RWD78

Prescriber Intent Versus Treatment Initiation for Biologic Therapies in Atopic Dermatitis: A Real-World Analysis Using NorstellaLinQ US Linked e-Prescription, Claims, and Bridged Formulary Policy Data

Allison Perry, PhD, MHS[1]; Ilan Behm, MPH[1]
[1]Norstella, One Pennsylvania Plaza, New York, NY 10119 USA

Background & Objective

Moderate-to-severe atopic dermatitis (AD) carries substantial disease burden, yet treatment initiation after biologic prescribing is poorly characterized. We quantified time-to-first-fill and non-initiation after biologic e-prescribing in adults with AD, by agent, payer, and prescriber specialty.

Methods

Data Sources	NorstellaLinQ linked US e-prescription, closed claims, and bridged formulary policy data, 2022–2024.
Study Design	Retrospective real-world analysis of prescribing intent and treatment initiation.
Population	Adults (≥18 years) with ≥1 AD diagnosis (ICD-10-CM L20.x) and prescription enrollment.
Index Intent & Fill	Index prescribing intent was the first e-prescription for an AD biologic (dupilumab, tralokinumab, lebrikizumab, or nemolizumab). Time-to-first-fill was measured from e-prescription to the first matching pharmacy claim (NDC). Patients without a pharmacy claim during follow-up were classified as non-initiators.
Outcomes	Fill (initiation) rate and median time-to-first-fill, overall and by biologic agent, payer type, and prescriber specialty.

Results

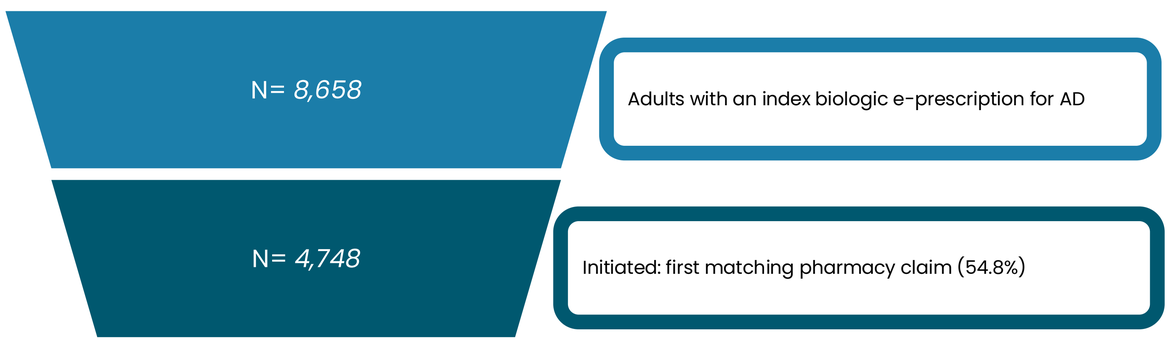
8,658
Adults with an index biologic e-prescription

4,748 (54.8%)
Initiated treatment (matching pharmacy claim)

15 days
Median time-to-first-fill (among initiators)

45.2%
Did not initiate (no pharmacy claim in follow-up)

Initiation After Index Biologic e-Prescription



Initiation by Prescriber Specialty

Prescriber Specialty	Initiation Rate	Median Days
Overall	54.8%	15 days
Dermatologist	54.1%	17 days
Non-dermatologist	55.4%	15 days

Fill Rate by Biologic Agent (%)



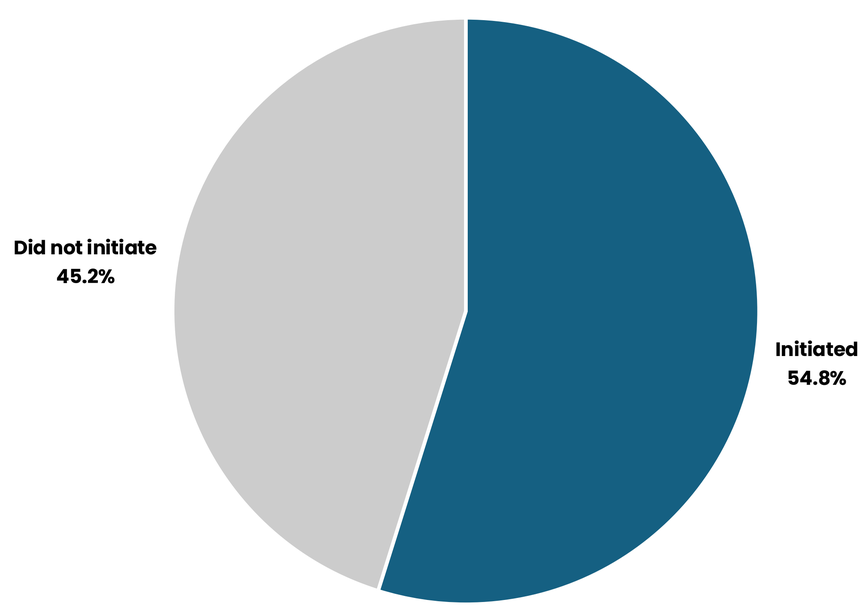
Dupilumab accounted for 97.5% of index e-prescriptions and had a 55.2% fill rate (N=8,441). Newer biologics showed lower fill rates (tralokinumab 42.1%, lebrikizumab 27.3%, nemolizumab 22.2%), but samples were small (N=197, 11, and 9), so estimates should be interpreted cautiously.

Fill Rate by Payer Type (%)



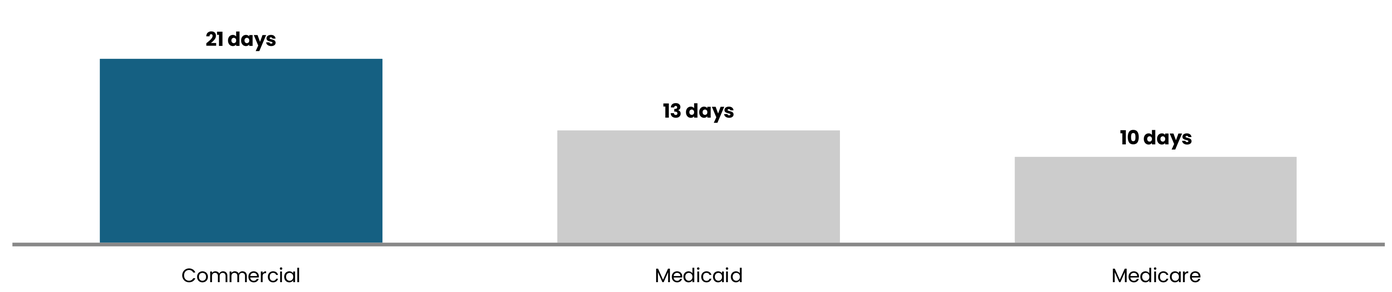
Medicaid and commercially insured patients had similar fill rates (74.1% vs 73.9%). Medicare patients had a lower fill rate (56.1%).

Initiated vs Non-Initiated Patients



4,748 of 8,658 patients (54.8%) had a matching pharmacy claim; 3,910 (45.2%) did not, nearly one-half of patients with an index biologic e-prescription.

Median Time-to-First-Fill by Payer Type (Days)



Commercially insured patients waited longest for a first fill (21 days), versus 13 days for Medicaid and 10 days for Medicare, despite a fill rate matching Medicaid.

Conclusions

1. Nearly one-half of adults with AD (45.2%) did not initiate biologic therapy after an e-prescription; those who did waited a median of 15 days.
2. Commercial and Medicaid patients had comparable initiation rates (73.9% vs 74.1%), but commercially insured patients waited markedly longer (21 vs 13 days), consistent with greater administrative or access-related barriers.
3. Linked e-prescription, payer, and claims data provide a novel view of the interval between prescribing intent and treatment initiation, informing patient access strategies and payer policy.

Key Limitations

1. Newer biologics had very small samples (N=9 to 197), so agent-level estimates should be interpreted cautiously.
2. Patients without a pharmacy claim during follow-up were classified as non-initiators; fills outside the linked claims cannot be distinguished from true non-initiation.
3. Reasons for non-initiation were not observed, so administrative or access-related barriers are inferred, not measured.

This research was sponsored by Norstella, which all authors were employed by at the time of conduct. The authors declare no conflict of interest in connection with the presented work.