COMPARISON OF PERSISTENCE RATES: TILDRAKIZUMAB VERSUS ADALIMUMAB/USTEKINUMAB BASED ON A GERMAN LONGITUDINAL PRESCRIPTION DATABASE (LRX) OF SOCIAL HEALTH INSURANCE PATIENTS IN OUTPATIENT CARE

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INTRODUCTION

- Tildrakizumab (TIL), an interleukin (IL)-23p19 inhibitor, has demonstrated effectiveness and safety in treating moderate to severe psoriasis (PsO).[1-3]
- Nonetheless, long-term comparative data with biologics, valuable for decision-makers such as clinicians and payers, are limited.[4-6]
- This study aims to evaluate the persistence of TIL in German PsO outpatients and compare it with well-established biologics: the tumour necrosis factor inhibitor adalimumab (ADA) and the IL-12/23 inhibitor ustekinumab (UST).

METHODS

Study population

- This is a retrospective, longitudinal, observational study utilizing data from the IQVIA™ German Longitudinal Prescription Data (LRx),[7] an anonymized database containing approximately 80% of social health insurance prescriptions claimed in retail pharmacies.
- The study included PsO patients (≥18 years) who were prescribed TIL, ADA or UST between May 2019 and June 2023.
- A validated in-house machine-learning model, trained on the IQVIA™ Disease Analyzer electronic medical records,[8] was used to identify PsO patients in the IQVIA™ LRx database.

Analysis

- Drug persistence, defined as the time from treatment initiation to discontinuation, showed the proportion of patients remaining on the initial therapy.
- Treatment discontinuation was defined as the absence of any prescription records for a patient beyond 180 days after the last recorded treatment. This 180-day grace period was selected to account for possible prescription refill delays in clinical practice (90 days as per the SmPC).
- Drug persistence in bio-naïve and bio-experienced patients was analysed using Kaplan-Meier curves and compared with a log-rank test.
- ADA and UST were pooled for the analysis (due to IQVIA's data privacy rules), and bio-experienced classification included prior use of any PsO-approved biologic.

RESULTS

- A total of 13,486 patients were included in the current analysis. Among TIL patients, 3,282 were bio-naïve and 2,035 bio-experienced; for ADA/UST, 5,963 were bio-naïve and 2,206 bio-experienced.
- Baseline characteristics of patients are shown in **Table 1**.
  - ✓ The mean age of patients was similar across all treatment subgroups (~50 years), being the majority of patients concentrated in the 41–60-year age group.
  - ✓ A greater proportion of the study population was male and this distribution was consistent across all treatment subgroups.
  - ✓ Dermatologists were the most frequent prescribers of TIL, accounting for the majority of prescriptions among bio-naïve (87.7%) and bio-experienced (89.1%) patients.

Table 1. Baseline characteristics

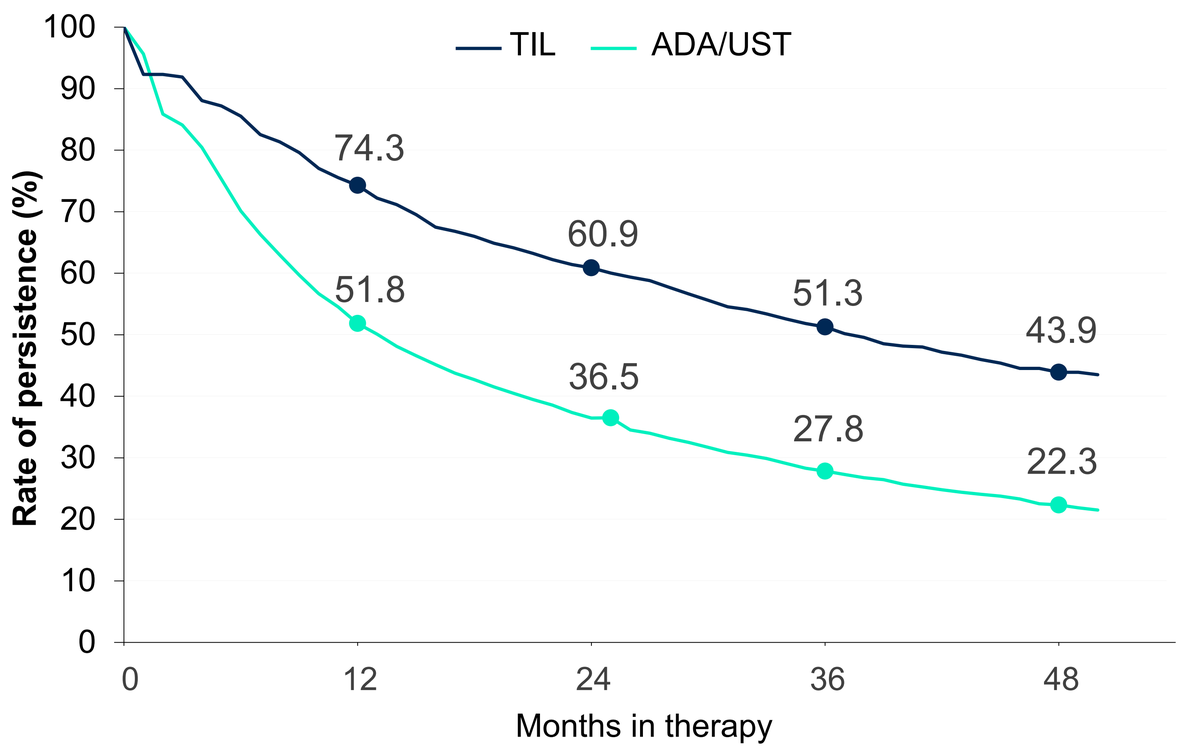
Characteristic	Bio-naïve		Bio-experienced	
	TIL n=3,282	ADA / UST n=5,963	TIL n=2,035	ADA / UST n=2,206
Age (years), mean (SD)	49.9 (15.6)	48.7 (14.7)	50.4 (14.8)	50.2 (14.0)
Age groups (years), n (%)				
≤ 40	1,109 (33.8)	1,939 (32.5)	586 (28.8)	614 (27.8)
41-60	1,372 (41.8)	2,696 (45.2)	912 (44.8)	1,053 (47.7)
> 60	801 (24.4)	1,328 (22.3)	537 (26.4)	539 (24.4)
Male, n (%)*	1,849 (60.4)	3,109 (56.0)	1,103 (58.8)	1,055 (50.8)
Specialty, n (%)				
Dermatologist	2,879 (87.7)	4,692 (78.7)	1,813 (89.1)	1,396 (63.3)
Ambulant hospital care	392 (11.9)	881 (14.8)	212 (10.4)	446 (20.2)
Others	11 (0.3)	203 (3.4)	9 (0.4)	147 (6.7)
Rheumatologist	0 (0.0)	183 (3.1)	1 (0.0)	191 (8.7)
Gastroenterologist	0 (0.0)	4 (0.1)	0 (0.0)	26 (1.2)

ADA, Adalimumab; SD, standard deviation; TIL, Tildrakizumab; UST, Ustekinumab.
*Approximately 13.6% of the study population lacked information about sex and were excluded from the sex variable to calculate proportions.

Drug persistence

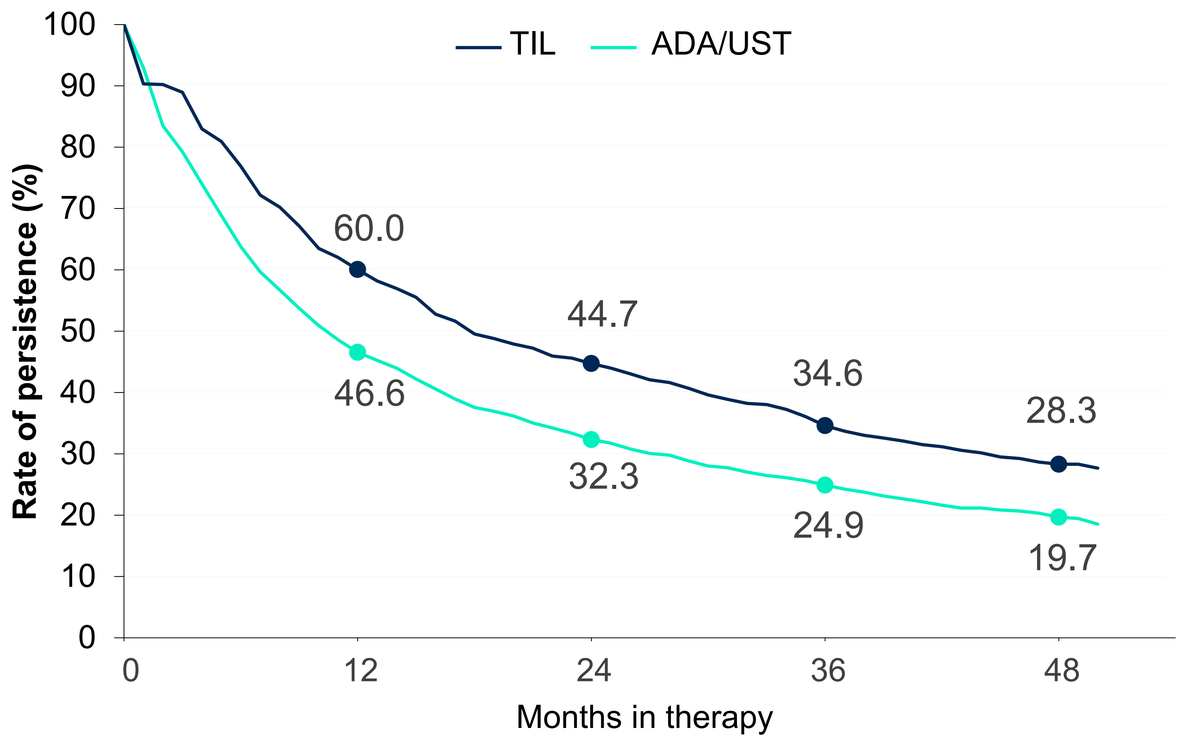
- The results of the persistence analysis using a 180-day grace period are presented in **Figure 1** and **Figure 2**.
  - ✓ After twelve months, TIL demonstrated significantly higher persistence rates than ADA/UST in both bio-naïve (74.3% vs. 51.8%; p<0.001) (**Figure 1**) and bio-experienced (60.0% vs. 46.6%; p<0.001) patients (**Figure 2**).
  - ✓ Although the persistence rate declined by 48 months in all groups, TIL continued to demonstrate significantly higher rates than ADA/UST after four years: bio-naïve: 43.9% vs. 22.3% (**Figure 1**), bio-experienced: 28.3% vs. 19.7% (**Figure 2**).

Figure 1. Drug persistence rates of TIL and ADA/UST in BIO-NAÏVE patients (180-day grace period)



ADA, Adalimumab; TIL, Tildrakizumab; UST, Ustekinumab.
The data is shown as the rate of persistence throughout the follow-up, with a maximum 180-day grace period allowed for prescription gaps.

Figure 2. Drug persistence rates of TIL and ADA/UST in BIO-EXPERIENCED patients (180-day grace period)



ADA, Adalimumab; TIL, Tildrakizumab; UST, Ustekinumab.
The data is shown as the rate of persistence throughout the follow-up, with a maximum 180-day grace period allowed for prescription gaps.

CONCLUSIONS

- After a four-year follow-up, PsO patients treated with TIL showed higher persistence compared to those treated with ADA/UST, particularly among bio-naïve patients.
- This underscores the long-term sustained efficacy of TIL for PsO patients in the German outpatient setting.

REFERENCES

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