

BIO_01 - Dupilumab treatment reduces hospitalizations in adults with moderate-to-severe atopic dermatitis: a pooled analysis of data from seven randomized, placebo-controlled studies

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Introduction: Patients with atopic dermatitis (AD) may require inpatient hospital treatment for refractory AD, severe AD flares (exacerbations), and infections. Dupilumab (Dupixent®), a fully human monoclonal antibody that blocks the shared receptor component for interleukin-4 and -13, has demonstrated efficacy and was well tolerated in adults and adolescents with moderate-to-severe AD, and in children aged 6 years of age and older with severe AD, in several randomized controlled trials (RCTs).

Objective: To compare the rates of hospitalizations of adult patients with moderate-to-severe AD treated with dupilumab vs control, by a post-hoc analysis of pooled data from 7 placebo-controlled RCTs including 2,932 patients.

Methodology: Data were analyzed from 7 placebo-controlled phase 2 or 3 RCTs that compared treatment with dupilumab 300 mg every 2 weeks (q2w) or every week (qw) vs placebo in adult patients with moderate-to-severe AD treated for 16 or 52 weeks. 5 of these were monotherapy studies; 2 studies required use of concomitant topical corticosteroids (TCS).

Results: A total of 2,932 patients (1,841 dupilumab and 1,091 control) from 28 countries were included in the analysis. 77 hospitalization events were identified (31 in the dupilumab group, 46 in the control group). Patients who received dupilumab 300 mg every two weeks (q2w, n=746), once weekly (qw, n=1095), or either posology combined (“dupilumab combined”) vs control (patients receiving placebo or placebo + TCS) had lower rates of all-cause hospitalizations (5.8, 2.7, and 3.8 vs 9.0 events per 100 patient-years, respectively; [risk reduction 40% (p=0.132), 73% (p<0.001), and 61% (p<0.001), respectively]) and lower rates of AD-related hospitalizations (2.0, 0.4, 1.0 vs 4.1 events per 100 patient-years; [risk reduction 61% (p=0.092), 93% (p<0.001), and 76% (p<0.001), respectively]). Reduced durations of AD-related hospitalizations for patients treated with dupilumab 300 mg q2w, qw, or either posology combined vs control were also observed: 10.9 (p=0.016), 7.3 (p<0.001), and 8.6 (p<0.001) vs 38.9 days per 100 patient-years, respectively.

Conclusion: Among adults with moderate-to-severe AD, treatment with dupilumab vs control was associated with significant reductions in all-cause and AD-related hospitalization rates, and shorter duration of AD-related hospitalization.

Keywords: dupilumab; atopic dermatitis; hospitalizations