

## **Racial and ethnic differences in sociodemographic and treatment characteristics among patients with atopic dermatitis in the United States: Real-world data from CorEvitas registry**

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### **Background:**

Despite high prevalence of Atopic Dermatitis (AD) among patients with skin of color in the United States, the literature around it is limited.

### **Objective:**

To characterize differences in disease and treatment characteristics, including systemic treatments, among race/ethnicity groups in real-world AD patients who are candidates for or currently prescribed systemic therapy.

### **Methods:**

The CorEvitas AD registry is prospective, non-interventional registry for AD patients, enrolls patients aged  $\geq 18$  years diagnosed with AD by a dermatologist/ qualified dermatology practitioner and who fulfill one of the following criteria: a) started taking new systemic therapy (biologics, non-biologic systemics, small molecules) within 12 months prior to enrollment visit, b) prescribed new systemic therapy at enrollment visit, c) not being treated with systemic therapy at time of enrollment, but had Eczema Area Severity Index (EASI) score  $\geq 12$  and validated Investigator Global Assessment scale for AD (vIGA-AD)<sup>TM</sup>  $\geq 3$ . For this analysis, patients enrolled between July 2020 through July 2021 were categorized into 5 mutually exclusive groups based on self-reported race/ethnicity: White-non-Hispanic (White), Black-non-Hispanic (Black), Asian-non-Hispanic (Asian), other/multiracial-non-

Hispanic (Others) and Hispanic-any race (Hispanic). Disease and treatment characteristics were assessed at enrollment, summarized descriptively using frequencies with percentages for categorical variables and means with standard deviations for continuous variables. Differences in means or proportions of characteristics among race/ethnicity groupings were descriptively summarized using effect sizes (ES): phi (categorical: 0.10, 0.30, and 0.50 for small, moderate, and large differences, respectively) and Cohen's *f* (continuous: small, moderate, and large for values of 0.10, 0.25, and 0.40, respectively) measures.

## **Results:**

Of 1,288 patients, 822 (64%) were White, 167 (13%) Black, 129 (10%) Asian, 73 (6%) Other, and 97 (8%) Hispanic. The mean (SD) age (years) at enrollment was 52.9 (17.7) for White, 45.3 (15.9) for Black, 38.6 (16.4) for Asian, 44.1 (18.8) for Others, and 41.0 (16.6) for Hispanics (ES=0.31). Majority of patients across race/ethnicity groups were female (59%, 67%, 60%, 62%, and 63% for White, Black, Asian, Other and Hispanic groups, respectively, ES=0.06). Amongst White, Black, Asian, Others, and Hispanic population, respectively, proportions insured by Medicaid were 10%, 34%, 16%, 29%, 18% (ES=0.24), and by private or commercial health insurance were 70%, 59%, 61%, 52%, 70% (ES=0.11). A moderate difference in work status was observed by race/ethnicity (ES=0.30): in White, Black, and Asian, Other, and Hispanic patients, respectively, 45%, 51%, 45%, 42%, and 47% worked full-time; 10%, 16%, 2%, 10%, and 5% were disabled; 25%, 10%, 9%, 11%, and 8% were retired. A moderate difference in geographic region was observed by race/ethnicity (ES=0.45): 44% White patients were from the Midwest (44%), whereas 51% Black patients were from the South and Asian, Other, and Hispanic patients were most often from the West (43%, 33%, and 43%, respectively). A small difference in onset of AD symptoms was observed by race/ethnicity (ES=0.21): AD presented in adulthood in 70% of White patients and ranged between 44%–57% for other race/ethnicity groups, while early childhood onset (<5 years old) and childhood onset (5–<18 years) ranged between 13–30% and 17–30%, respectively, among all groups. The mean (SD) duration of AD ranged between 14.7 (13.5) to 18.7 (16.4) years by race/ethnicity (ES=0.08). The proportion of patients with moderate/severe vIGA-AD ranged between 63%–70% and mean EASI was 10.5–12.1 across all race/ethnicity groups. Pre-enrollment histories of systemic corticosteroid use and phototherapy were slightly higher among Asian (37%, 20%) and Other (42%, 15%) patients in comparison to other race/ethnicity groups (18%-23%; ES=0.19 for systemic corticosteroids and 7-10%, ES=0.12 for phototherapy). History of systemic therapy ranged between 40%–50% (ES=0.04) among all race/ethnicity groups. Current use of topical calcineurin inhibitors and crisaborole were slightly higher among Asian (36%, 16%) patients than other race/ethnicity groups (15%–25%, 4%–7%; ES=0.15 for both). Among White, Black, Asian, Other, and Hispanic patients, respectively, the

proportion currently using/prescribed systemic therapy was 88%, 92%, 80%, 86%, and 76% (ES=0.12).

**Conclusions:**

Our results suggest presence of racial and ethnic differences in disease characteristics and to some extent in treatment characteristics among real-world AD patients who are candidates for systemic therapy. The differences found with age of AD onset, oral steroid exposure, and work status may warrant further study and may be of importance for dermatologists for delivery of targeted intervention.