Understanding patient and physician preferences when choosing between biologic and oral systemic treatment options for moderate-to-severe atopic dermatitis: a discrete choice experiment

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Background: A growing number of treatment options are becoming available for moderate-to-severe atopic dermatitis (AD), including biologic therapies. As these treatments have different efficacy, safety, and tolerability profiles, it is important to understand patient and physician preferences for informed treatment decision making.

Objective: To discover the importance of different attributes, including efficacy, safety, and mode of administration, and to provide insights into whether patient preferences concur or conflict with those of physicians.

Methods: We conducted a cross-sectional, online discrete choice experiment involving 306 patients with AD and 206 physicians in the UK and Germany. Qualitative interviews identified key attributes influencing treatment preferences, including efficacy (itch relief, sleep disturbance, time-to-itch relief, and total body surface area affected by eczema), safety (special warnings and risks of eye problems and shingles), and treatment administration. Data were analyzed using a random parameters logit model to calculate the conditional relative importance of each attribute.

Results: Both groups placed significant emphasis on efficacy, with reducing sleep disturbance ranking first for patients and second for physicians and itch ranking first for physicians and second for patients. Time to itch relief was the third most important efficacy attribute for both
groups, although it was more important for patients. For both groups, the risk of eye problems was the most important safety concern. The mode of administration was not considered of great importance when compared with efficacy and safety attributes (Figure 1).

**Conclusions:** Our findings suggest patients prioritize sleep disturbance, an attribute not captured in other preference studies in AD, and itch. This emphasizes the importance of addressing sleep-related issues and itching to enhance patients' well-being. The findings offer insights for prioritization strategies among healthcare providers, aiming to improve patient outcomes amidst a growing number of AD treatments.

**Keywords:** Atopic dermatitis, itch, sleep disturbance, efficacy

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Figure 1: Conditional relative importance of treatment attributes (patients vs. physicians)