PSORIASIS

COMPARISON OF SAFETY OUTCOMES FOR TREATMENTS OF MODERATE TO SEVERE PLAQUE PSORIASIS THROUGH A NETWORK META-ANALYSIS

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Introduction: Both efficacy and safety profiles are important for therapeutic decision making. While the comparative efficacy of treatments for moderate to severe psoriasis is well studied, few studies have evaluated the comparative safety profiles among those treatments.

Objective: This study evaluated comparative safety, assessed by proportion of patients with any adverse event (AE), any serious AE (SAE), and any treatment discontinuation due to AE, among psoriasis treatments via a network meta-analysis (NMA).

Material and Methods: A systematic literature review identified Phase II to IV randomized controlled trials of treatments recommended by the National Institute for Health and Care Excellence and pipeline treatments for moderate to severe psoriasis. Treatments assessed included risankizumab 150mg, brodalumab 210mg, guselkumab 100mg, ixekizumab 160mg, infliximab 5mg/kg, etanercept 25mg twice a week/50mg weekly, ustekinumab weight-based dose, secukinumab 300mg, adalimumab 40mg, apremilast 30mg, and dimethyl fumarate (DMF) 720mg. Safety outcomes by the end of the primary response period (10–16 weeks) were estimated using Bayesian binomial NMAs.

Results: A total of 35 trials were included in the network. The estimated rates of any AE ranged from 50.4% (etanercept) to 79.8% (DMF). Etanercept (50.4%), risankizumab (53.4%), and guselkumab (56.3%) had significantly lower rates of any AE than apremilast (66.4%), infliximab (69.2%), and DMF (79.8%). In addition, risankizumab had a significantly lower rate than brodalumab, secukinumab and ixekizumab. The estimated rates of any SAE ranged from 1.3% (risankizumab) to 2.6% (secukinumab), and there were no significant

differences between treatments. In terms of treatment discontinuation due to AE, the estimated rates ranged from 0.8% (risankizumab) to 14.8% (DMF). Risankizumab had a significantly lower rate of treatment discontinuation due to AE compared to brodalumab, guselkumab, ixekizumab, infliximab, adalimumab, apremilast, and DMF.

Conclusions: Risankizumab demonstrated a more favorable safety profile than other therapies for patients with moderate to severe psoriasis in this NMA.