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PSO-TARGET: a New Tool to Identify the Therapeutic Expectations of Psoriasis Patients Treated with Biologics

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ABSTRACT

Introduction: The effectiveness of psoriasis treatment is assessed by standardized tools such as the Dermatology life Quality Index (DLQI) and Psoriasis Area Severity Index (PASI). However, discrepancies between patients and physicians in terms of treatment success and goals,

Prior Presentation: Preliminary results of the baseline characteristics of this study were previously presented at French national conference (Journées dermatologiques de Paris) on 29 November–3 December 2022, in Paris. The abstract of the poster was published on: <https://www.sciencedirect.com/science/article/abs/pii/S2667062322008637>.

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along with the growing importance of shared decision-making in healthcare, highlight the need for tools specifically designed for psoriasis. Such tools can enhance communication between patients and physicians, encouraging shared decision-making and improving the assessment of patient treatment expectations.

Methods: Comparison of the new PSO-TARGET grid, which consists of 12 therapeutic goals evenly distributed across 4 major components commonly used in quality of life (QoL) studies for chronic diseases, with DLQI as a standard tool, was utilized.

Results: A total of 143 adult patients with moderate-to-severe psoriasis and treated with brodalumab were included. On the basis of a blind assessment, dermatologists were not able to identify the patients' chosen PSO-TARGET goal in more than 50% of cases. The comparison

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after 12/16 weeks of treatment revealed some discrepancies between the two QoL tools. Compared with the rest of the population, the patients who achieved their PSO-TARGET goal, but still reported a DLQI > 1, had higher baseline PASI scores (18.6 versus 14.8; $p=0.067$), higher DLQI scores (14.1 versus 10.1; $p=0.004$), and a higher number of hard-to-treat locations (median of 2 versus 1; $p=0.004$). In addition, patients who had not reached their PSO-TARGET goal but reported a DLQI \leq 1, all had psoriasis on the scalp at the baseline and were generally younger (median of 31 versus 52 years, $p=0.001$).

Conclusions: This study highlights the importance of considering patient characteristics of those with psoriasis and perspectives when evaluating treatment outcomes. Using shared decision-making tools such as the PSO-TARGET grid can improve communication and understanding between dermatologists and patients.

Trial Registration: ClinicalTrials.gov identifier, NCT04765332.

Keywords: Psoriasis; Quality of life; Brodalumab; Shared decision-making; Biologics; Anti-IL17; PSO-TARGET

Key Summary Points

Why carry out this study?

Psoriasis, a chronic inflammatory disease that significantly affects patient quality of life (QoL), is often accompanied by alexithymia, making it challenging for patients to express their expectations from their treatment.

Discrepancies between patient and physician treatment goals, with the increasing importance of shared decision-making, emphasize the necessity for psoriasis-specific tools that improve communication.

The PSO-TARGET grid is a newly developed tool designed specifically for psoriasis patients. It is composed of 12 therapeutic goals distributed into 4 major components of the QoL and was compared with the Dermatology life Quality Index (DLQI) as a standard tool.

What was learned from the study?

On the basis of a blind assessment, dermatologists were not able to identify the patients' chosen PSO-TARGET goal in more than 50% of cases, highlighting the complexity of assessing treatment outcomes in patients with psoriasis and the importance of considering patient characteristics at baseline [Psoriasis Area Severity Index (PASI), DLQI, cumulative number of hard-to-treat body locations, and patient's age].

Using patient-centric and shared decision-making tools such as the PSO-TARGET grid can improve communication and understanding between dermatologists and patients.

INTRODUCTION

Psoriasis is a chronic inflammatory skin disease with a prevalence of 1.92% (1.07–3.46%) in Western Europe [1, 2]. Some body locations are considered hard-to-treat areas, such as genitals, nails, scalp, and intertriginous areas [3].

Although the management of psoriasis has been revolutionized by the emergence of biotherapies, psoriasis causes considerable psychosocial disability and has a major impact on patient quality of life (QoL) [4]. Numerous tools have been evaluated to assess the QoL of patients with psoriasis: Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI), Psoriasis Quality of Life (PSORIQoL), DLQI-R (revised DLQI), Skindex, and SF 36, among others, and many factors may be linked with low QoL, such as physical, psychological, and social components [5].

Among patient reported outcomes' tools, Patient Benefit Index (PBI) is a ten-item short

form that was developed and validated by Blome et al. It measures patient-relevant benefits from the treatment of psoriasis. However, this tool is retrospective and only focuses on treatment satisfaction and perceived benefits [6].

In current practice, psoriasis is evaluated using standardized tools such as the Psoriasis Area Severity Index (PASI), assessed by the treating physician, and DLQI, evaluated by the patient [7]. An improvement of 90% or better (PASI 90 response) with respect to baseline PASI is considered as treatment goal [8–10]. However, discrepancies between PASI and DLQI outcomes often arise, where some patients exhibit a low PASI score but report a high DLQI score [11–13]. In addition, disease severity can be differently perceived depending on the physician and the patient point of view [14, 15].

One parameter that can have an impact on the QoL of patients with psoriasis is the presence of hard-to-treat body locations. An epidemiologic Danish study on patients with psoriasis has shown that involvement of hard-to-treat body locations (hands, feet, and genitals) is associated with high DLQI impairments. The study also highlighted that some patients may have multiple hard-to-treat areas, but the impact of having two or more such areas on the DLQI is still currently under-evaluated [16].

A better understanding of patient expectations regarding their treatment goal also seems to be missing. Current standard tools are not able to accurately assess therapeutic expectations of psoriasis patients, nor the patient's own perception of the disease and the evolution of this perception over time.

Aiming to accurately identify patient expectations prior to treatment initiation, we elaborated a psoriasis-specific assessment grid, called PSO-TARGET grid.

METHODS

Study Design

PSO-TARGET was an observational, prospective, multicenter, European study. Patients were included in the study between December 2020

and January 2022, and attended three study visits over the 12-month follow-up period. A total of 17 centers in France and 10 centers in Belgium participated in the study.

The study protocol was approved by the Ethics Committee OUEST III on 13 May 2020 in France, and the Ethics Committees of UC Louvain on 3 February 2021 in Belgium. All patients included in the study provided their signed informed consent to participate.

Study Population

The study population included adult patients with psoriasis for whom the dermatologist decided to initiate a treatment by brodalumab according to the Summary of Product Characteristics (SmPC). Patients excluded from the study population were vulnerable subjects according to the law and patients with hypersensitivity to at least one of the excipients of brodalumab and/or participating at the same time in another clinical study.

Sample Size

The sample size calculation was based on a sensitivity of 90%, absolute precision of 10%, type I error of 5%, power at 80%, and prevalence of 80% (estimated rate of patients with a DLQI 0–1 after 12/16 weeks of treatment) using the Li and Fine method [17] and software PASS version 12. On the basis of these hypotheses, the sample size needed was set at 134 evaluable patients.

Study Instrumentation and Variables

PSO-TARGET Grid Conception

A preliminary study was initially conducted to establish the tool. A total of 45 patients from Belgium and France were asked to provide their expected goal concerning their psoriasis treatment at the initiation of a systemic or a biologic therapy. All the patients' verbatim were then analyzed by three clinical dermatologists (two French and one Belgian) and one French social psychologist of health. To build up the

PSO-TARGET grid, 12 therapeutic goals were identified and equally distributed into 4 major components classically used in chronic disease QoL studies [18, 19]. The 12 goals distributed in 4 psychometric components were:

- **PHYSICAL:** autonomy, physical capabilities, ability to perform daily activities; [Not be limited/handicaped by the pain; Do not feel any functional discomfort (itching, rash) in my daily activities; Have freedom of movement and activities]
- **SUBJECTIVE:** linked to experienced emotion, anxiety, well-being; [Think less or not at all about the disease; Do not feel any anxiety from the disease; Feel serene, have peace of mind]
- **RELATIONAL/SOCIAL:** with family, friendship or professional environment, engaging personal relationships, involvement in social or leisure activities; [Spend quality time with family, friends or colleagues; Not caring about what people think about me; Have a fulfilling intimate life]
- **THERAPEUTIC:** linked to treatment, for ex. treatment-/care-related discomfort [Need to think less about treatment and care; Encounter very few, if any, drug discomfort; To be cured quickly]

DLQI

The DLQI, composed of ten questions grouped in six domains (symptoms and feelings, daily activities, leisure, work/school, personal relationships and treatment) was used as standard for comparison. The DLQI is calculated by summing the score of each question resulting in a maximum of 30 and a minimum of 0.

Data Collection

Data were collected over 1 year, including treatment initiation (day 0), 1st follow-up (12–16 weeks), and 2nd follow-up (52 weeks). Before treatment, patients selected a single goal from 12 PSO-TARGET options. Dermatologists also selected a component goal from the PSO-TARGET grid on the basis of discussions with patients, without knowing the choice of their

patients. Clinical data, demographics, medical history, PASI scores, hard-to-treat body locations, and previous treatments were collected before treatment initiation. At follow-up visits, PASI scores, DLQI questionnaire responses, and patient satisfaction (on a Likert scale from 0 to 4) regarding goal achievement were recorded.

Statistical Analysis

Descriptive analysis was performed for all collected data. Data analyses were performed using SAS Version 9.4 or further (SAS Institute, Cary, NC USA software). Quantitative parameters were described using summary descriptive statistics on the number of non-missing values: mean, standard deviation, median, first and third quartiles, and minimum and maximum values. Qualitative parameters were described using frequencies and percentages. Percentages were calculated on the number of non-missing observations. The level of significance for all comparisons was set at 0.05 using two-tailed tests. Confidence intervals at 95% were provided, if relevant.

The comparison of the PSO-TARGET grid with the DLQI was assessed with a contingency analysis that returned the following parameters:

Sensitivity (Se): defined as the probability to have patients who have reached their therapeutic target (responded “satisfied” or “very satisfied” on the Likert scale, globally and in each major domain) among patients with a DLQI score of 0 or 1.

Specificity (Sp): defined as the probability to have patients who have not reached their therapeutic target (responded “unsatisfied” or “very unsatisfied” on the Likert scale, globally and in each major domains) among patients with a DLQI score ≥ 2 .

To validate the PSO-TARGET grid, these two parameters had to reach a threshold of 85%.

Contingency analysis was performed to compare the PSO-TARGET level of satisfaction to the DLQI score, conserving the threshold for both PSO-TARGET satisfaction and DLQI score as mentioned above in the sensitivity and specificity analyses. This analysis returned to four groups, namely as the following: true positive

(TP), false positive (FP), false negative (FN), and true negative (TN). Subpopulations of interest (FP and FN) after 12/16 weeks of brodalumab treatment were illustrated using a scatter plot representation of DLQI and PSO-TARGET satisfaction level (GraphPad Prism v 7.0). These subpopulations were further explored using the nonparametric Wilcoxon rank test comparing two groups on various variables (PASI at baseline, DLQI at baseline, cumulative number of hard-to-treat body locations at baseline, age). In those analyses, the data of the subpopulation were compared with the remaining population using the non-missing values. The cumulative number of hard-to-treat body locations was defined as the following: four hard-to-treat body locations of interest were monitored at baseline and considered (scalp, nails, body folds, genital) for every patient; cumulative number that can go from 0 with no hard-to-treat body locations to 4 with all these areas involved at baseline. A specific Wilcoxon test was also made on the FP population with a DLQI score of ≥ 5 (defined as a minimum of moderate impact on the QoL) regarding the following variables at baseline: PASI, DLQI, and cumulative number of hard-to-treat body locations.

The agreement between the physician-chosen and the patient-chosen components on the PSO-TARGET grid at baseline was quantified and evaluated by a Kappa coefficient.

The accordance level between the satisfaction level of the PSO-TARGET (patients satisfied and very-satisfied after 12/16 weeks of brodalumab treatment) and the PASI 90/100 was assessed using a chi-squared test.

A Sankey diagram representation was used to visualize the maintenance and switching of the PSO-TARGET satisfaction level of the studied patients between weeks 12/16 and week 52 of brodalumab treatment.

RESULTS

Demographics and Baseline Characteristics

A total of 143 patients were included in the study as part of the safety and efficacy population. The patients and psoriasis characteristics are presented in Table 1.

Most of the patients received systemic treatment prior to starting the study. The most used classical therapies were methotrexate (49.7%), apremilast (26.6%), and ciclosporin (21.0%). More than two-thirds of the patients (67.8%) were biotherapy naïve. Mean DLQI score at baseline was 10.9 ± 6.6 , with up to 77.7% of the patients having a DLQI above 5. Interestingly, patients having nail, folds, and genital psoriasis showed significantly higher DLQI values, respectively 13.6, 13.5, and 12.6, and at baseline, 50% of the patients had two or more hard-to-treat body locations.

PSO-TARGET: Choice of Therapeutic Goal at Baseline and Agreement with Physician Assessment

All 4 components and 12 therapeutic goals of the PSO-TARGET grid were chosen among the patients. The most selected component was PHYSICAL (39.4%), followed by THERAPEUTIC (21.8%), RELATIONAL/SOCIAL (21.8%), and SUBJECTIVE (16.9%). Among the therapeutic goals, three were preferred by the patients. More than 25% of the patients chose the goal of “No longer feeling functional discomfort in my daily activities,” 19.0% chose the goal of “No longer feeling discomfort by other people’s look in my hobbies’ activities, dress as I wish,” and 16.9% chose the goal of “Getting a fast result” (Table 2).

The presence of hard-to-treat locations at baseline was found to impact the selection of therapeutic goals for the patients. By focusing on the patients with at least three hard-to-treat locations ($n=36$) versus the patients with no hard-to-treat locations at baseline ($n=22$), differences can be seen in the PSO-TARGET grid completion, with the major changes seen as an increase in the PHYSICAL (38.9% versus 27.3%)

Table 1 Patient baseline demographic characteristics

	<i>n</i> = 143
General	
Age (years), mean (SD)	49.1 (15.6)
Male	88 (61.5%)
BMI (kg/m ²), mean (SD)	27.98 (5.61)
DLQI score, mean (SD)	10.9 (6.6)
DLQI score (classes), <i>N</i> (%)	
0–1 = no effect at all on patient's life	11 (7.7%)
02–05 = small effect on patient's life	21 (14.7%)
06–10 = moderate effect on patient's life	41 (28.7%)
11–20 = very large effect on patient's life	60 (42.0%)
21–30 = extremely large effect on patient's life	10 (7.0%)
Disease characteristics	
PASI, mean (SD)	15.6 (9.4)
Time since psoriasis diagnosis (years), mean (SD)	18.33 (13.08)
BSA (%), mean (SD) ^a	22.4 (18.2)
Previously treated with a biotherapy (%)	32.2%
Hard-to-treat body locations	
Scalp	74.8%
Nail	32.2%
Body folds	32.9%
Genital or intimate psoriasis	30.8%

BMI body mass index, *BSA* body surface area covered by psoriasis, *DLQI* Dermatology Life Quality Index, *PASI* Psoriasis Area Severity Index

^a1 missing data point

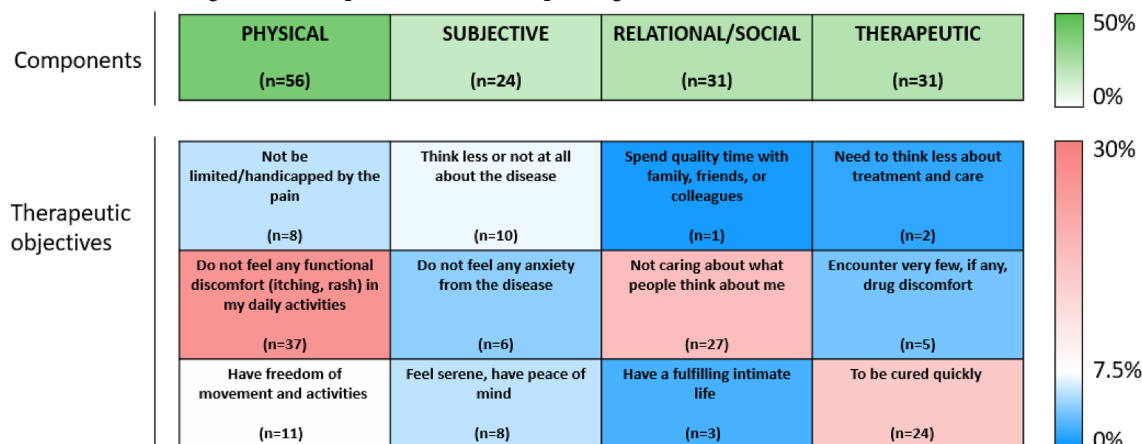
and a decrease of the SUBJECTIVE (27.3% versus 13.9%) components choice.

During the initial follow-up visit at weeks 12/16, patients were asked whether they wished

to continue with their original therapeutic choice or make a change. Nearly 85% of patients opted to maintain their initial therapeutic goal.

A notable discrepancy was observed between the choices made by the patients and the

Table 2 PSO-TARGET grid and heat plot of chosen therapeutic goals at baseline



physicians, with the physicians exhibiting an inability to accurately discern the patient’s component choice at the baseline. Out of the total choices made, overall, only 43.7% were in agreement.

Evaluation of the PSO-TARGET Grid and Comparison with the DLQI after 12/16 Weeks

After 12/16 weeks of brodalumab treatment, 82.2% of patients reported satisfaction with achieving the PSO-TARGET therapeutic goal. Among them, 17.8% were “satisfied” and 64.3% were “very satisfied.” On the basis of the DLQI score at 12/16 weeks, 65% of patients (n=89) reported “no effect at all” on their QoL, 18.2% (n=25) reported a “small effect,” and 16.7% (n=23) reported a “moderate to very large effect.”

To assess the agreement between the satisfaction level according to the PSO-TARGET grid and the DLQI at 12/16 weeks of brodalumab treatment, a contingency analysis was conducted for the 129 patients who responded to both tools. Patients who reported no effect on their QoL (DLQI 0 or 1) and achieved their treatment goal (PSO-TARGET “very satisfied” or “satisfied”) were considered true positives (TP; 61.2%, n=79), while patients who still experienced an effect on their QoL (DLQI > 1)

and had not reached their treatment goal (PSO-TARGET “not satisfied” or “very unsatisfied”) were considered true negatives (TN; 11.6%, n=15).

The analysis revealed a high sensitivity value of 90.8%, indicating the ability of the tools to correctly identify patients with a DLQI 0 or 1. However, at weeks 12/16 the specificity was only 35.71%, which means it was not effective in excluding patients with a DLQI > 1 (Table 3).

Exploratory Analyses on False Positives (FP) and False Negatives (FN)

According to exploratory analysis, 27 patients (20.9%) who achieved their treatment goal, but still reported an impact on their QoL, were

Table 3 Sensitivity/specificity of the PSO-TARGET grid at 12/16 weeks

		At 12/16 weeks
Sensitivity	N	87
	Se	79 (90.80%)
	95% CI	[82.68%; 95.95%]
Specificity	N	42
	Sp	15 (35.71%)
	95% CI	[21.55%; 51.97%]

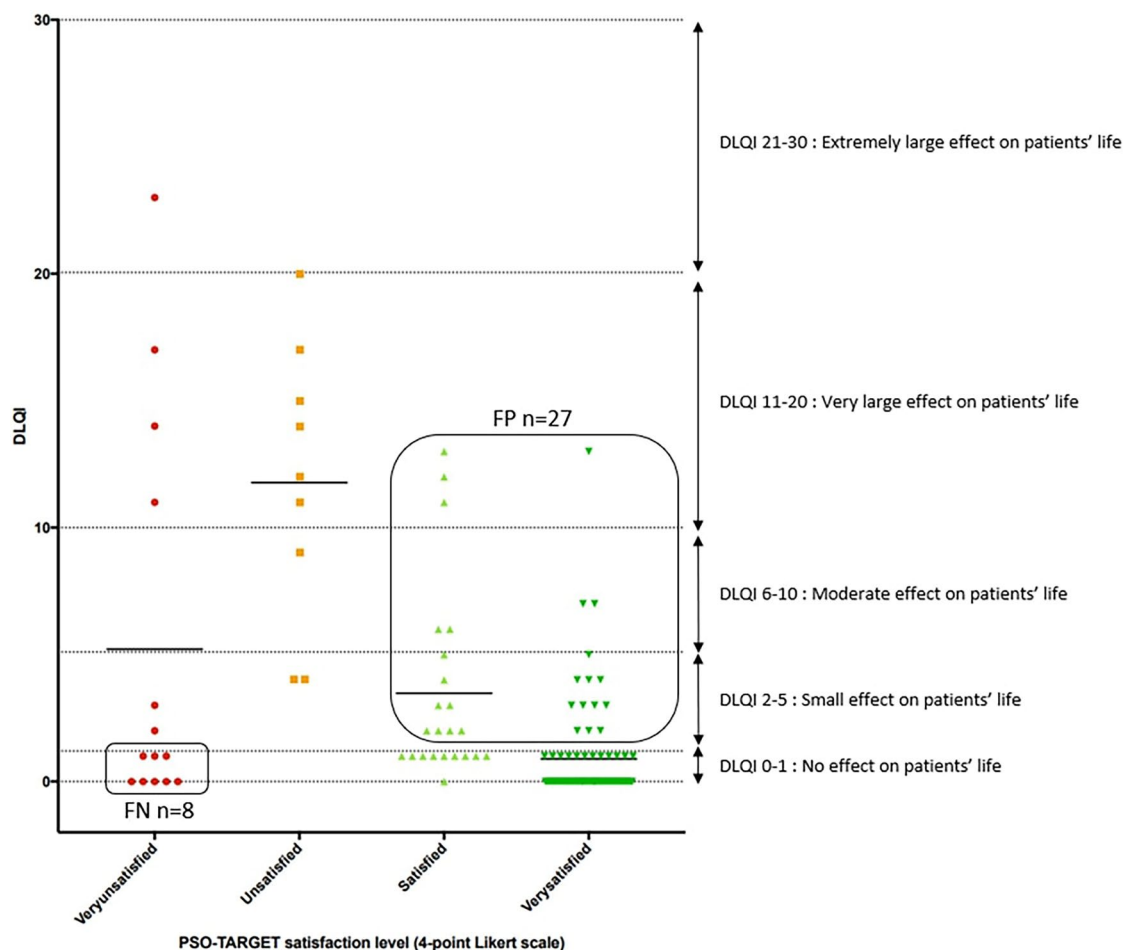


Fig. 1 Scatter plot of PSO-TARGET goal satisfaction and Dermatology Life Quality Index (DLQI) value after 12/16 weeks of brodalumab treatment

considered false positives (FP), and 8 patients (6.2%) had not reached their treatment goal, but reported no effect on their QoL were considered false positives (FN) (Table S1, Fig. 1). The reasons for these non-concordances were further explored.

False Positive Patients ($n=27$) who reported being (very) satisfied with their therapeutic goal despite a DLQI score >1 had higher baseline PASI scores (18.6 versus 14.8; $p=0.067$). They also showed significant differences in baseline DLQI scores (14.1 versus 10.1; $p=0.004$), and had a higher number of hard-to-treat body locations (median of 2 versus 1; $p=0.004$) compared with the rest of the studied population.

Focusing on patients ($n=8$) who reported being (very) satisfied with their treatment despite a DLQI score of ≥ 5 , their baseline PASI scores (21.2 versus 15.2; NS) and DLQI scores (18.0 versus 10.5; $p=0.009$) were even higher compared with the rest of the population. Additionally, these patients had a median number of hard-to-treat locations of 3, while the rest of the population had a median of 1 ($p=0.045$).

False Negative Patients who expressed dissatisfaction with their treatment goal despite having a DLQI score of 0–1 were younger than the rest of the study population (median age 31 versus 52 years old; $p=0.001$). Additionally, all these patients had an involvement of the scalp.

Accordance Between PASI Score and the PSO-TARGET Satisfaction Level at 12/16 Weeks

Out of the 143 patients, 66.4% ($n=91$) achieved a PASI 90 response and 49.6% ($n=68$) achieved a PASI 100 response. There was a strong correlation between the decrease in PASI score at 12/16 weeks and PSO-TARGET satisfaction goal, with an agreement of 87.9% (80/91) for PASI 90 and 92.6% (63/68) for PASI 100 ($p<0.001$). These scores exceeded the overall satisfaction level of the entire population, which was 82.2%.

Evolution of Satisfaction with the Achievement of the PSO-TARGET Treatment Goal from Weeks 12/16 to Week 52

Among patients initially very satisfied in weeks 12/16 ($n=83$), a significant majority (82.8%, $n=53$) remained very satisfied. Initially satisfied patients ($n=23$) maintained or increased their satisfaction level, with more than 80% either maintaining satisfaction (66.7%, $n=8$) or increasing to very satisfied (16.7%, $n=2$). However, among initially very unsatisfied patients

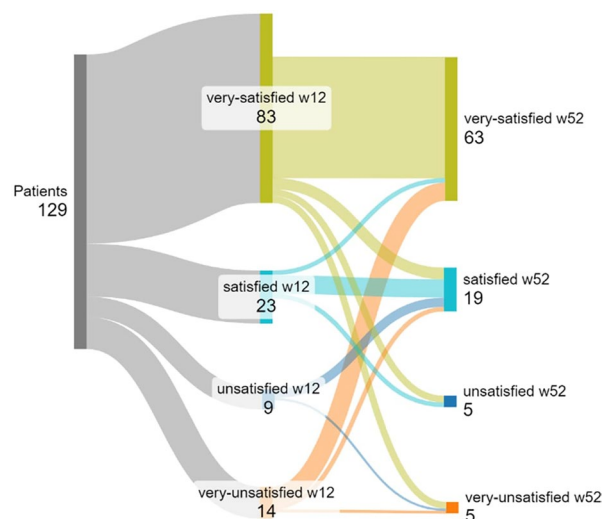


Fig. 2 Sankey diagram representing the evolution of satisfaction with the achievement of the PSO-TARGET treatment goal from weeks 12/16 to week 52

($n=14$), only one (9.1%) remained unsatisfied, while among unsatisfied patients ($n=9$), only one remained unsatisfied but at a decreased level to “very unsatisfied” (20.0%) (Fig. 2).

Evolution of the DLQI and the PASI Scores over the 52 Weeks

DLQI Scores after 52 Weeks of Brodalumab Exposure

After 52 weeks of exposure to brodalumab, 112 patients completed the DLQI questionnaire. Among them, 72.3% ($n=81$) reported a DLQI score of 0 or 1 and 90.2% a DLQI ≤ 5 . The mean DLQI score decreased from 10.9 at baseline to 2.9 at 12/16 weeks, and to 1.7 at 52 weeks (Supplementary Material Table S2).

PASI Scores after 52 Weeks of Brodalumab Exposure

After 52 weeks of brodalumab treatment, the absolute PASI score continued to decrease, reaching 1.8 ± 4.5 for the 112 patients evaluated. This improvement was significant, with 74.3% of patients achieving a PASI 90 response and 61.9% achieving a PASI 100 response (Table S2).

Evaluation of the PSO-TARGET Grid and Comparison with the DLQI after 52 Weeks

Similar to the 12/16-week analysis, a concordance analysis was performed between the PSO-TARGET grid and DLQI at 52 weeks (Table S3). The findings showed a consistently high sensitivity of 92.9%, meaning that the PSO-TARGET grid successfully identifies patients with no impact on their QoL. However, the specificity decreased to 22.2%.

DISCUSSION

Psoriasis is a chronic inflammatory skin disease associated with high physical and psychological burden [1, 20]. The indication of systemic

treatments and the reassessment of their value are essentially based on standardized tools [5, 7]. This approach focuses on reducing clinical symptoms, without necessarily placing patients' expectations first. Patient expectations in terms of burden of the disease and therapeutic goal do not always coincide with the physician's perspective [8–10], which may be explained by the fact that the patient's own perception may differ from the physician's and may even change between follow-ups. Understanding patient expectations should thus be placed at the heart of patient management as suggested by the World Health Organization's latest Global Report on Psoriasis [21].

A notable discrepancy was observed between patients' and physicians' choices, indicating that physicians were unable to accurately identify their patients' therapeutic expectations at the baseline. Only 43.7% of choices aligned correctly with the patient's goal, with 56.3% not accurately identified. These findings highlight a significant difference in perception of therapeutic objectives between dermatologists and patients, suggesting that dermatologists may project their own expectations onto patients who may have different expectations. Such a gap between patient expectations and dermatologist objectives can lead to patient disappointment and potentially compromise their willingness to follow the treatment consistently and appropriately.

The sensitivity of the PSO-TARGET grid versus DLQI reached 91.0% after 12/16 weeks and 93.0% after 52 weeks of treatment, although limits were found in terms of specificity as tests failed to achieve the 85% threshold. In other words, the PSO-TARGET grid captured patients with a DLQI 0–1 but failed to exclude those patients with a DLQI > 1. The analysis between the two QoL tools revealed discrepancy for two distinct groups of patients. The patients who reported satisfaction with their treatment despite not achieving a DLQI score of 0 or 1 showed that these patients had high baseline PASI scores, high DLQI scores, and challenging body locations for treatment. These findings underscore the significant role of the PSO-TARGET grid in prioritizing the patient's needs during treatment. It emphasizes the importance

of considering patient satisfaction and QoL, particularly in cases where patients face challenging localized conditions. In addition, the second group of patients who expressed dissatisfaction with their treatment goal despite having a DLQI score of 0–1 primarily consisted of young patients affected on the scalp. It is possible that this group represents patients with high treatment expectations, where the grid highlights their dissatisfaction that the DLQI did not capture.

Achievement of the treatment goal based on reported satisfaction reached 82.2% at first follow-up and 88.8% at second follow-up. Additionally, nearly 85% of patients maintained their choice of therapeutic goal at the second follow-up visit. Thus, the patients who have changed their choice might have shifted their expectations regarding treatment during the study since they approached their initial treatment goal. For example, quick recovery was the therapeutic goal at the start, then perhaps safety became more important once recovery progressed.

Furthermore, patients who initially reported treatment dissatisfaction at weeks 12/16 later experienced satisfaction at week 52 while they continued with their brodalumab treatment. This finding suggests that in real life, physicians may prematurely change treatments solely on the basis of PASI and DLQI results, potentially overlooking the potential for improved satisfaction with continued treatment beyond 12/16 weeks. Throughout the 52-week study, there was a notable improvement in PASI and DLQI scores. PASI scores demonstrated a progression of the disease from severe to moderate to mild. Similarly, DLQI score improved, with almost three-quarters of the patients reported that the disease as having "no effect at all" on their lives. These findings suggest a correlation between the reduction of clinical symptoms, improvement in QoL, and patient satisfaction on the basis of the chosen PSO-TARGET goal.

Among various patient-reported outcomes, Patient Benefit Index (PBI) generates an index reflecting the overall benefit of the treatment. However, it is retrospective and focuses on treatment satisfaction [6]. In contrast, PSO-TARGET captures the ongoing experience of living with the disease. Both tools focus on

patient's perspective but are used for different purposes: the PBI evaluates treatment success, while PSO-TARGET assesses current disease burden and patients' expectations. Together, they can provide a comprehensive understanding of a patient's experience and satisfaction with psoriasis management.

The limitations of the study include methodological constraints such as a low completion rate at week 52 resulting in significant missing data. These challenges could have been alleviated by implementing online questionnaires to facilitate patient participation.

This study suggests that DLQI alone may not give a complete understanding of a patient's well-being. Similar results were also found in published reports [22, 23]. By assessing both patients' satisfaction and QoL, healthcare professionals can gain a more comprehensive understanding of the patient's expectation and experience. This information can help within treatment planning and shared decision-making, and thus improves communication between dermatologists and patients.

CONCLUSIONS

The PSO-TARGET grid is a patient-centered tool that facilitates communication between the dermatologist and the patient about the patient's therapeutic goals and expectations from their biotherapy treatment. It allows for a collaborative approach between the dermatologist and the patient in making treatment decisions and tracking the patient's progress towards their personal treatment goal throughout the treatment. However, further studies are needed to fully validate the effectiveness of the PSO-TARGET grid as a complement to current standard tools.

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Declarations

Conflict of Interest. Prof Dr Pierre-Dominique Ghislain: speaker and hospital investigator for AbbVie, Amgen, BMS, Eli Lilly, Galderma, Janssen, LEO Pharma, Maruho, Meda, Menarini, MSD, Novartis, P-harm, Pfizer, Serono, UCB et Viartis. Dr Thierry Boyé: Personal fees and grant (clinical research) Novartis, LEO Pharma, Janssen, Abbvie, Amgen, Lilly, UCB. Dr Ziad Reguiai: Abbvie, Amgen, Amgen, Celltrion, Boehringer-Ingelheim, Bristol-Meyers-Squibb, Celgene, Eli Lilly, Incyte, Janssen, LEO Pharma, Medac, MSD, Novartis, Pfizer, UCB. Prof Pierre Moulin: No conflict of interest. Emilie Baudier: Employee of LEO Pharma, Belgium. Corentin Schepkens: Corentin Schepkens who was affiliated to LEO Pharma NV/SA, Lier, Belgium at the time of study and publication is now affiliated to MSD, Belgium. He worked for LEO Pharma, Belgium during the statistical analysis and the drafting of the manuscript. Maxime Sintès: Employee of LEO Pharma, France.

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