

Efficacy and safety of biological therapies for children and adults with IgE-mediated food allergy: systematic review

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Abstract

Background Biological therapies relieve symptoms in allergic and inflammatory diseases so may also benefit people with IgE-mediated food allergy. We systematically reviewed the highest quality published evidence to inform forthcoming GA²LEN guidelines. **Methods** We searched six bibliographic databases from 1946 to 30 September 2021 for randomised controlled trials, controlled clinical trials and quasi-randomised trials about biological monotherapy in people with IgE-mediated food allergy confirmed by oral food challenge. We found 3 trials with 118 participants. We used the GRADE approach. We summarised the findings narratively because studies were too heterogeneous to conduct meta-analysis. **Results** We included one randomised trial about etokimab, one about omalizumab and one about the discontinued TNX-901. All were in people with peanut allergy in the USA, mostly aged 13+ years. There were trends towards improved tolerance of peanut during treatment, with no increase in adverse events compared to placebo. However, we have very low certainty about the evidence. No trial reported on quality of life or cost-effectiveness. **Conclusions** Our review of the highest quality research found that there is not yet enough certainty of evidence to support offering etokimab or omalizumab widely for food allergy. Clinicians may consider the merits for individuals, but large randomised trials with standardised measures need to confirm the safety and efficacy and the most suitable candidates, doses and durations of treatment.

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