Unmet needs in atopic dermatitis treated with current biologic therapies: results from an international cross-sectional cohort study

Raj Chovatiya,[1,2] Paul Dillon,[3] Rosie Fielding,[4] Oliver Howell,[4] Joe Rastrick,[5] Veerle Vanvoorden,[6] Alan D. Irvine[7]

[1]Rosalind Franklin University of Medicine and Science, Chicago Medical School, North Chicago, IL, USA;
[2]Center for Medical Dermatology + Immunology Research, Chicago, IL, USA; [3]UCB, Bulle, Switzerland; [4]Adelphi Real World, Bollington, UK;
[5]UCB, Slough, UK; [6]UCB, Brussels, Belgium; [7]Clinical Medicine, Trinity College Dublin, Dublin, Ireland.

Disclosures:
RC has served as an advisor, consultant, speaker, and/or investigator for AbbVie, ACELYRIN, Alumis, Amgen, AnaptysBio, Apogee Therapeutics, Arcutis Biotherapeutics, argenx, Astria Therapeutics, Avalere Health, Beiersdorf, Boehringer Ingelheim, Bristol Myers Squibb, Cara Therapeutics, Castle Biosciences, Celldex, CLn Skin Care, Dermavant, Eli Lilly and Company, EMD Serono, Formation Bio, Forte Biosciences, Galderma, Genentech, GSK, Incyte, Inmagene, Johnson & Johnson, Kenvue, LEO Pharma, L'Oréal, Nektar Therapeutics, Nia Health, Novartis, OPSIDIO, Organon, Pfizer, RAPT, Regeneron, Sanofi, Sitryx, Takeda, TRex Bio, UCB, and Zai Lab.
PD, JR, and VV are employees of UCB and may hold shares and/or stock options.
RF and OH are employees of Adelphi Real World, acted as consultants to UCB for this analysis, and have no other conflicts of interest.
ADI is a speaker, advisory board member, and/or investigator for AbbVie, Almirall, Connect BioPharma, Eli Lilly and Company, LEO Pharma, OM Pharma, Pfizer, RAPT Therapeutics, Regeneron, and Sanofi.

To access the presentation, scan the QR code
Link expiration: 27 June 2026

Acknowledgments:
Data collection was undertaken by Adelphi Real World as part of an independent survey, the Adelphi Atopic Dermatitis Disease Specific Programme™ (DSP). The DSP is a wholly owned Adelphi product and is the intellectual property of Adelphi Real World. The analysis described here used data from the Adelphi Atopic Dermatitis DSP. UCB was one of multiple subscribers to the DSP and did not influence the original survey through either contribution to the design of questionnaires or data collection. All authors had access to the data results, and participated in the development, review, and approval of this abstract. No honoraria or payments were made for authorship. This study was funded by UCB.
The authors acknowledge Jackie van Bueren, BSc (UCB, Slough, UK) for publication coordination. The authors acknowledge Marjorie Rummelt (Omnicom Health Medical Communications) for writing and editorial assistance, in accordance with GPP 2022, which was funded by UCB.

A real-world study investigating unmet needs with biologic therapies in AD

Analysis of physician-measured and patient-reported outcomes from 525 patients with AD who received dupilumab or tralokinumab[a] for ≥3 months

Background

For moderate-to-severe AD, biologic therapies targeting Th2 cytokines are among the most widely used systemic therapies[1]

However, key unmet medical needs remain, including suboptimal treatment responses and impaired QoL[2,3]

Methods

Retrospective data analysis from the Adelphi Real World Atopic Dermatitis Disease Specific Programme™

- Cross-sectional cohort study August 2022-July 2023
- Adults with moderate-to-severe AD and physicians
- US, UK, France, Germany

Two physician-measured outcomes were analyzed

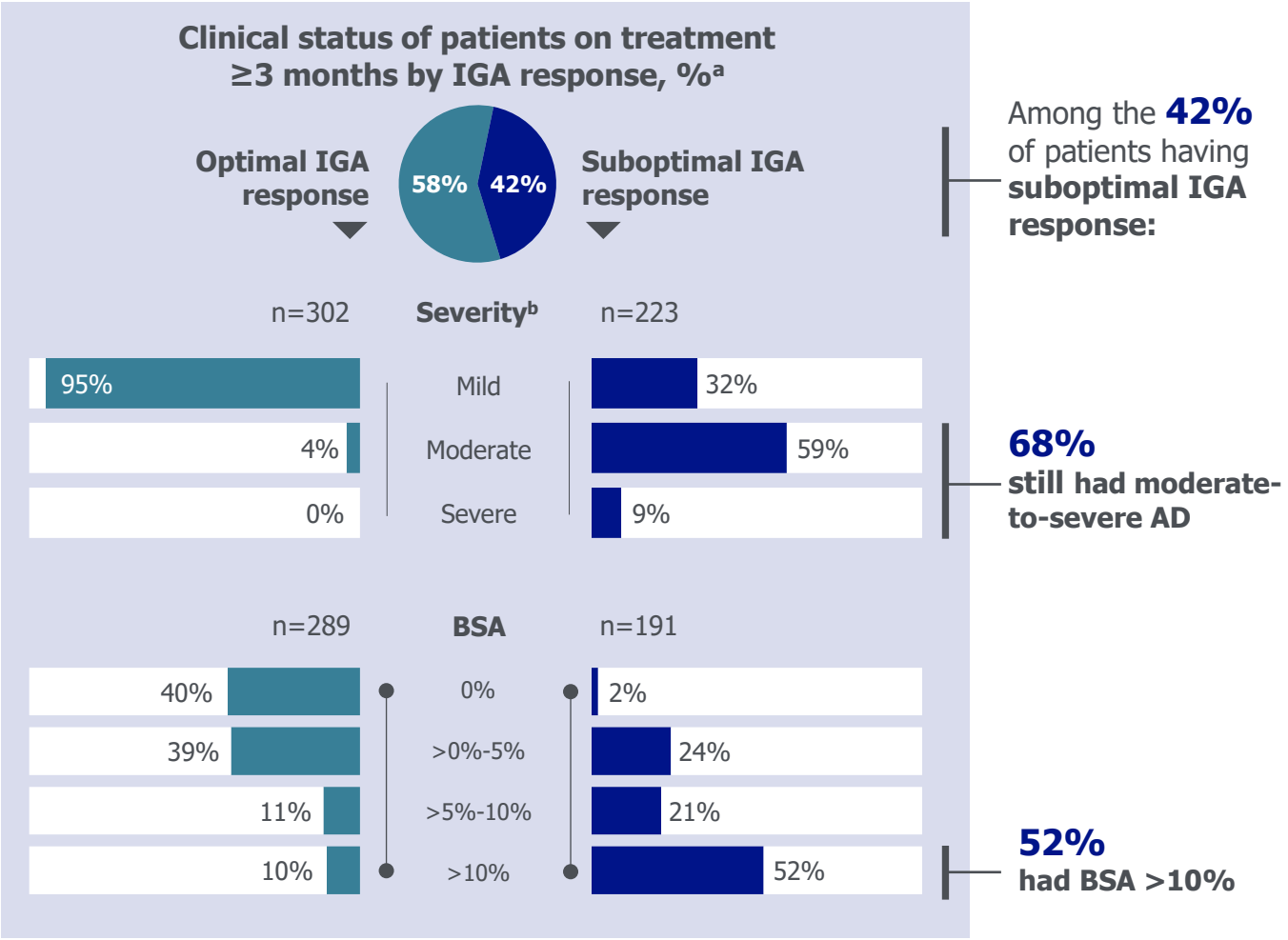
1. **IGA response**
   - Optimal: IGA 0 or 1
   - Suboptimal: IGA 2-4
2. **Physicians' perception of treatment response**
   - Adequate: treatment satisfaction & no flare & no AD deterioration
   - Inadequate: treatment dissatisfaction, flare, or AD deterioration

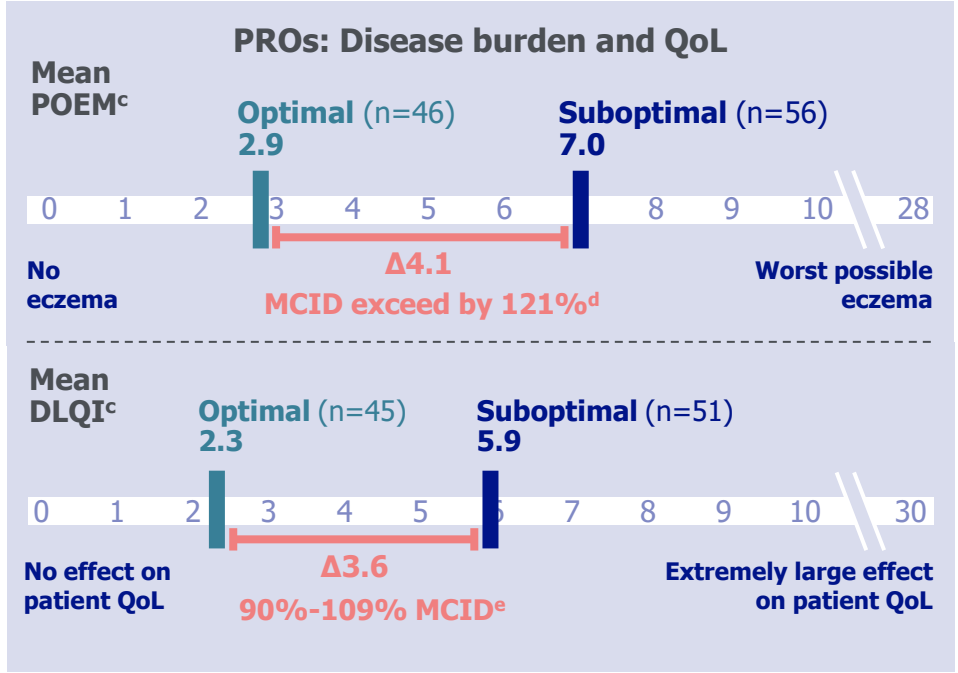
Patient and clinical characteristics	Overall, N=525	IGA response: Optimal (0 or 1), n=302 (58%)	IGA response: Suboptimal (2-4), n=223 (42%)	Physician's perception of treatment response: Adequate, n=439 (84%)	Physician's perception of treatment response: Inadequate, n=86 (16%)
Mean age, years	39.6	39.3	39.9	39.3	41.0
Male sex, %	53	53	54	53	55
Female sex, %	47	47	46	47	45
Country, %					
US	40	34	48	40	42
France	32	36	26	34	21
Germany	18	16	20	16	24
UK	10	14	6	10	13
Current biologic therapy, % (n)					
Dupilumab (IL-4/IL-13)	50 (263)	53 (161)	46 (102)	48 (212)	59 (51)
Tralokinumab (IL-13)	50 (262)	47 (141)	54 (121)	52 (227)	41 (35)
Combination therapy, %[b]	62	60	66	58	87

[a] Lebrikizumab and nemolizumab were not included in this analysis due to recency of their marketing authorizations; **[b]** Combination therapy was defined as biologic therapy (dupilumab or tralokinumab) and ≥1 nonadvanced systemic therapy; the most common were corticosteroids, emollients, and topical calcineurin inhibitors; patients receiving Janus kinase inhibitors or other biologics were excluded from study.
AD, atopic dermatitis; IGA, Investigator Global Assessment; IL, interleukin; QoL, quality of life; Th2, T helper 2.

1. Silverberg JI *et al. JAAD Int.* 2024;15:127-130. 2. Lobefaro F *et al. Biomedicines.* 2022;10:2927. 3. Cork MJ *et al. J Dermatolog Treat.* 2020;31:606-614.

A considerable proportion of patients (42%) experienced suboptimal response to ≥3 months of biologic therapy and had poor PROs





Sample sizes for POEM and DLQI analyses were limited due to low PRO assessment completion rates[c]

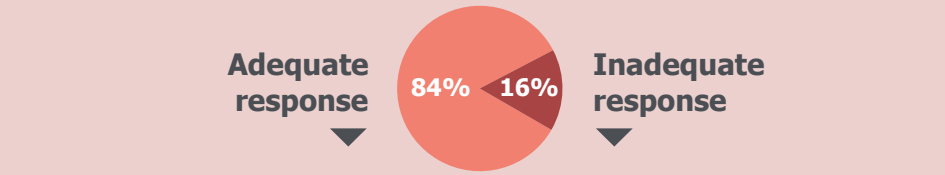
Patients with **suboptimal IGA response** showed **poor outcomes** across multiple clinical and PRO measures

[a] Optimal IGA response was defined as having an IGA score of 0 or 1 and suboptimal response defined as an IGA score of 2-4; **[b]** Disease severity was assessed using a clinician rate scale of mild, moderate, or severe, unrelated to other scales; **[c]** Data are from 46 optimal responders and 56 suboptimal responders who completed a patient self-completion questionnaire; **[d]** The MCID for POEM is 3.4[1]; **[e]** The MCID for DLQI is 3.3-4.0.[2]
AD, atopic dermatitis; BSA, body surface area; DLQI, Dermatology Life Quality Index; IGA, Investigator Global Assessment; MCID, minimal clinically important difference; POEM, Patient-Oriented Eczema Measure; PRO, patient-reported outcome; QoL, quality of life.
1. Schram ME *et al. Allergy*. 2012;67:99-106. 2. Basra MKA *et al. Dermatology*. 2015;230:27-33.

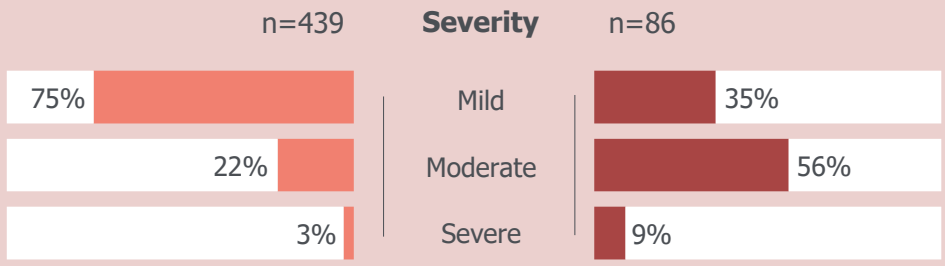
However, only 16% of patients were perceived by physicians as having an inadequate response

Patients with **inadequate response** as perceived by physicians also showed **poor outcomes** across multiple clinical measures

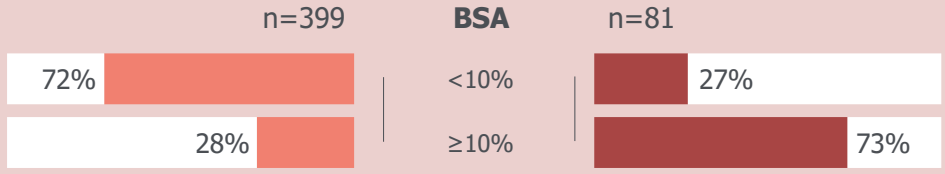
Clinical status of patients on treatment ≥3 months according to physician's perception of response, %[a,b]



Of the **16%** of patients perceived by physicians as having **inadequate response:**



65%
had moderate-to-severe AD



73%
had BSA >10%

[a] Adequate treatment response was defined as being satisfied with treatment and there was neither flare nor AD deterioration; **[b]** In patients classified as adequate or inadequate responders by the physician, IGA was 0-1 in 64% and 21% of patients, respectively; IGA was 2-4 in 36% and 79% of patients, respectively.
AD, atopic dermatitis; BSA, body surface area; IGA, Investigator Global Assessment.

Summary and study limitations

There was misalignment between optimal/suboptimal response according to IGA and adequate/inadequate response as perceived by physicians

Physician's perception of response was considerably more favorable than outcomes assessed through standardized measures

These real-world findings underscore the persistent unmet needs associated with single pathway inhibition of Th2 inflammation

Key study design limitations:

- Selection biases from non-random sampling and arbitrary setting of 3-month threshold
- Attrition bias excluding patients with therapy use <3 months

Outlook

Innovative therapeutics targeting inflammatory pathways beyond Th2 cytokines may potentially address current unmet needs in AD

To access the presentation, scan the QR code
Link expiration: 27 June 2026

AD, atopic dermatitis; IGA, Investigator Global Assessment; Th2, T helper 2.