Cost-per-responder analysis of Tralokinumab versus Dupilumab in Patients with Moderate-to-Severe Atopic Dermatitis in the US and Canada

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Objectives
- Applying an indirect comparison of efficacy, we examined the cost-per-responder of tralokinumab compared to dupilumab, both in combination with topical corticosteroids (TCS) for the treatment of moderate-to-severe AD in the United States (US) and Canada.

Results

United States
- For the US, the average cost per EASI-75 responder for tralokinumab Q2W was $62,714 (4QW SA 10%: $61,239; 20%; $59,763) versus $63,993 for dupilumab Q2W.
- The average cost per IGA-0/1 responder for tralokinumab Q2W was $82,419 (4QW SA 10%: $80,480; 20%; $78,450) versus $118,835 for dupilumab Q2W.

Canada
- For Canada, the average cost per EASI-75 responder for tralokinumab Q2W was $22,846 (4QW SA 10%: $22,338; 20%; $21,771) versus $29,475 for dupilumab Q2W.
- The average cost per IGA-0/1 responder for tralokinumab Q2W was $30,024 (4QW SA 10%: $29,317; 20%; $28,611) versus $49,165 for dupilumab Q2W.

Conclusions
- This analysis indicates that tralokinumab in combination with TCS is associated with lower costs-per-responder compared with dupilumab in combination with TCS in the treatment of moderate-to-severe AD in the US and Canada when assessing EASI-75 and IGA-0/1 response criteria at 32 weeks.

Background
- Biologic treatments such as tralokinumab and dupilumab are therapeutic options for patients with moderate-to-severe atopic dermatitis (AD) who do not achieve adequate control with topical treatments or phototherapy.
- To date, no trials have been conducted to directly evaluate the relative efficacy of these biologic treatments.

Methods

Study design
- A cost-per-responder analysis was undertaken considering the Eczema Area and Severity Index 75 (EASI-75) and Investigator's Global Assessment (IGA-0/1) response criteria over 32 weeks.
- For each treatment, the cost-per-responder was computed by multiplying the treatment cost by the number needed to treat (NNT).
- The model structure is presented in Figure 2.

Material
- Efficacy data were derived from an unanchored matching-adjusted indirect comparison (MAC) utilizing patient-level data from ECZTRA-3 (tralokinumab) and aggregate data from LIBERTY AD CHRONOS (dupilumab).
- Cost treatment was defined as the drug cost of the biologic treatment with a duration corresponding to 32 weeks. Cost of TCS was not included. Treatments were assumed to be administered every 4 weeks (Q4W).
- The costs were estimated based on Wholesale Acquisition Costs (WAC) from the US1 and ex-factory prices via the McKesson price list for Canada.2 All prices were converted to US dollars (US$).
- Sensitivity analyses (SA) were conducted with every 4-week (Q4W) dosing beginning at week 16 for 10% and 20% of patients treated with tralokinumab.

References
1) Torres et al. 2023 - S401 Hybrid Meeting (UK, Galway, Poland).
4) ETS Reference, 2023 - The Canadian Institute for Health Information: 2023.

Disclosures

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