A Current Practice Snapshot of Atopic Dermatitis Management: Where We Are and Where We Need to Be

Introduction

The evolving understanding of the pathophysiology of atopic dermatitis (AD) has led to the recent approval of new therapies with novel mechanisms of action, including crisaborole, a topical agent for mild-to-moderate AD, and dupilumab, a systemic agent for moderate-to-severe disease. Despite these advances, however, many clinicians may lack awareness of how to accurately assess disease severity and, subsequently, how to design an appropriate therapeutic strategy for the individual patient when the disease progresses. As an expert panel of the International Eczema Council (IEC) recently observed, “[G]uidelines for decision making about advancement to systemic therapy are lacking.”1 To address these gaps in knowledge and practice—and to explore “where we are” with regard to contemporary AD management—a multicomponent CME-certified program was launched in the fall of 2018.

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This supplement outlines the interim findings from pretest and post-test questions of the above educational activities and highlights the following:

Where we are in current practice for atopic dermatitis management

Data from key questions asked during the activities

Where we need to be for optimal atopic dermatitis management

Information on what clinicians should know and how they should apply that knowledge
The current model of AD posits a multifactorial pathogenesis involving both an “outside-in” and an “inside-out” process. In this view, symptoms result from a combination of defects in the skin barrier that are exacerbated by dysregulated immune activity. Understanding this principle is important, since treatment for AD in the earlier stages involves topical management (including use of skin hygiene, emollients, and therapeutic lotions or ointments), while in the later stages a systemic approach may be needed to address the underlying inflammatory and allergic processes. Non-lesional AD has a greater response to irritants, including cigarette smoke.

When asked about which factors contribute to the skin barrier defect seen in AD, the proportion of learners who identified the correct answer (deficits in filaggrin) rose from about 22% (pretest) to nearly 75% after exposure to the education.

Nearly 76% of learners reported that their understanding of the pathophysiological mechanisms contributing to the barrier defect in AD was only “fair” or “poor.”

The above findings (and other similar outcomes results, not reported here) support the need for further education on AD mechanisms and the value of presenting such material in a highly visual, interactive format.
Where we are

Current Concepts in Assessing AD

Learners' understanding of symptoms and comorbidities of AD was determined, along with their knowledge of tools that can be used to make such assessments.

Where we need to be

Although most patients with AD can be managed effectively with topical agents, a significant number will require a more aggressive approach. The decision to step up to systemic therapy should be made holistically, involving a mix of tools to assess both disease severity and the patient's overall quality of life. Many tools exist for evaluating these parameters, but most are intended for use in evaluating results of trials and may not be practical in the clinic. No “gold standard” tool has been identified, and only 3 have been adequately validated: EASI, SCORAD, and POEM.6-8 Experts recommend applying a mix of tools and strategies for assessment.

Where we are

In the interactive modules, the majority of learners reported that they did not use any of the listed assessment tools when clinically evaluating patients with AD.

Where we need to be

AD can progress through 3 phases of severity—non-lesional, acute, and chronic. The increase in severity reflects changes in the underlying immune mechanisms and dictates treatment choices.5

More than half (45%) of MedQuiz participants were aware that only SCORAD incorporates the perspectives of both the clinician and the patient.

Where we are

Which of the following symptoms do patients with AD typically report is the most bothersome?

- Appearance: 16%
- Bleeding: 4%
- Itch*: 55%
- Pain: 25%

*Correct answer.

Where we need to be

The clinical presentation of AD involves the following:

- Pruritus
- Eczema
- Pain, bleeding, or oozing
- Sleep disturbance
- Depression
- Psychosocial challenges

Awareness of pruritus is important because treatment must be designed to address this aspect of disease to optimize outcomes and to improve patients' satisfaction with their therapy.

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Current Concepts in Treating AD

Learners were assessed on their level of understanding of the mechanisms of action of current AD therapies as a way to emphasize the importance of selecting agents that target the pathophysiological disruptions that produce symptoms.

Where we are

Asked which agent targets phosphodiesterase 4 (PDE-4) activity, only about 25% of respondents on the pretest correctly identified crisaborole; after the education, however, more than 80% answered correctly.

Pretest: 25%
Post-test: 80%

Where we need to be

Understanding the mechanism of action of available agents for managing AD will help clinicians identify appropriate treatment choices.

Crisaborole inhibits PDE-4 activity, resulting in a reduction in cytokine expression, including IFN-γ, TNF-α, IL-2, IL-4, and IL-31.9

Where we are

The proportion of learners who knew that dupilumab reduces inflammation in AD by inhibiting Th2 cytokines also rose, from 30% on the pretest to 45% on the post-test, but such results, while encouraging, indicate there is still room to increase awareness about drug mechanisms.

Pretest: 30%
Post-test: 45%

Where we need to be

Dupilumab reduces inflammation in AD by inhibiting Th2 cytokines.

Summary

Atopic dermatitis is a complex disease that can arise at any age, including in very young patients, and that can persist and progress over the course of many years. Most cases are mild-to-moderate in severity and can be managed appropriately and effectively in the primary care setting. However, the underlying pathology of AD can change over time to involve different immune pathways, resulting in more severe symptoms and necessitating a reevaluation of the patient to determine whether referral for more aggressive treatment is needed. Specialists are in a position to offer stepped-up therapy that includes a systemic approach when appropriate. Education that explicates the disease process—and that challenges learners to select optimal treatment for an individual—can be effective, but the range of learner answers submitted by participants in a recent CME program series suggests that more effort is needed to close the educational gaps and improve therapeutic outcomes for patients with AD.

References