Patients with atopic dermatitis not on systemic therapy have high rates of severe, uncontrolled disease, and considerable impact on quality of life

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BACKGROUND AND OBJECTIVE

- The decision to start systemic therapy in patients with atopic dermatitis (AD) is complex and should include assessment of disease severity, patients' quality-of-life and preferences, prior topical therapy use, and comorbidities.[1,2]
- Racial/ethnic differences exist in sociodemographic, clinical and treatment characteristics, disease severity, and patient-reported outcomes (PROs) among real-world patients with AD who are candidates for systemic therapy.[3]
- This cross-sectional study described the overall disease burden, sociodemographic and clinical characteristics, and disease activity among patients with moderate-to-severe AD who were newly prescribed systemic therapy with those not prescribed systemic therapy at the time of enrollment.

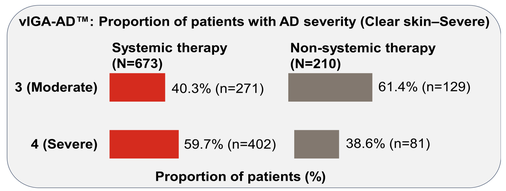
KEY RESULTS

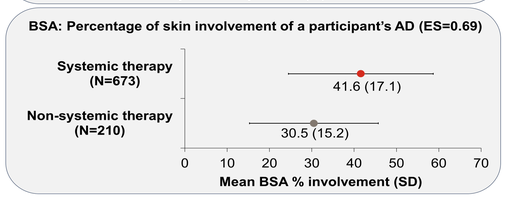
Sociodemographic characteristics

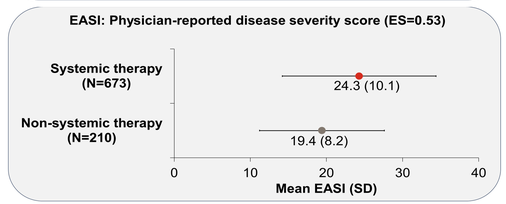
Characteristics	Systemic therapy N=673	Non-systemic therapy N=210	Effect size
Age	N=673	N=209	0.15
Mean (SD), years	50.7 (18.9)	48.0 (19.1)	
Sex, n (%)	N=673	N=209	0.04
Male	299 (44.4)	102 (48.8)	
Female	374 (55.6)	107 (51.2)	
Race, n (%)	N=673	N=209	0.19
White	474 (70.4)	127 (60.8)	
Black	92 (13.7)	14 (6.7)	
Asian	58 (8.6)	38 (18.2)	
Other[a]	49 (7.3)	30 (14.4)	
Ethnicity, n (%)	N=671	N=209	0.12
Not Hispanic or Latino	629 (93.7)	180 (86.1)	
Hispanic or Latino	42 (6.3)	29 (13.9)	
Health insurance type[b], n (%)	N=673	N=210	
Private	427 (63.4)	124 (59.0)	0.04
Medicare	138 (20.5)	38 (18.1)	0.03
Medicaid	93 (13.8)	38 (18.1)	0.05
Veteran Affairs/Military/Uninsured	38 (5.6)	11 (5.2)	0.01
Geographic region, n (%)	N=673	N=210	0.30
USA			
Northeast	66 (9.8)	10 (4.8)	
Midwest	283 (42.1)	90 (42.9)	
South	216 (32.1)	32 (15.2)	
West	57 (8.5)	65 (31.0)	
Canada	51 (7.6)	13 (6.2)	

[a]Other race includes patients who selected multiple races, American Indian or Alaskan Native, Native Hawaiian or Other Pacific Islander, or 'Other' race. [b]Not mutually exclusive. Canadians were coded as 0. Each type of insurance is binary. N, total number of patients; n, number of patients reporting the information; SD, standard deviation.

Non-systemic therapy group had elevated rates of severe disease at enrollment based on vIGA-AD™=4 (39%) and mean BSA involvement (31%).

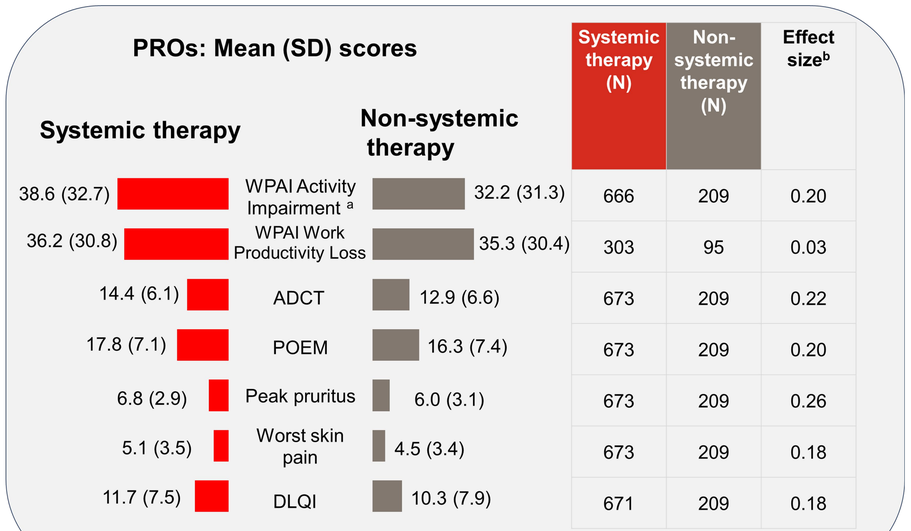






AD, atopic dermatitis; BSA, body surface area; EASI, Eczema Area Severity Index; ES, effect size; vIGA, validated Investigator Global Assessment; SD, standard deviation.

PRO scores for the non-systemic therapy group indicate elevated burden from AD on quality of life and disease control.



	Systemic therapy (N)	Non-systemic therapy (N)	Effect size[b]
WPAI Activity Impairment [a]	666	209	0.20
WPAI Work Productivity Loss	303	95	0.03
ADCT	673	209	0.22
POEM	673	209	0.20
Peak pruritus	673	209	0.26
Worst skin pain	673	209	0.18
DLQI	671	209	0.18

[a]WPAI absenteeism, presenteeism, and work productivity loss were calculated for patients reporting non-zero hours affected/worked in the past 7 days for the associated measures. [b]ES was calculated using Cohen's d and were small. AD, atopic dermatitis; ADCT, Atopic Dermatitis Control Tool; DLQI, Dermatology Life Quality Index; ES, effect size; PROs, patient-reported outcomes; POEM, Patient-Oriented Eczema Measure; WPAI: Work Productivity and Activity Impairment; SD, standard deviation.

CONCLUSION

- Patients prescribed systemic therapy at enrollment had more severe disease, increased disease burden, decreased quality of life, and less disease control compared to those not on systemic therapy.
- Elevated rates of severe, uncontrolled AD in the non-systemic therapy group indicate potential delayed or undertreatment of patients, highlighting an unmet need.
- The decision to initiate a systemic therapy is multifactorial. Factors including disease severity and patient-reported disease burden should be taken into consideration to improve care.

METHODS

STUDY POPULATION

Patients enrolled in CorEvitas AD Registry

N=2786

21-July-2020 → 31-December-2022

Patients with moderate-to-severe AD included in the study[a]

N=883

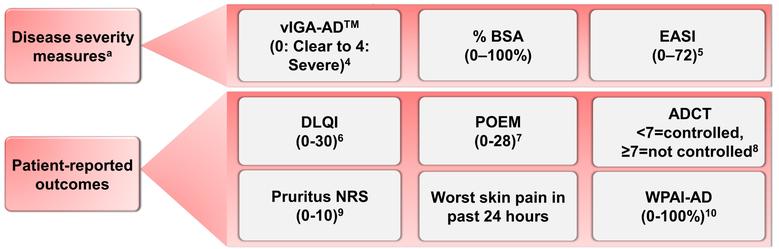
vIGA-AD™ ≥3 and EASI ≥12

Patients newly prescribed eligible systemic therapy at enrollment (N=673)[b,c]

Patients not prescribed an eligible systemic therapy at enrollment (N=210)[d]

[a]Patients on systemic therapy before enrollment were excluded. [b]Eligible systemic therapy included biologics (tralokinumab-ldrm, dupilumab, secukinumab, ustekinumab, risankizumab-rzaa, ixekizumab, and omalizumab), small molecules (abrocitinib, upadacitinib, baricitinib, apremilast, and tofacitinib), and non-biologic systemics (azathioprine, cyclosporine, methotrexate, mycophenolate mofetil, mycophenolic acid, and tacrolimus). [c]Prescription topical therapy use at enrollment (n=564; 83.8%). [d]Prescription topical therapy use at enrollment (n=185; 88.1%). AD, atopic dermatitis; EASI, Eczema Area Severity Index; vIGA, validated Investigator Global Assessment.

ASSESSMENTS AT ENROLLMENT



[a]Health care practitioner-accessed disease severity measures. AD, atopic dermatitis; ADCT, Atopic Dermatitis Control Tool; BSA, body surface area; DLQI, Dermatology Life Quality Index; EASI, Eczema Area Severity Index; NRS, numeric rating scale; POEM, Patient-Oriented Eczema Measure; QoL, quality of life; vIGA-AD, validated Investigator Global Assessment for AD; WPAI, Work Productivity and Activity Impairment.

EFFECT SIZE INTERPRETATION

	Small	Medium	Large
Cohen's d (continuous variables)	d ≈ 0.2	d ≈ 0.5	d ≈ 0.8
Cohen's w (categorical variables with two groups)	w ≈ 0.1	w ≈ 0.3	w ≈ 0.5
Cramer's V (categorical variables with more than two groups)	V ≥0.1 and <0.3	V ≥0.3 and <0.5	V >0.5

Differences in means or proportions of characteristics among systemic and non-systemic groups were descriptively summarized using effect sizes.

DISCLOSURES

Eric Simpson: Dr. Simpson reports personal fees from Advances in Cosmetic Medical Derm Hawaii LLC, AbbVie, Amgen, AOBiome LLC, Arcutis Biotherapeutics, Arena Pharmaceuticals, Aslan Pharma, Boehringer-Ingelheim USA, Inc., Boston Consulting Group, Bristol Myers Squibb – BMS, Collective Acumen LLC (CA), CorEvitas, Dermira, Eli Lilly, Evelo Biosciences, Evidera, ExcerptaMedica, FIDE, Forte Bio RX, Galderma, GlaxoSmithKline, Incyte, Janssen, Johnson & Johnson, Kyowa Kirin Pharmaceutical Development, Leo Pharma, Medscape LLC, Merck, MauiDerm, MLG Operating, MJH holding, Pfizer, Physicians World LLC, PRIme, Regeneron, Revolutionizing Atopic Dermatitis Inc., Roivant, Sanofi-Genzyme, Trevi therapeutics, Valeant, Vindico Medical education, WebMD. Dr. Simpson reports grants (or serves as Principal investigator role) from AbbVie, Acrotech Biopharma Inc., Amgen, Arcutis, Aslan, Castle Biosciences, CorEvitas, Dermavant, Dermira, Eli Lilly, Incyte, Kymab, Kyowa Kirin, National Jewish Health, Leo, Pfizer, Regeneron, Sanofi, and Target RWE. These potential conflicts of interest have been reviewed and managed by OHSU. **Christian Fenske:** Employment and stockholder, Eli Lilly and Company. **Alvin Li:** Employee of CorEvitas, LLC and stockholder, Eli Lilly and Company. **Zach Dawson:** Employment and stockholder, Eli Lilly and Company. **Yolanda Muñoz Maldonado:** Employee of CorEvitas, LLC. **Kaylee Ho:** Employee of CorEvitas, LLC. **Kayla Callahan:** Employee of CorEvitas, LLC and stockholder, Eli Lilly and Company. **Linda Stein Gold:** Investigator, advisor and/or speaker for Lilly, BMS, UCB, Pfizer, Sanofi, Regeneron, Dermavant, Arcutis, Sun, Incyte, Leo, Aslan. **Seemal Desai:** Dr. Desai is currently performing paid consulting services. He has previously been an advisor for Lilly and also performed consulting and/or clinical for multiple organizations. **Alexandra Golant:** Dr. Golant has received consulting or speaker fees from: Regeneron, Sanofi, AbbVie, Incyte, Dermavant, Lilly, Leo Pharma, Arcutis, Janssen, Amgen, Pfizer. **Douglas DiRuggiero:** Industry speaker bureau and advisory boards: AbbVie, Amgen, Arcutis, BMS, Incyte, Janssen, Lilly, Novartis, Sanofi/Regeneron, UCB. **Jonathan I. Silverberg:** Jonathan Silverberg has received honoraria as a consultant and/or advisory board member for AbbVie, AOBiome, Arcutis, Alamar, Amgen, Arena, Asana, Aslan, BioMX, Biosion, Bodewell, Boehringer-Ingelheim, Cara, Castle Biosciences, Celgene, Connect Biopharma, Dermavant, Dermira, Dermtech, Eli Lilly, Galderma, GlaxoSmithKline, Incyte, Kinikxa, Leo Pharma, Menlo, Novartis, Optum, Pfizer, RAPT, Regeneron, Sanofi-Genzyme, Shaperon, Union; speaker for AbbVie, Eli Lilly, Leo Pharma, Pfizer, Regeneron, Sanofi-Genzyme; institution received grants from Galderma, Pfizer. **CorEvitas LLC:** This study was sponsored by CorEvitas, LLC. CorEvitas has been supported through contracted subscriptions in the last two years by AbbVie, Amgen, Inc., Arena, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Chugai, Eli Lilly and Company, Genentech, Gilead Sciences, Inc., GlaxoSmithKline, Janssen Pharmaceuticals, Inc., LEO Pharma, Novartis, Ortho Dermatologics, Pfizer, Inc., Regeneron Pharmaceuticals, Inc., Sanofi, Sun Pharmaceutical Industries Ltd., and UCB S.A.

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