Making Sense of the Guidelines for the Management of Atopic Dermatitis

Difference between allergists’ and dermatologists’ respective guidelines highlight the importance of interdisciplinary collaboration.

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Since the time of ancient Greece when the practice of medicine consisted of balancing the ‘humors’ within the human body, generations of physicians have relied upon hands-on training, anecdotal experience, tradition, and consensus opinion to guide treatment of disease. In the 20th century, however, there was a shift in philosophy especially in the US, and laws including the Kefauver-Harris Amendment were passed requiring that the FDA license drugs only if there was clinical evidence showing their effectiveness and safety. It was after that time, starting around the mid-20th century, that clinical practice also began to evolve and became increasingly based on data provided by clinical trials and research; thus the modern convention of evidence-based medicine was born, and with it came an enormous growth in the development of management guidelines and protocols to standardize patient care.

One of the interesting side effects of the push for the use of guidelines in medicine is that disagreements may arise when attempting to interpret the existing data and systematize diagnosis or treatment of the same disease. This holds true for parameters created for the management of atopic dermatitis (AD), as a multitude of evidence-based guidelines for the management of this disease exist, published by several different medical societies across the globe.

Two such guidelines were recently published by the American Academy of Dermatology (AAD) and the Joint Task Force representing the American College of Asthma, Allergy and Immunology and the American Academy of Asthma, Allergy and Immunology (JTF). The majority of the recommendations for the treatment and management of AD are similar between the two, including use of moisturizers and topical anti-inflammatories (corticosteroids and calcineurin-inhibitors) as mainstay therapeutics and systemic treatment for refractory disease. Nonetheless, subtle differences between the guidelines do exist. In this article, we aim to potentially broaden the perspective and approach of the clinician who treats AD, by highlighting these differences. Dermatologists and allergists may thus incorporate recommendations from both guidelines that they may not have otherwise encountered, which could lead to improved patient care.

**WHAT CAN AN ALLERGIST LEARN FROM DERMATOLOGY (AAD) GUIDELINES AND HOW CAN THIS BE INCORPORATED INTO PRACTICE?**

While the main concepts of AD management are not dissimilar from the JTF parameters, allergists can gather several ideas from the AAD guidelines. The JTF parameters...
do not stress counseling AD patients on the misconceptions of topical steroid use ("steroid-phobia") but the AAD guidelines strongly emphasize avoiding treatment failure due to non-compliance with topical anti-inflammatories. This counseling often times plays a large role in patients successfully using topical corticosteroids, so allergists may benefit by employing this kind of patient education on a regular basis.

As may be expected based on their training backgrounds, and as shown by Thompson, et al., allergists tend to focus on allergic triggers of AD more than other physicians. This is sometimes reflected in their practice as Saavedra et al. have shown that allergists were more likely to utilize elimination diets and dietary changes alone as treatment for AD. This is an interesting finding because the JTF allergy parameters actually recommend that practitioners avoid implementing elimination diets as they have the potential to cause nutritional issues. The AAD publication also emphasizes that diet likely has little effect in AD unless patients truly exhibit signs of food allergy. Accordingly, a study by Thompson and Hanifin showed that patients focus less on food allergy once their skin symptoms are under control. Thus, allergists could consider shifting their emphasis by highlighting the safe and effective nature of anti-inflammatory therapy to their patients, in addition to controlling allergic triggers.

Lastly, if allergy specialists encounter a refractory case of AD, they may utilize the AAD publication as a source of guidance regarding monitoring, dosing, and other important considerations if they have decided to use systemic/oral therapies. These are not covered as in-depth by the JTF.

WHAT CAN A DERMATOLOGIST LEARN FROM ALLERGY GUIDELINES, AND HOW CAN THIS BE INCORPORATED INTO PRACTICE?

Similarly, dermatologists can glean valuable information from the JTF allergy parameters for AD treatment. This primarily applies to management strategies involving environmental modifications and lifestyle changes. Although the AAD guidelines assert that there is not enough evidence to implement lifestyle and environmental changes for AD, dermatologists may still consider attempting their use in a subset of motivated AD patients, largely due to the fact that these interventions pose little risk but potentially have high reward. Environmental modifications include controlling temperature and humidity to decrease pruritus, avoiding sports with potentially exacerbating heat and sweating (swimming may be a good option for AD patients) and avoiding defatting soaps. Another lifestyle change that may possibly help some patients with AD include altering clothing habits. Dermatologists may consider advising patients to launder before using new clothes, use liquid detergent instead of powder to decrease potential irritating residue, use a second rinse cycle to remove all remnants of detergents, and wear loose, cotton clothing. Dermatologists may also consider suggesting prophylactic minimization of exposure to aeroallergens, as outlined by the JTF. Strategies to implement this include utilization of house dust mite covers, weekly hot-water washing of bedding, and removing bedroom carpeting. Allergists tend to teach patients more often about these lifestyle modifications, and dermatologists may consider doing so, as well.

Another low-risk therapy recommended by the JTF that dermatologists could consider is the use of vitamin D supplementation. Although the AAD guidelines conclude there is insufficient evidence to support its use, this relatively benign supplementation may offer some benefit to a portion of AD patients. Considering, too, that the rate of vitamin D deficiency and insufficiency may be increasing, it may be worthwhile. One option may be to test vita-
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...min D levels before prescribing supplementation. Vitamin D is theorized to help AD by acting as an immunomodulator and is reported to be safe even in pregnant women. Other low-risk recommendations supported by the JTF that dermatologists may employ include using silver or silk clothing to potentially decrease skin bacterial colonization and adding baking soda or oatmeal to bathwater as it may provide anti-pruritic effects for some AD patients.

Secondary infection of AD skin lesions is often due to Staphylococcus aureus and typically requires antibiotic treatment. Testing for methicillin-resistant Staphylococcus aureus (MRSA) is not specifically endorsed by the AAD guidelines, but the JTF parameters recommend testing for MRSA before prescribing antibiotics or empirically using anti-MRSA antibiotics to begin with, something dermatologists may considering incorporating into practice.

ANTICIPATING WHAT FUTURE AD MANAGEMENT GUIDELINES MAY ADD

Future parameters for the management of AD will likely cover new and upcoming topical and systemic treatments for AD currently in the pharmaceutical pipeline, which may end up on the market in the next several years. It is also possible that more robust data will be available in the domain of certain alternative medications, probiotics, and vitamin D supplementation, allowing for more definitive recommendations on these issues in guidelines.

In terms of current guidelines, it becomes clear when looking through the prisms of their respective guidelines that allergists and dermatologists perceive and manage AD differently. For example, the JTF allergy recommendations that are not supported by the AAD guidelines do not involve the mainstays of AD therapy (moisturizers, topical anti-inflammatory, and systemic treatments if the former fail) but rather ancillary strategies that have weaker evidence backing their use. However, dermatologists can consider employing some of these strategies in certain patients, since these interventions tend to pose low risk to the patient with potentially high reward. Allergists can consider more emphasis on counseling patients on compliance with topical anti-inflammatories as the backbone of treatment.

In terms of making sense of the differences between these two specialties, one thing that emerges is the importance of inter-specialty collaboration over management of the same disease. This allows better understanding of the treatment of that disease, and utilizing, comparing, and contrasting multiple AD management guidelines may ultimately help guide clinicians to individualize treatment for their patients.

Based on atopic dermatitis management guidelines published in the Journal of the American Academy of Dermatology (JAD) in 2014 and the Journal of Allergy and Clinical Immunology (JACI) in 2012.

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