

## What is the best systemic **immunosuppressive** treatment for eczema?

Clinical Question	is the comparative efficacy and safety of different types of systemic immunosuppressive treatments for moderate to severe eczema?
Bottom Line	With a high degree of certainty, network meta-analysis (NMA) indicates that when compared to placebo, dupilumab is likely to be the more effective treatment for eczema and is ranked highest among the biological treatments in terms of achieving 75% improvement in Eczema Area and Severity Index scores (EASI75) and improving Patient-Oriented Eczema Measure (POEM) scores during short-term follow-up. Dupilumab was the only immunosuppressive agent for which improvement in POEM in the short term was evaluated. The effect of dupilumab on achieving EASI75 in the long term when compared against placebo is uncertain, as the certainty of this evidence is very low. NMA suggests that tralokinumab may be more effective than placebo in achieving EASI75 in the short term and the effect of ustekinumab on achieving EASI75 in the short or long term when compared with placebo is uncertain.
	Safety outcomes during long-term follow-up were assessed and there was no statistical difference in the proportions of participants with serious adverse events (SAE) when any immunosuppressive agent was compared to placebo.
	There were no differences identified in other adverse events (AEs), but dupilumab is associated with specific AEs, including eye inflammation and eosinophilia.
Caveat	There is some heterogeneity in the design of the included trials, which led to widely varying placebo responses. This heterogeneity may relate to variable use of background or concomitant therapy such as topical steroids or topical calcineurin inhibitors (topical anti-inflammatory agents) among studies, which could affect the transitivity assumption. The included population was quite homogeneous, as it was limited to people with moderate to severe eczema who were eligible for systemic immunomodulatory therapy. The majority of the evidence was based on adults' responses to therapies with only seven trials including children and adolescents.
Context	Eczema is a common and chronic, relapsing, inflammatory skin disorder. It seriously impacts quality of life and economic outcomes, especially for those with moderate to severe eczema. Various treatments allow sustained control of the disease; however, their relative benefit remains unclear due to the limited number of trials directly comparing treatments.
Cochrane Systematic Review	Sawangjit R, Dilokthornsakul P, Lloyd-Lavery A, Lai NM, Dellavalle R, Chaiyakunapruk N. Systemic treatments for eczema: a network meta-analysis. Cochrane Database of Systematic Reviews 2020, Issue 9. Art. No.: CD013206. DOI: 10.1002/14651858.CD013206.pub2.This review contains 74 trials with a total of 8177 participants.

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Systematic review link:

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013206.pub2/full