ATOPIC ECZEMA TREATMENT GUIDELINES AUDIT

GLOBALSKIN

VOZ ADVISORS

AUGUST 2023

CONTENTS

BACKGROUND

PROJECT GOALS

1

Understand the strengths and weaknesses of current treatment guidelines for atopic eczema (AE) across different geographies

2

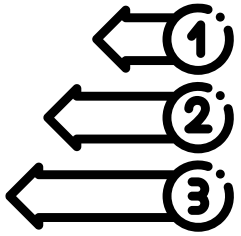
Synthesize research findings and provide considerations for improving care

PROJECT METHODOLOGY

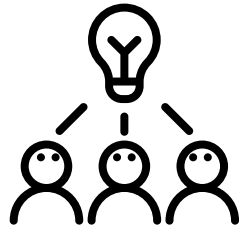
Conducted 1st KOL meeting to gather key insights on the direction & priorities of this project

In partnership with KOLs, VOZ selected 12 sets of guidelines to be analyzed, and synthesized general findings

Engage our KOLs in a second meeting to share research findings



Convene a multi-stakeholder roundtable to present findings and align on path forward for the development of final output



★ Current stage of project by end of August 20223

GEOGRAPHIC DISTRIBUTION OF TREATMENT GUIDELINES

Guidelines from:

National

Africa
- South Africa

Asia
- Malaysia
- Singapore

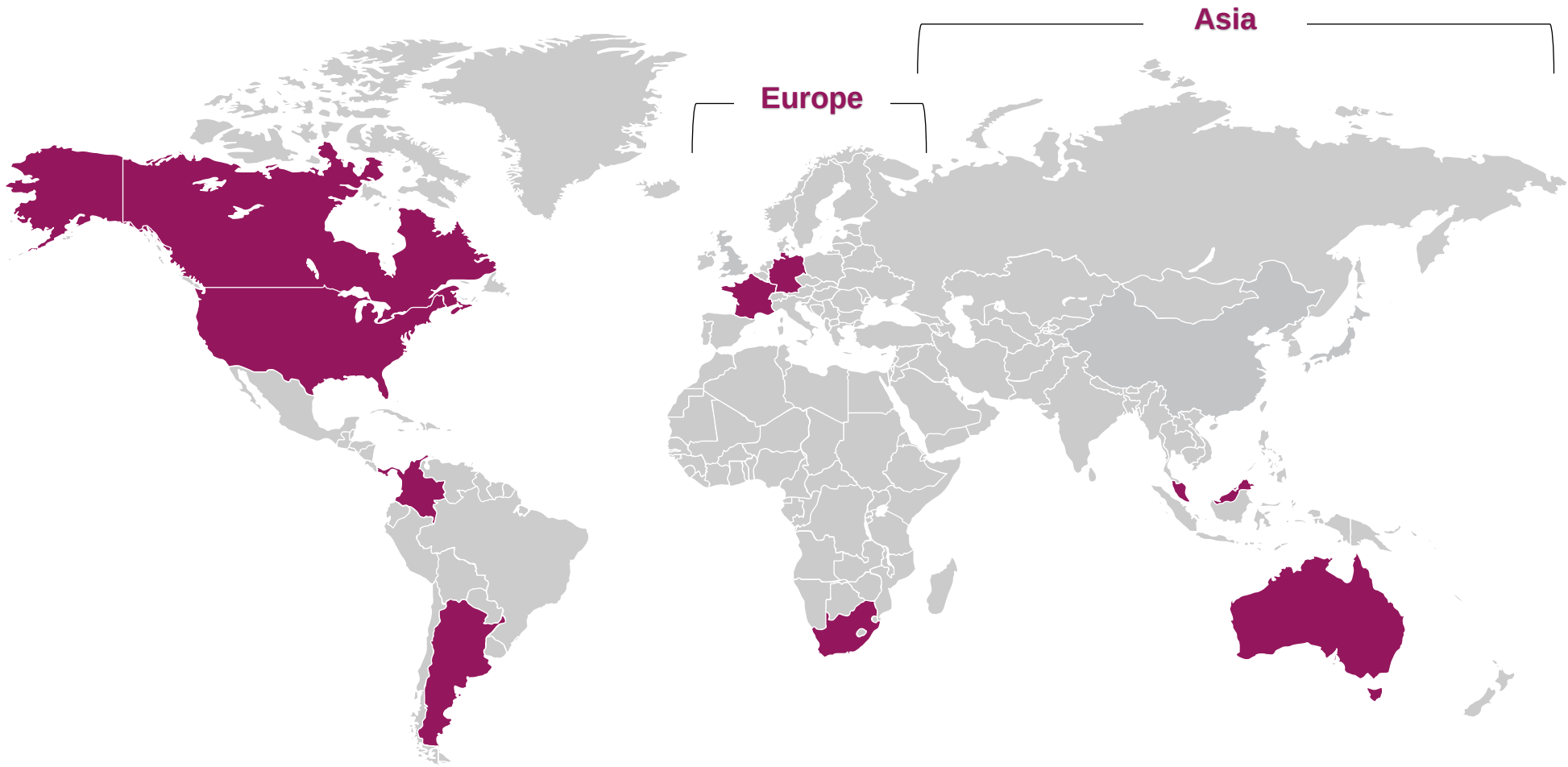
Europe
- Germany

Latin America
- Argentina
- Colombia

North America
- Canada
- USA

Oceania
- Australia

Regional
- Asia
- Europe



COUNTRIES REPRESENTED IN REGIONAL GUIDELINES

European Union

- Switzerland
- France
- Germany
- Spain
- Hungary
- Poland
- Italy

Asia

- Malaysia
- Singapore
- Philippines
- India
- Cambodia
- Vietnam
- Indonesia
- China

Asia (contributors)	EU (contributors)
Malaysia (3)	Germany (9)
Singapore (1)	France (2)
The Philippines (1)	Switzerland (2)
India (1)	Italy (2)
Cambodia (1)	Poland (2)
Vietnam (1)	Hungary (1)
Indonesia (6)	Spain (1)
China (1)	

GUIDELINE OVERVIEW

EVALUATION CRITERIA

Clinical Assessment & Diagnosis	Guideline Scope & Definitions	Patient-Centered Approach	Practical Considerations	Treatment & Management
• Outlines patient-physician interactions • Outlines AE severity stratification (scoring system) • Defines treatment response/failure • Underscores clinical associations/comorbidities • Walks through risks/aggravating factors/etiopathogenesis	• Establishes a comprehensive definition of AE • Addresses general practitioners (GPs) & relevant allied health professionals • Addresses pharmacists • Cites (level of) evidence guiding recommendations/suggestions • Involves patient and/or advocate guideline development	• Measures patient quality of life as diagnostic procedure • Emphasizes patients' treatment goals (shared decision-making) • Actively promotes psychosocial support (i.e., referrals) • Mentions psychological comorbidities • Underscores educational initiatives	• Notes gaps in research • Considers cost of treatment • Stratifies recommendations & suggestions • Addresses depigmentation (hyper/hypo) • Speaks to traditional & complementary medicine	• Indicates therapeutic management strategies • Outlines timeline for safe treatment duration • Recommends appropriate treatment monitoring indications and procedures • Addresses non-pharmacological interventions • Provides tiered treatment options (by diagnostic severity)

GUIDELINE ASSESSMENT MATRIX

Pharmacist guidelines not included in table below. See slide 23.

	Guideline Title	Country	*Clinical Assessment & Diagnosis*	*Guideline Scope and Definition*	*Patient-Centered Approach*	*Practical Considerations*	*Treatment Management*
Individual countries	Guidelines for the Diagnosis and Treatment of Atopic Dermatitis 2019	Argentina	5	3	4	4	5
	Atopic Dermatitis in Adults: An Australian Management Consensus	Australia	5	3	3	2	4
	Approach to the Assessment and Management of Adult Patients with Atopic Dermatitis: A Consensus Document	Canada	4	1	0	2	5
	Clinical Practice Guideline (CPG) for the Diagnosis and Treatment of Atopic Dermatitis in Colombia	Colombia	4	4	4	5	5
	Systemic Treatment of Atopic Dermatitis of the S2k-Guideline on Atopic Dermatitis	Germany	2	1	1	1	4
	Clinical Practice Guidelines: Management of Atopic Eczema	Malaysia	4	4	4	4	5
	Guidelines for the Management of Atopic Dermatitis in Singapore	Singapore	4	0	2	1	4
	Guideliens on the Management of Atopic Dermatitis in South Africa	South Africa	4	2	3	5	5
	Guidelines of Care for the Management of Atopic Dermatitis	USA	4	3	3	2	3
Regional	A Clinician's Reference Guide for the Management of Atopic Dermatitis in Asians	Asia	4	2	2	5	5
	European Dermatology Forum - Guidelines for the Treatment of Atopic Eczema	EU	4	3	5	4	5

Color Scale	0	1	2	3	4	5

Scale measures represent the number of criteria within each category that are met.

STRENGTHS ACROSS GUIDELINES

OVERVIEW: STRENGTHS ACROSS GUIDELINES

GUIDELINE MEASURES

1. Guidelines reflect strong methodologies for evidence-based decision-making
2. Quality of life is a consistent measure in the diagnosis of AE

GUIDELINE CONTENT

3. Patient education is commonly highlighted as a management technique
4. Nonpharmaceutical interventions are often discussed thoroughly

STRENGTHS ACROSS GUIDELINES (1 OF 2): GUIDELINE MEASURES

Guidelines reflect strong methodologies for evidence-based decision-making

Strong and comprehensive guidelines often break down the following criteria:

- **Level of agreement among professionals** involved in the drafting of the guidance
- **Level of evidence –** denoting its strength, validity, and weight
- **Grades of recommendations** for the intervention from not recommendable to highly recommended

Holistic assessment	Recommendation
Undesirable consequences clearly outweigh desirable consequences	Strong recommendation against
Undesirable consequences probably outweigh desirable consequences	Conditional recommendation against
Balance between desirable and undesirable consequences is closely balanced or uncertain	Recommendation for research *and possibly* conditional recommendation for use restricted to trials
Desirable consequences probably outweigh undesirable consequences	Conditional recommendation for
Desirable consequences clearly outweigh undesirable consequences	Strong recommendation for

SIGN 50 Recommendation Grade Scale

Quality of life is a consistent measure in the diagnosis of AE

Most guidelines include quality of life measures to ensure holistic assessment of AE severity.

Various quality of life indices are typically broken down by age, but none are standardized for professionals to reference universally.

⚠ Individuals with different levels of physical symptoms can experience vastly different impact on their quality of life

Skin & physical severity	Impact on QoL & psychosocial wellbeing
Clear: normal skin, no evidence of active atopic eczema	None: no impact on quality of life
Mild: areas of dry skin, infrequent itching (with or without small areas of redness)	Mild: little impact on everyday activities, sleep and psychosocial wellbeing
Moderate: areas of dry skin, frequent itching, redness (with or without excoriation and localized skin thickening)	Moderate: moderate impact on everyday activities and psychosocial wellbeing, frequently disturbed sleep
Severe: widespread areas of dry skin, incessant itching, redness (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking and alteration of pigmentation)	Severe: severe limitation of everyday activities and psychosocial functioning, nightly loss of sleep

NICE Assessment of Severity, Psychological and Psychosocial Wellbeing and Quality of Life

STRENGTHS ACROSS GUIDELINES (2 OF 2): GUIDELINE CONTENT

Patient education is commonly highlighted as a management technique

Educating patients on preventative and maintenance techniques can greatly enhance patient outcomes and reduce the need for advanced care.

Over 80% of the guidelines assessed underscore the importance of patient-centric educational initiatives as a mechanism for condition management.

Educational objectives should match the patient's capacities and resources.

Not many guidelines elaborate on what should be taught or by whom.

Community health workers and other primary healthcare experts can conduct educational sessions to disseminate knowledge more effectively.

Nonpharmacological interventions are often discussed thoroughly

Nonpharmacological interventions present patients with inexpensive approaches for managing their AE symptoms.

Nonpharmaceutical interventions are endorsed in most guidelines (>80% of those assessed).

Guidelines typically recommend the following ***nonpharmacological interventions***:

- Environmental trigger avoidance
- Dietary interventions
- Psychosomatic interventions (e.g., itch education)
- Bathing practices

Traditional and complementary medicine practices are often recommended against, highlighting their unproven effectiveness and potential health risk in guidelines where these practices remain prevalent.

GAPS ACROSS GUIDELINES

OVERVIEW: GAPS ACROSS GUIDELINES

PATIENT CENTRICITY

1. Patient input was not incorporated in guideline development
2. Guidelines do not call for patient-provider shared decision-making

PSYCHOSOCIAL WELLBEING

3. Psychosocial comorbidities are mentioned, but not sufficiently addressed
4. Depigmentation (hyper & hypo) is not sufficiently addressed

OVERVIEW: GAPS ACROSS GUIDELINES

PATIENT RESOURCE-DEPENDENT FACTORS

5 Therapeutics and first-line treatments such as emollients can be inaccessible

6 Low-resource nations lack their own guidelines

GUIDELINE & PROVIDER HARMONIZATION

7 No standardized diagnostic criteria exist

8 None of the guidelines address all potential care providers

GAPS ACROSS GUIDELINES (1 OF 4): PATIENT CENTRICITY

GAP #1: Patient input was not incorporated in guideline development

Patients and caregiver perspectives are not consistently integrated into the development of treatment guidelines.

Excluding patients and caregivers from the development of treatment guidelines undermines patient-centricity and leads to **guidelines that may not align with the real-world needs** and experiences of those living with this condition.

AGREE II instrument for evaluating treatment guidelines, the World Health Organization, and the Guidelines International Network **all recommend that guidelines integrate input from patients and caregivers affected by the condition of interest.**

Out of 12 guidelines assessed, only 1 reported patient, caregiver, and/or advocate input in guideline development

GAP #2: Guidelines do not call for patient-provider shared decision-making

Providers should listen to their patients and ensure that the prescribed course of treatment aligns with each patient's individual life goals.

Effective patient-practitioner communication can help patients **achieve treatment that is consistent with the life they wish to have.**

Only European guidelines addressed this matter.

"Longer consultations and forming a good caregiver-patient relationship are the strongest predictors of adherence to skin-care treatment."
– European Consensus Report, 2022

GAPS ACROSS GUIDELINES (2 OF 4): PSYCHOSOCIAL WELLBEING

GAP #3: Psychosocial comorbidities are mentioned, but not sufficiently addressed

While all guidelines point to psychological co-morbidities in association with AE, only half delineated appropriate interventions (e.g., referring to behavioral health specialists).

Psychological comorbidities are **mentioned in >70% of guidelines assessed.**

No guidelines indicate who should be helping patients manage day-to-day life (i.e., social workers and other mental health professionals).

"Despite the availability of several questionnaires assessing the impairment to quality of life, **the emotional consequences of AE have received limited attention.**"
– Arents, 2019

GAP #4: Depigmentation (hyper & hypo) is not sufficiently addressed in guidance

The long-term effects of atopic eczema--especially in skin of color--is overlooked and should be accounted for.

Skin depigmentation, when addressed, is only mentioned as a side effect with no elaboration on how to address, prevent, or ameliorate it.

Even when hyperpigmentation is addressed for lighter skin tones, **hypopigmentation in darker skin and the effects it has on people is not accounted for in most guidelines.**

"There are **psychosocial ramifications** associated with skin depigmentation."
– KOL Advisory Panel, July 2023

GAPS ACROSS GUIDELINES (3 OF 4): RESOURCE-DEPENDENT FACTORS

GAP #5: Therapeutics and first-line treatments such as emollients can be inaccessible.

Treatment guidelines fail to reflect the capabilities and resources of different geographies by providing tiered options.

Guidelines fail to provide tiered lists of potential therapies based on accessibility factors.

In various low-resource nations, **medically necessary products such as emollients are often inaccessible.**

Advanced therapies such as biologics, phototherapy, and other systemic treatments are inaccessible even in high-resource nations.

Lack of access to appropriate therapeutics can lead to misuse of whatever may be accessible (e.g., topical corticosteroid over-use) **or lead individuals to resort to potentially dangerous unapproved therapies such as complementary and traditional medicines.**

GAP #6: Low-resource nations lack their own guidelines

Many low-resource nations lack the capacity to develop their own treatment guidelines.

Extensive secondary research did not uncover treatment guidelines for certain countries in sub-Saharan African, such as Nigeria and Kenya, as well as in Latin America.

Low-resource nations often assign the typical responsibilities of dermatologists **to other primary healthcare workers.**

Developing guidelines specific to low-resource nations could greatly benefit patients.

"In my experience**, many low-resource nations will adopt the guidelines of high-resource guidelines.**"
– KOL Advisory Panel, July 2023

GAPS ACROSS GUIDELINES (4 OF 4):
GUIDELINE & PROVIDER HARMONIZATION

GAP #7: No standardized diagnostic criteria exist

While all guidelines provide disease assessment criteria, these are not consistent across guidelines.

The most commonly used diagnostic criteria in the assessed guidelines are:

- The UK Working Party's Diagnostic Criteria (used in 6/12 guidelines)
- The Hanifin and Rajka Criteria (used in 10/12 guidelines)

Dermatologists who regularly see severe cases may scale AE severity differently from a general practitioner or other primary care provider.

Inconsistent diagnosis criteria can affect:

- **Patient management** – Incorrect diagnosis & treatment
- **Research comparability** – Invalid research outcome comparisons
- **Healthcare utilization** – Over/under use

GAP #8: None of the guidelines address all potential care providers

Most care guidelines are designed for dermatologists. Only a few are designed for general practitioners and allied health professionals and other providers "treating individuals with atopic eczema".

Roles for the different types of care providers are not delineated, nor are their priorities when interacting with patients.

Guidelines are not clear about **which providers should be involved throughout a patient's journey.**

5/12 guidelines include non-dermatologists as the intended audience for some recommendations, however, they do not clarify the role each different provider should play in a patient's care journey.

Harmonizing patient outcome measures for eczema internationally is critical to assessing severity across all potential care providers

PHARMACISTS

PHARMACISTS ARE OFTEN OVERLOOKED IN THE MANAGEMENT OF ATOPIC ECZEMA

Of the countries assessed, only Canada had separate guidelines designated for pharmacists

Many topical corticosteroids are available over-the-counter, and pharmacists are the first recourse for people with eczematic symptoms

The assessed pharmacist-specific guideline emphasizes the mechanisms of different types of moisturizers and the role pharmacists play in the patient journey.

Integrating pharmacists into the development of atopic eczema treatment guidelines, as well as clearly defining their role in patient care, can increase patient access to disease education and disease management resources.

"Pharmacy shopping" is a potential hurdle when patients do not adhere to prescribed treatments.

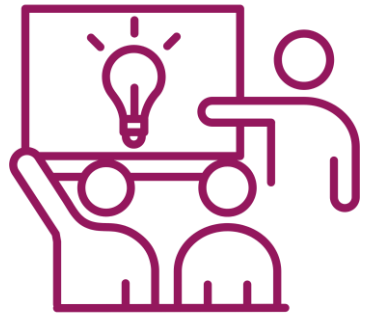
Canadian Guidelines for Pharmacists recommend that **pharmacists should receive proper training and education in communication skills to ensure pharmacist-patient interactions result in a clear understanding of a patient's treatment regimen.**

ROLES OF PHARMACISTS IN THE TREATMENT AND MANAGEMENT OF ATOPIC ECZEMA

Canadian Guidelines for Pharmacists highlight the two following roles for pharmacists:

Patient-friendly education

- Advise on the safe use of topical corticosteroids (TCS) & topical calcineurin inhibitors (TCI).
- Accurately convey how much product to use (finger-tip unit system)
- Educate patients on effective bathing techniques.
- Connect patients living with AE to patient-support groups.



AE therapy optimization & monitoring

- Recommend appropriate moisturizers based on patient disease factors.
- Check for safety & effectiveness of therapies as well as accounting for potential drug interactions and adherence.

CONSIDERATIONS

GLOBAL OBSERVATION

Evaluation of these treatment guidelines **reinforces the need for the development of a global set of recommendations to increase consistency in treatment decision-making and improve patient outcomes.**

The global set of recommendations **could be in the form of treatment guidelines, a call to action, or a patient charter that delineates a path forward for the improvement of treatment decision-making across geographies with different socioeconomic realities.**

Appropriate format for set of recommendations should be decided with the broader atopic eczema community stakeholders.

CONSIDERATIONS: PATIENT CENTRICITY

GAPS	CONSIDERATIONS
GAP #1: Lack of patient voice in guideline development	• **Leverage existing close ties to the AE community to emphasize patient centricity**, adding a unique and important perspective to the development of new treatment guidelines. • **Ensure patients, advocates, care partners and other relevant stakeholders are consulted** when developing new sets of treatment guidelines.
GAP #2: Patient-provider shared decision-making	• **Emphasize the importance of ensuring that treatment recommendations align with patient's life goals.** • **Empower patients to engage in treatment decision conversations with their providers** through the creation of dialogue tools and educational materials.

CONSIDERATIONS: PSYCHOSOCIAL WELLBEING

GAPS	CONSIDERATIONS
GAP #3: Psychosocial comorbidities are mentioned, but not sufficiently addressed	• During the early development of guidelines, **consider involving mental and behavioral health professionals** to ensure appropriate measures for psychosocial support are being addressed.
GAP #4: Depigmentation (hyper & hypo) is not sufficiently addressed in guidance	• **Emphasize the importance of strategies** to prevent chronic flare-ups resulting in depigmentation. • **Educate patients on the causes, effects, symptomatology, and potential comorbidities** associated with depigmented skin resulting from chronic and severe AE.

CONSIDERATIONS: RESOURCE-DEPENDENT FACTORS

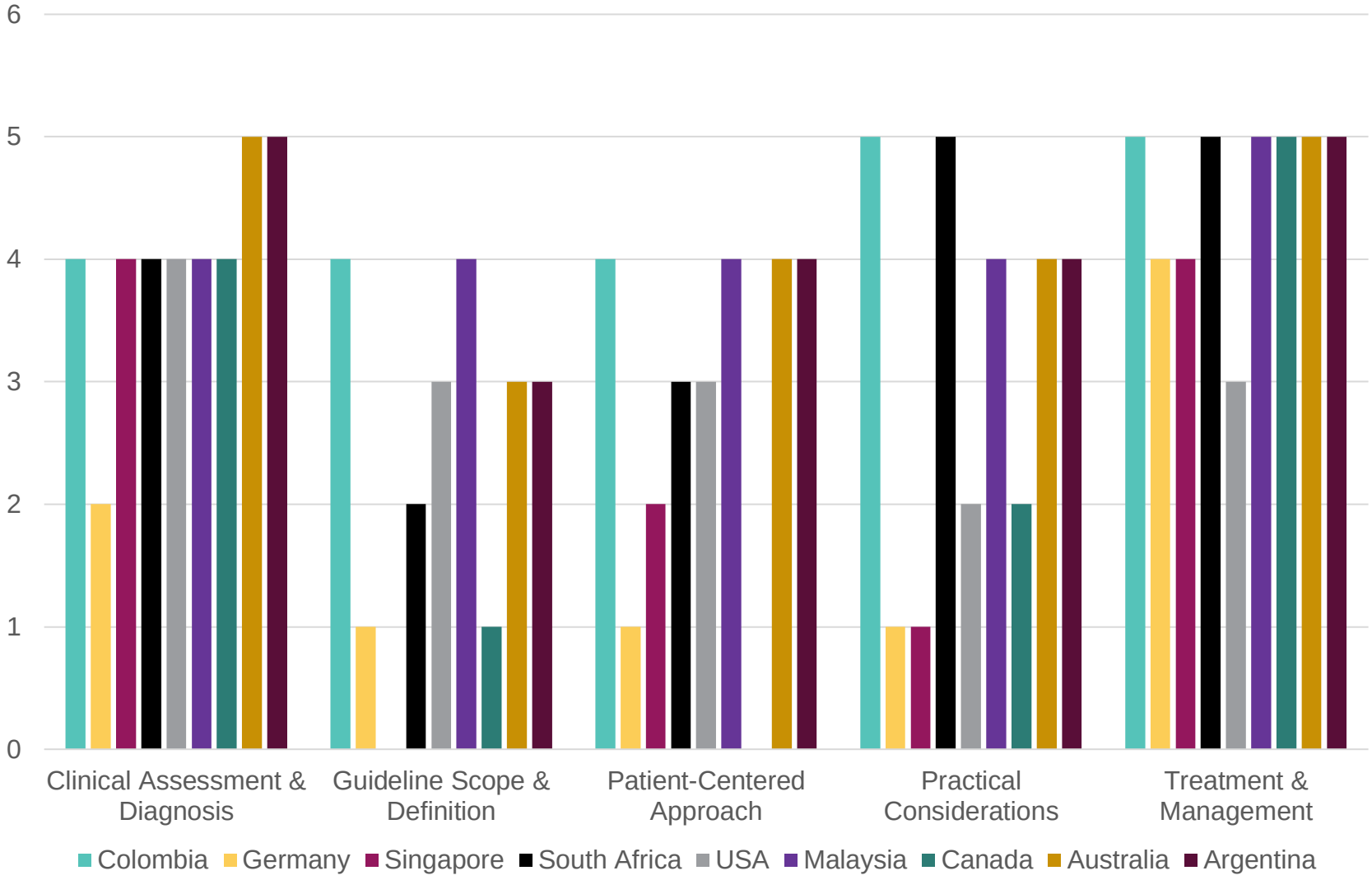
GAPS	CONSIDERATIONS
GAP #5: Therapeutics and first-line treatments such as emollients can be inaccessible	• Advocate to the World Health Organization to **ensure inclusion of emollients, moderately potent corticosteroids and systemic therapies on their Essential Medicines List.** (Note: betamethasone, calamine, and hydrocortisone are on the list but only address mild symptoms sufficiently)
GAP #6: Low-resource nations lack their own guidelines	• **Build relationships with healthcare providers, patients, advocates, and other members of the community** to align on the best way to address the gap in guidelines. • Co-develop guidelines targeting low-resource nations, **meeting their specific needs and realities.**

CONSIDERATIONS: GUIDELINE & PROVIDER HARMONIZATION

GAPS	CONSIDERATIONS
GAP #7: No standardized diagnostic criteria exist	• Build upon frequently used criteria and **synthesize their strengths into a new set of guidelines.** • Align with relevant stakeholders **to determine if existing criteria is the best alternative, or if a new set of diagnostic guidelines should be developed**.
GAP #8: Guidelines addressing all potential care providers do not exist	• **Harmonize treatment guidelines** across all potential care providers. • **Promote the development of multidisciplinary management plans** ensuring holistic and integrated care provided by: Dermatologists, Nutritionists, Pharmacists, Allergists/Immunologists, Social Workers, and Nurses.

APPENDIX

STRENGTH OF COUNTRY GUIDELINES



SAMPLE INITIATIVES SUPPORTING THE ATOPIC ECZEMA COMMUNITY IN LOW RESOURCE SETTINGS

- WHO Skin NTDs App uses a diagnostic algorithm filter by country of origin with a database of photographs and principles of treatment for 20 common skin diseases

- PASSION Dermatology Project by the University of Basel developing AI-integrated recognition tool to identify AE amongst other common skin conditions in the region using machine learning algorithms

- International League of Dermatological Societies: Global Atopic Dermatitis Atlas (GADA) highlighted the worldwide burden of AD in efforts to drive epidemiological studies specifically in SSA and other low resource settings through the support of e-tools.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ADVISORS