REVIEW ARTICLE

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# Redefining Treat-to-target in Atopic Dermatitis: Towards Meaningful, Patient-centred Disease Control – An ISAD Position Paper

John SU[1,2], Andreas WOLLENBERG[2,3,4,5], Melanie FUNK[6], Tina MESARIČ[7], Brandon HU[1,8], Tammi SHIPOWICK[9], Kelly BARTA[10], Kristin BELLESON[11], Li-Chuen WONG[12], Kiu Han KIM[13], Chia-Yu CHU[14], Sandipan DHAR[2,15], Yoshiyuki KATAOKA[16], Kin Fon LEONG[17], Kam Lun Ellis HON[18], Erere OTROFANOWEI[2,19], Peter FOLEY[1,20], Lin MA[2,21], Yong Kwang TAY[22], Marie LODÉN[23], Anousha YAZDABADI[24], Kathrin A. GIBSON[25], Jonathan D. AKIKUSA[26], Andrew ÖSTÖR[26], Connie KATELARIS[27], Frank THIEN[28], Michihiro FUTAMURA[29], Rie YOTSU[30], Peter SCHMID-GRENDELMEIER[2,31,32] and Alain TAÏEB[2*]

*[1]Department of Dermatology, Monash University, Eastern Health and Murdoch Children's Research Institute, Royal Children's Hospital, Melbourne, Australia, [2]International Society of Atopic Dermatitis (ISAD), Davos, Switzerland, [3]Department of Dermatology and Allergy, University Hospital Augsburg, Augsburg, Germany, [4]Comprehensive Center for Inflammation Medicine, University Hospital Schleswig-Holstein, Lübeck, Germany, [5]Department of Dermatology and Allergy, Ludwig Maximilian University, Munich, Germany, [6]Eczema Support Australia, Hope Island, Australia, [7]Institute Atopika, Maribor, Slovenia, [8]Independent patient representative and physician trainee, Melbourne, Australia, [9]GlobalSkin, Ottawa, Canada, [10]International Topical Steroid Awareness Network (ITSAN), Atlanta, GA, United States, [11]National Eczema Association, Novato, CA, United States, [12]Department of Dermatology, The Children's Hospital at Westmead, Sydney, Australia, [13]Department of Dermatology, VHS Medical Center, Seoul, South Korea, [14]Department of Dermatology, National Taiwan University Hospital and National Taiwan University College of Medicine, Taipei, Taiwan, [15]Department of Pediatric Dermatology, Kolkata, India, [16]Department of Dermatology, Osaka Habikino Medical Center, Osaka, Japan, [17]Department of Dermatology, Kuala Lumpur, Malaysia, [18]Department of Pediatrics, CUHK Medical Centre, The Chinese University of Hong Kong, Hong Kong, China, [19]Dermatology Unit, Department of Medicine, College of Medicine, University of Lagos, Lagos, Nigeria, [20]Skin Health Institute and The University of Melbourne, Melbourne, Australia, [21]Department of Dermatology, Beijing Children's Hospital, Capital Medical University, National Center for Children's Health, Beijing, China, [22]Department of Dermatology, Changi General Hospital, Singapore, Singapore, [23]Department of Dermatology and Pharmacy, Stockholm, Sweden, [24]Department of Dermatology, Eastern Health Clinical School, Monash Medical School, Monash University, Melbourne, Australia, [25]Department of Rheumatology, Liverpool Hospital, Sydney, Australia, [26]Rheumatology Service, Department of General Medicine, Royal Children's Hospital, Melbourne, Australia, [27]Allergy and Immunology Unit, Department of Medicine, Campbelltown Hospital, Sydney, Australia, [28]Department of Respiratory Medicine, Monash University, Eastern Health, Melbourne, Australia, [29]Department of Pediatrics and Allergy, National Hospital Organization Nagoya Medical Center, Nagoya, Japan, [30]Department of Tropical Medicine and Infectious Disease, Celia Scott Weatherhead School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA, United States, [31]Allergy Unit, Department of Dermatology, University Hospital Zurich, Switzerland, Davos, and [32]CK-CARE, Davos, Switzerland*

**Treat-to-target strategies link predefined goals to regular assessment and treatment adaptation. In atopic dermatitis, recent initiatives have mainly defined thresholds using clinician- and patient-reported outcomes. This review and position paper critically examines current approaches and proposes priorities for a more clinically meaningful, patient-centred and globally applicable framework. It synthesizes recent consensus and outcome-harmonization initiatives with selected lessons from rheumatoid arthritis and asthma and was informed by multidisciplinary, patient-inclusive discussions at an International Society of Atopic Dermatitis-World Health Organization premeeting. The workshop was not a Delphi or formal consensus exercise; it was used to identify conceptual priorities and implementation challenges for future international consensus work. Current proposals converge partly around severity thresholds and symptom control but insufficiently capture disease instability, comorbidities, family burden, treatment burden and real-world constraints. We propose 4 complementary domains: disease activity; symptoms and function; global patient health and disease impact and longitudinal control and treatment adaptation. Some components are supported by validated measures, whereas others remain exploratory. Treat-to-target in atopic dermatitis should evolve beyond isolated thresholds towards an adaptable multidimensional strategy, followed by formal international consensus and prospective validation.**

## SIGNIFICANCE

Current treat-to-target approaches in atopic dermatitis mainly rely on scores measured at a single visit. Patients, however, judge control by whether they sleep, work, study, participate in family and social life and avoid repeated flares and burdensome rescue treatment. This article proposes a broader framework that combines skin inflammation with symptoms, daily function, overall impact and stability over time. It is intended to guide a future formal international consensus rather than to present a completed consensus.

*Key words:* atopic dermatitis; treat-to-target; patient-centered care; disease control; patient-reported outcomes; minimal disease activity.

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*Corr:* Alain Taïeb, Inserm U1312, University of Bordeaux, Bordeaux, France. *Email: alain.taieb@u-bordeaux.fr

Treat-to-target (T2T) strategies have reshaped the management of chronic inflammatory diseases by replacing reactive care with structured, goal-oriented approaches. In rheumatology, T2T improved outcomes

because it linked measurable targets to regular assessment and timely treatment modification, progressively reducing uncontrolled disease and long-term damage (1–4).

In atopic dermatitis (AD), the rapid expansion of biologics and small molecules has created conditions for a similar shift. Recent initiatives have focused on defining clinically meaningful thresholds using clinician-reported outcome measures (ClinROMs) (5–7), harmonizing definitions and outcome measures (8–10) and linking thresholds to patient-reported outcome measures (PROMs) (11–15). These efforts are essential, but they remain largely rooted in clinical-trial logic and do not yet fully capture the complexity of AD in real-world settings, including disease instability, comorbidities (16), family burden, treatment access and sociocultural context.

The central challenge is therefore not simply to define targets but to ensure that they reflect what matters most to patients and remain usable (17) across different healthcare settings. This review and ISAD position paper build on published evidence and on a multidisciplinary, patient-inclusive workshop associated with an ISAD-WHO premeeting. Its aim is to clarify what T2T in AD should become if it is to guide practice rather than merely classify response.

### *Basis of the position paper*

This article is a narrative synthesis and conceptual position paper, not a systematic review, guideline, Delphi exercise or completed consensus statement. It integrates published AD T2T initiatives and outcome-harmonization work with selected lessons from other specialties and themes arising from the workshop held before the 15th Rajka Symposium in Melbourne.

The workshop brought together dermatologists, specialists from rheumatology, respiratory medicine and allergy, patient representatives and participants with global-health perspectives. Its objectives were to identify limitations of current threshold-based approaches, explore patient-prioritized outcomes, compare relevant experience from other specialties and define questions for future formal international consensus work. The format included invited presentations and moderated multidisciplinary discussion; no formal voting, predefined consensus threshold or ranking procedure was used. Slides, discussion records and subsequent exchanges coordinated by ISAD informed drafting and iterative review by the author group.

### *Lessons from other specialties: From thresholds to meaning*

Rheumatoid arthritis (RA) and asthma were selected as complementary comparators because both have mature goal-oriented management strategies but emphasize different dimensions relevant to AD. RA illustrates the integration of composite disease-activity measures, patient global assessment, regular reassessment and treatment adaptation. Asthma illustrates the distinction between current control and future risk, including exacerbation prevention and treatment-related harm. These examples were not derived from a formal comparative review; they were chosen to illuminate specific conceptual and implementation questions in AD.

T2T strategies often begin with simple thresholds because thresholds facilitate standardization, communication, trials and regulatory dialogue. They become clinically transformative only when embedded in a broader framework that integrates patient experience, prognosis and repeated therapeutic adjustment. Some dimensions of such frameworks are already supported by validated outcome measures and consensus-derived thresholds, whereas others – including longitudinal adaptation models, broader psychosocial adaptation and artificial intelligence-assisted decision support – remain exploratory and require prospective validation.

In RA (Box 1), T2T succeeded because it combined early intervention, measurable disease activity and systematic treatment adaptation. A decisive advance was the move from isolated variables towards composite indices such as DAS28 and SDAI, which integrated clinician-reported findings with patient-reported measures, especially patient global assessment and function (18–20). This reflected an important conceptual distinction: disease activity and patient global health are related but not interchangeable. Subsequent work reinforced the importance of PROMs for treatment decisions, longitudinal monitoring and shared decision-making (21–25). Juvenile idiopathic arthritis T2T also relies on individualized patient-family targets, supporting the distinction between disease activity and disease impact as parallel targets (26).

RA teaches a second lesson: defining targets is not enough. Even where T2T is well established, many patients with persistent disease activity do not undergo treatment escalation. This implementation gap reflects clinician inertia, patient reluctance and system-level constraints. For AD, where access to specialists and advanced therapies is more variable, this lesson is especially relevant.

Asthma provides a complementary model (Box 2). Traditional asthma care was largely reactive, focused on symptoms, exacerbations and stepwise escalation after poor response. More recent approaches emphasize the balance between current control and future risk, including prevention of exacerbations, systemic corticosteroid toxicity and irreversible airway remodelling (27). This distinction between short-term

**Box 1. Rheumatoid arthritis: key lessons for atopic dermatitis**

- Targets matter only when linked to regular reassessment and treatment adaptation.
- The major advance in rheumatoid arthritis was the move towards composite indices integrating clinician- and patient-reported measures.
- Patient global assessment and function became central because disease activity alone did not capture total burden.
- For atopic dermatitis, single thresholds are useful starting points but are insufficient as final targets.

**Box 2. Asthma: key lessons for atopic dermatitis**

- Treat-to-target should address not only current symptoms but also future risk and long-term consequences.
- Defining remission is complex when disease activity, comorbidities and treatment-related risks interact.
- Effective treat-to-target requires better phenotyping, biomarkers and early recognition of high-risk patients.
- For atopic dermatitis, targets should incorporate disease trajectory, comorbidity burden and real-world feasibility.

control and long-term risk is highly relevant to AD, where control, low disease activity and remission remain variably defined and often lack a sufficient longitudinal perspective, including long-term treatment burden. The asthma model also underscores the need for better phenotyping, earlier recognition of high-risk patients and realistic pharmacoeconomic thinking when maintenance therapies are costly.

Taken together, these specialties suggest that AD is still in an early phase of T2T development. Progress has been made in defining candidate thresholds and recognizing the importance of PROMs, but the field still lacks universally accepted composite targets, robust trajectory predictors and practical frameworks that link measurement to longitudinal, responsive care.

*Can treat-to-target be adapted to atopic dermatitis?*

If T2T is to be adapted to AD, the starting point should not be the metric, but the patient. AD cannot be reduced to a visible inflammatory skin disease. For patients and families, its burden lies in the cumulative disruption of sleep, school and work participation, self-confidence, social life and the ability to live without constant vigilance around flares and treatment.

From this perspective, control is not synonymous with complete skin clearance. It is better understood as recovery of normal life and confidence in a sustainable treatment plan. Patients' vision of control is summarized in Box 3. Minimal disease activity (MDA) reflects a state in which disease is still present but no longer dominates daily life.

At the current stage of AD therapeutic development, MDA may represent a realistic and clinically meaningful intermediate target for many patients, while definitions of remission continue to evolve alongside increasing therapeutic efficacy and improved understanding of long-term disease control. Multidimensional assessment may identify clinically important discordances between domains. Inflammatory skin signs may appear relatively controlled while itch, sleep disturbance, treatment burden, psychosocial distress or family impact remain substantial. Conversely, limited visible disease may coexist with marked instability or recurrent flares. In such situations, treatment decisions should not rely exclusively on snapshot severity scores, but on shared decision-making that integrates physician- and patient-prioritized outcomes.

**Box 3. What control means for patients with atopic dermatitis**

- Sleeping through the night without itch.
- Attending school or work without disruption.
- Participating normally in family and social life.
- Confidence in treatment and less time spent firefighting the disease.
- Feeling normal again, even when complete remission is not achievable.

These patient-centred definitions do more than illustrate burden; they redefine the therapeutic endpoint. Functional restoration, reduced vigilance and recovery of ordinary life are not secondary outcomes but core components of meaningful disease control. Comorbidities should also be identified and managed appropriately, even when they cannot be modified by the same treatment.

Once this patient-centred foundation is established, the physician perspective becomes clearer. AD is entering the same transitional phase seen previously in psoriasis, RA and asthma: effective targeted therapies make T2T increasingly feasible, but appropriate targets remain incompletely defined. Adult AD T2T proposals have identified converging but still variable targets, including EASI-75 or greater for response, EASI thresholds ranging from ≤7 to ≤3–5 for low disease activity, DLQI<5 (28) and control of key symptoms such as itch and sleep disturbance (11–15, 17). Thresholds for low disease activity, very low disease activity and remission have also been proposed by

international expert consensus using EASI, vIGA-AD and PP-NRS (29). These are important advances, but they do not yet constitute a complete T2T strategy.

One reason is that AD is not static. Snapshot severity may miss clinically meaningful instability, flare tendency, or rapid extension from localized hotspots to generalized disease. Long-term trajectories also remain incompletely predictable. Early intensive intervention may eventually prove justified in selected high-risk subgroups, but current criteria are not sufficiently robust to support routine implementation.

The paediatric perspective sharpens these issues. Paediatric inflammatory diseases such as juvenile idiopathic arthritis have successfully adopted T2T principles (26), but paediatric AD introduces additional complexity: developmental stage, family burden, safety over years of exposure, cultural context and the possibility of spontaneous remission all affect target selection. Adolescents may be particularly affected by self-image concerns and disruption of leisure and physical activities. Family impact is therefore central rather than peripheral to paediatric target-setting.

A final challenge is global applicability. T2T frameworks developed in highly resourced settings often assume access to advanced therapies, repeated scoring, specialist follow-up and longitudinal tracking that are unavailable in much of the world. In many settings, pragmatic targets based on optimized topical management, education, trigger reduction and simplified assessment tools may be more appropriate than biologic-centred remission goals. A viable AD T2T strategy must therefore be rigorous, scalable and adaptable. Implementation may require distinguishing a pragmatic minimum dataset suitable for routine care – for example, inflammatory severity assessment combined with itch, sleep and patient global impact – from more comprehensive multidimensional assessments feasible in specialized centres or digitally supported longitudinal care models.

Drawing on the RA model, treatment strategy and tight disease control may be as important as drug choice. In RA, T2T approaches using conventional disease-modifying antirheumatic drugs have achieved effective and cost-efficient control (30). In AD, the advent of new systemic therapies offers an opportunity to revisit and optimize conventional treatments (31) within structured T2T strategies, potentially improving outcomes across diverse healthcare settings.

## *Conclusion and perspectives*

T2T represents a major opportunity to improve outcomes in AD, but its success will depend on moving beyond isolated thresholds towards a multidimensional and adaptable framework integrating disease activity with symptoms, function and global patient health. It must also remain responsive to disease trajectory, age, comorbidity burden, treatment burden and healthcare context. **Table I** presents an evidence-informed conceptual framework that includes validated measures alongside emerging tools and future-oriented concepts (32–40). This framework represents the authors' evidence-informed conceptual proposal. Its purpose is to organize priorities for the planned international consensus process involving ISAD and collaborating organizations.

The first 3 domains are relatively well defined, although their optimal weighting remains unresolved. The 4th domain – longitudinal control and treatment adaptation – is less clearly delineated and includes related but not yet standardized concepts such as flare control, flare prevention, disease stability, escalation and de-escalation. This is a major priority for future consensus work.

Key gaps include the absence of consensus on composite targets and disease states, limited biomarkers for treatment adaptation and underrepresentation of disease instability, comorbidities, family burden, socioeconomic burden and real-world constraints. Variability in access to care and monitoring capacity further challenges implementation. Validated age-stratified targets and clear de-escalation criteria in paediatric AD are also lacking.

The field is characterized by multiple parallel initiatives – threshold analyses, consensus statements and outcome-harmonization projects – that are necessary but risk fragmentation. The next step should

**Table I. Proposed domains for a future international treat-to-target framework in atopic dermatitis**

| Domain | What should be assessed | Examples/tools | Main unresolved issues |
|---|---|---|---|
| Disease activity | Inflammatory severity and extent | EASI, vIGA-AD, SCORAD | Which thresholds are most relevant across settings? |
| Symptoms and function | Itch, sleep, pain, daily activities | PP-NRS, POEM, PO-SCORAD, DLQI, CDLQI, FDLQI, ADCT, sleep scales, PRIDD | How should symptom burden be weighed against skin signs? |
| Global patient health/disease impact | Psychological burden, family impact, social confidence, broader psychosocial adaptation and coping | Patient global assessment, family-reported burden | How should broader well-being be incorporated into composite targets? |
| Longitudinal control and treatment adaptation | Reassessment, escalation, tapering, disease trajectory | Flare frequency, disease stability, treatment adjustments; future AI-assisted decision support | What is the optimal balance between ambition, validation, and feasibility? |

ADCT: Atopic Dermatitis Control Tool; AI: artificial intelligence; CDLQI: Children's Dermatology Life Quality Index; DLQI: Dermatology Life Quality Index; EASI: Eczema Area and Severity Index; FDLQI: Family Dermatology Life Quality Index; POEM: Patient-Oriented Eczema Measure; PO SCORAD: Patient-Oriented SCORAD; PP-NRS: Peak Pruritus Numerical Rating Scale; PRIDD: Patient Reported Impact of Dermatological Diseases; SCORAD: SCORing Atopic Dermatitis; vIGA-AD: Validated Investigator Global Assessment for Atopic Dermatitis.

be a formal international, multidisciplinary consensus involving dermatology, patients, relevant specialties and diverse resource settings. Prospective studies should then determine which combinations of targets best predict meaningful long-term outcomes, feasibility in routine care and patient-perceived control. T2T strategies must remain applicable across a spectrum of therapeutic availability rather than assuming access to biologics as a baseline (41, 42).

For AD, T2T will become transformative only when measurement, patient experience and clinical decision-making are articulated within a shared vision between healthcare professionals and patients. The future consensus process offers an opportunity to move from isolated metrics towards a unified strategy centred on meaningful and sustainable disease control.

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