



ATOPIC ECZEMA/DERMATITIS

REAL-WORLD EFFECTIVENESS OF DUPILUMAB IN ATOPIC DERMATITIS: IMPROVEMENT IN ITCH AS ASSESSED BY THE PEAK PRURITUS NUMERICAL RATING SCALE IN AN ELECTRONIC MEDICAL RECORDS DATASET

Emma Guttman-yassky⁽¹⁾ - Peter A. Lio⁽²⁾ - Usha G. Mallya⁽³⁾ - Raymond Miao⁽³⁾ - Chichang Chen⁽⁴⁾ - Dionne M. Hines⁽⁴⁾ - Catherine McGuinness⁽⁴⁾ - Mandeep Kaur⁽⁵⁾ - Andrew Korotzer⁽⁶⁾ - Miriam C. Fenton⁽⁷⁾ - Abhijit Gadkari⁽⁶⁾

Icahn School Of Medicine At Mount Sinai, Dermatology, New York, United States⁽¹⁾ - Feinberg School Of Medicine, Northwestern University, Clinical Dermatology And Pediatrics, Chicago, United States⁽²⁾ - Sanofi, Health Economics And Value Assessment (global Market Access), Bridgewater, United States⁽³⁾ - Iqvia, Real-world Evidence Solutions, Plymouth Meeting, United States⁽⁴⁾ - Sanofi, Medical Affairs, Cambridge, United States⁽⁵⁾ - Regeneron Pharmaceuticals, Inc., Health Economics And Outcomes Research, Medical Affairs, Tarrytown, United States⁽⁶⁾ - Sanofi, Real-world Evidence, Cambridge, United States⁽⁷⁾

Introduction: Dupilumab is approved in the U.S. for treating uncontrolled moderate-to-severe atopic dermatitis (AD) in adults.

Objective: A retrospective cohort study was conducted to assess the real-world effectiveness of dupilumab in AD on the 0-10-point Peak Pruritus Numerical Rating Scale (PNRS).

Materials and Methods: Modernizing Medicine's Electronic Medical Assistant (EMATM) dermatology-specific medical records, covering ~5,000 dermatologists, were evaluated. Inclusion criteria were: patients age \geq 18, \geq 1 dupilumab prescription between 01April2017-30November2017, and PNRS recorded \leq 3months pre-, and \geq 4months post-index date (1st dupilumab prescription). Improvement in PNRS pre- and post-dupilumab treatment in the full sample and in the baseline PNRS \geq 3 subgroup (moderate-to-severe itch subgroup) were analyzed.

Results: Patients treated with dupilumab in the full sample (N=89) and moderate-to-severe itch subgroup (68.5%, n=61) had mean(SD) ages 46.5(\pm 16.9)/46.9(\pm 16.8) years; 50.6/50.8% were male; 41.6/42.6% were White, respectively. Treatment history within one-year pre-dupilumab initiation included topical corticosteroids (76.4%/85.3%); topical





calcineurin inhibitor (24.7%/24.6%); oral/injectable steroids (56.2%/59.0%); systemic immunosuppressants (32.6%/31.2%); phototherapy (10.1%/8.2%); and PDE-4 inhibitor (32.6%/24.6%), for the full sample and moderate-to-severe itch subgroup, respectively. Baseline PNRS distributions for the two groups were: 0-2 (31.5%/0%); 3-6 (32.6%/47.5%), 7-10 (36.0%/52.5%), respectively. Pre- vs. post-dupilumab treatment, there was an improvement [mean(SD), % change] of -2.3(3.7), -47.9% and -3.6(3.5), -53.7% (both $p < .0001$), in the full sample and moderate-to-severe itch subgroup, respectively. Within the moderate-to-severe itch subgroup, 65.6% had a clinically meaningful (≥ 3 point) post-index PNRS improvement.

Conclusions: Significant, clinically meaningful improvements in itch were observed for adult AD patients in clinical practice as in dupilumab clinical trials.

