



Expert Analysis of Emerging Atopic Dermatitis Therapy Studies

Dear Colleague:

Atopic dermatitis (AD) is a chronic pruritic, eczematous skin disease that involves a complex interplay of skin barrier function and immunological and environmental factors. Significant morbidity is common, affecting the 25% of children and 7% of adults who develop AD and their families. This CME-certified activity, *ResearchPerspectives: Expert Analysis of Emerging Atopic Dermatitis* (<https://annenberg.net/Atopic-Dermatitis-Therapy-CME>), summarizes selected articles related to the management of patients with AD, published since 2016, with commentary provided by Lawrence F. Eichenfield, MD, and Jonathan I. Silverberg, MD, PhD, MPH.

Efficacy and Safety of Crisaborole Ointment, a Novel, Nonsteroidal Phosphodiesterase 4 (PDE4) Inhibitor for the Topical Treatment of Atopic Dermatitis (AD) in Children and Adults

- Significantly more patients with mild-to-moderate AD treated with crisaborole than vehicle for 4 weeks achieved an Investigator's Static Global Assessment score of clear or almost clear at study end, as well as earlier improvement in pruritus
- Use of crisaborole, a topical nonsteroidal medication, should reinforce the treatment goal of minimal rash and itch, as well as disease complications, in mild-to-moderate AD

Two Phase 3 Trials of Dupilumab versus Placebo in Atopic Dermatitis

- Significantly more patients with moderate-to-severe AD treated with dupilumab than placebo achieved an Investigator's Global Assessment score of clear or almost clear with a 2-grade or more improvement from baseline to week 16, as well as reduction of patient-reported symptoms of AD
- Dupilumab should impact the state-of-the-art management of adults with moderate-to-severe AD due to its remarkable improvement in objectives scores of skin clearing, as well as patient-reported outcomes

Efficacy of Sodium Hypochlorite (Bleach) Baths to Reduce *Staphylococcus aureus* Colonization in Childhood Onset Moderate-to-Severe Eczema: A Randomized, Placebo-Controlled Cross-Over Trial

- In children and adolescents with moderate-to-severe AD, bleach baths conferred no significant efficacy benefit in measures of quality of life, skin hydration, and transepidermal water loss, but resulted in significantly greater reduction in topical corticosteroid and topical antibiotic use than plain water
- Clinicians should consider recommending water baths without bleach followed by emollients and/or topical corticosteroids as this may avoid safety and tolerability issues associated with bleach baths

Efficacy and Safety of Ustekinumab Treatment in Adults with Moderate-to-Severe Atopic Dermatitis

- More adults with moderate-to-severe AD inadequately controlled with conventional treatment achieved $\geq 50\%$ decrease from baseline to week 16 in Scoring of AD (SCORAD50) with ustekinumab compared with placebo, but the difference was not statistically significant
- Ustekinumab in combination with topical corticosteroids is not consistently effective and is not currently recommended for moderate-to-severe AD, although ustekinumab may be beneficial in a subset of patients



Topical Tofacitinib for Atopic Dermatitis: A Phase IIa Randomized Trial

- In adults with mild-to-moderate AD, patients treated with tofacitinib experienced a more rapid response than vehicle, with mean percentage changes from baseline to week 4 in the Eczema Area and Severity Index total scores of 82% vs 30%, respectively
- This study shows the potential role of Janus kinase inhibition in the treatment of patients with AD

Efficacy of Omalizumab in Patients with Atopic Dermatitis: A Systematic Review and Meta-Analysis

- A meta-analysis of 13 studies involving 103 patients with AD showed a reduction in the Scoring AD (SCORAD) score with omalizumab over 3 to 29 months of treatment, although a third of patients achieved no response or clinical deterioration
- Omalizumab confers no benefit in patients with moderate-to-severe AD, although omalizumab may be beneficial in a subset of patients, such as those with overlapping AD and urticaria

The findings reported in these articles should help inform the evolving management of patients with AD.

Yours sincerely,



Lawrence F. Eichenfield, MD

Chief, Pediatric and Adolescent Dermatology

Rady Children's Hospital-San Diego

Vice Chair, Department of Dermatology and Professor of Dermatology and Pediatrics

University of California, San Diego School of Medicine

San Diego, California



Jonathan I. Silverberg, MD, PhD, MPH

Director, Northwestern Medicine Multidisciplinary Eczema Center

Director, Contact Dermatitis Clinic

Northwestern Memorial Hospital

Assistant Professor, Departments of Dermatology, Preventive Medicine and Medical Social Sciences

Northwestern University Feinberg School of Medicine

Chicago, Illinois