

The impact of seborrheic dermatitis on quality of life: A Dermatology Life Quality Index benchmarking analysis

David H. Chu MD, PhD¹; Brett Stephenson, PharmD¹; Jeff Lee, PharmD, FCCP²; Breyanne Bannister, PharmD, MS²; Matthew Zirwas, MD³

¹ Arcutis Biotherapeutics, Inc., Westlake Village, CA; ² Lumanity Inc., Bethesda, MD; ³ DOCS Dermatology, Probity Medical Research, and Ohio University, Bexley, OH

INTRODUCTION

- Seborrheic dermatitis (SD) is a common chronic, inflammatory dermatologic disease characterized by red patches, flaking scales, and persistent itch¹
- While there are data to support the quality of life (QOL) impacts of other dermatologic conditions such as plaque psoriasis (PsO) and atopic dermatitis (AD), there is no published evidence assessing the impacts of SD in US or Canadian patient populations
- STRATUM is a Phase III clinical trial that evaluated roflumilast foam 0.3% in patients with moderate-to-severe SD.² To address current gaps, STRATUM also measured patient-reported QOL in SD using the Dermatology Life Quality Index (DLQI)²
- The DLQI is a validated questionnaire used to assess the impact of various skin conditions on QOL (Table 1), where higher scores indicate a greater impact (Table 2)³
- The objective of this analysis was to quantify the impact of SD on QOL and assess its impact relative to other dermatologic conditions using published DLQI data

METHODS

- A pragmatic literature review was conducted in PubMed to identify US- or Canada-based randomized controlled trials (RCTs) with DLQI data for PsO or AD. Literature was supplemented with relevant dermatologic data from Arcutis
- Key study details and mean baseline DLQI data were extracted from included studies and evaluated by condition and disease severity using descriptive statistics
- The mean baseline DLQI score for SD from the STRATUM trial was extracted and qualitatively benchmarked against baseline DLQI scores identified in the targeted literature review

Table 1. Dermatology Life Quality Index (DLQI)²

The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick one box for each question.

Very much A lot A little Not at all

Q1. How itchy, sore, painful, or stinging has your skin been?
 Q2. How embarrassed or self-conscious have you been because of your skin?
 Q3. How much has your skin interfered with you going shopping or looking after your home or garden?
 Q4. How much has your skin influenced the clothes you wear?
 Q5. How much has your skin affected any social or leisure activities?
 Q6. How much has your skin made it difficult for you to do any sports?
 Q7. How much has your skin been a problem at work or studying?
 Q8. How much has your skin created problems with your partner or any of your close friends or relatives?
 Q9. How much has your skin caused any sexual difficulties?
 Q10. How much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?

Note: "Not relevant" may be selected for the following questions: Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10.
 Key: ADL, activities of daily living; DLQI, Dermatology Life Quality Index; QOL, quality of life.

Table 2. DLQI score categories²

The DLQI is calculated by summing the score of each question resulting in a maximum of 30 and a minimum of 0. The higher the score, the more QOL is impaired.

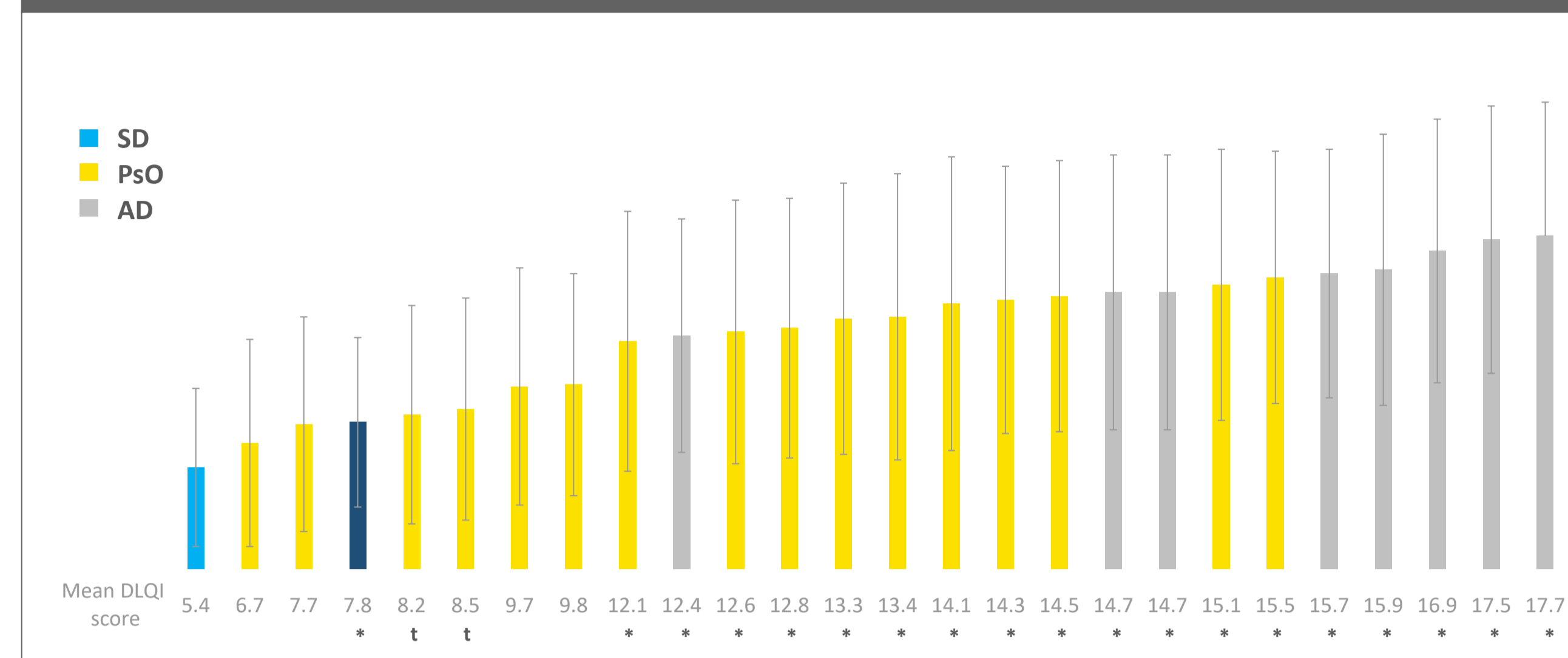
- 0-1 = no effect
- 2-5 = small effect
- 6-10 = moderate effect
- 11-20 = very large effect
- 21-30 = extremely large effect

Key: DLQI, Dermatology Life Quality Index; QOL, quality of life.

RESULTS

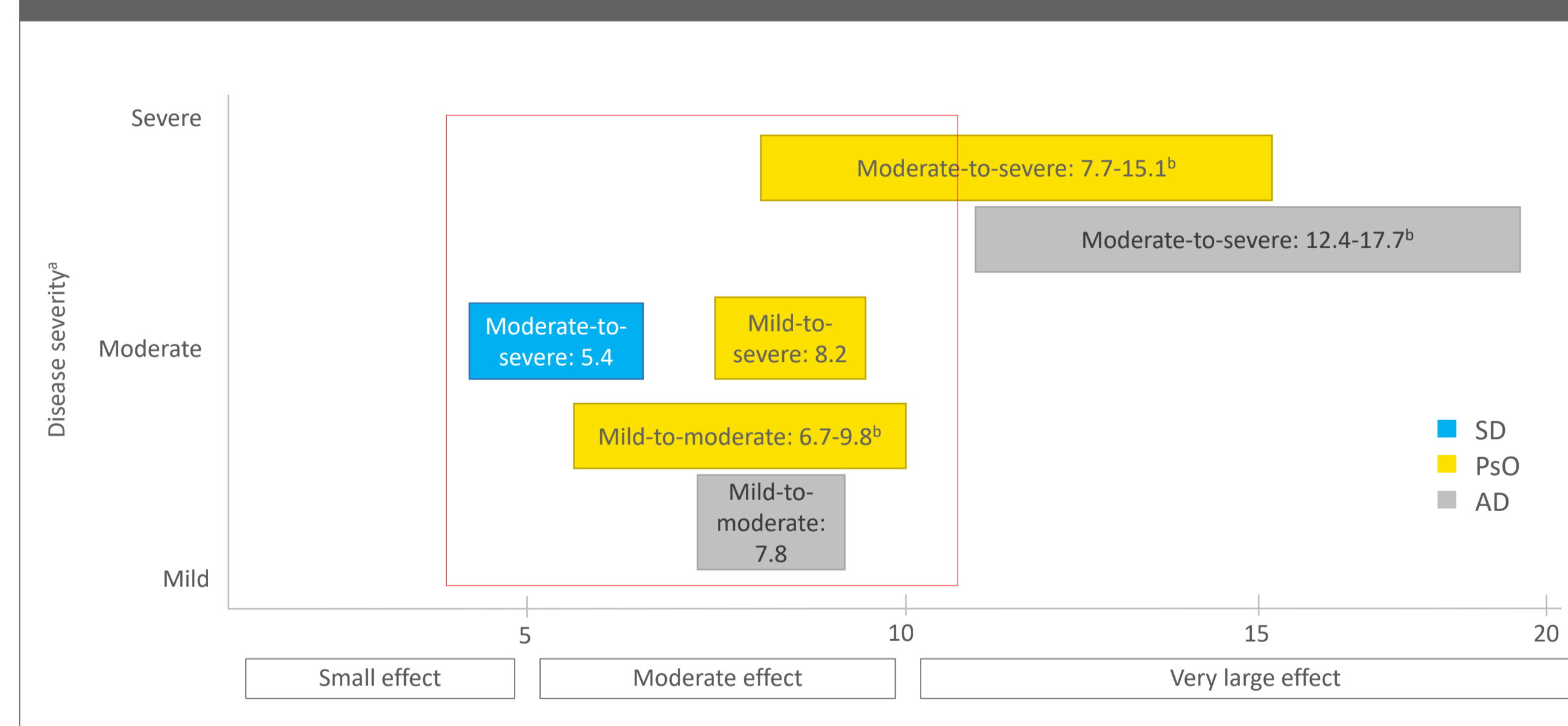
- A total of 23 studies were included in data extraction (15 for PsO; 8 for AD). Baseline patient characteristics were similar across studies; disease severity ranged from mild to severe, and measures differed by study population
- Mean baseline DLQI scores for PsO and AD ranged from 6.7 to 17.7 (Figure 1). The mean baseline DLQI score for patients with moderate-to-severe SD in STRATUM was 5.4 (standard deviation: 4.19), aligning with a moderate effect on QOL (Figure 2)
- Studies evaluating patients with mild-to-moderate disease reported DLQI scores of 6.7 to 9.8 for PsO and 7.8 for AD, also falling in the moderate QOL effect category (Figure 2). DLQI scores for moderate-to-severe PsO and AD were generally higher (PsO: 7.7 to 15.1; AD: 12.4 to 17.7)
- Among the PsO and AD studies with the most similar DLQI scores to SD, some baseline patient characteristics for disease severity (including involvement of visible areas such as the face, Investigator Global Assessment, worst-itch numerical rating scale) were comparable across studies (Figure 3)

Figure 1. Mean baseline DLQI scores across SD, AD, and PsO studies



* Reflects a moderate-to-severe patient population. † Reflects a mild-to-severe patient population.
 Note: Error bars represent standard deviation. Scores not labeled reflect mild-to-moderate patient populations. Some studies report multiple baseline DLQI scores; therefore, the sum of reported scores may be greater than the number of studies included in data extraction.
 Key: AD, atopic dermatitis; DLQI, Dermatology Life Quality Index; PsO, plaque psoriasis; RCT, randomized controlled trial; SD, seborrheic dermatitis.

Figure 2. Mean baseline DLQI score by dermatologic condition and disease severity



Note: Figure is not to scale and is for illustrative purposes only.
^a Primarily based on EASI (AD-specific), PASI (psoriasis-specific), IGA, and BSA. ^b Represents the range of mean DLQI scores across included studies.
 Key: AD, atopic dermatitis; DLQI, Dermatology Life Quality Index; PsO, plaque psoriasis; SD, seborrheic dermatitis; QOL, quality of life.

LIMITATIONS

- Mean DLQI scores for moderate-to-severe SD and mild-to-moderate AD were based on single studies and may not fully represent the respective patient populations
- This analysis excluded participants from STRATUM aged 9 to < 17 years. Therefore, results would need to be confirmed in younger patients
- Baseline study characteristics apart from dermatologic condition and disease severity were not accounted for and may have impacted the results

Figure 3. Baseline patient characteristics by dermatologic condition and disease severity

Disease severity	Moderate-to-severe SD	Mild-to-moderate PsO		Mild-to-moderate AD
Mean DLQI score	5.4	6.7	7.7	7.8
Baseline patient characteristics				
Study	STRATUM (N = 475) ²	Gold et al., 2022 ⁴	Tanghetti et al., 2021 ⁵	INTEGUMENT-1/2 ²
Age, mean (standard deviation)	42.7 (17.0)	51.7 (14.1)	43.1 (13.2)	27.9 (19.36)
Male, n (%)	228 (49.9)	56 (51.4)	56 (65.0)	395 (44.7)
BSA involvement (%), mean (standard deviation)	2.9 (2.2)	6.3 (4.0)	3.8 (0.8)	13.51 (11.76)
IGA 3, n (%)	428 (93.7)	84 (77.1)	213 (91.8)	NR
IGA 4, n (%)	29 (6.3)	8 (7.3)	19 (8.2)	NR
WI-NRS, mean (standard deviation)	5.0 (2.3)	6.1 (2.7)	NR	6.06 (2.15)

Key: AD, atopic dermatitis; BSA, body surface area; DLQI, Dermatology Life Quality Index; IGA, Investigator Global Assessment; NR, not reported; PsO, plaque psoriasis; QOL, quality of life; SD, seborrheic dermatitis; WI-NRS, worst itch numerical rating scale.

CONCLUSIONS

- The results suggest that QOL impacts vary within and across the evaluated dermatologic conditions, with mean DLQI scores ranging from moderate to very large QOL effects
- Most DLQI scores were indicative of a moderate QOL effect. Relative to PsO and AD, QOL impacts associated with moderate-to-severe SD are generally lower but comparable to those with mild-to-moderate PsO and AD studied with topical therapies
- A qualitative assessment of studies with similar DLQI scores to STRATUM demonstrated some similar baseline characteristics for disease severity, further supporting the comparability in QOL impacts seen among moderate-to-severe SD and mild-to-moderate PsO and AD
- Our findings provide new insights into the significant patient impacts of SD relative to other dermatologic conditions. Future research is needed to understand the impacts of QOL on health-related outcomes in SD

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