P4079

Secukinumab skin clearance is associated with greater improvements in skin-related quality of life

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Background

- Secukinumab, a fully human monoclonal antibody that selectively targets interleukin-17A, has demonstrated strong and sustained efficacy with a favorable safety profile in phase 3 studies in the treatment of moderate-to-severe plaque psoriasis[1,2,3]
- Previous research has shown that improvement of 90% or better with respect to baseline Psoriasis Area and Severity Index (PASI) response is correlated with health-related quality-of-life improvement[4,5]

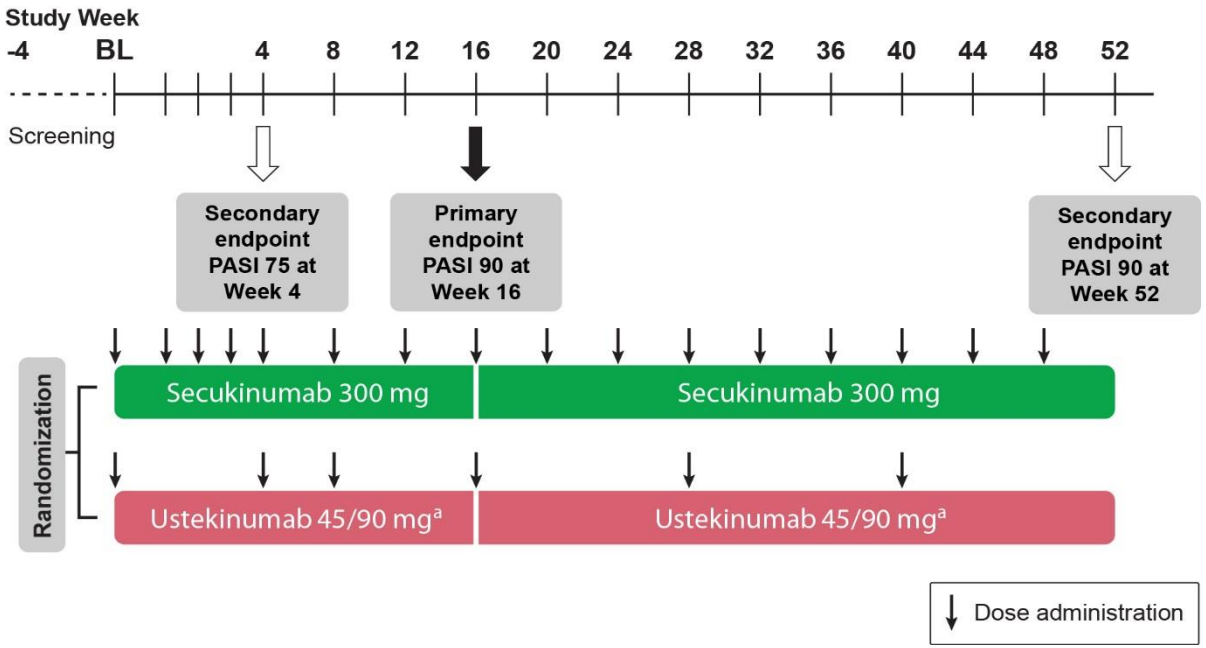
Objective

- To explore the relationship between skin-related quality of life as measured by the Dermatology Life Quality Index (DLQI) and skin clearance as measured by the PASI

Analysis From a Phase 3b Study of Secukinumab in Psoriasis

CLEAR is a randomized, double-blind, parallel-group superiority (head-to-head secukinumab vs. ustekinumab) phase 3b trial (NCT02074982)[6]

Study Design



Primary Endpoint

- PASI 90 response at week 16

Exploratory Endpoint

- Changes in DLQI

DLQI = Dermatology Life Quality Index; PASI 90 = 90% improvement from baseline on PASI score; PASI = Psoriasis and Severity Index.
Note: After the week 52 database lock, secukinumab subjects will enter extended treatment phase (up to week 104).
[a] Ustekinumab dose was based on body weight: 45 mg for subjects ≤ 100 kg; 90 mg for subjects > 100 kg.

Methods

PASI

- Clinician-reported measure evaluating the head, trunk, upper limbs, and lower limbs for the severity and body surface area coverage of erythema, thickening (plaque elevation, induration), and scaling (desquamation)[7,8,9]
- PASI response was categorized based on percentage reduction in PASI total score from baseline:
  - PASI 75-89 and PASI 90-100
- PASI was assessed at each visit

DLQI

- Patient-reported measure evaluating quality of life impacted by skin problems using 10 questions
  - Total and subscale scores (symptoms and feelings, daily activities, leisure, work and school, personal relationships, and treatment) are computed
  - Total DLQI score ranges from 0 (no effect on patient's life) to 30 (extremely large effect on patient's life)
  - DLQI response was defined as "no effect" of skin problems on health-related quality of life (DLQI total score of 0 or 1; 0 for subscales and item scores)
- DLQI was completed at baseline and weeks 4, 8, 12, 16, 28, 48, and 52

Statistical Methods

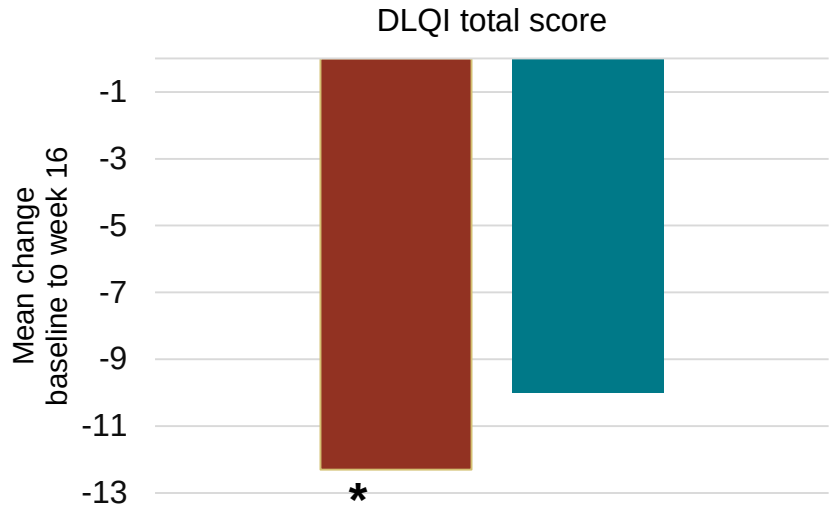
- Analyses were conducted using data from patients randomized to secukinumab treatment arm who achieved PASI 75 -100 at Week 16
- Mean change from baseline to week 16 was assessed using analysis of covariance with baseline score as covariates; differences between PASI groups were determined using least square means and 95% confidence intervals
- Proportions of DLQI responders for all items, subscales, and total scores up to week 16 by PASI groups were compared using Pearson's chi-squared test statistics
- Missing values for DLQI were imputed using last observation carried forward. PASI response was based on observed data

Baseline DLQI Subscale and Item Scores Were Similar Between PASI Response Groups

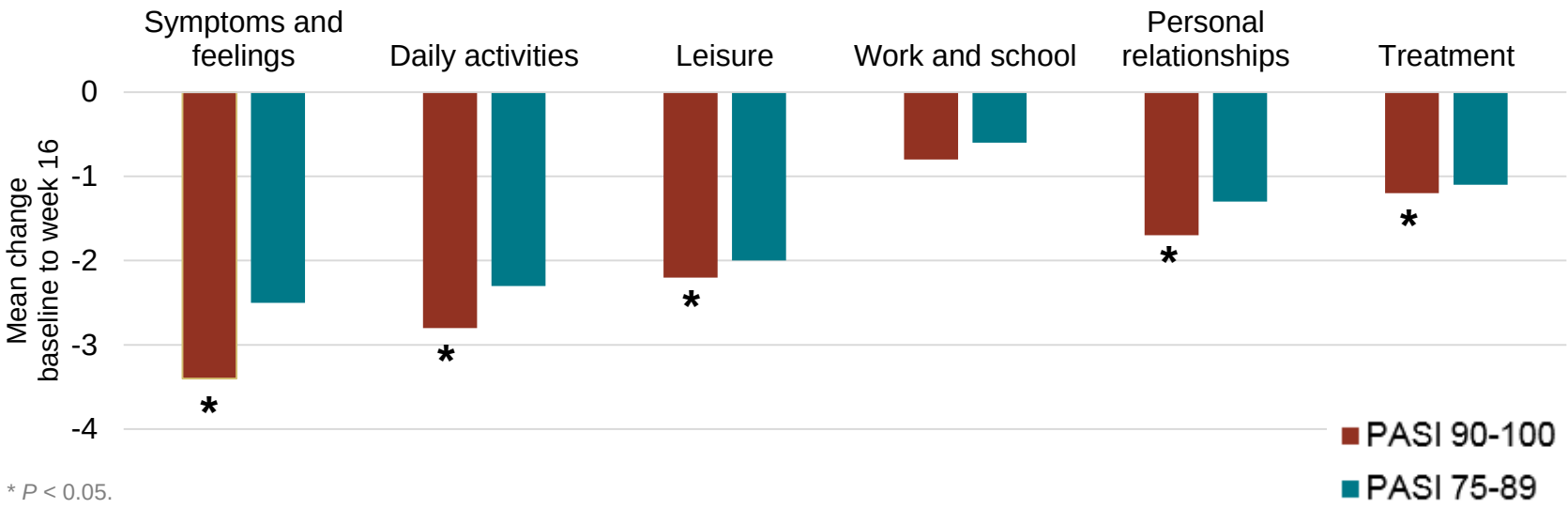
	PASI 90-100 at Week 16, Mean (SD) (n = 264)	PASI 75-89 at Week 16, Mean (SD) (n = 46)
DLQI total score	13.4 (7.47)	13.0 (8.69)
Symptoms and feelings subscale	4.0 (1.54)	3.8 (1.67)
Daily activities subscale	2.9 (1.87)	2.8 (2.11)
Leisure subscale	2.4 (2.13)	2.4 (2.36)
Work and school subscale	0.9 (1.08)	0.8 (1.14)
Personal relationship subscale	1.8 (1.86)	1.7 (2.11)
Treatment subscale	1.2 (1.13)	1.3 (1.10)
q1. Itchy, sore, painful, or stinging	2.0 (0.83)	2.0 (0.81)
q2. Embarrassed or self-conscious	2.0 (0.95)	1.8 (1.09)
q3. Interfere with shopping or home or garden	1.1 (1.00)	1.1 (1.14)
q4. Skin influence the clothes worn	1.8 (1.13)	1.7 (1.24)
q5. Social/leisure activities	1.4 (1.18)	1.3 (1.26)
q6. Difficult to do any sport	1.0 (1.17)	1.2 (1.27)
q7. Work and school	1.0 (1.09)	0.8 (1.15)
q8. Problems with partner/friends/relatives	1.0 (1.00)	0.8 (1.09)
q9. Sexual difficulties	0.9 (1.06)	0.9 (1.16)
q10. Treatment a problem	1.3 (1.13)	1.4 (1.09)

SD = standard deviation.
Note: Among the 310 secukinumab-treated patients included in the analysis, 85.2% (n = 264) achieved PASI 90-100 response at week 16 and 14.8% (n = 46) achieved PASI 75-89 response at week 16.

Patients who Achieved PASI 90-100 Response at Week 16 Had Greater Improvements in DLQI Total and Subscale Scores Than Patients Who Achieved PASI 75-89 Response

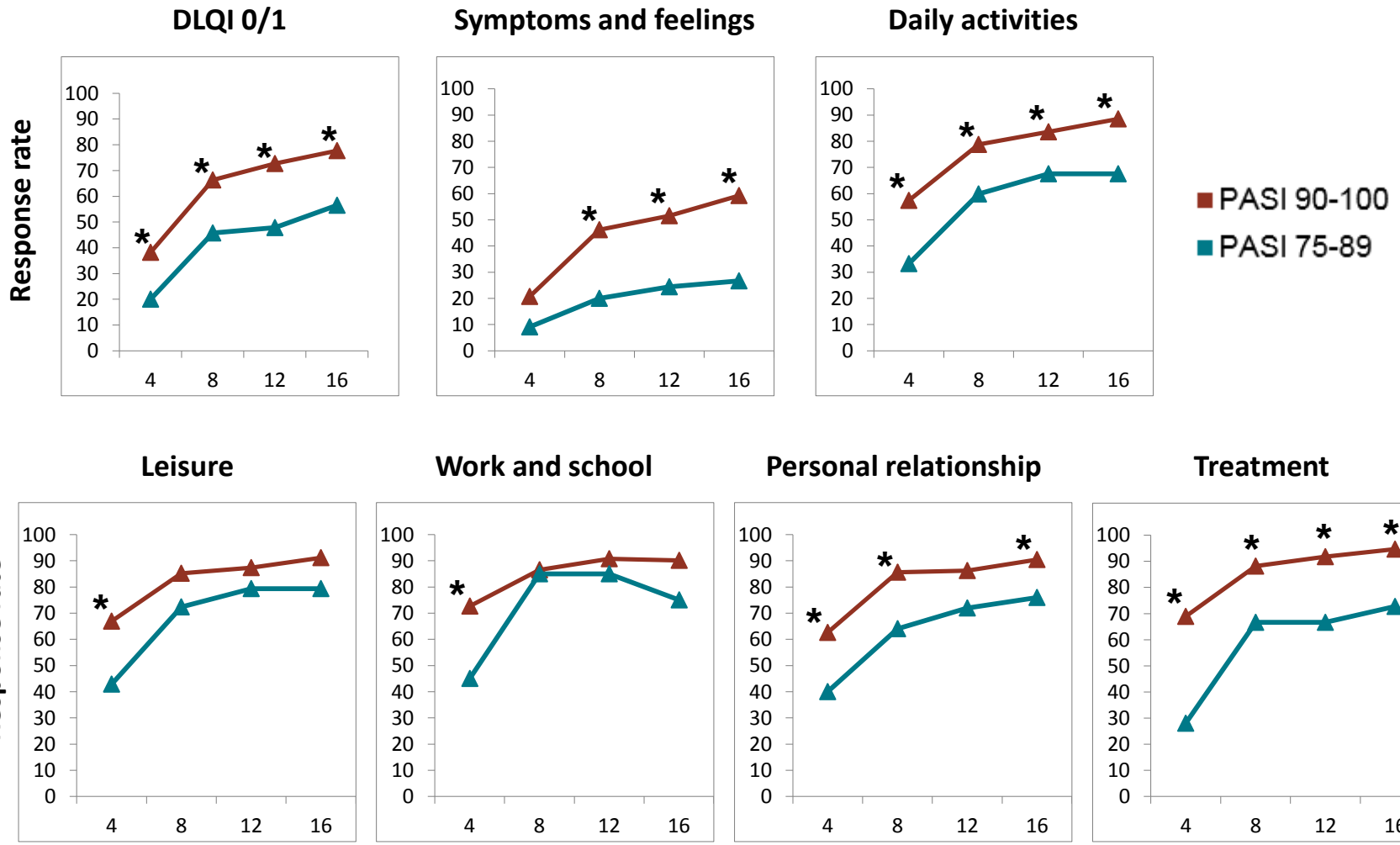


- Greater improvement for patients who achieved PASI 90-100 at week 16 in DLQI total score and 5 out of 6 subscales (symptoms/feelings, daily activities, leisure, personal relationships and treatment)
- Similar trends were observed for DLQI item-level evaluations



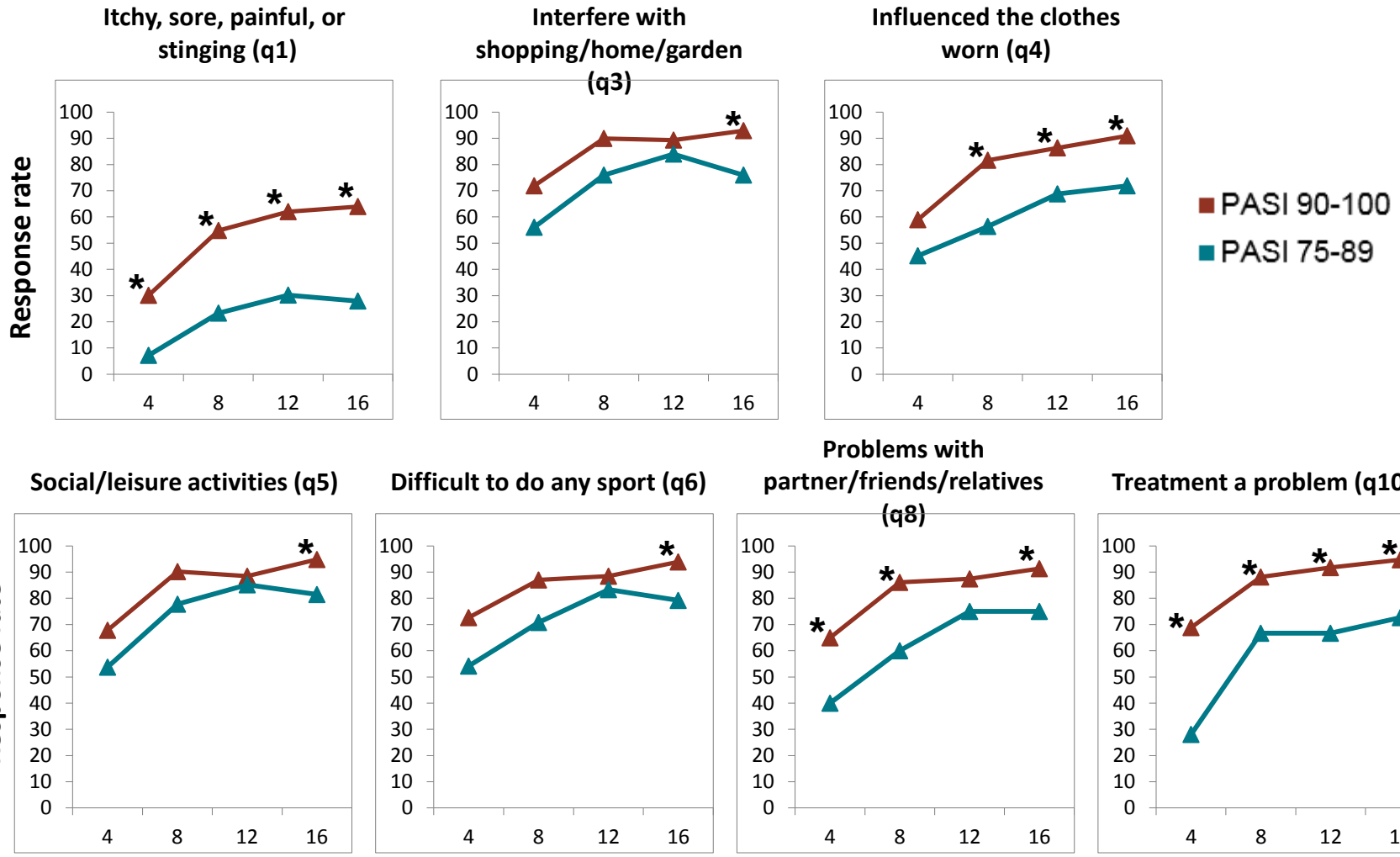
* $P < 0.05$.

Patients who Achieved PASI 90-100 at Week 16 Also Achieved Significantly Higher DLQI Response Rates for Total Score and 4 of the 6 Subscales Than PASI 75-89 at Week 16



Note: DLQI response defined as total score of 0 or 1 or subscale score of 0.
* $P < 0.05$.

Patients who Achieved PASI 90-100 Response at Week 16 Achieved Significantly Higher DLQI Response Rates for 7 of the 10 DLQI Items Than PASI 75-89 Response at Week 16



Note: DLQI response defined as item score of 0.
* $P < 0.05$.

Conclusion

- In patients treated with secukinumab, higher levels of skin clearance translated into significantly greater patient-reported benefits at week 16

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