

Persistence Of Guselkumab In Psoriatic Disease Over 3 Years In Real Life Conditions, A Nationwide Claims Database Analysis

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Background

Psoriatic diseases (psoriasis [Pso] and psoriatic arthritis [PsA]) are chronic immune-mediated inflammatory conditions affect the skin and/or joints. The prevalence of Pso and PsA in France is estimated at 4% and 0.1%, respectively (1,2). Advanced therapeutic options for psoriatic disease have significantly expanded over the last decade.

Information on the real-world use and persistence of newer biologic disease-modifying antirheumatic drugs (bDMARDs), including IL-23 inhibitors, would be valuable. Guselkumab, the first IL-23 inhibitor targeting the p19 subunit reimbursed in France since 2019 for Pso and 2022 for PsA, has limited data on long-term persistence in real life, particularly for PsA patients, although drug survival has been evaluated in prospective cohorts.

Cohorts of Pso and PsA patients treated with biologics have already been built in the French National Health Data System (Système national des données de santé [SNDS]) using validated algorithms to identify these diseases (2,3,4). Although some studies have explored guselkumab persistence in Pso, none have provided specific insights into guselkumab in both Pso and PsA.

Objectives

This study aimed to evaluate the characteristics of patients who initiated guselkumab and treatment persistence in Pso and PsA over 3 years using French nationwide claims data.

Methods

This nationwide study used the French SNDS administrative healthcare claims database

- Patients were included if they were ≥18 years of age, had a diagnosis of psoriatic disease, and received their first guselkumab dispensation (index date) between 2019 and 2022.
- Patients were followed until loss to follow-up (12-month period without reimbursement), death, or the end of study period (12/31/2023), whichever came first.
- Two sub-populations were defined: i) Pso patients (without PsA), and ii) PsA patients (with or without Pso).
- Patients were stratified based on previous bDMARDs treatments: i) bDMARDs-experienced (at least one bDMARD in the 5 years preceding the index date) versus ii) bDMARDs-naïve.
- Persistence of guselkumab, defined as duration from initiation to discontinuation with at least 120 days drug-free after the last dispensation of guselkumab, was estimated using the Kaplan-Meier method.

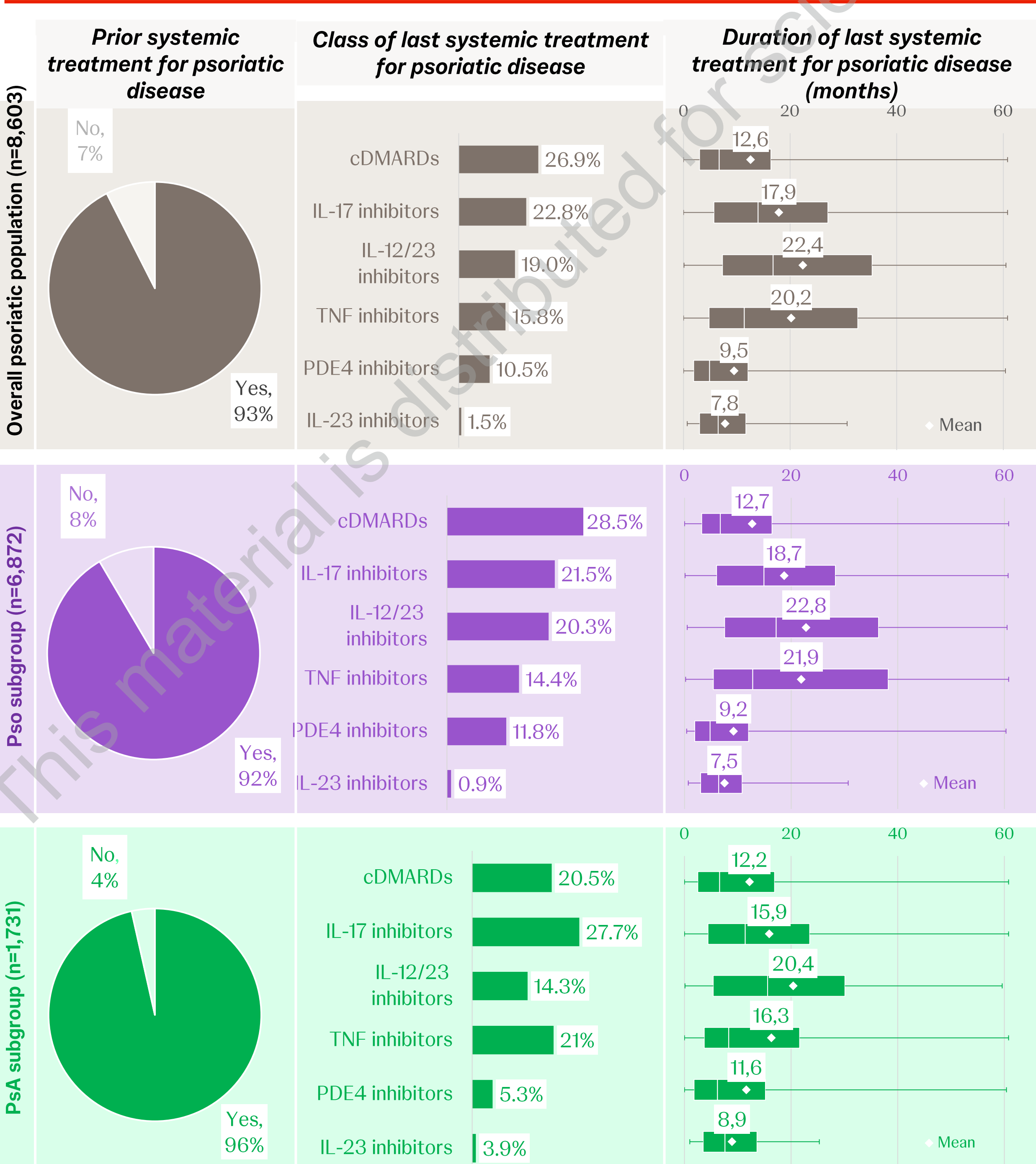
Results

Socio-demographic and clinical characteristics of psoriatic disease patients at guselkumab initiation and follow-up duration

Baseline characteristics and follow-up duration	Overall psoriatic population (N= 8,603)	Pso subgroup (N = 6,872)	PsA subgroup (N = 1,731)
Demographics			
Age in years, mean (sd)	49.9 (14.5)	49.3 (14.2)	52.4 (13.1)
Female	44.4%	41.8%	45.2%
Low socio-economic category	11.5%	11.4%	14.2%
Comorbidities & other treatments history			
Immunosuppressive condition	0.8%	0.7%	1.0%
Cancer	3.0%	3.0%	3.2%
Infection	6.0%	5.2%	8.8%
Diabetes	13.3%	12.8%	15.1%
Lipid-lowering agents	17.5%	16.9%	19.9%
Anti-depressants	17.8%	15.9%	25.2%
Median follow-up (IQR)	33.6 (22.2-48.3)	35.0 (23.4-49.1)	27.5 (19.0-42.1)

Data shown are % unless otherwise noted. Abbreviations in alphabetical order: Low socio-economic category (CMUC); universal complementary medical insurance; DMARD Disease-Modifying Anti-Rheumatic Drug; SD: standard deviation; IQR: inter-quartile range.

Features of prior systemic treatment of psoriatic disease before guselkumab initiation



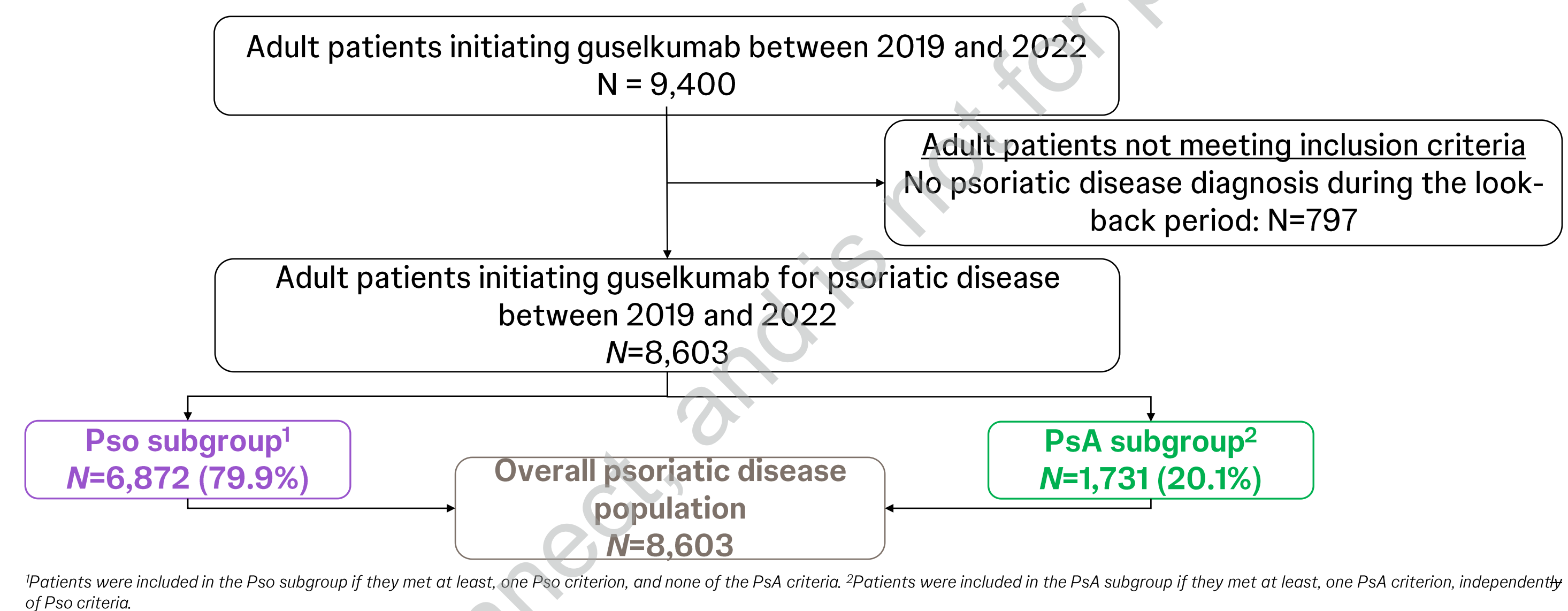
Data shown are % unless otherwise noted. Abbreviations in alphabetical order: cDMARD conventional Disease-Modifying Anti-Rheumatic Drug; IL: InterLeukin; PDE4: Phosphodiesterase 4; TNF: Tumor Necrosis Factor. Duration of last systemic treatment is represented using box-and-whiskers plots (values: minimum; first quartile; median; third quartile; maximum).



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Key Takeaways

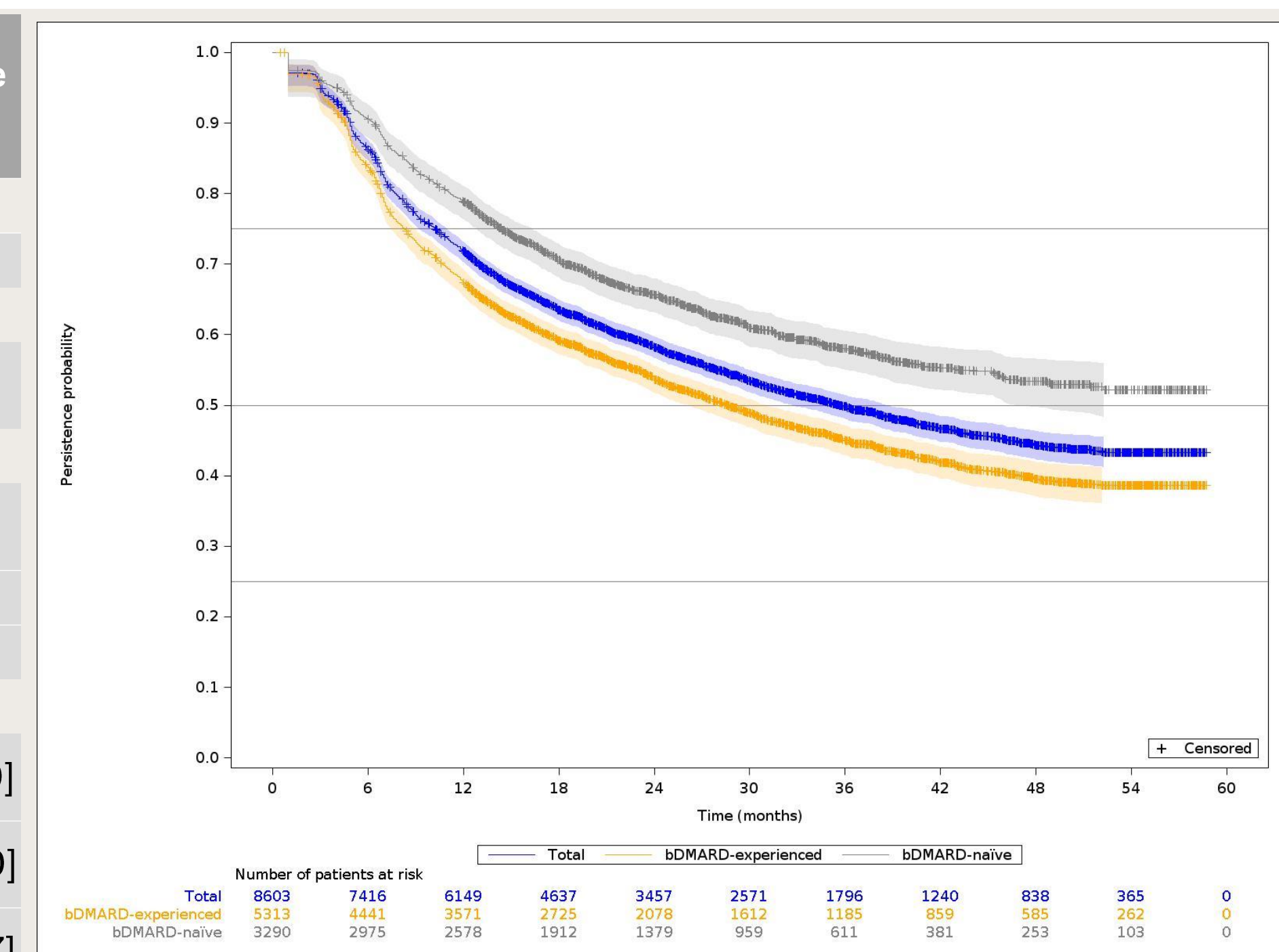
- Approximately half of the patients with psoriatic disease included persisted on guselkumab treatment up to 36 months.
- Guselkumab persistence was longer in Pso patients than in PsA patients.
- Guselkumab persistence was longer in bDMARD-naïve than in bDMARD-experienced patients for both Pso and PsA patients.



Guselkumab persistence after treatment initiation in psoriatic patients (with Kaplan-Meier curves)

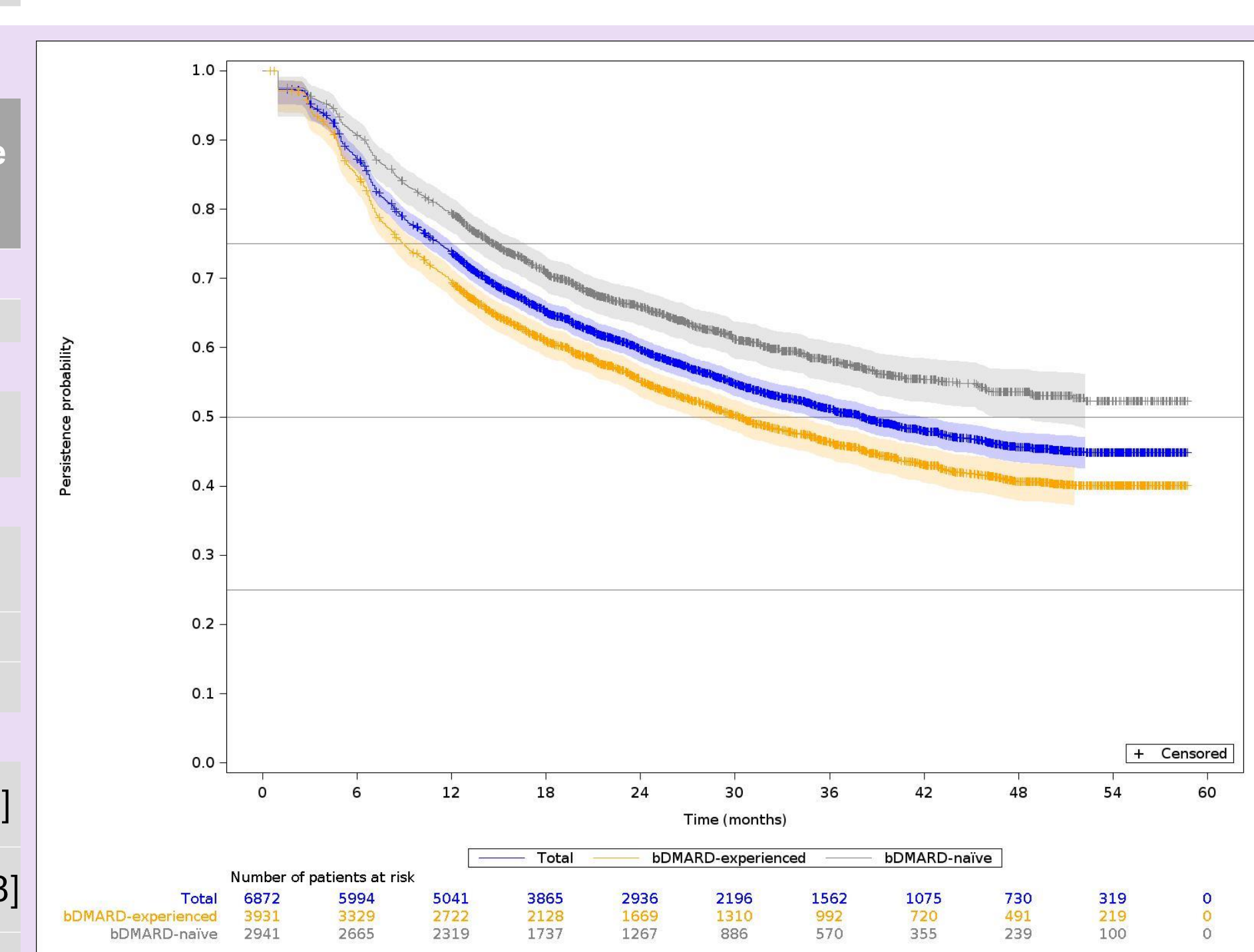
Overall psoriatic population (n=8,603)

	Total (N=8,603)	bDMARD-experienced (N=5,313)	bDMARD-naïve (N=3,290)
Guselkumab discontinuation¹, n (%)			
Yes	3,998 (46.5)	2,776 (52.2)	1,222 (37.1)
Time to guselkumab discontinuation², months			
Median [95%CI]	35.6 [33.6 - 38]	28.6 [26.9 - 30.4]	NR
Reason for censoring³, n (%)			
Patients censored	4,605 (100)	2,537 (100)	2,068 (100)
Death	91 (2)	65 (2.6)	26 (1.3)
End of study	4,514 (98)	2,472 (97.4)	2,042 (98.7)
Persistence probability, % [95%CI]			
At 12 months	71.8 [70.3 - 73.2]	67.4 [65.5 - 69.2]	78.8 [76.3 - 81.0]
At 24 months	58.2 [56.6 - 59.7]	53.7 [51.7 - 55.5]	65.6 [63.1 - 68.0]
At 36 months	49.8 [48.1 - 51.4]	45.0 [42.9 - 47.1]	58.1 [55.3 - 60.7]



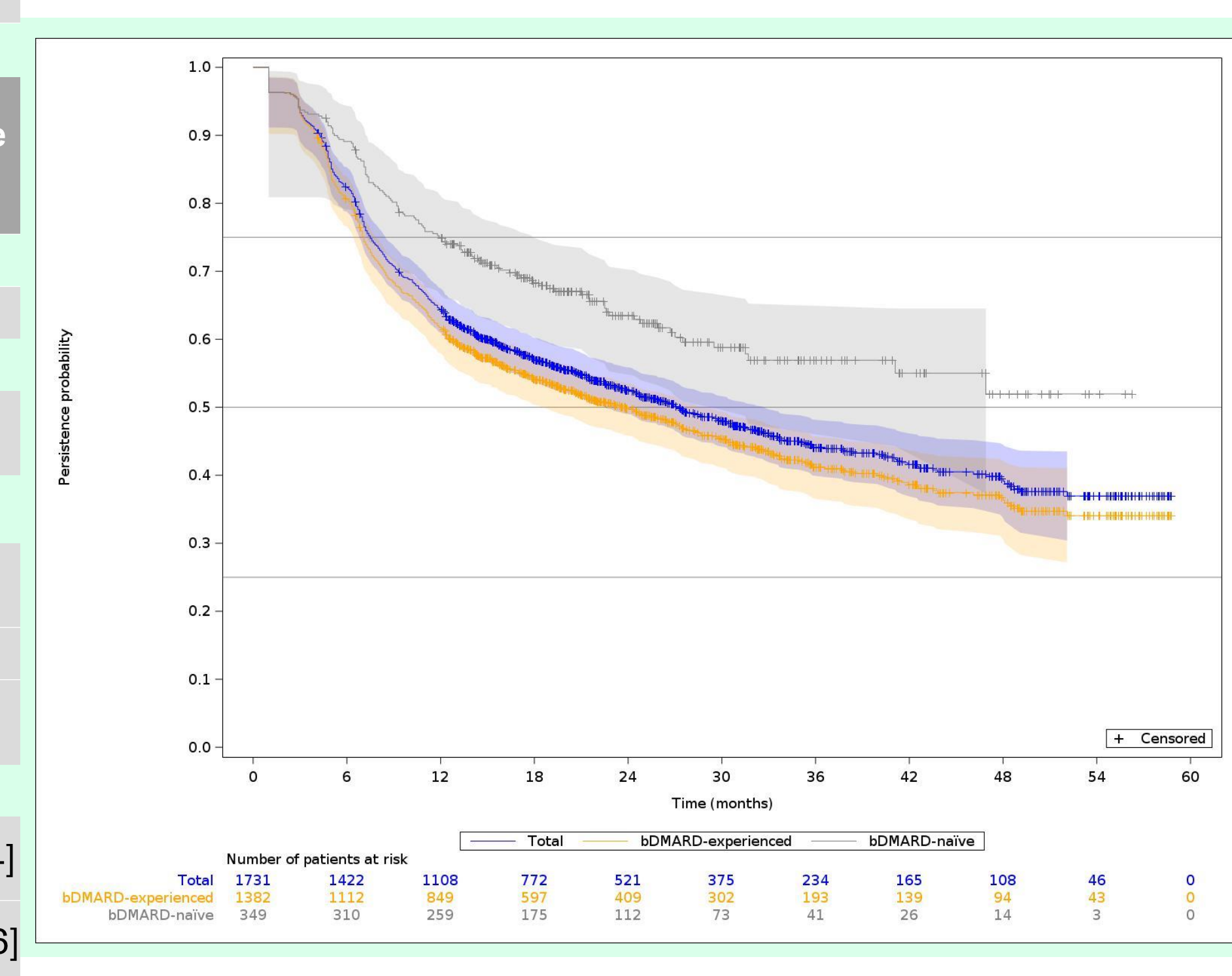
Pso subgroup (n=6,872)

	Total (N=6,872)	bDMARD-experienced (N=3,931)	bDMARD-naïve (N=2,941)
Guselkumab discontinuation¹, n (%)			
Yes	3,128 (45.5)	2,034 (51.7)	1,094 (37.2)
Time to guselkumab discontinuation², months			
Median [95%CI]	38.0 [35.6 - 40.4]	30.2 [28.3 - 32.5]	NR
Reason for censoring³, n (%)			
Patients censored	3,744 (100)	1,897 (100)	1,847 (100)
Death	68 (1.8)	45 (2.4)	23 (1.2)
End of study	3,676 (98.2)	1,852 (97.6)	1,824 (98.8)
Persistence probability, % [95%CI]			
At 12 months	73.6 [72.0 - 75.2]	69.4 [67.2 - 71.5]	79.3 [76.7 - 81.6]
At 24 months	59.6 [57.9 - 61.3]	55.1 [52.8 - 57.2]	65.8 [63.2 - 68.3]
At 36 months	51.2 [49.3 - 53.0]	46.3 [43.9 - 48.7]	58.2 [55.3 - 61.0]



PsA subgroup (n=1,731)

	Total (N=1,731)	bDMARD-experienced (N=1,382)	bDMARD-naïve (N=349)
Guselkumab discontinuation¹, n (%)			
Yes	870 (50.3)	742 (53.7)	128 (36.7)
Time to guselkumab discontinuation², months			
Median [95%CI]	27.2 [24.2 - 30.7]	23.8 [19.9 - 27.4]	NR
Reason for censoring³, n (%)			
Patients censored	861 (100)	640 (100)	221 (100)
Death	23 (2.7)	20 (3.1)	≤10 (≤4.5)
End of study	838 (97.3)	620 (96.9)	218 (95.5)
Persistence probability⁴, % [95%CI]			
At 12 months	64.4 [61.0 - 67.5]	61.7 [57.9 - 65.2]	75.0 [66.8 - 81.4]
At 24 months	52.5 [49.0 - 55.9]	49.8 [45.9 - 53.6]	63.5 [55.3 - 70.6]



¹Guselkumab discontinuation was defined as no refill in the 120 days following the latest guselkumab run-out date; ²The median of time to guselkumab discontinuation was estimated using the Kaplan-Meier method and is reported with its 95% confidence interval; ³Reason for censoring is described in patients without guselkumab discontinuation or assessment of guselkumab discontinuation only, i.e. all patients except those with guselkumab discontinuation; ⁴The follow-up of the PsA population was not sufficient to evaluate robustly the persistence at 36 months. Abbreviations in alphabetical order: CI: Confidence Interval.