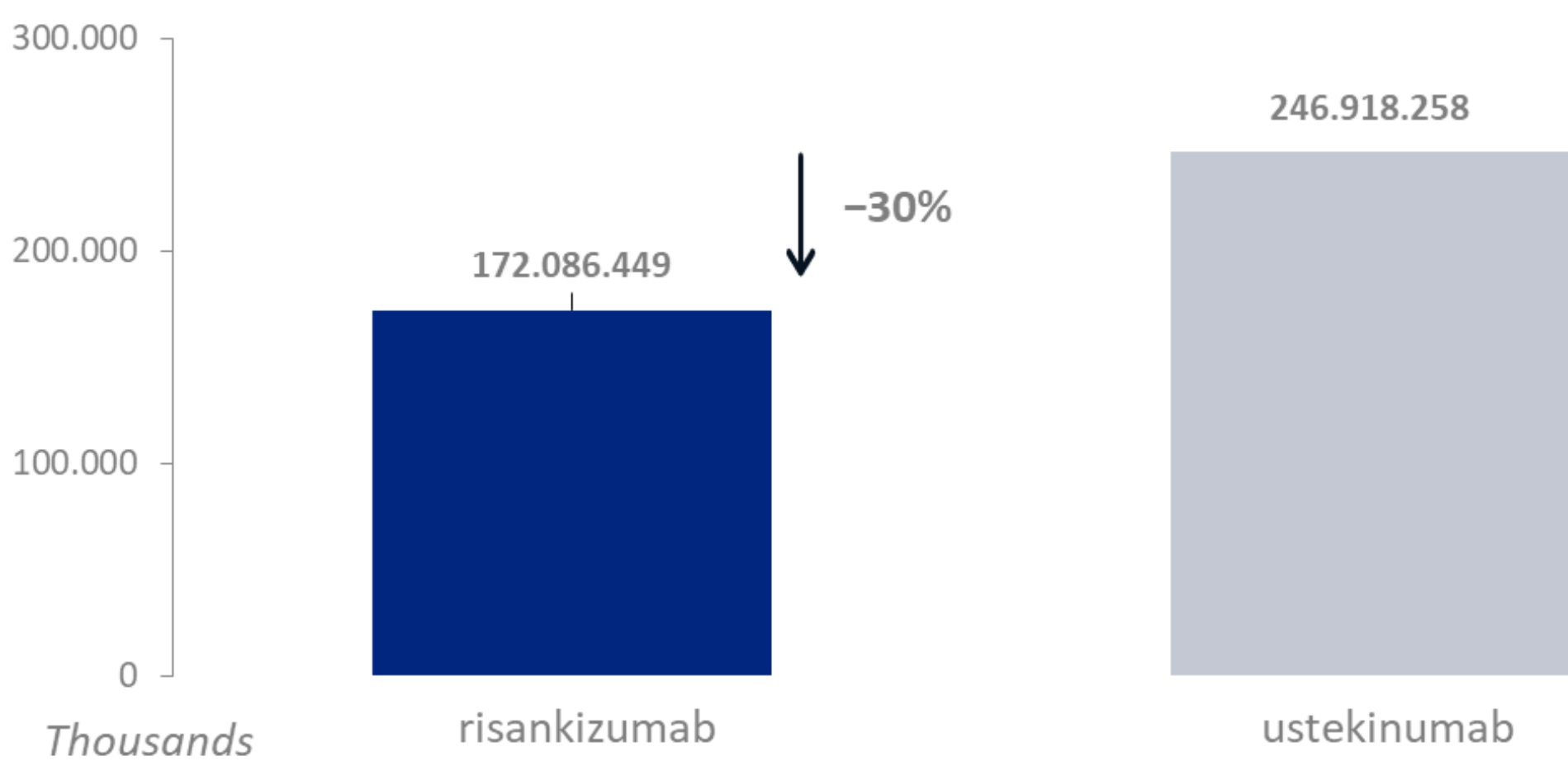


Figure 2: Risankizumab cost-per-event analysis compared to ustekinumab in the Brazilian private healthcare system (BRL).



From an HMO perspective with 100 CD patients, the treatment with RZB represents 30% lower cost per endoscopic remission vs UST and this economic saving could represent 43 new patients treated with RZB achieving endoscopic remission (the highest treatment target) with the same budget (Figure 3).

Figure 3: Cost-per-event analysis of 100 patients with Crohn’s disease from an HMO perspective (BRL).



Considering the -30% of cost-per-event reduction, it represents economic savings of ~ BRL 75 MM. With this budget, the HMO could treat 43 additional patients with risankizumab achieving endoscopic remission.

CONCLUSIONS

In the Brazilian private healthcare system, risankizumab was associated with lower cost-per-event compared to ustekinumab for patients with moderate-to-severe CD who have failed TNFi therapy. These findings indicate that resource allocation strategies could increase the number of patients receiving effective therapy for Crohn’s disease with RZB compared to UST.

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DISCLOSURES

Froes, RSB has served as a speaker of Janssen, Takeda, Pfizer, Ferring, AbbVie and advisory board member of AbbVie, Janssen and Takeda. Mello, MK has served as a speaker of Janssen, Takeda, AbbVie and advisory board member of Janssen, Takeda and AbbVie. Nobrega FJF has served as a speaker of Johnson & Johnson, Takeda and AbbVie. Advisory board member of Johnson & Johnson, and shareholding of Johnson & Johnson. Del Rey C, Caon AER, Barros T, Puopolo GR are AbbVie employees.