

Demographics, clinical, and treatment characteristics of patients with moderate to severe Chronic Hand Eczema in the United States – A retrospective claims analysis

April W. Armstrong¹, Rebecca Burne², Aseel Bin Sawad³, Anais Lemyre², Marjolaine Gauthier-Loiselle², Annie Guerin², Tanzania Vinson³, Brent Milovac³, Sanjeev Balu³

¹University of California Los Angeles (UCLA), Los Angeles, California, USA; ²Analysis Group ULC., Montréal, Québec, Canada; ³LEO Pharma Inc., Madison, New Jersey, USA
Presented at the 2025 Fall Clinical Dermatology Conference, Wynn Las Vegas, NV, Oct 23–26, 2025

Conclusions

- This real-world analysis highlights the multifactorial nature of moderate to severe Chronic Hand Eczema (CHE) in the United States (US) and the variability in its treatment patterns
- The high prevalence of nonspecific and multiple subtypes of CHE reflects the disease's heterogeneity, while heavy reliance on potent topical and systemic corticosteroids, despite safety concerns, points to gaps in clinical guidance
- These findings underscore the importance of safe and Food and Drug Administration (FDA)-approved treatments, with broad therapeutic potential to address the diverse and heterogeneous manifestations of CHE

Synopsis

- CHE is a burdensome, recurrent inflammatory skin disease affecting the hands and wrists
- CHE is characterized by persistent or recurrent dryness, itching, pain, redness, and/or blistering, and is defined as hand eczema that persists for >3 months or recurs ≥2 times within a year
- Until July 2025, no FDA approved treatment existed specifically for CHE in the United States^{1,2,3}
- Although there is currently no specific International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) code for CHE, a corresponding Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT) code is available
- SNOMED CT codes provide a comprehensive and precise multilingual health terminology used to support consistent documentation and coding in healthcare
- This retrospective analysis of over 6,000 adults with moderate to severe CHE used claims data from 2016–2024 to describe demographic, clinical, and treatment characteristics in a real-world setting

Objective

To describe real-world demographics, clinical, and treatment characteristics of adult patients with moderate to severe CHE in the US

Methods

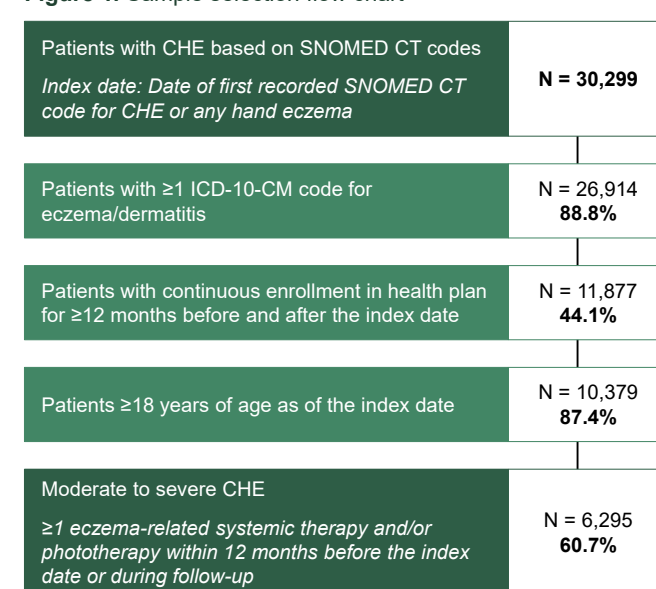
Study design

- This retrospective claims analysis used the Komodo Research Database (01/2016–04/2024) to identify patients with CHE
- Adults (≥18 years) with ≥1 SNOMED CT code for CHE or hand eczema and ≥1 ICD-10-CM code for eczema/dermatitis (L20.x; L23.x; L24.x; L25.x; L30.x) were included
 - SNOMED CT codes were used to identify patients with CHE, and ICD-10-CM codes were used to confirm the presence of eczema or dermatitis in claims data
 - The **index date** was defined as the first recorded SNOMED CT code of CHE or hand eczema
 - The **baseline period** was defined as the 12-month period prior to the index date
 - The **follow-up period** spanned from the index date to the earliest of i) end of continuous health plan enrollment, or ii) end of data availability, with a minimum required duration of 12 months

Sample selection

- Sample selection criteria are described in Figure 1
- Moderate to severe CHE was defined using a proxy measure, based on the use of eczema-related systemic therapy (i.e., systemic corticosteroids, immunosuppressants, monoclonal antibodies, retinoids, and oral JAK inhibitors) or phototherapy during the baseline or follow-up period. This approach was necessary as claims data do not provide direct information on disease severity
- Patients were classified in non-mutually exclusive subtypes based on eczema/dermatitis ICD-10-CM codes received at any time:
 - Atopic dermatitis (L20.x)
 - Allergic contact dermatitis (L23.x)
 - Irritant contact dermatitis (L24.x)
 - Unspecified contact dermatitis (L25.x)
 - Other and unspecified dermatitis (L30.x)
- Patients with 2 or more eczema/dermatitis subtypes above were additionally classified as having multiple subtypes

Figure 1. Sample selection flow chart



Non-mutually exclusive eczema/dermatitis ICD-10-CM subtypes		
Multiple subtypes	N = 2,834	45.0%
Atopic dermatitis subtype	N = 1,642	26.1%
Allergic contact dermatitis subtype	N = 1,035	16.4%
Irritant contact dermatitis subtype	N = 595	9.5%
Unspecified contact dermatitis subtype	N = 1,238	19.7%
Other and unspecified dermatitis subtype	N = 5,871	93.3%

Data source: Komodo Research Database (01/2016–04/2024)
Note: [1] Patients with 2 or more eczema/dermatitis subtypes were additionally classified as having multiple subtypes (not mutually exclusive).

Measures, outcomes, and statistical analyses

- Demographics and clinical characteristics were assessed at index and over the baseline period and descriptively reported, both overall and stratified by eczema/dermatitis subtypes
- Treatment characteristics, including proportion of patients who received the treatments of interest and number of phototherapy visits were reported descriptively during the follow-up period, both overall and stratified by eczema/dermatitis subtypes
- Mean, median and standard deviation were presented for continuous variables, and counts and percentages were reported for categorical variables

Results

Demographic and clinical characteristics

- The study included 6,295 patients with moderate to severe CHE, with nearly half (45.0%) having multiple CHE subtypes. Mean age was 48.2 years, 63.8% were female, 65.0% White, and 76.6% were covered by commercial insurance (13.9% Medicare, 9.5% Medicaid, 0.1% unknown); all US regions were represented
- Common comorbidities included anxiety (21.0%), depression (16.2%), allergic rhinitis (15.6%), and asthma (12.3%) (Figure 2)

Figure 2. Patient demographic and clinical characteristics by eczema/dermatitis subtype

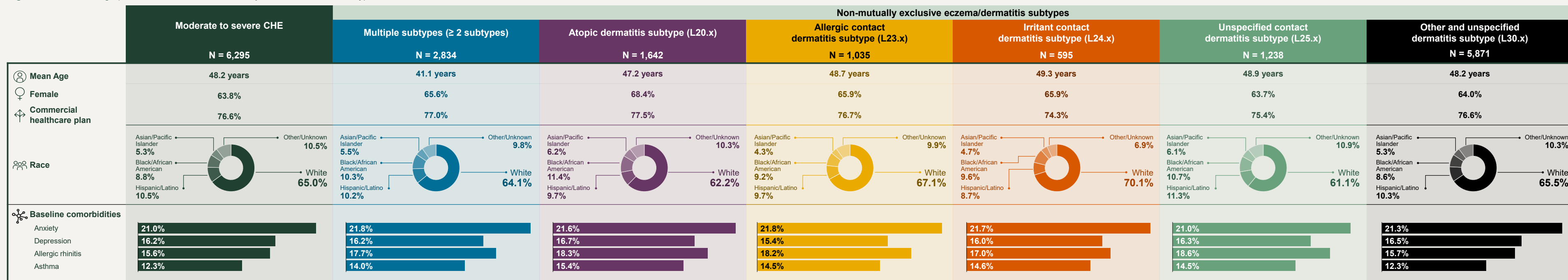
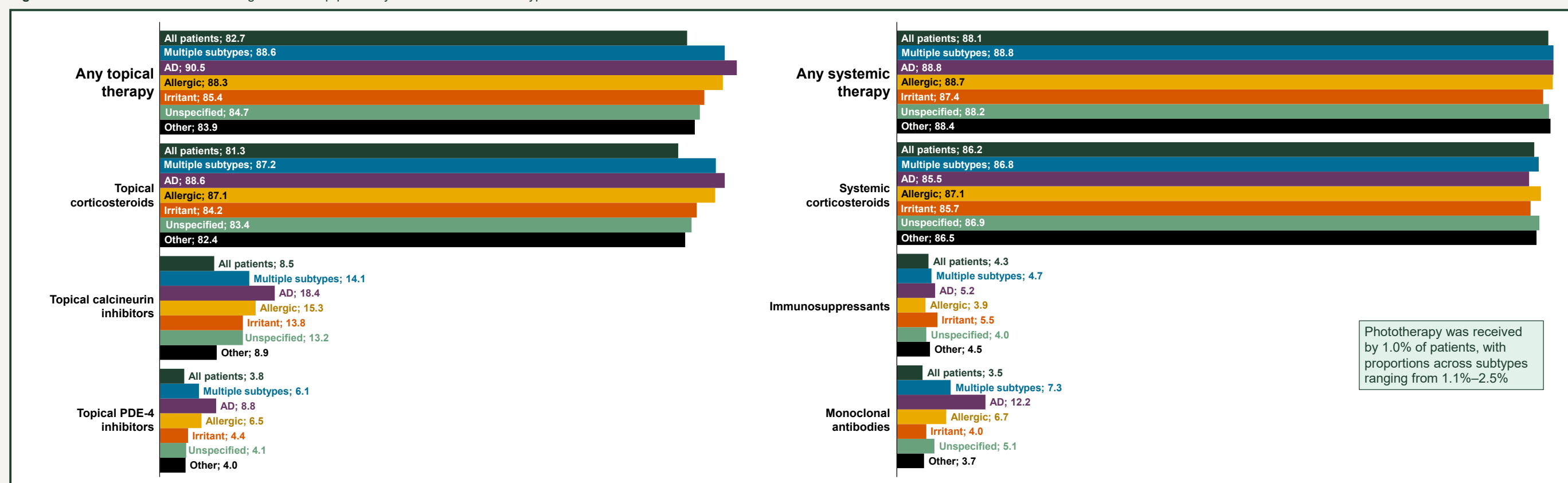


Figure 3. Treatment characteristics during the follow-up period by eczema/dermatitis subtype



Notes: [1] Patients with 2 or more eczema/dermatitis subtypes were additionally classified as having multiple subtypes. [2] In the overall cohort, 3.4% of patients were treated with dupilumab and 0.1% of patients treated with tralokinumab. Counts across subtypes are not reported to avoid reporting results on fewer than 5 patients. [3] Among all patients, 1.8% were treated with topical retinoids (range across subtypes: 1.3%–2.2%), 1.0% with topical JAK inhibitors (1.1%–3.0%), 1.3% with systemic retinoids (1.2%–1.7%), and 0.3% with oral JAK inhibitors (0.3%–0.7%).

Abbreviations AD: atopic dermatitis; CHE: Chronic Hand Eczema; FDA: Food and Drug Administration; ICD-10-CM: International Classification of Diseases, Tenth Revision, Clinical Modification; JAK: Janus kinase; N: number; SD: standard deviation; SNOMED CT: Systematized Nomenclature of Medicine – Clinical Terms; US: United States; PDE-4: phosphodiesterase-4

References

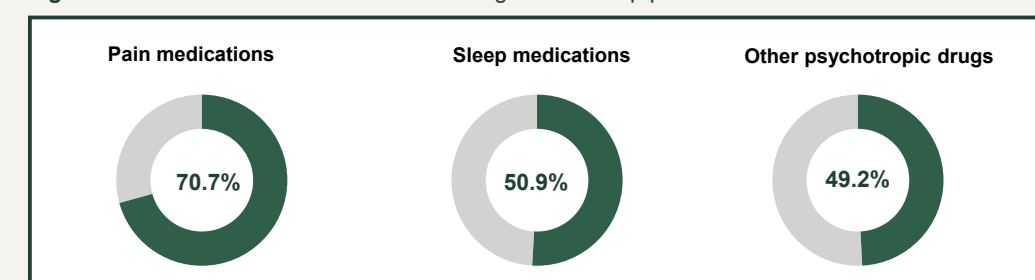
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Disclosures: AWA served as a consultant or advisory board member, received research grants, honoraria, or other research support from the following companies: AbbVie, Amgen, Beiersdorf, Boehringer Ingelheim (BI), Bristol Myers Squibb (BMS), Dermavant, Galderma, Janssen, LEO Pharma, Lilly, Novartis, Ortho Dermatologics, Pfizer, Regeneron, Sanofi, Sun Pharma, Takeda, and UCB. ABS, TV, BM, and SB are employees of LEO Pharma; RB, AL, MGL, AG are employees of Analysis Group ULC, which has received consulting fees from LEO Pharma.

Figure 4. Other selected medication use during the follow-up period



Notes: [1] Pain medications included analgesic anti-inflammatory, analgesics non-narcotic, analgesics opioid, analgesics topical, and other opioids. Sleep medications included sedatives and hypnotics, benzodiazepines, and antihistamines. Other psychotropic drugs included anxiolytics, antidepressants, and antipsychotics. [2] Among subtypes, the proportion of patients using pain medications ranged from 68.5% to 72.0%; the proportion using sleep medications ranged from 50.7% to 54.6%; and the proportion using other psychotropic drugs ranged from 48.7% to 52.5%.

Limitations

- The study likely captured patients with moderate to severe CHE at an earlier disease stage, by indexing on the first observed SNOMED CT code for hand eczema. Given the chronic nature of CHE and unmet treatment needs, longer follow-up may be needed to observe progression to advanced therapies (e.g., monoclonal antibodies). As such, the low use of advanced therapies observed here may underestimate real-world use
- This study relied on insurance claims data, which may include coding errors, lack treatment indication details, and exclude over-the-counter medication use. As a result, it is not possible to determine the exact reason for treatment initiation; for example, some patients may have had both CHE and atopic dermatitis affecting other body areas, for which systemic therapy would be appropriate. Nevertheless, it provides valuable real-world insights into the demographics, clinical characteristics, and treatment patterns of adults with moderate to severe CHE in the US
- In the absence of ICD-10-CM codes specific to CHE, patients with CHE were identified using an algorithm based on SNOMED CT for hand eczema or CHE and confirmatory ICD-10-CM codes, which was deemed appropriate in consultation with clinical experts given the expected progression of hand eczema to CHE for many patients. In addition, moderate to severe CHE was defined based on systemic therapy or phototherapy use – an accepted proxy in dermatological claims studies, though it may underrepresent the true population because many patients delay or avoid escalation to systemic therapy
- The sample included only insured patients, which may limit generalizability; however, the dataset includes individuals with commercial, Medicaid, and Medicare insurance