

Original Article



The Definition of Psoriasis Severity and Treatment Target of Psoriasis: Korean Expert Consensus Using the Modified Delphi Method

Chul Hwan Bang ¹, Yoo Sang Baek ², Tae-Gyun Kim ³, Ki-Heon Jeong ⁴,
Jeong Eun Kim ⁵, Seong Jin Jo ⁶, Eun-So Lee ⁷, Yong Beom Choe ⁸,
on behalf of The Korean Society for Psoriasis

¹Department of Dermatology, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea

²Department of Dermatology, Guro Hospital, Korea University College of Medicine, Seoul, Korea

³Department of Dermatology, Severance Hospital, Cutaneous Biology Research Institute, Yonsei University College of Medicine, Seoul, Korea

⁴Department of Dermatology, College of Medicine, Kyung Hee University, Seoul, Korea

⁵Department of Dermatology, Hanyang University College of Medicine, Seoul, Korea

⁶Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea

⁷Department of Dermatology, Hallym University School of Medicine, Hwaseong, Korea

⁸Department of Dermatology, Konkuk University School of Medicine, Seoul, Korea

OPEN ACCESS

Received: Jan 12, 2026

Revised: Mar 3, 2026

Accepted: Mar 8, 2026

Published online: Apr 14, 2026

Corresponding Authors:

Eun-So Lee

Department of Dermatology, Hallym University
School of Medicine, 7 Keunjaebong-gil,
Hwaseong 18450, Korea.
Email: esl@ajou.ac.kr

Yong Beom Choe

Department of Dermatology, Konkuk
University School of Medicine, 120-1
Neungdong-ro, Gwangjin-gu, Seoul 05029,
Korea.
Email: cyb@kuh.ac.kr

© 2026 The Korean Dermatological
Association and The Korean Society for
Investigative Dermatology
This is an Open Access article distributed
under the terms of the Creative Commons
Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>)
which permits unrestricted non-commercial
use, distribution, and reproduction in any
medium, provided the original work is properly
cited.

ABSTRACT

Background: The emergence of new treatments has significantly elevated treatment expectations for psoriasis. However, existing Korean severity definitions and treatment targets of psoriasis remain primarily centered on traditional Psoriasis Area and Severity Index (PASI) and Body Surface Area (BSA) thresholds, often underestimating the disease burden in high-impact special areas.

Objective: To develop a revised Korean expert consensus on psoriasis severity and treatment targets that incorporate the clinical significance of special areas and reflect the evolving therapeutic landscape.

Methods: A modified Delphi method was employed involving a panel of 65 dermatologists specializing in psoriasis from universities and training hospitals across South Korea. Two rounds of anonymous web-based surveys were conducted.

Results: A strong consensus was achieved on a new definition of moderate-to-severe psoriasis: (1) PASI ≥ 10 , or (2) $5 < \text{PASI} < 10$ with concomitant special area involvement (defined as $\geq 30\%$ affected surface area of the specific site and a static Physician's Global Assessment (sPGA) score ≥ 3). For treatment targets, the panel established 'Absolute PASI ≤ 2 ' as the primary realistic goal. Site-specific goals were defined for special areas, to achieve an affected surface area $< 10\%$ or an sPGA of 0/1. The Dermatology Life Quality Index was excluded from the mandatory severity definition or treatment target to preserve objectivity and feasibility in high-volume clinical settings.

Conclusion: This consensus provides a practical and objective framework for managing psoriasis in Korea. These recommendations provide quantifiable criteria and stringent targets to optimize clinical decisions and patient outcomes in the era of advanced therapeutics.

Keywords: Clinical decision-making; Consensus; Delphi method; Psoriasis; Severity of illness index; Treatment outcome

INTRODUCTION

Psoriasis is a chronic inflammatory skin disease characterized by erythematous plaques with silvery scales, affecting 60 million people worldwide¹. Psoriasis has a high prevalence and is associated with various comorbidities, including obesity, metabolic syndromes, cardiovascular diseases, and mental health disorders²⁻⁵. Considering the prevalence, comorbidities, and the emergence of expensive new treatments, such as biologics and small molecule drugs, psoriasis imposes a substantial economic burden on both individuals and society compared to other skin diseases². This economic burden has driven significant research and development efforts, leading to substantial advancements in psoriasis treatment, particularly with the introduction of biologics in the 2000s and 2010s⁶.

Before the widespread use of biologics, treatment goals for psoriasis were often focused on reducing symptoms and improving quality of life. However, with the advent of these highly effective therapies, treatment targets have been progressively elevated, with 75% reduction in Psoriasis Area and Severity Index (PASI 75), PASI 90, and even complete clearance becoming achievable goals⁷⁻⁹. Despite these advances, complete clearance (PASI 100) remains difficult to achieve in routine clinical practice, particularly in patients with involvement of high impact areas. Consequently, recent guidelines emphasize the need for intensive treatment of psoriasis affecting special areas, such as the scalp, palmoplantar areas, inverse areas (intertriginous areas like the axillae, groin, and inframammary folds), genital psoriasis, and nail psoriasis, as these locations often present significant challenges in achieving complete remission. In parallel with these developments, recent guidelines and expert consensus statements demonstrate a growing trend towards including 'special areas' in the assessment and definition of psoriasis severity¹⁰⁻¹³.

However, the current Korean definitions rely predominantly on PASI and Body Surface Area (BSA) thresholds, with limited consideration of disease burden in special areas. Consequently, we undertook this study to develop a revised Korean expert consensus on psoriasis severity and treatment targets using a modified Delphi method.

MATERIALS AND METHODS

The Consensus Statements Development Working Group, representing the Korean Society for Psoriasis, consisted of seven core members who conducted a systematic review of the literature and oversaw the development of the consensus statements. The working group invited 110 experts to form the panel, comprising executives and councilors of the Korean Society for Psoriasis, as

Table 1. Characteristics of the Delphi panel

Characteristics	Delphi panel (n=65)
Sex	
Male	41 (63.1)
Female	24 (36.9)
Age (yr)	50.4±10.1
Age distribution	
30–39	6 (9.2)
40–49	31 (47.7)
50–59	16 (24.6)
60–69	9 (13.8)
≥70	3 (4.6)
Type of practice	
Hospital-based practice	62 (95.4)
Private clinic-based practice	3 (4.6)

Values are presented as mean ± standard deviation or number (%).

well as dermatologists from universities and training hospitals nationwide who explicitly list psoriasis as a clinical specialty on their institutional websites. Among the 110 expert panel members, 65 participated and completed both rounds of the questionnaire survey. The panel characteristics are presented in **Table 1**.

Literature review

We conducted a systematic literature review to identify definitions of psoriasis severity and treatment targets. A search of MEDLINE, Embase, and the Cochrane Central Register of Controlled Trials was performed on September 18, 2023, for full-text studies published between 2013 and September 2023. The search utilized terms including “psoriasis,” “plaque psoriasis,” “psoriasis assessment,” “psoriasis index,” “psoriasis measurement,” “psoriasis scale,” “consensus,” and “guideline.” A total of 48,227 articles related to psoriasis were initially identified, after removing duplicates and screening titles and abstracts, 331 were reviewed. Finally, 23 key articles were ultimately selected to develop the items for the Delphi rounds.

Consensus process

A modified Delphi method comprising two rounds of web-based questionnaires (Google Form) was adopted for the consensus process. The survey was conducted anonymously to prevent dominance by specific individuals. In round 1, panelists evaluated the need for a comprehensive update and the establishment of a new guideline regarding psoriasis treatment targets, in light of recent international revisions and current Korean standards. In round 2, panelists were asked to provide their opinions on whether they agreed with the proposed definition of psoriasis severity and the treatment target. The panelists scored their level of agreement for each statement using a ten-point scale ranging from 1 to 10 (1–3, disagree; 4–6, neutral; 7–10, agree). The participants provided queries and comments in free text as feedback in both rounds. The criteria for consensus were predefined based on the methodology

established in the previous Korean expert consensus for plaque psoriasis⁹. Specifically, consensus was achieved if more than 70% (>70%) of participants provided a score of ≥ 7 for a statement. Strong consensus was achieved if more than 80% (>80%) of participants provided a score of ≥ 7 for a statement.

RESULTS

The definition of psoriasis severity

1) Outcomes of the round 1 Delphi survey

The survey items, mean agreement scores, and agreement rates from the first round are summarized in **Fig. 1**. Regarding existing definitions, the recategorization proposed by the International Psoriasis Council (IPC) in 2020 achieved the highest consensus (agreement rate 90.8%)¹⁰, followed by the 2018 Asian consensus (86.2%)¹⁴. In contrast, the European consensus definition failed to meet the consensus criteria (66.2%)⁷.

For the revised definition from Spanish group¹³, strong consensus was achieved on defining moderate-to-severe psoriasis based on quantitative scores (PASI >10, BSA >10, or Dermatology Life Quality Index [DLQI] >10) and the requirement for systemic treatment (both 89.2%). The inclusion of functional or psychological impact due to special area involvement also reached a strong

consensus (86.2%).

In terms of clinical applicability, the panel demonstrated strong consensus on PASI (87.7%) and BSA (87.7%), as well as static Physician's Global Assessment (sPGA) (83.1%), for real-world practice. However, the applicability of DLQI did not reach consensus, nor did the proposal to add a 'minimal severity' category (47.7%). On this basis, PASI (84.6%) and BSA (75.4%) were identified as the essential components for the new definition (**Supplementary Fig. 1A**).

Regarding special areas, there was strong consensus to determine overall severity by incorporating the extent of involvement at these sites (86.2%) and using sPGA-based criteria (sPGA 3 for moderate, 4 for severe; 90.8%). A majority of respondents (56.9%) identified 30% involvement as the appropriate cutoff to distinguish mild from moderate-to-severe psoriasis (**Supplementary Fig. 1B**).

2) Outcomes of the round 2 Delphi survey

A second round was conducted to refine index selection and reclassification criteria (**Fig. 2**). The panel reached a strong consensus on excluding DLQI from the severity definition (83.3%) and adopting a single index (PASI or BSA) as the sole criterion (80.3%). Specifically, experts reached consensus on preferring PASI over BSA (75.8%), whereas the preference for BSA did not meet the

Statement	Mean score of agreement	Agreement rate (≥ 7 points) (%)
Consensus on the current definition of psoriasis severity		
Current Korean definition of moderate-to-severe psoriasis: PASI >10 and BSA >10, PGA ≥ 3 or DLQI >10	7.8	84.6
Adoption of the European consensus (Mrowietz et al., 2011) as a standard definition	7.1	66.2
Agreement with the Asian consensus on psoriasis severity (2018)	8.0	86.2
Agreement with the IPC recategorization of psoriasis severity (2020)	8.2	90.8
PASI >10 or BSA >10 or DLQI >10	8.2	89.2
Psoriasis requiring systemic treatment at any time (including conventional systemic treatment, biologics, and phototherapy	8.2	89.2
Palms, soles, genitals, scalp, nails or recalcitrant plaques when these have a functional or psychological impact on the patients	7.5	86.2
Psoriasis with concomitant psoriatic arthritis	7.8	78.6
Survey for establishing a Korean consensus on psoriasis severity definitions		
Applicability of PASI for defining severity in real-world clinical practice	8.0	87.7
Applicability of BSA for defining severity in real-world clinical practice	8.0	87.7
Applicability of PGA for defining severity in real-world clinical practice	7.9	83.1
Applicability of DLQI for defining severity in real-world clinical practice	6.5	60.0
Inclusion of a 'minimal' severity category in the Korean guidelines	6.2	47.7
Validity of incorporating specific severity or extent of involvement of special sites into the overall severity determination.	7.7	86.2
Appropriateness of the proposed PGA-based severity classification for special sites. Special site PGA 1 or 2: Mild / PGA 3: Moderate / PGA 4: Severe	8.0	90.8

Fig. 1. Results of the round 1 Delphi survey for establishing a Korean consensus on the definition of psoriasis severity.

PASI: Psoriasis Area and Severity Index, BSA: Body Surface Area, PGA: Physician's Global Assessment, DLQI: Dermatology Life Quality Index.

Statement	Mean score of agreement	Agreement rate (≥7 points) (%)
Consensus on the selection and combination of severity indices		
Exclusion of DLQI from the definition of psoriasis severity	7.8	83.3
Adoption of either PASI or BSA as the sole criterion for severity	7.5	80.3
Preference for PASI over BSA as the sole severity criterion	7.5	75.8
Necessity of adding PGA as a supplementary criterion to the PASI threshold	5.6	36.4
Preference for BSA over PASI as the sole severity criterion	6.3	56.1
Necessity of adding PGA as a supplementary criterion to the BSA threshold	7.5	54.5
Criteria for severity reclassification based on special area involvement		
Elevation of severity grade to moderate-to-severe based on ≥30% special area involvement and special site PGA ≥3	7.8	80.3
Elevation of severity grade to moderate-to-severe based on ≥30% special area involvement or special site PGA ≥3	7.1	72.7

Fig. 2. Results of the round 2 Delphi survey regarding the selection of severity indices and criteria for special area reclassification. DLQI: Dermatology Life Quality Index, PASI: Psoriasis Area and Severity Index, BSA: Body Surface Area, PGA: Physician's Global Assessment.

threshold (56.1%). The addition of sPGA as a supplementary criterion was also rejected for both PASI and BSA thresholds.

The panel established criteria for reclassifying mild psoriasis to moderate-to-severe in patients with special area involvement. Although applying “either criterion” (area or sPGA) reached consensus (72.7%), applying “both criteria” (≥30% involvement and sPGA ≥3) was selected as it achieved strong consensus (80.3%).

Regarding specific thresholds for reclassification, the majority selected the range of 5 < PASI < 10 (59.1%) (**Supplementary Fig. 1C**). Based on these results, the final definition of moderate-to-severe psoriasis was determined as follows: 1) a PASI score ≥10, or 2) a PASI score between 5 and 10 with concomitant special area involvement (affected surface area ≥30% and sPGA ≥3).

Treatment target of psoriasis

1) Outcomes of the round 1 Delphi survey

Fig. 3 summarizes the survey items, mean agreement scores, and agreement rates regarding treatment targets for psoriasis from the first round. The 2011 treatment goals by Mrowietz et al.⁷, which served as the foundation for the current National Health Insurance Criteria for moderate-to-severe psoriasis, showed a mean agreement score of 6.6 and an agreement rate of 63.1%, indicating a need for revision. The expert panel reached a strong consensus on the definition of ‘good response’ based on the 2021 Italian consensus¹⁵. Specifically, achieving Absolute PASI ≤3 or sPGA 0/1 (92.3% agreement) and reaching ΔPASI ≥90 (93.8% agreement) were identified as primary treatment goals with a strong consensus. In contrast, the inclusion of DLQI <5 as a criterion for patients achieving only a ΔPASI 75–90 failed to achieve consensus (67.7%). Notably, a strong consensus was reached that, even when systemic criteria are met, defining an adequate treatment goal requires achieving a sPGA of 0/1 (clear/

almost clear) in special areas if residual lesions persist.

In establishing goals tailored to the Korean clinical setting, the panel reached a strong consensus (96.9%) on the necessity of distinguishing between ‘ideal’ and ‘realistic’ treatment targets. For the realistic treatment target, a strong consensus (95.4%) supported adopting PASI 90 as the appropriate standard, whereas PASI 100 did not achieve consensus (55.4%). When considering the type of indicator, 84.6% of the panel preferred absolute scores (e.g., absolute PASI) to relative response rates (e.g., PASI 90/100) as a realistic treatment target.

While various guidelines have proposed treatment targets of PASI ≤2 or ≤3, the 2020 British Association of Dermatologists recommendations, which adopt PASI ≤2, have significantly influenced global standards¹⁶. We investigated the clinical preference between PASI ≤2 and PASI ≤3 within the Korean context. Overall, 81.5% of experts considered absolute PASI ≤2 to be more appropriate than absolute PASI ≤3 (**Supplementary Fig. 2A**), a view supported by an 89.2% agreement rate in the statement survey. As a result, absolute PASI ≤2 was selected as the most suitable treatment target indicator for the Korean medical environment among all proposed criteria.

For special areas, there was a strong consensus that achieving a sPGA of 0/1 was the most critical treatment target, consistently outperforming other auxiliary metrics such as surface area or Nail Psoriasis Severity Index (NAPSI) scores. The agreement rates indicated a strong consensus across all specific sites: Scalp sPGA 0/1 (95.4%), sPGA 0/1 for inverse psoriasis (95.4%), and Nail sPGA 0/1 (90.8%).

2) Outcomes of the round 2 Delphi survey

Following the first round of the Delphi process, concerns were raised about practical difficulties in clinical settings when various

Statement	Mean score of agreement	Agreement rate (≥7 points) (%)
Consensus on the current treatment target of psoriasis		
Agreement with the treatment goals proposed by the European consensus (Mrowietz et al., 2011)	6.6	63.1
Good response as achieving absolute PASI ≤3 or PGA 0/1	8.2	92.3
Inclusion of absolute PASI 3–6 or PGA=2 with DLQI <5 as criteria for good response	6.7	66.1
Good response as achieving ΔPASI ≥90	8.4	93.8
Good response as achieving either ΔPASI ≥90 or absolute PASI ≤3	8.3	90.8
Good response as achieving 75≤ ΔPASI <90 and absolute PASI ≤3	7.5	78.5
Good response as achieving 75≤ ΔPASI <90 with DLQI <5	6.9	67.7
Requirement of special area clearance to define an adequate treatment goal, even when ΔPASI ≥90 or absolute PASI ≤3 is achieved	6.7	66.2
Acceptance of adequate treatment goal despite residual special area involvement (Special site PGA ≤2) when ΔPASI ≥90 or PASI ≤3	7.3	81.5
Acceptance of adequate treatment goal despite residual special area involvement (Special site PGA 0/1) when ΔPASI ≥90 or PASI ≤3	8.4	95.4
Survey for establishing a Korean consensus on treatment target of psoriasis		
The ideal treatment target as achieving PASI 100, absolute PASI=0, or PGA=0	8.0	78.5
Necessity of distinguishing between 'ideal' and 'realistic' treatment targets in psoriasis treatment	9.2	96.9
Achieving PASI 100 as the realistic treatment target for moderate-to-severe psoriasis	6.2	55.4
Achieving PASI 90 as the realistic treatment target for moderate-to-severe psoriasis	8.8	95.4
Preference for absolute PASI over relative PASI response (e.g., PASI 90, PASI 100) as a realistic treatment target	8.0	84.6
Absolute PASI ≤2 as the realistic treatment target for moderate-to-severe psoriasis	8.3	89.2
BSA ≤2 as the realistic treatment target for moderate-to-severe psoriasis	7.6	83.1
PGA 0/1 as the realistic treatment target for moderate-to-severe psoriasis	8.3	90.8
DLQI ≤5 as the realistic treatment target for moderate-to-severe psoriasis	6.9	70.8
DLQI ≤2 as the realistic treatment target for moderate-to-severe psoriasis	7.4	78.5
Consensus on treatment targets for special areas		
Scalp PGA 0/1 as the treatment target for scalp psoriasis	8.4	95.4
Achieving PSSI 75 as the treatment target for scalp psoriasis	7.4	78.5
Achieving PSSI 90 as the treatment target for scalp psoriasis	8.3	89.2
Scalp surface area <10% as the treatment target for scalp psoriasis	7.8	84.6
sPGA=0/1 as the treatment target for inverse psoriasis	8.5	95.4
Affected surface area <10% as the treatment target for inverse psoriasis	7.9	86.2
Finger (toe) nail PGA=0/1 as the treatment target for nail psoriasis	8.2	90.8
Achieving NAPSI 75 as the treatment target for nail psoriasis	7.5	81.5
Achieving NAPSI 90 as the treatment target for nail psoriasis	7.4	78.5

Fig. 3. Results of the round 1 Delphi survey for establishing a Korean consensus on the treatment target of psoriasis.

PASI: Psoriasis Area and Severity Index, PGA: Physician's Global Assessment, DLQI: Dermatology Life Quality Index, BSA: Body Surface Area, PSSI: Psoriasis Scalp Severity Index, NAPSI: Nail Psoriasis Severity Index.

criteria are used as treatment targets. Round 2 of the Delphi survey was conducted to determine whether to include multiple-criteria treatment target definitions or to select only one.

The results indicated that the majority of respondents (66.2%) preferred including only one criterion, while 33.8% favored including multiple criteria (**Supplementary Fig. 2B**). Given that 'absolute PASI ≤2' had already achieved strong consensus as the treatment

target in the first round of the Delphi process, it was selected as the sole primary criterion. The final treatment targets were defined as follows: the primary goal is achieving an absolute PASI ≤2. When psoriasis involves special body areas, the target is defined as reaching an affected surface area of <10% or a sPGA score of 0 or 1. For nail psoriasis, achieving a NAPSI score of 75 was set as the specific goal.

DISCUSSION

This study developed a consensus on the definition of psoriasis severity and treatment targets relevant to the Korean clinical setting using a modified Delphi approach. Through this process, the expert panel integrated international recommendations and guidelines with real-world clinical practice in Korea and proposed revised criteria for disease severity and treatment target of psoriasis. The final consensus statements are summarized in **Table 2**.

Regarding the definition of psoriasis severity, our new consensus is unique in establishing criteria to escalate mild psoriasis to moderate-to-severe psoriasis. Although numerous contemporary guidelines emphasize that involvement of special areas warrants systemic treatment, there remains a notable absence of clear, objective criteria to quantify the severity of disease at these specific sites (affected surface area $\geq 30\%$ and sPGA ≥ 3)^{10,13}. To address this gap, the Korean expert panel reached a consensus on quantifiable thresholds for disease severity escalation, specifically by integrating the affected surface area and sPGA scores for each special site. This approach is particularly relevant in Korea, where the National Health Insurance Service functions as a single-payer system and reimbursement decisions are based on predefined objective clinical criteria¹⁷. Accordingly, the use of quantifiable assessment scores is necessary to support consistent disease monitoring and to facilitate appropriate access to advanced therapies.

Another important outcome of this consensus process was the introduction of a conditional severity category. The panel agreed that patients with lower PASI scores (5–10) may be reclassified as having moderate-to-severe disease when there is clinically meaningful involvement of special or high-impact areas. This approach reflects recognized limitations of PASI-based assessment, which prioritizes overall disease extent and may therefore underestimate disease burden in patients with localized but functionally or psychosocially significant lesions^{18,19}.

In contrast, the DLQI was not included as a mandatory component of the severity definition. As a patient-reported outcome (PRO) measure, the DLQI reflects subjective perceptions of disease impact and may be influenced by individual response patterns and contextual factors. In addition, routine administration of questionnaire-based instruments can be challenging in

high-volume outpatient settings, particularly in healthcare systems such as that of South Korea, where outpatient visit volumes are high and consultation times are relatively limited²⁰. Excluding the DLQI from the mandatory definition was therefore intended to reduce variability related to subjective reporting and to preserve a primarily clinician-based, objective framework for severity classification^{21,22}. The panel also noted that the development of alternative PRO measures to replace the DLQI, and their eventual integration into severity definitions, remains an important issue for future research and consensus building.

Regarding the treatment target of psoriasis, this study is unique in that it captures, through expert consensus, a shift toward stricter treatment targets made possible by advances in biologic therapy. The expert panel identified absolute PASI ≤ 2 as the most suitable realistic treatment target. This standard is more stringent than previous treatment targets used in Korean clinical practice and prior domestic consensus statements, which generally defined treatment failure as failure to achieve PASI 75⁹. This new treatment target is consistent with the NPF Treat-to-Target strategy (BSA $\leq 1\%$) and is more strict than the absolute PASI ≤ 3 thresholds recommended in the 2023 Australian and 2021 Italian guidelines^{12,15,23}. Although the state of “clear or almost clear” skin can be assessed using the sPGA and has been shown to correlate well with an absolute PASI ≤ 2 ¹⁶, absolute PASI provides a more quantitative and objective measure and the preference for absolute PASI in this consensus likely reflects the tendency of Korean experts to favor objective, reproducible severity indices when defining treatment targets. Furthermore, an emphasis on efficiency among Korean experts may have influenced the selection of absolute PASI ≤ 2 as the sole treatment target, without including additional parallel criteria. This pattern is also observed in the proposed definition of psoriasis severity.

This consensus is also characterized by the inclusion of quantitative treatment targets for special areas. Existing guidelines, such as the IPC recategorization, primarily utilize special area involvement as a criterion for defining severity or initiating systemic therapy but rarely establish specific therapeutic endpoints^{15,24}. Real-world data from Korea have shown that a substantial proportion of patients exhibit biologics-resistant disease in body regions traditionally considered difficult to treat, including the

Table 2. Summary of the final consensus on the definition of psoriasis severity and treatment targets

Category	Consensus definition
Definition of moderate-to-severe psoriasis	
Primary criteria	PASI score ≥ 10
Conditional criteria (with special area involvement)	5 < PASI score < 10 with affected surface area (special site) $\geq 30\%$ AND sPGA ≥ 3
Realistic treatment targets	
Primary goal	Absolute PASI ≤ 2
Special areas	Affected surface area < 10% OR sPGA 0/1
Nail psoriasis	NAPSI 75 OR sPGA 0/1

PASI: Psoriasis Area and Severity Index, sPGA: static Physician's Global Assessment, NAPSI: Nail Psoriasis Severity Index.

finger nails (10.0%), toenails (14.0%), scalp (38.0%), palms (12.0%), soles (14.0%), and genital areas (10.0%)²⁵. Even among patients achieving a good overall treatment response, residual psoriasis in these special areas was frequently observed, and in the absence of clear, site-specific treatment targets, such residual disease has often been overlooked in routine clinical practice. To address this unmet need, our consensus specifies site-specific treatment goals, including sPGA 0/1 for scalp and inverse psoriasis and NAPS I 75 for nail psoriasis, suggesting that improvement in overall PASI alone may fail to address clinically relevant residual disease persists in high impact areas^{21,24,26}. For nail psoriasis, NAPS I 75 was included as an additional criterion, reflecting the clinical reality that nail involvement is generally more difficult to treat and responds more slowly to therapy compared with other manifestations of psoriasis²⁷. Although concerns were raised regarding the time required for NAPS I assessment and the potential need for alternative criteria, its selection also took into account that it remains the most readily available and objective quantitative measure in current clinical practice²⁸. These new treatment targets for special areas may encourage clinicians to pay closer attention to residual disease in difficult-to-treat areas.

An additional strength of this consensus is the definition of realistic treatment targets, which reflects the limited proportion of experts who considered complete clearance a feasible goal in everyday practice. While the panel acknowledged PASI 100 as the ideal goal, adopting absolute PASI ≤ 2 as a realistic target provides a balanced framework for clinical decision-making. In the current era of biologics and advanced small molecule drugs, this consensus may provide a balanced clinical framework that prevents premature or excessive therapeutic switching while simultaneously reducing the patient burden associated with sub-optimal outcomes, thereby motivating dermatologists to strive for the high levels of clearance now achievable with current therapies^{16,29,30}.

This study has several limitations. As a Delphi-based study, the results rely on expert opinion rather than direct clinical trial data. There may be a discrepancy between these consensus recommendations and the current strict reimbursement criteria of the Korean National Health Insurance system.

In summary, this consensus proposes a practical framework for defining psoriasis severity and treatment targets in the Korean clinical setting by incorporating objective, quantifiable criteria and site-specific considerations. By addressing limitations of traditional PASI-based assessment and emphasizing realistic yet stringent treatment goals aligned with modern therapies, these recommendations may support more consistent clinical decision-making and improved patient-centered outcomes, while also serving as a reference for future guideline development and policy discussions.

ACKNOWLEDGMENT

We express our sincere appreciation to all dermatologists who contributed to the development of this expert consensus, with special recognition of those who actively served as members of the steering committee.

ORCID iDs

Chul Hwan Bang 
<https://orcid.org/0000-0002-6246-0331>
 Yoo Sang Baek 
<https://orcid.org/0000-0002-8667-2814>
 Tae-Gyun Kim 
<https://orcid.org/0000-0002-2116-4579>
 Ki-Heon Jeong 
<https://orcid.org/0000-0001-6908-0932>
 Jeong Eun Kim 
<https://orcid.org/0000-0002-4368-1243>
 Seong Jin Jo 
<https://orcid.org/0000-0002-2501-7672>
 Eun-So Lee 
<https://orcid.org/0000-0003-0232-7704>
 Yong Beom Choe 
<https://orcid.org/0000-0002-3074-7602>

FUNDING SOURCE

This work was supported by the Korean Society for Psoriasis.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

DATA SHARING STATEMENT

The data that support the findings of this study are available from the corresponding authors upon reasonable request.

SUPPLEMENTARY MATERIALS

Supplementary Fig. 1

Results from the survey regarding the Korean consensus on psoriasis severity definitions. (A) Essential assessment tools identified for inclusion in the definition of psoriasis severity. (B) Preferred threshold for the extent of involvement in special areas to distinguish mild from moderate-to-severe psoriasis. The majority of respondents (56.9%) selected 30% involvement as the appropriate cutoff. (C) Expert consensus on the PASI range for severity reclassification. Regarding the PASI score, 59.1% of experts agreed that the range of 5 < PASI < 10 is the appropriate threshold for severity reclassification.

Supplementary Fig. 2

Results from the survey regarding the Korean consensus on the treatment target of psoriasis. (A) Expert consensus on the

preference for absolute PASI ≤ 2 over absolute PASI ≤ 3 . When asked to select the most appropriate treatment target threshold for the Korean clinical setting, 81.5% of experts selected absolute PASI ≤ 2 , whereas 18.5% selected absolute PASI ≤ 3 (n=65). (B) Preference for single vs. multiple criteria. The pie chart illustrates the percentage of respondents who favored including a single criterion (66.2%) vs. those who supported multiple criteria (33.8%) in the treatment target definition.

REFERENCES

- Griffiths CEM, Armstrong AW, Gudjonsson JE, Barker JNWN. Psoriasis. *Lancet* 2021;397:1301-1315. [PUBMED](#) | [CROSSREF](#)
- Han B, Jeong KH, Kim TG, Kim KJ, Kim DH, Kim BS, et al. The economic burden of psoriasis in Korea. *Korean J Dermatol* 2021;59:321-331.
- Bang CH, Yoon JW, Chun JH, Han JH, Park YM, Lee SJ, et al. Association of psoriasis with mental health disorders in South Korea. *JAMA Dermatol* 2019;155:747-749. [PUBMED](#) | [CROSSREF](#)
- Imafuku S. Recent landscape in psoriasis. *J Korean Soc Psoriasis* 2024;21:41-49. [CROSSREF](#)
- Oh SM, Kim SK, Ahn HJ, Jeong KH. A pilot genome-wide association study identifies novel markers of metabolic syndrome in patients with psoriasis. *Ann Dermatol* 2023;35:285-292. [PUBMED](#) | [CROSSREF](#)
- Reid C, Griffiths CEM. Psoriasis and treatment: past, present and future aspects. *Acta Derm Venereol* 2020;100:adv00032. [PUBMED](#) | [CROSSREF](#)
- Mrowietz U, Kragballe K, Reich K, Spuls P, Griffiths CEM, Nast A, et al. Definition of treatment goals for moderate to severe psoriasis: a European consensus. *Arch Dermatol Res* 2011;303:1-10. [PUBMED](#) | [CROSSREF](#)
- Puig L. PASI90 response: the new standard in therapeutic efficacy for psoriasis. *J Eur Acad Dermatol Venereol* 2015;29:645-648. [PUBMED](#) | [CROSSREF](#)
- Jo SJ, Baek YS, Kim TG, Jeong KH, Kim JE, Choi YS, et al. Basic therapeutic approach for patients with plaque psoriasis: Korean expert consensus using the modified Delphi method. *Ann Dermatol* 2023;35:173-182. [PUBMED](#) | [CROSSREF](#)
- Strober B, Ryan C, van de Kerkhof P, van der Walt J, Kimball AB, Barker J, et al. Recategorization of psoriasis severity: Delphi consensus from the International Psoriasis Council. *J Am Acad Dermatol* 2020;82:117-122. [PUBMED](#) | [CROSSREF](#)
- Yeung J, Bourcier M, Gooderham MJ, Grewal P, Hong CH, Lansang P, et al. Management of moderate-to-severe plaque psoriasis with biologics: a treat-to-target position paper. *Dermatol Ther* 2022;35:e15777. [PUBMED](#) | [CROSSREF](#)
- Foley P, Gebauer K, Sullivan J, McMeniman E, Shumack S, Ng J, et al. Australian consensus: treatment goals for moderate to severe psoriasis in the era of targeted therapies - adult patients. *Australas J Dermatol* 2023;64:476-487. [PUBMED](#) | [CROSSREF](#)
- Daudén E, Puig L, Ferrándiz C, Sánchez-Carazo JL, Hernanz-Hermosa JM; Spanish Psoriasis Group of the Spanish Academy of Dermatology and Venereology. Consensus document on the evaluation and treatment of moderate-to-severe psoriasis: Psoriasis Group of the Spanish Academy of Dermatology and Venereology. *J Eur Acad Dermatol Venereol* 2016;30 Suppl 2:1-18. [PUBMED](#) | [CROSSREF](#)
- Imafuku S, Zheng M, Tada Y, Zhang X, Theng C, Thevarajah S, et al. Asian consensus on assessment and management of mild to moderate plaque psoriasis with topical therapy. *J Dermatol* 2018;45:805-811. [PUBMED](#) | [CROSSREF](#)
- Gisondi P, Talamonti M, Chiricozzi A, Piaserico S, Amerio P, Balato A, et al. Treat-to-target approach for the management of patients with moderate-to-severe plaque psoriasis: consensus recommendations. *Dermatol Ther (Heidelb)* 2021;11:235-252. [PUBMED](#) | [CROSSREF](#)
- Mahil SK, Wilson N, Dand N, Reynolds NJ, Griffiths CEM, Emsley R, et al. Psoriasis treat to target: defining outcomes in psoriasis using data from a real-world, population-based cohort study (the British Association of Dermatologists Biologics and Immunomodulators Register, BADBIR). *Br J Dermatol* 2020;182:1158-1166. [PUBMED](#) | [CROSSREF](#)
- Lim SJ, Jang SI. Leveraging national health insurance service data for public health research in Korea: structure, applications, and future directions. *J Korean Med Sci* 2025;40:e111. [PUBMED](#) | [CROSSREF](#)
- Yee D, Armstrong AW. Re-classification of psoriasis severity: perspectives and controversy. *J Psoriasis Psoriatic Arthritis* 2022;7:7-8. [PUBMED](#) | [CROSSREF](#)
- Merola JF, Qureshi A, Husni ME. Underdiagnosed and undertreated psoriasis: nuances of treating psoriasis affecting the scalp, face, intertriginous areas, genitals, hands, feet, and nails. *Dermatol Ther* 2018;31:e12589. [PUBMED](#) | [CROSSREF](#)
- Valderas JM, Kotzeva A, Espallargues M, Guyatt G, Ferrans CE, Halyard MY, et al. The impact of measuring patient-reported outcomes in clinical practice: a systematic review of the literature. *Qual Life Res* 2008;17:179-193. [PUBMED](#) | [CROSSREF](#)
- Maul JT, Maul LV, Didaskalu JA, Valenzuela F, Romiti R, Peterson H, et al. Correlation between dermatology life quality index and psoriasis area and severity index in patients with psoriasis: a cross-sectional global healthcare study on psoriasis. *Acta Derm Venereol* 2024;104:adv20329. [PUBMED](#) | [CROSSREF](#)
- Kim JH, Yoon HJ, Park KD. Health related quality of life in patients with psoriasis. *J Korean Soc Psoriasis* 2023;20:51-58. [CROSSREF](#)
- Elmets CA, Leonardi CL, Davis DMR, Gelfand JM, Lichten J, Mehta NN, et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with awareness and attention to comorbidities. *J Am Acad Dermatol* 2019;80:1073-1113. [PUBMED](#) | [CROSSREF](#)
- Horner ME, Orroth KK, Ma J, Duan Y, Cordey M. Redefining disease severity with special area involvement and reflecting on treatment patterns in a real-world psoriasis population. *Dermatol Ther (Heidelb)* 2024;14:187-199. [PUBMED](#) | [CROSSREF](#)
- Won SH, Shin BS, Bae KN, Son JH, Shin K, Kim HS, et al. Which areas are still left in biologics responsive Korean patients with moderate to severe plaque psoriasis. *Ann Dermatol* 2023;35:6-10. [PUBMED](#) | [CROSSREF](#)
- Blauvelt A, Gondo GC, Bell S, Echeverría C, Schmitt-Egenolf M, Skov L, et al. Psoriasis involving special areas is associated with worse quality of life, depression, and limitations in the ability to participate in social roles and activities. *J Psoriasis Psoriatic Arthritis* 2023;8:100-106. [PUBMED](#) | [CROSSREF](#)
- Youn SW. Nail psoriasis: clinical features and severity assessment. *Ann Dermatol* 2024;36:191-196. [PUBMED](#) | [CROSSREF](#)
- Kim Y, Kim SA. Nail psoriasis. *J Korean Soc Psoriasis* 2023;20:59-66. [CROSSREF](#)

29. Armstrong AW, Siegel MP, Bagel J, Boh EE, Buell M, Cooper KD, et al. From the medical board of the national psoriasis foundation: treatment targets for plaque psoriasis. *J Am Acad Dermatol* 2017;76:290-298. [PUBMED](#) | [CROSSREF](#)
30. Kerdel F, Zaia M. An evolution in switching therapy for psoriasis patients who fail to meet treatment goals. *Dermatol Ther* 2015;28:390-403. [PUBMED](#) | [CROSSREF](#)