# Scientific Meeting - Dermatology Summit

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## The future of long-term management in atopic dermatitis: navigating the role of novel treatments

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Pathophysiology of atopic dermatitis is complex and new insights have led to the new FDA-approved systemic agents. Most adults with moderate-to-severe atopic dermatitis report inadequate disease control. The 2018 New European (EADV/EDF) guidelines recommend topical medications as initial therapies including topical glucocorticosteroids (TCSs) class II or III and topical calcineurin inhibitors (TCIs). However, TCSs can cause a wide range of adverse effects including "steroid addiction syndrome"; whereas TCIs contain the black box warning for a theoretical risk of malignancy and are only FDA-approved for children aged more than 2 years old. The limited topical treatments for patients with atopic dermatitis have led to development of novel nonsteroidal targeted therapies.

Recent researches have shown that crisaborole (topical PDE-4 inhibitor ointment) is efficacious and safe in treating patients with mild-to-moderate atopic dermatitis and is recently FDA-approved for patients aged 3months or older. In Phase IV Open-Label Study of crisaborole (CrisADe CARE 1) in 137 infants aged 3 to <24 months with mild-to-moderate atopic dermatitis, ISGA clear/almost clear with ≤2-grade improvement at day 29 was achieved by 30.2% of patients. The most frequently reported treatment-emergent adverse events (TEAEs) were application site pain (3.6%), application site discomfort (2.9%) and erythema (2.9%) The current prescribing information for crisaborole ointment does not include a black boxed warning and there are no restrictions on duration of use, though adverse effects such as application site pain may be a concern for patients.

### *Learning points:*

1. Topical calcineurin inhibitors (TCIs) contain the black box warning of rare cases of malignancy but no causality has been established. Long-term surveillance data has not found increased malignancy in the pediatric population.
2. Novel agents for atopic dermatitis include topical crisaborole (PDE-4 inhibitor), topical ruxolitinib (JAK inhibitor), subcutaneous dupilumab (dual IL-4 and IL-13 inhibitor), subcutaneous tralokinumab (IL-13 inhibitor), oral upadacitinib and abrocitinib (oral JAK inhibitor).
3. PDE-4 inhibitors have a unique mechanism that differs from the mechanisms of TCSs and TCIs, and they affect a wide range of cytokines involved in atopic dermatitis.
4. Recent researches have shown that topical crisaborole is well tolerated and effective in infants aged 3 to <24 months with mild-to-moderate atopic dermatitis and is approved down to 3 months of age in the United States.