



Disease Burden, Treatment Patterns, and Clinical Characteristics of Patients With Alopecia Areata (AA) Treated in United States (US) Community Practices

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BACKGROUND

- Over the past several years, the first new treatments, baricitinib, ritlecitinib, and deuruxolitinib, were approved in the US for severe alopecia areata (AA)¹⁻³
- With this shift in care, there is a need to establish a real-world benchmark of disease burden prior to widespread uptake of these therapies. Such context will allow for future evaluation of how current and future treatments may impact the patient's journey with AA

OBJECTIVE

- Using linked data from electronic health records (EHR) and a large US claims database, this study aimed to describe the demographics, clinical characteristics, disease burden, and treatment patterns in patients with AA, overall and stratified by both extent of scalp hair loss (SHL) and age

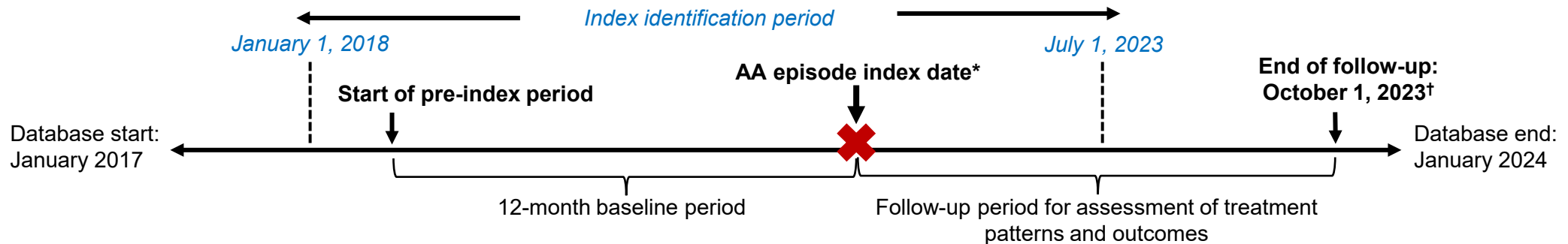
METHODS

STUDY DESIGN

- This real-world retrospective observational study used deidentified linked data from the OMNY Health Foundation (EHR data from US dermatology practices, largely community practices) and Komodo Healthcare Map® (US claims database) databases

Patient selection:

- At least 1 AA diagnosis during the index identification period
 - The index date was defined as the first observed AA diagnosis over the entire period covered by the database
- Age ≥ 6 years at index date
- ≥ 365 days of historical data before index date (baseline period)



*The date of the first observed AA diagnosis over the entire period covered by the database was defined as the index date.

†End of follow up was set to 3 months before end of date to ensure data completeness due to adjudication lag time.

VARIABLES & DATA ANALYSIS

- Demographics and clinical characteristics were characterized at index date or during the baseline period, depending on the study variable
- Treatment patterns were characterized following the index date for up to 5 lines of therapy (LOT)
- Extent of SHL was assessed by the Severity of Alopecia Tool score and overall physician assessment on index date or within 30 days after (ICD-10 code for alopecia totalis or alopecia universalis on index date were used to supplement identification of patients with 100% SHL)
- Analyses were conducted overall and stratified by extent of SHL (<25% SHL, 25%-49% SHL, 50%-99% SHL, 100% SHL, and no SHL assessment) and by age groups (pediatric: 6-11 years, adolescent: 12-17 years, adult: ≥ 18 years)

RESULTS

Patient demographics overall and by extent of SHL

- 31,834 patients with AA were included
- Over 90% of patients were ≥18 years of age and the majority of patients were female
- In total, 17.9% of all patients had an atopic disorder and 13.7% had another selected autoimmune disorder at baseline
- Most patients (62.1%) were diagnosed by a dermatologist or by an allergist & immunologist (not shown)

Characteristic	Overall N=31,834	<25% SHL n=1963	25%-49% SHL n=323	50%-99% SHL n=187	100% SHL n=944	No SHL Assessment n=28,417
Age at index, years						
Mean (SD)	42.9 (19.3)	41.9 (18.2)	43.8 (17.5)	43.4 (19.3)	51.2 (19.7)	42.7 (19.4)
6-11, n (%)	1350 (4.2)	81 (4.1)	11 (3.4)	6 (3.2)	26 (2.8)	1226 (4.3)
12-17, n (%)	1789 (5.6)	89 (4.5)	9 (2.8)	11 (5.9)	44 (4.7)	1636 (5.8)
≥18, n (%)	28,695 (90.1)	1793 (91.3)	303 (93.8)	170 (90.9)	874 (92.6)	25,555 (89.9)
Female, n (%)	20,460 (64.3)	1259 (64.1)	224 (69.4)	143 (76.5)	641 (67.9)	18,193 (64.0)
Atopic disorders, n (%)						
Any*	5693 (17.9)	346 (17.6)	58 (18.0)	39 (20.9)	203 (21.5)	5047 (17.8)
Allergic rhinitis	3086 (9.7)	178 (9.1)	30 (9.3)	15 (8.0)	95 (10.1)	2768 (9.7)
Asthma	2269 (7.1)	126 (6.4)	23 (7.1)	18 (9.6)	94 (10.0)	2,008 (7.1)
Other selected autoimmune disorders, n (%)						
Any†	4375 (13.7)	231 (11.8)	43 (13.3)	25 (13.4)	201 (21.3)	3,875 (13.6)
Diabetes mellitus	2454 (7.7)	122 (6.2)	19 (5.9)	13 (7.0)	116 (12.3)	2184 (7.7)
Psoriasis	784 (2.5)	49 (2.5)	10 (3.1)	5 (2.7)	26 (2.8)	694 (2.4)

AA, alopecia areata; ADHD, attention deficit hyperactivity disorder; SHL, scalp hair loss. *Also includes atopic dermatitis, conjunctivitis, celiac disease, and chronic urticaria. †Also includes rheumatoid arthritis, Hashimoto's disease, systemic lupus erythematosus, ulcerative colitis, Sjögren's syndrome, Crohn's disease, vitiligo, psoriatic arthritis, ankylosing spondylitis, and juvenile idiopathic arthritis.

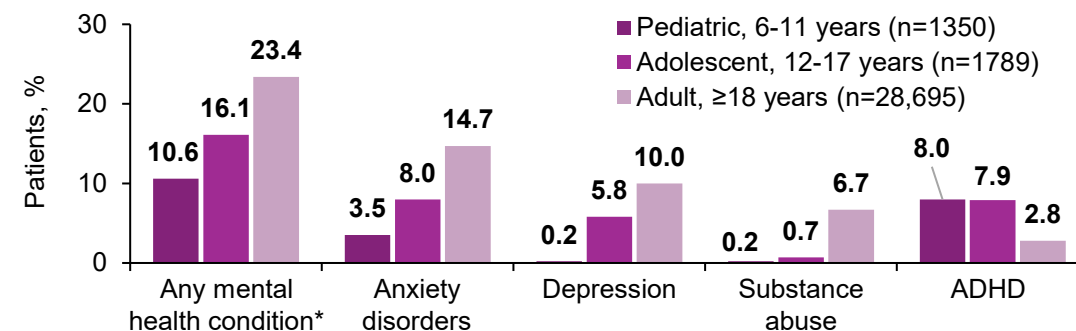
Reported disease location

- The head and face were the most commonly reported affected anatomical regions overall and across age groups (**Table**) and across SHL groups (head, 45.0%-86.1%; face, 22.8%-35.9%)

Reported disease location, n (%)	Overall N=31,834	6-11 years n=1350	12-17 years n=1789	≥18 years n=28,695
Head	18,061 (56.7)	778 (57.6)	1052 (58.8)	16,231 (56.6)
Face	7518 (23.6)	190 (14.1)	267 (14.9)	7061 (24.6)
Shoulder/Trunk	236 (0.7)	0 (0.0)	7 (0.4)	229 (0.8)
Arm	224 (0.7)	9 (0.7)	7 (0.4)	208 (0.7)
Leg	167 (0.5)	3 (0.2)	6 (0.3)	158 (0.6)
Genitalia	26 (0.1)	0 (0.0)	0 (0.0)	26 (0.1)
Hand	6 (<0.1)	1 (0.1)	0 (0.0)	5 (<0.1)
Unknown	10,293 (32.3)	502 (37.2)	646 (36.1)	9145 (31.9)

Baseline mental health comorbidities

- Overall, mental health conditions were observed in 1 in 5 patients at baseline, and rates increased with age (**Figure**)
- Higher rates of any mental health condition were observed in patients with ≥25% SHL vs <25% SHL (24.8%-26.6% vs 19.9%)



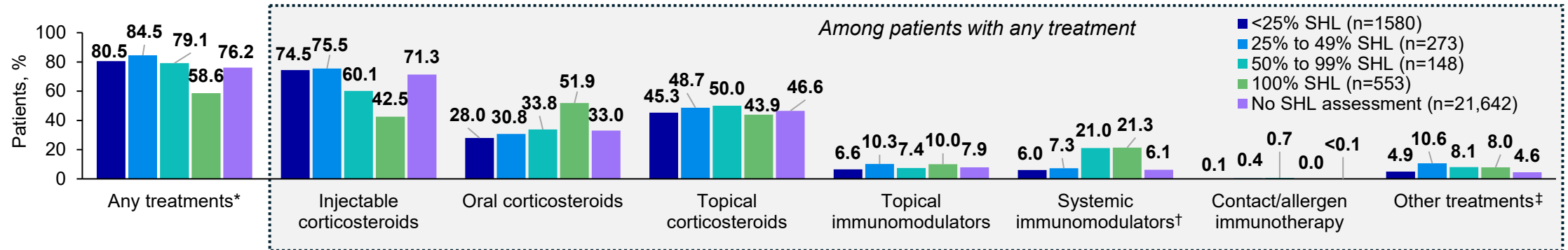
*Also includes obsessive-compulsive disorder

RESULTS

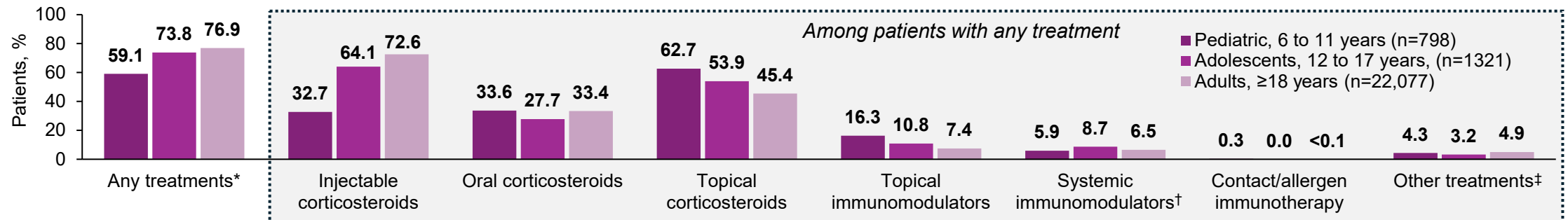
Treatments received by patients with AA anytime on or after index date by extent of SHL and by age group

- One in 4 patients overall did not receive any treatments post index, with rates of 41.4% in patients with 100% SHL and 40.9% in pediatric patients
- Injectable corticosteroids (CS) were the most commonly used treatments across most SHL groups and in adults and adolescents, while oral CS were predominant in patients with 100% SHL and topical CS were predominant in pediatric patients (**Figures**)
- Injectable CS were also the most common first LOT used following diagnosis (data not shown) across the majority of SHL groups (except 100% SHL, where oral CS were most common) and in adults and adolescents

Treatments during follow-up by extent of SHL



Treatments during follow-up by age group



AA, alopecia areata; LOT, line of therapy; SHL, scalp hair loss. *Percentages calculated using the total number of patients included in each group: <25% SHL (n=1963), 25%-49% SHL (n=323), 50%-99% SHL (n=187), 100% SHL (n=944), no SHL assessment (n=28,417), pediatric (n=1350), adolescents (n=1789), and adults (n=28,695). †Includes azathioprine, cyclosporine, methotrexate, mycophenolate mofetil, sulfasalazine, dupilumab, and Janus kinase inhibitors. ‡Other treatments include oral and topical minoxidil, bimatoprost, and light therapy (narrow-band ultraviolet B, excimer laser, and psoralen ultraviolet A).

RESULTS & CONCLUSIONS

Duration of treatment in patients with AA by LOT

- Short treatment duration (median: 0.20-4.27 months across drug classes) was observed (**Table**)

Duration of treatment*, median, months	LOT 1	LOT 2	LOT 3
Oral corticosteroids	0.23	0.20	0.23
Other treatments†	3.00	3.27	4.27
Systemic immunomodulators	3.00	3.10	2.93
Topical corticosteroids	1.00	1.00	1.00
Topical immunomodulators	1.00	1.00	1.00
Combination therapy‡	1.93	1.93	1.93
Contact/allergen immunotherapy	N/A	1.00	1.00

*Discontinuation was defined as a treatment gap of ≥ 60 consecutive days. †Other treatments include oral and topical minoxidil, bimatoprost, and light therapy (narrow band ultraviolet B, excimer laser, and psoralen ultraviolet A). ‡Combination therapy refers to more than one type of drug class at the same time (eg, use of systemic immunomodulator + topical treatment).

LIMITATIONS

- Disease extent and extent of scalp hair loss were not systematically collected for all patients
- Treatment patterns were identified based on prescriptions filled; however, there is no information in the databases to confirm if the medication was consumed or taken as prescribed or to confirm reasons for treatment decisions
- Study results may not be generalizable outside of the insured population

Treatment sequences by extent of SHL

- The top 15 most common treatment sequences accounted for 45% to 63% of treatments received across SHL groups and 58% to 65% of treatments across age groups
- High variability in treatment sequences was observed across SHL groups (**Table**) and age groups

Treatment sequences, top 10, n (%)	SHL <25% n=1963	SHL 25%-49% n=323	SHL 50%-99% n=187	SHL 100% n=944	No SHL Assessment n=28,417
Injectable CS	380 (24.1)	54 (19.8)	21 (14.2)	54 (9.8)	4208 (19.4)
Topical CS	149 (9.4)	16 (5.9)	16 (10.8)	44 (8.0)	1930 (8.9)
Injectable CS → injectable CS	101 (6.4)	12 (4.4)	5 (3.4)	10 (1.8)	1259 (5.8)
Oral CS	62 (3.9)	8 (2.9)	8 (5.4)	77 (13.9)	1116 (5.2)
Injectable CS + topical CS	78 (4.9)	10 (3.7)	2 (1.4)	5 (0.9)	662 (3.1)
Injectable CS → oral CS	55 (3.5)	9 (3.3)	3 (2.0)	11 (2.0)	634 (2.9)
Injectable CS → injectable CS → injectable CS	20 (1.3)	6 (2.2)	1 (0.7)	7 (1.3)	529 (2.4)
Topical CS → topical CS	28 (1.8)	2 (0.7)	2 (1.4)	14 (2.5)	423 (2.0)
Injectable CS → topical CS	27 (1.7)	4 (1.5)	1 (0.7)	7 (1.3)	360 (1.7)
Topical CS → oral CS	16 (1.0)	1 (0.4)	3 (2.0)	10 (1.8)	299 (1.4)

CONCLUSIONS

- The **head and face** were the **most commonly affected body regions reported** at the time of diagnosis across all groups
- A substantial proportion of patients did not receive treatment over the observation period, particularly those with 100% SHL; however, this may reflect the relatively short observation period (2017-2023) and prior treatment history in patients with longstanding disease, rather than current undertreatment
- High variability across treatment sequences** and **short treatment duration** suggest high heterogeneity in prescribing patterns and unmet treatment needs