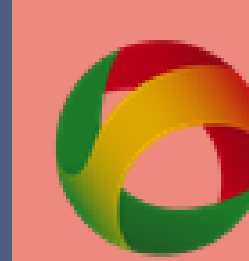


# REAL-WORLD TREATMENT PERSISTENCE OF BIOLOGIC THERAPIES IN PSORIASIS



UNIDADE LOCAL DE SAÚDE  
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## BACKGROUND AND IMPORTANCE

Biologic therapies are central to the management of moderate-to-severe psoriasis. Treatment persistence reflects long-term efficacy, tolerability, and adherence. Real-world data are essential to understand therapeutic patterns and support clinical decisions.

## AIM AND OBJECTIVES

To assess treatment persistence among biologic therapies used in moderate-to-severe psoriasis, comparing individual drugs and therapeutic classes based on their mechanism of action.

## MATERIALS AND METHODS

A retrospective analysis of electronic health records was conducted, covering the period from 2015 to the first semester of 2025, including patients with moderate-to-severe psoriasis treated with biologic therapies. Treatment duration was calculated per patient and per drug, based on the interval between the first and last recorded administration dates. Biologics were grouped by therapeutic class: Anti-TNF, Anti-IL17, Anti-IL23, and Anti-IL12/23. Statistical comparisons of treatment persistence were performed using the Mann-Whitney U test. The analysis was conducted to support formulary decisions and therapeutic optimization.

## RESULTS

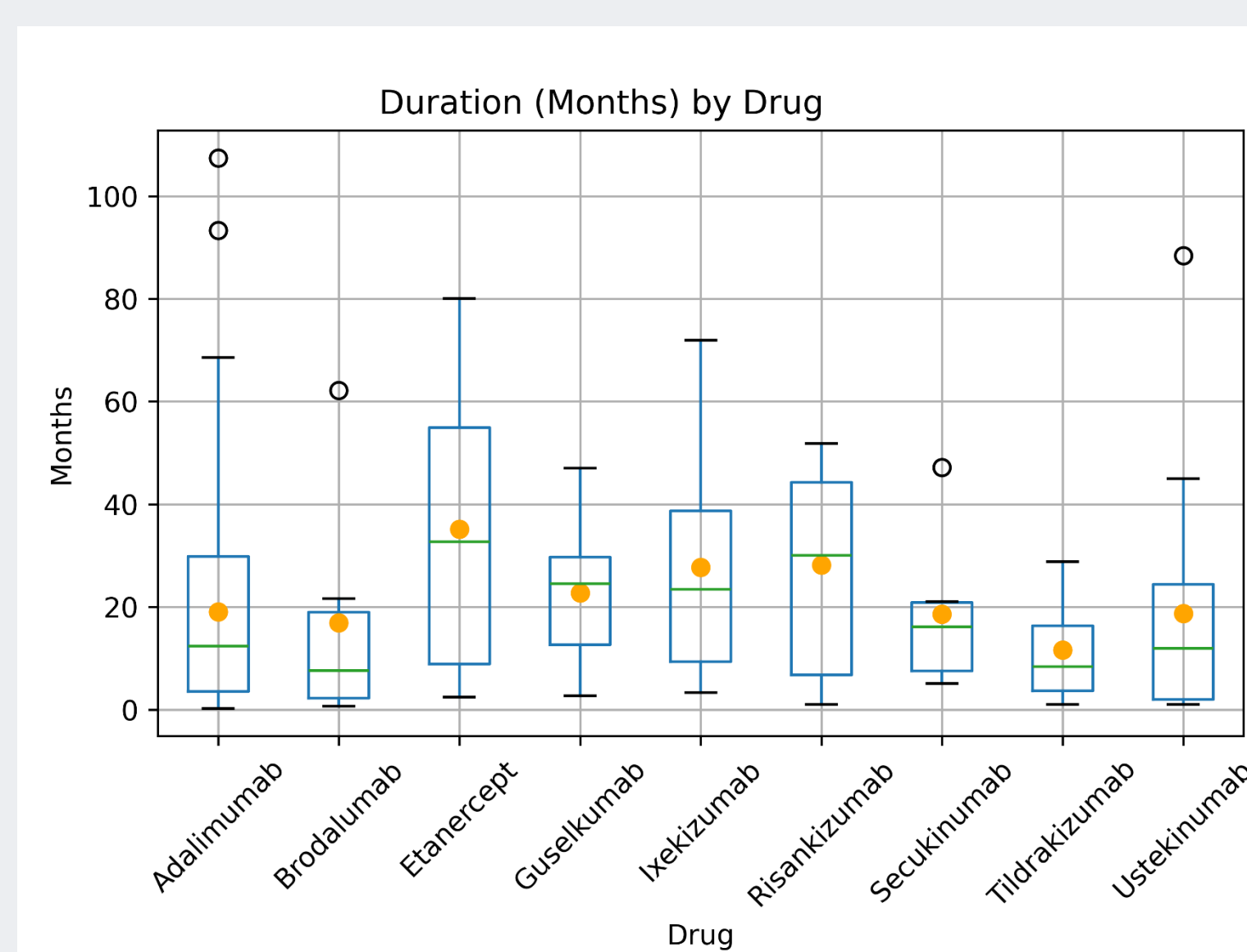
A total of 346 patients with moderate-to-severe psoriasis treated with biologics were included in the study, of which 286 are currently undergoing treatment. Mean number of biologics per patient was 1,39 (range: 1–5).

The mean treatment duration per drug was: (in months): Etanercept=40,9 (N=29); Risankizumab=24,5 (N=48); Ustekinumab=22,6 (N=39); Guselkumab=21,5 (N=23); Ixekizumab=19,1 (N=35); Adalimumab=17,6 (N=246); Secukinumab=16,2 (N=13); Brodalumab=14,4 (N=24) and Tildrakizumab=12,9 (N=23). (Graphic 1)

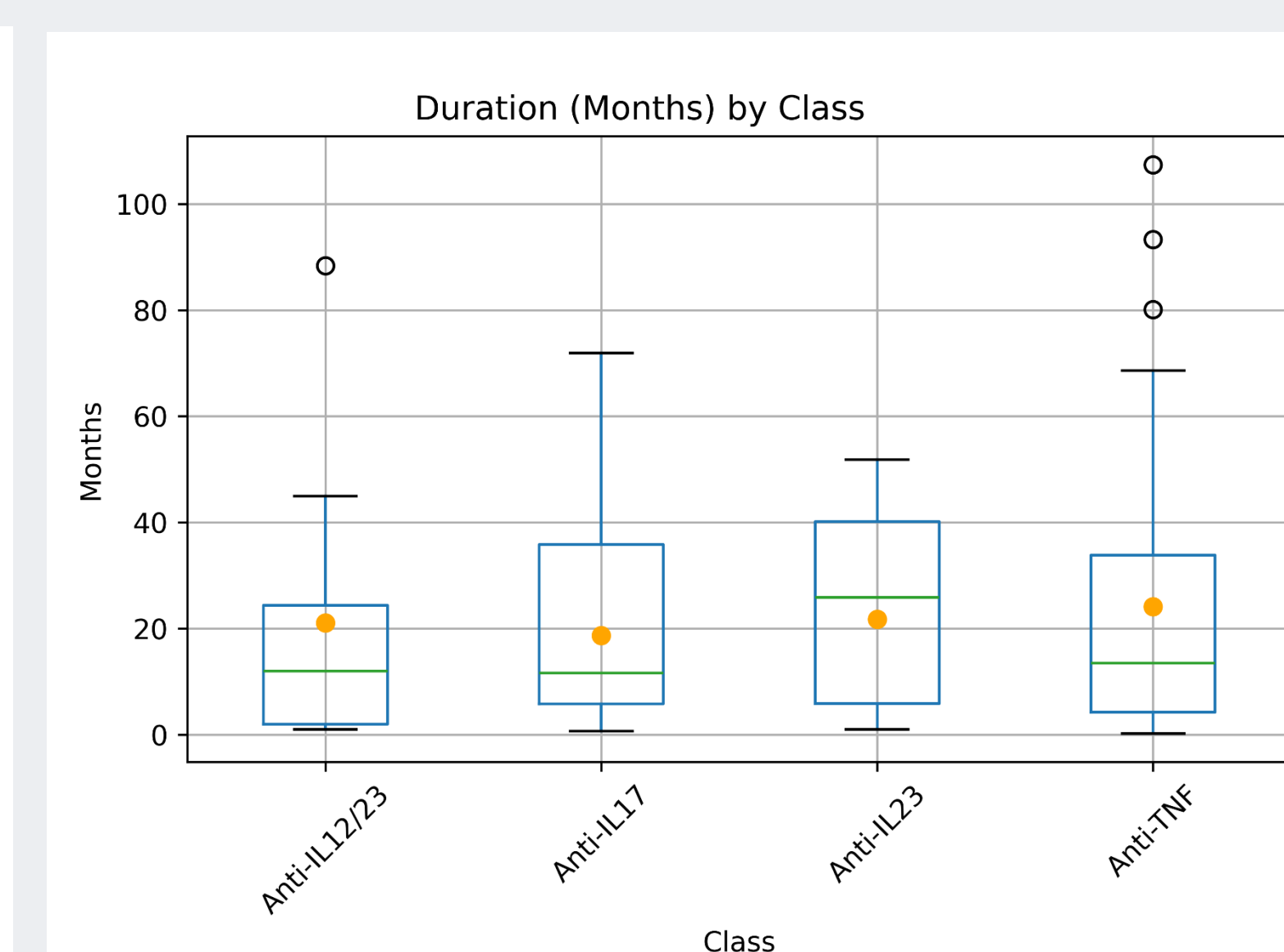
Grouped by therapeutic class, the mean treatment duration ( $\pm$  standard deviation) was (in months): Anti-IL23 = 23,5 ( $\pm$ 16,6); Anti-IL17 = 17,0 ( $\pm$ 18,5); Anti-IL12/23 = 22,7 ( $\pm$ 34,6); and Anti-TNF = 20,0 ( $\pm$ 22,8). (Graphic 2)

## REFERENCES

Lebwohl MG, Carvalho A, Asahina A, et al. Biologics for the treatment of moderate-to-severe plaque psoriasis: a systematic review and network meta-analysis; *Dermatol Ther.* 2025;15:1633–1656; Thomas SE, Barenbrug L, Hannink G, et al. Drug survival of IL-17 and IL-23 inhibitors for psoriasis: a systematic review and meta-analysis. *Drugs.* 2024;84:565–578; Nast A, Spuls PI, Dressler C, et al. Living EuroGuiDerm Guideline for the systemic treatment of psoriasis vulgaris. *European Dermatology Forum*; 2023 (updated Feb 2025).



Graphic 1 – Mean and median treatment duration, by drug



Graphic 2 – Mean and median treatment duration, by class

There are significant differences in treatment duration between *Anti-IL23 vs Anti-IL17*:  $p=0,0099$ ; *Risankizumab vs Ixekizumab*:  $p=0,0482$ ; *Anti-IL12/23 vs Anti-TNF*:  $p=0,0480$ ; *Risankizumab vs Ustekinumab*:  $p=0,0116$ . No significant differences were found between *Risankizumab vs Guselkumab*, *Risankizumab vs Ixekizumab* or *Ixekizumab vs Brodalumab* (Table 1)

Comparison	N <sub>1</sub>	N <sub>2</sub>	Mean 1 (months)	Mean 2 (months)	p-value
Anti-IL12/23 vs Anti-TNF	39	275	22,6	20,0	<b>0,0480*</b>
Risankizumab vs Ustekinumab	48	39	24,5	22,6	<b>0,0116*</b>
Anti-IL23 vs Anti-IL17	71	72	23,5	17,0	<b>0,0099*</b>
Risankizumab vs Ixekizumab	48	35	24,5	19,1	0,1159
Risankizumab vs Guselkumab	48	23	24,5	21,5	0,6806
Ixekizumab vs Brodalumab	35	24	19,1	14,4	0,4971

Table 1 – Comparative analysis of biologic persistence by Mann-Whitney U Test  
\* Significant

## CONCLUSION AND RELEVANCE

Treatment persistence varied across biologic classes and agents. Anti-IL23 therapies showed the longest and most consistent durations, while Anti-IL17 had shorter and more variable persistence. Ustekinumab showed high mean persistence with greater variability. Significant differences were found between specific drugs and classes, favouring Anti-IL23 and ustekinumab. Limitations include the unavailability of all biologics throughout the study period and the retrospective design based on dispensing data. These findings support the use of real-world evidence and pharmaceutical monitoring to guide biologic selection and optimize long-term psoriasis management.

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