Real-World Switch Rates of Risankizumab and Other Biologics in Psoriasis Patients With Psoriatic Arthritis

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OBJECTIVE

To compare real-world, 12-month switch rates among psoriasis patients with psoriatic arthritis treated with risankizumab compared to other biologics, and understand characteristics associated with switching

CONCLUSIONS

In this real-world study, switching was common among psoriasis patients with psoriatic arthritis

At 12-month follow-up, risankizumab was associated with the lowest rate of treatment switching compared with all other biologics

Sex, comorbidities, and prior targeted immune modulator use were characteristics associated with higher odds of switching over 12 months

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INTRODUCTION

- Efficacy and safety of risankizumab (RZB), an interleukin (IL)-23 inhibitor, in the treatment of psoriasis (PsO) and psoriatic arthritis (PsA) has been demonstrated in clinical trials[1–3]
- Psoriatic patients may experience treatment switching due to lack of therapeutic efficacy and issues with tolerability or safety, which can lead to patient dissatisfaction[4,5]
- Currently there are limited data on switching among PsO patients with PsA initiating biologics, and which patient characteristics are associated with switching

METHODS

Study Design and Participants

- Data were obtained from the Merative MarketScan® Databases, including approximately 200 million patients in the United States with primary or Medicare supplemental coverage through privately insured fee-for-service, point-of-service, or capitated health plans
- This study included adult patients with:
  - Initiation of a biologic or deucravacitinib approved for moderate-to-severe PsO between January 1, 2018–April 30, 2023
  - Continuous insurance benefits for ≥6 months before and ≥12 months after the biologic initiation date (index date)
  - At least 2 medical claims for PsO and 1 claim for PsA in the 6-month pre-index period
  - No other autoimmune condition in the 6-month pre- and post-index periods

Study Outcomes

- Switch rates
  - Defined as the proportion of patients who switched to a new biologic or advanced oral (apremilast or deucravacitinib) in the 12-month follow-up period after treatment initiation
  - Discontinuation and non-adherence were not included in the switch definition
- Switch rates were compared between biologics with a sample size of ≥100 patients
- Patient characteristics associated with switching were assessed

Statistical Analyses

- Switch rates were reported as percentages and calculated as: (switchers/sum of switchers and non-switchers)*100
- Univariate logistic regression analyses were conducted to compare switch rates for RZB vs other biologics
- Multivariate logistic regression analyses were performed to examine the impact of baseline demographic and treatment characteristics on switch rates and determine characteristics associated with switching

RESULTS

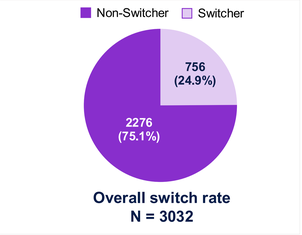
- Among 3032 patients included at baseline, mean age was 47.4 (SD ±10.8) years, 55.4% were female, and baseline targeted immune modulator (TIM) use was 24.9%
- Baseline characteristics were similar between all treatment groups **(Table 1)**

Table 1. Baseline Demographics and Clinical Characteristics

Baseline Characteristic	Overall[a] N = 3032	Risankizumab n = 206	Adalimumab n = 1079	Etanercept n = 296	Guselkumab n = 257	Ixekizumab n = 317	Secukinumab n = 535	Ustekinumab n = 179
Age (years), mean ± SD	47.4 ± 10.8	46.6 ± 11.41	46.2 ± 11.1	48.9 ± 9.7	47.5 ± 9.8	47.8 ± 10.8	48.4 ± 10.2	47.9 ± 10.8
Female, n (%)	1680 (55.4)	111 (53.9)	580 (53.8)	181 (61.2)	132 (51.4)	162 (51.1)	302 (56.5)	98 (54.8)
Region, n (%)								
Midwest	696 (23.0)	45 (21.8)	272 (25.2)	60 (20.3)	52 (20.2)	70 (22.1)	121 (22.6)	48 (26.8)
Northeast	388 (12.8)	28 (13.6)	147 (13.6)	41 (13.9)	46 (17.9)	33 (10.4)	47 (8.8)	22 (12.3)
South	1504 (49.6)	87 (42.2)	511 (47.4)	147 (49.7)	130 (50.6)	160 (50.5)	291 (54.4)	88 (49.2)
West	444 (14.6)	46 (22.3)	149 (13.8)	48 (16.2)	29 (11.3)	54 (17.0)	76 (14.2)	21 (11.7)
Insurance, n (%)								
Commercial	2985 (98.5)	206 (100)	1056 (97.9)	291 (98.3)	257 (100)	314 (99.1)	526 (98.3)	175 (97.8)
Medicare	47 (1.6)	0 (0)	23 (2.1)	5 (1.7)	0 (0)	3 (1.0)	9 (1.7)	4 (2.2)
Comorbidities, n (%)								
Anxiety or depression	623 (20.6)	47 (22.8)	224 (20.8)	64 (21.6)	50 (19.5)	62 (19.6)	98 (18.3)	42 (23.5)
Hypertension	888 (29.3)	52 (25.2)	292 (27.1)	82 (27.7)	68 (26.5)	106 (33.4)	175 (32.7)	55 (30.7)
MACE[b]	387 (12.8)	29 (14.1)	132 (12.2)	31 (10.5)	31 (12.1)	45 (14.2)	73 (13.6)	22 (12.3)
Obesity	668 (22.0)	35 (17.0)	228 (21.1)	70 (23.7)	58 (22.6)	65 (20.5)	128 (23.9)	41 (22.9)
Diabetes	376 (12.4)	25 (12.1)	112 (10.4)	38 (12.8)	28 (10.9)	57 (18.0)	69 (12.9)	22 (12.3)
Baseline TIM use,[c] n (%)	756 (24.9)	29 (14.1)	180 (16.7)	65 (22.0)	62 (24.1)	91 (28.7)	198 (37.0)	75 (41.9)

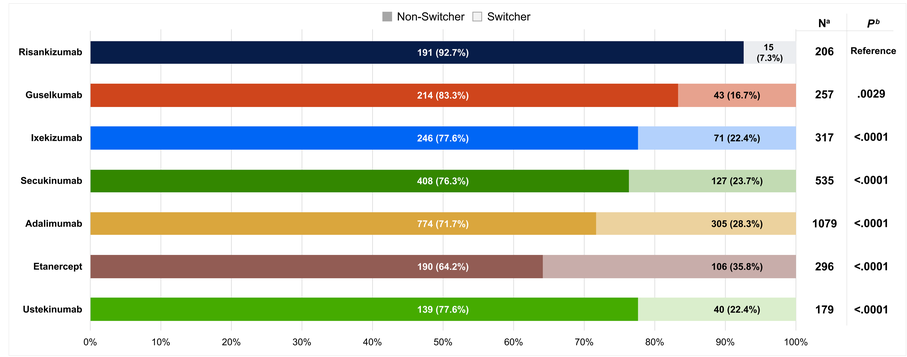
MACE, major adverse cardiovascular event; SD, standard deviation; TIM, targeted immune modulator.
[a]The following treatment groups were excluded from the table but included in the Overall group: Brodalumab, n = 1; Certolizumab, n = 91; Deucravacitinib, n = 3; Infliximab, n = 62; and Tidrakizumab, n = 6. [b]Includes history of myocardial infarction, stroke, and heart failure. [c]Includes apremilast and/or biologics.

Figure 1. Overall Switch Rates of Biologics Over 12 Months



- At 12-month follow-up, overall treatment switch rate was 24.9% **(Figure 1)**
- Patients treated with RZB had the lowest switch rate (7.3%; 15/206) compared to all other biologics (*P* ≤.0029) **(Figure 2)**

Figure 2. Switch Rates Over 12-Month Follow-Up Among Patients Stratified by Biologic

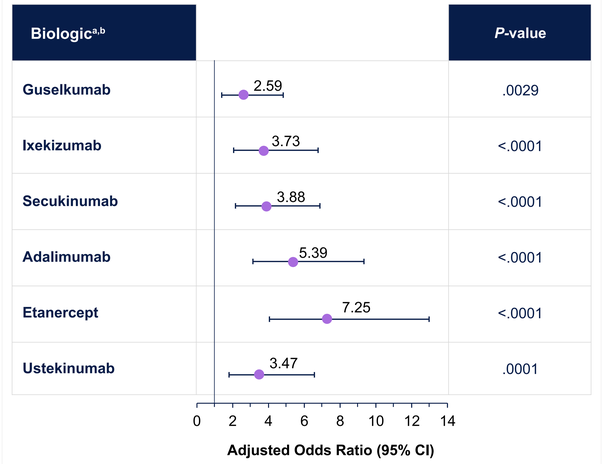


[a]Only biologics with N ≥100 were analyzed.
[b]*P*-value from logistic regression analysis comparing switch rates between treatment cohorts.

RESULTS CONTINUED

- Results were similar in multiple logistic regression analyses after adjusting for variations in baseline characteristics **(Figure 3)**

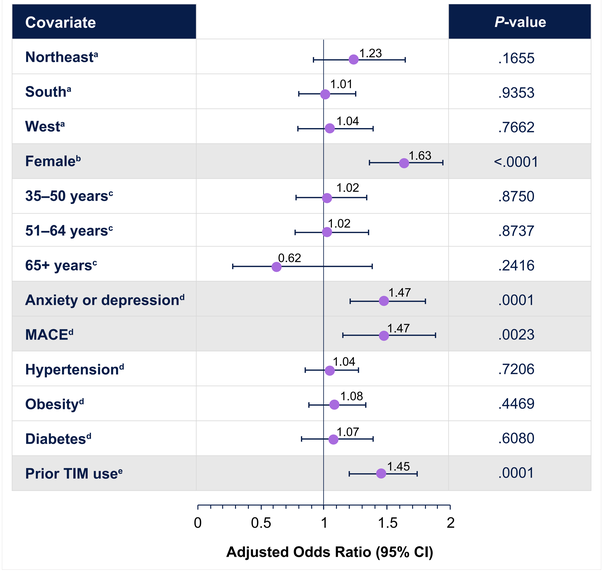
Figure 3. Adjusted Odds Ratio of Switching Over 12 Months by Biologic



CI, confidence interval.
[a]Reference group: Risankizumab. [b]Multivariate logistic regression analyses accounted for variations in baseline demographics, comorbidities, and treatment characteristics.

- Female sex, baseline anxiety or depression, baseline major adverse cardiovascular event and prior TIM use were associated with higher odds of switching over 12 months, compared to their reference groups (all *P*-values <.05) **(Figure 4)**

Figure 4. Characteristics Associated With Switching in the Overall Population



CI, confidence interval; MACE, major adverse cardiovascular event; RZB, risankizumab; TIM, targeted immune modulator.
[a]Reference group: Midwest.
[b]Reference group: male
[c]Reference group: aged 18–34 years.
[d]Reference group: no comorbidities.
[e]Reference group: biologic-naive.