Real-World Characterization of Patients Initiating Advanced Therapies for Moderate-to-Severe Psoriasis

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Background

Despite the high efficacy of advanced therapies (ADT), many patients with moderate-to-severe psoriasis remain untreated or undertreated[1]

Real-world data are limited regarding rates of ADT initiation, patient profiles, and size of the ADT-naïve population potentially eligible for ADT

Objectives

This real-world study of patients with psoriasis aimed to:

1. **Quantify the annual proportion of patients who initiated ADT**
2. **Characterize baseline demographic and clinical characteristics of patients who transitioned to treatment with ADT**
3. **Identify patients who are potentially ADT-eligible but undertreated, based on matched demographic and clinical characteristics**

Methods

Data source	• Closed claims from the HealthVerity taXonomy X database • Restricted to patients continuously enrolled in a commercial plan
Population	• ADT-naïve patients (age ≥12 years) with psoriasis • ≥2 diagnosis codes for psoriasis 30-365 days apart from 2010-2024
ADT usage	• First ADT between 2018 and 2024: – bDMARDs: — Anti-IL-17 (brodalumab, ixekizumab, secukinumab, bimekizumab) — Anti-IL-12/23 (ustekinumab) — Anti-IL-23 (guselkumab, risankizumab, tildrakizumab) — Anti-TNF (adalimumab, certolizumab, etanercept, infliximab) – Oral SMDs: — PDE4i (apremilast) — TYK2i (deucravacitinib)
Outcomes	• Baseline characteristics of patients initiating ADT • Proportion of patients initiating their first ADT in each study year (from 2018 to 2024) • Estimated number of ADT-naïve patients with the same demographic and clinical characteristics as those who initiated ADT – Matched with ADT initiators based on treatment history, psoriasis-related HCRU, and comorbidities (including obesity, depression, anxiety, cardiovascular disease, and hypertension)

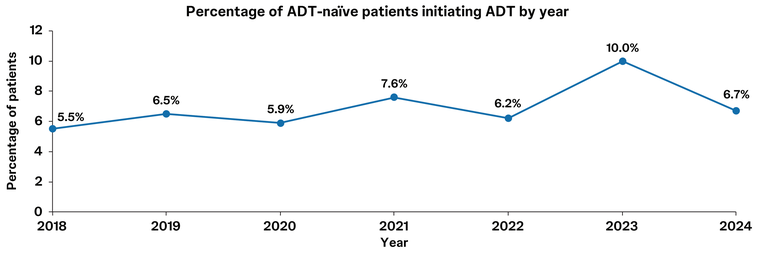
bDMARDs=biologic disease-modifying anti-rheumatic drugs, ***HCRU***=health-care resource utilization, ***PDE4i***=phosphodiesterase 4 inhibitor, ***IL***=interleukin, ***SMDs***=small molecule drugs, ***TNF***=tumor necrosis factor, ***TYK2i***=tyrosine kinase 2 inhibitor.

Key Takeaways

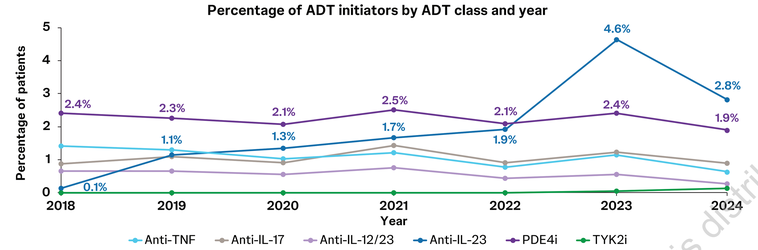
- **From 2018 to 2024, ADT initiation patterns for patients with moderate-to-severe psoriasis in this real-world cohort shifted toward more recently approved treatments**
- **Despite availability of several ADTs, many patients with moderate-to-severe psoriasis appear to remain undertreated**

Results

Estimated Percentage of ADT-Naïve Patients Initiating ADT by Year



ADT initiation increased from 5.5% in 2018 to 6.7% in 2024

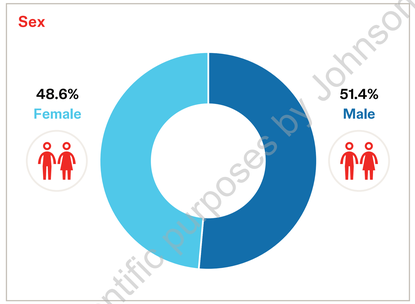


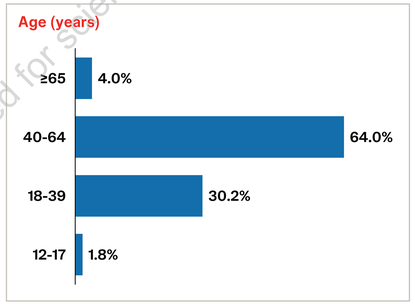
The pattern of ADT initiation by class shifted over time:

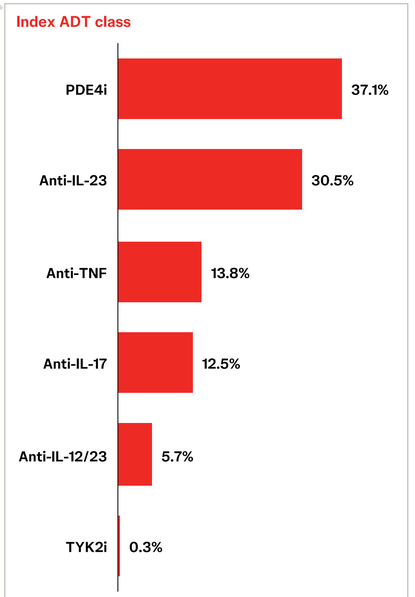
- In 2018, the most frequently initiated ADTs were apremilast (PDE4i) and anti-TNFs
- In 2024, the most frequently initiated ADTs were IL-23 inhibitors and apremilast (PDE4i)

Baseline Characteristics of Patients Initiating ADT (2018-2024)

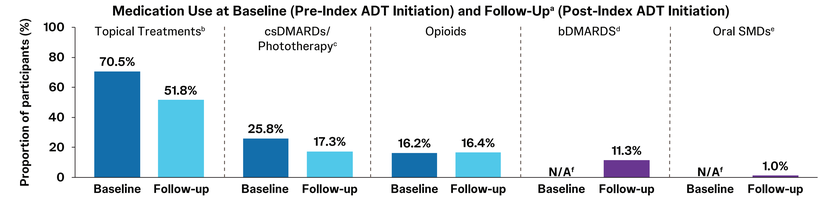
A total of 58,624 patients initiated a first ADT between 2018 and 2024







Additional Psoriasis Medication Use at Baseline and During Follow-Up[a]

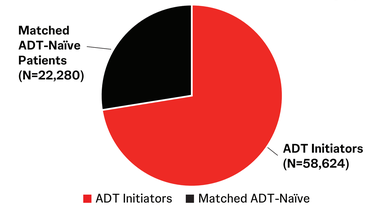


- At baseline, 70.5% of ADT initiators were using topicals and 25.8% were using older oral systemic DMARDs/phototherapy
- Adjunctive treatment persisted post-ADT initiation in 51.8% (topicals) and 17.3% (DMARDs/phototherapy) of patients

[a]Baseline and follow-up were defined as the 1-year period prior to and 1-year post, respectively, relative to the ADT initiation date. [b]Topical treatments included advanced topical therapies, vitamin D analogues, corticosteroids, topical retinoids, and topical calcineurin inhibitors. [c]csDMARDs/phototherapy included methotrexate, cyclosporine, azathioprine, leflunomide, mycophenolate, acitretin, prednisone, laser therapy, and phototherapy. [d]bDMARDs included anti-TNF (adalimumab, certolizumab, etanercept, infliximab), anti-IL-17 (brodalumab, ixekizumab, secukinumab, bimekizumab), and IL-23 (guselkumab, risankizumab, tildrakizumab). [e]Oral SMDs included PDE4i (apremilast) and TYK2i (deucravacitinib). [f]All patients were bDMARD/oral SMD naïve prior to index ADT initiation. **csDMARDs**=conventional synthetic disease modifying anti-rheumatic drugs, **N/A**=not applicable.

Estimated Number of Patients Potentially Eligible for ADT Who Did Not Receive ADT

Estimated number of ADT-naïve patients with demographic and clinical characteristics matched to ADT initiators



Matched Factors

Time Invariant
- Demographics
- Calendar year of psoriasis diagnosis

Time Dependent
- Enrollment pattern[a]
- Disease pattern[b]
- Treatment history
- General comorbidities
- Psoriasis-related comorbidities
- Psoriasis-related HCRU

- 22,280 non-ADT initiators were identified who had demographic and clinical profiles that matched the 58,624 ADT initiators
- This result suggests that approximately 28% of patients with psoriasis were potentially eligible for but did not receive ADT

[a]Enrollment patterns included year of start of continuous enrollment; year of end of continuous enrollment; continuous enrollment during the baseline period prior to index date; and continuous enrollment during the one-year period post index date. [b]Disease patterns included immune-mediated inflammatory diseases during the baseline period (i.e., plaque psoriasis, psoriatic arthritis, Crohn's disease, ulcerative colitis, ankylosing spondylitis, Behçet's disease, hidradenitis suppurativa, juvenile idiopathic arthritis, non-radiographic axial spondyloarthritis, rheumatoid arthritis, uveitis); QCCI (0, 1, 2+); and general comorbid conditions during the baseline period (i.e., cardiovascular disease, hypertension, hyperlipidemia diabetes, obesity, depression, anxiety, fatigue).

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