### INTRODUCTION

- Atopic dermatitis (AD) is a relapsing, chronic, pruritic, inflammatory skin disease associated with gene-environment interactions, immune deregulation, and skin barrier dysfunction. 
- AD affects around 3.2% of adults in the USA. 

- Severe disease is often associated with significant disability, leading to high socioeconomic costs including: psychological problems, significant sleep loss, and impaired quality of life. 

- The current treatment approach for AD is to reactively treat flares. 

- Loss-of-function mutations in the filaggrin gene are associated with AD risk. 

- Topical corticosteroids are most frequently prescribed for the treatment of AD, however, in patients with moderate to severe disease and inadequate response to topical therapy, more aggressive systemic therapies are generally necessary. 

- At present, the real-world treatment patterns and unmet needs of adult patients with moderate-to-severe AD are poorly quantified for patients treated with systemic therapies.

### OBJECTIVE

- To evaluate from a patient perspective the adequacy of systemic treatment and the unmet patient needs in the treatment of moderate-to-severe AD.

### METHODS

- This was a longitudinal, prospective observational study of adult patients with moderate-to-severe AD, receiving a systemic medication for the treatment of AD in the previous 6 months.

- Study subjects were adult commercial health plan enrollees with AD, identified from the Optum Research Database.

- AD was defined using International Classification of Disease, Ninth or Tenth Revision, Clinical Modification (ICD-9-CM or ICD-10-CM).

- Eligible study participants were invited by mail to participate in a baseline paper survey, followed by web-based surveys at 3, 6, 9, and 12 months. Monthly abbreviated web-based surveys were also included.

- Diagnosis of AD, moderate-to-severe AD (during the previous 12 months), and systemic medication use was verified by patients at the time they completed the baseline survey.

- An informed consent statement was provided with the paper survey, and consent for study participation was implied when the survey was returned.

### RESULTS

#### Demographics, AD history and medication use

- From 6000 potential study participants, 7199 patients were excluded and 801 (13.4%) were included in the analysis.

- Mean age of patients was 45.2 years, 71.8% were female, 83.7% were Caucasian (Table 1).

- Many patients (66.5%) reported that they were diagnosed with AD after the age of 20.

- Per the self-completed Rajka and Langeland criteria, 73.7% of patients had moderate AD and 26.3% had severe AD.

- In the past 5 years prior to baseline, 38.3% of patients reported no remission, 35.8% reported <3 months of remission, and 25.8% reported 3 or more months of remission (Table 1).

#### Statistical analyses

- Mean and SDs were used for informative comparisons of demographics and outcome measures based on the distribution of the measure. Spearman’s rank correlation coefficient was used to examine the relationship between number of flares and select patient-reported outcome measures. 

- Mann-Whitney U test was performed to compare means of two independent groups.

- Kruskal-Wallis test was performed to compare means of more than two independent groups.

- False discovery rate (FDR) was used to control the family-wise error rate when comparing multiple treatment groups.

- The alpha level was set at 0.05 for all analyses and confidence intervals are reported.

- Statistical significance was assessed at the 5% level.

### LIMITATIONS

- This was a patient survey where recall bias was a limitation.

- Additionally, in the current baseline analysis, patients’ assessment of outcomes based on the past 7 days may not capture the comprehensive impact of change to AD, given the fluctuation of the disease.

- Since AD-QUEST was a longitudinal survey, the follow-up survey should provide further understanding of the disease burden.

### CONCLUSIONS

- Despite standard-of-care treatments, adults with moderate-to-severe AD report high disease burden from disease symptoms, recurrent flares and impaired QoL, leading to significant unmet therapeutic needs.

### REFERENCES


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