

Self-reported disease severity, symptoms, and treatment of Chronic Hand Eczema – Results from the CHECK study in the United States



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Conclusions

- Among participants with a self-reported physician-diagnosed Chronic hand eczema (CHE), the majority (65.1%) rated their CHE as moderate to severe, and more than 80% of them were currently on either systemic or topical treatment (with 13.0% treated with injectables).
- Despite not all participants being treated with topical corticosteroids (TCS) within the last month, most of them reported having used a TCS at least once for their CHE. A higher proportion (76.6%) of moderate to severe cases reported having used more than one TCS type. This provides evidence of patients with moderate to severe CHE cycling on TCS, which may be due to insufficient alternative treatment options.
- Despite recent treatment with TCS, CHE-related symptoms, including itch, pain and sleep disturbance, were reported as moderate, even among a considerable proportion of participants with mild CHE. This finding highlights that the burden of CHE extends beyond what is visually apparent on the skin. Symptom ratings were even higher among the moderate to severe group, emphasizing the need for more adequate therapeutic options for optimal CHE management.

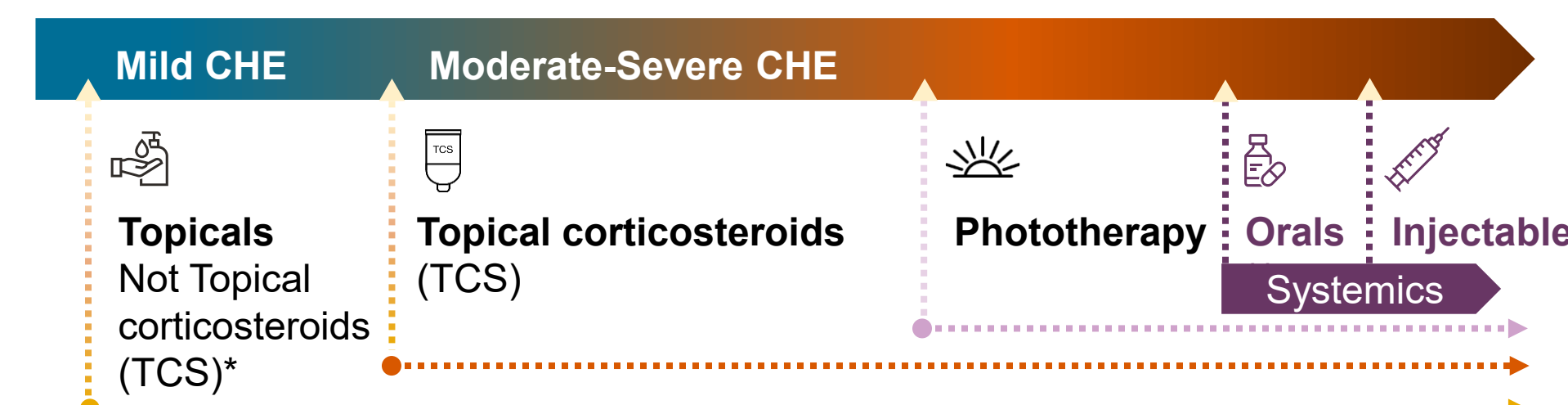
Objectives

- To assess the distribution of self-reported CHE severity levels (mild and moderate to severe) among patients with CHE in the United States (US) and the symptoms associated to these severity levels.
- To assess patient's experiences with CHE treatment.

Synopsis (Background)

- CHE is an inflammatory skin disease with symptoms that persist for 3 months or more and/or occur at least twice a year.¹
- The chronicity of CHE can substantially impact daily living due to the frequency and severity of symptoms.²
- Conventional management includes non-pharmacological interventions such as allergen and irritant avoidance, or emollient application for mild cases, and the use of systemic and topical treatments such as TCS for moderate to severe cases (Figure 1).¹
- Participants with CHE often experience recurring flares despite being on treatment, particularly in moderate to severe cases.^{3,4}

Figure 1 The Chronic hand eczema treatment flow



¹Creams, lotions, gels, mousses, or ointments without corticosteroids, for example.
²Oral JAK inhibitors are indicated for use in patients who have an inadequate response to other systemic therapies, including biologic agents, or when such therapies are contraindicated.

Methods

- The CHECK-US (Chronic Hand Eczema epidemiology, Care, and Knowledge of real-life burden in the US) study was an online cross-sectional survey conducted in the US.
- Adults aged between 18 and 69 years old were recruited from March to May 2025 via general population online panels. To ensure representativeness with the general population, quotas were set during recruitment, and weight adjustment were applied accordingly during analysis.
- The survey was designed to capture CHE treatment, self-assessed CHE severity and symptoms.
- Participants were able to self-assess the severity of their CHE over the past week, the worst severity in the past 12 months and the severity ever experienced using a validated photographic guide.⁹ They also reported the extent of CHE symptoms using visual analogue scales (VAS) that assessed the severity of itch, pain, and sleep disturbance in the past 24 hours from 0 (no symptom) to 10 (worst symptom imaginable).
- For participants with more than one treatment, treatment group was assigned based on the highest ranked treatment according to the CHE treatment flow (see Figure 1).
- Analysis was of descriptive nature; continuous variables were described with means, standard deviation (SD), median, and ranges, while categorical variables were described using frequencies and percentages (n, %).

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Results

Sociodemographic and clinical characteristics of participants with self-reported physician-diagnosed CHE (Table 1)

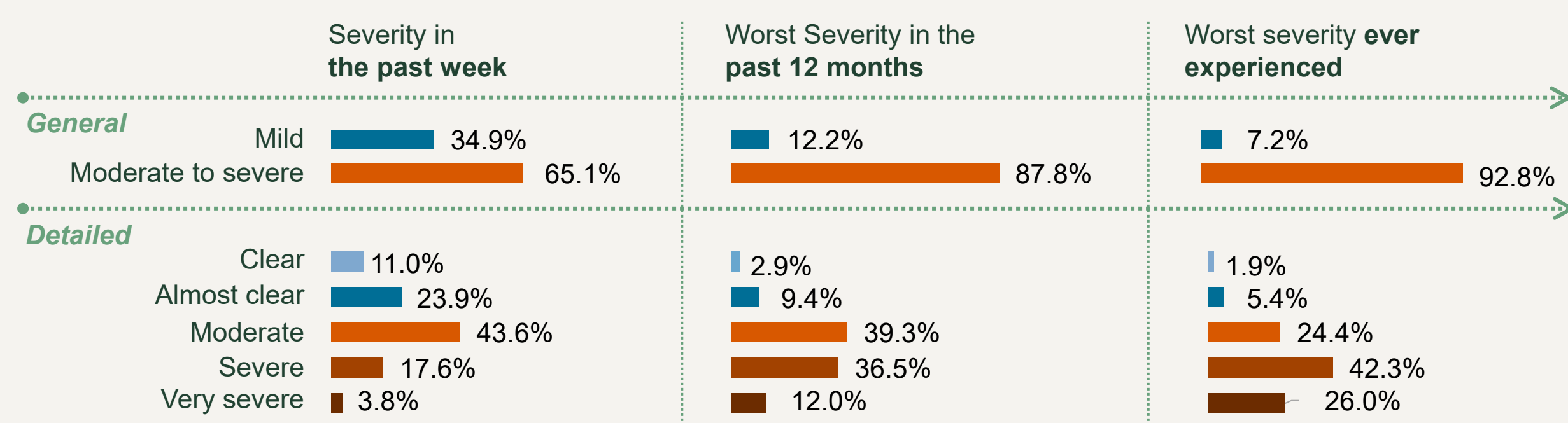
- Among the 982 participants with self-reported physician diagnosed CHE, 54.4% were male.
- The mean age (SD) was 37.1 years (12.4 years), a third of participants were 18 to 29 years old (33.4%). Participants ≥50 years of age represented only 16.1% of the sample.
- The mean age (SD) at first CHE diagnosis was 24.7 years (13.8 years).

Sex, n (%)	Age, n (%)	Age at first diagnosis, years
Male 534 (54.4%)	18–29 328 (33.4%)	N 941
Female 448 (45.6%)	30–39 288 (29.4%)	Mean (SD) 24.7 (13.8)
	40–49 208 (21.2%)	Median (IQR) 23.0 (15.0, 34.0)
	50–59 82 (8.3%)	Range (Min–Max) 1.0–68.0
	60–69 76 (7.7%)	I do not know 41 (4.1%)
Age at the time of the survey		
Mean (SD) 37.1 (12.4)		
Median (IQR) 35.0 (27.0, 44.0)		
Range (Min–Max) 18.0–69.0		

Self-assessed CHE severity distribution among participants with self-reported physician-diagnosed CHE (Figure 2)

At the time of the survey, two thirds of the participants (n=639/982) reported moderate to severe CHE, and a third (34.9%, n=343/982) reported mild CHE in the past week.

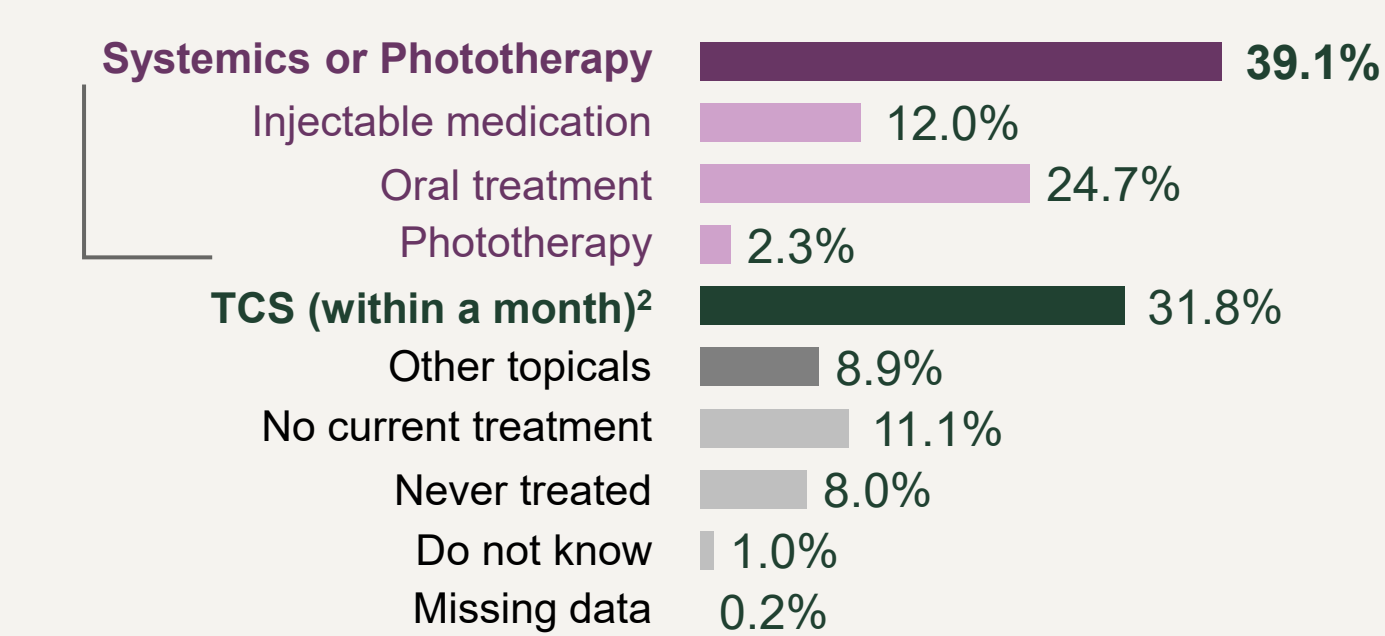
Severity of CHE, overall N=982



Current treatment and topical corticosteroid use history among participants with self-reported physician-diagnosed CHE (Figure 3)

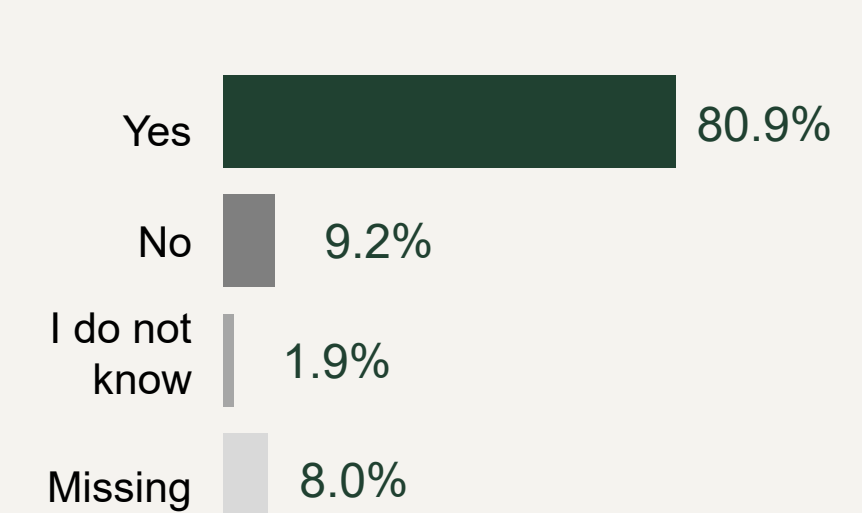
When asked about current treatment, 39.1% (n=384) were treated with systemic therapy or phototherapy (with or without other treatments), 31.8% (n=312) were treated with TCS (used them within the past month, without being concurrently treated with systemic or phototherapy), and 8.0% (n=78) reported never having been on treatment.

Current treatment (mutually exclusive groups)



When asked about TCS treatment history, most participants (80.9%, n=794) said they received TCS for their CHE at least once, 9.2% (n=90) reported no history of TCS use.

Ever been treated with TCS for CHE

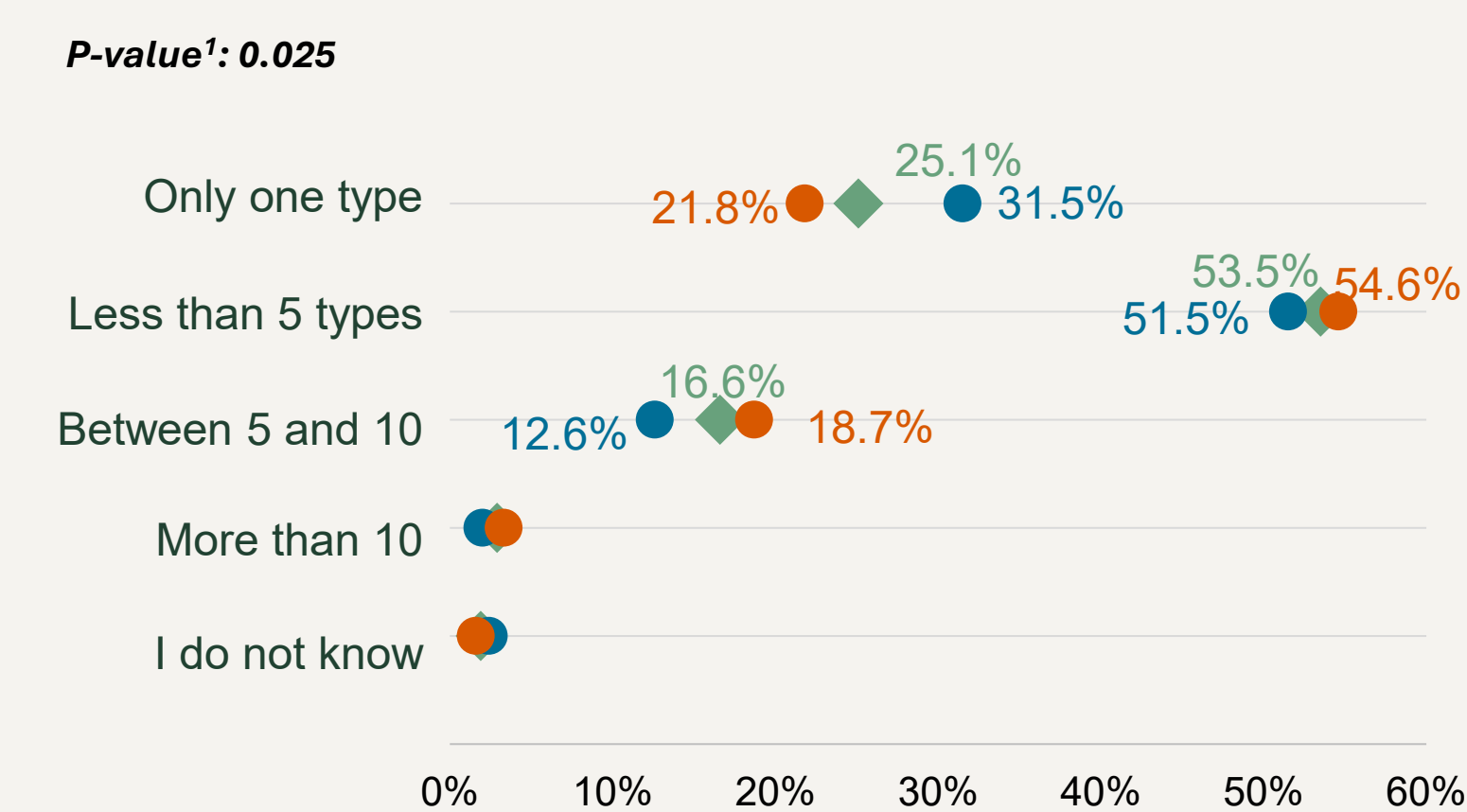


Different types of TCS ever used for CHE among participants who were ever treated with TCS (Figure 4)

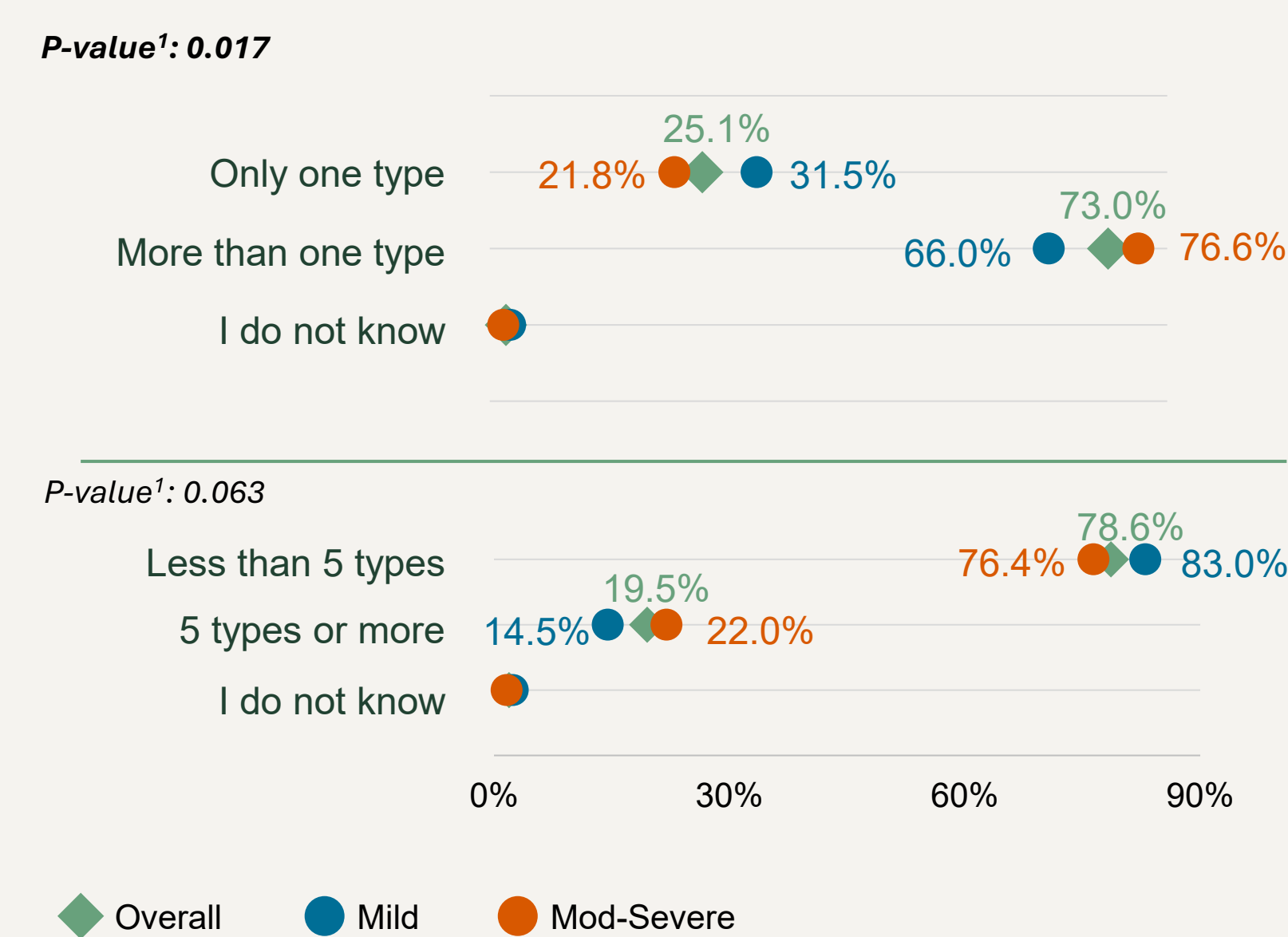
Participants who have received TCS at least once

- Among those 794 individuals, 19.5% (n=155/794) have tried 5 or more different types of TCS, and only a quarter (25.1%, n=199/794) tried only one type.
- Participants with moderate to severe CHE were more likely to have tried more than one type of TCS (mod-severe: 76.6% vs mild: 66.0%; p<0.05).

Number of different TCS types ever used



Number of different TCS types ever used for CHE



¹Wilcoxon rank-sum test for complex survey samples; chi-squared test with Rao & Scott's second-order correction

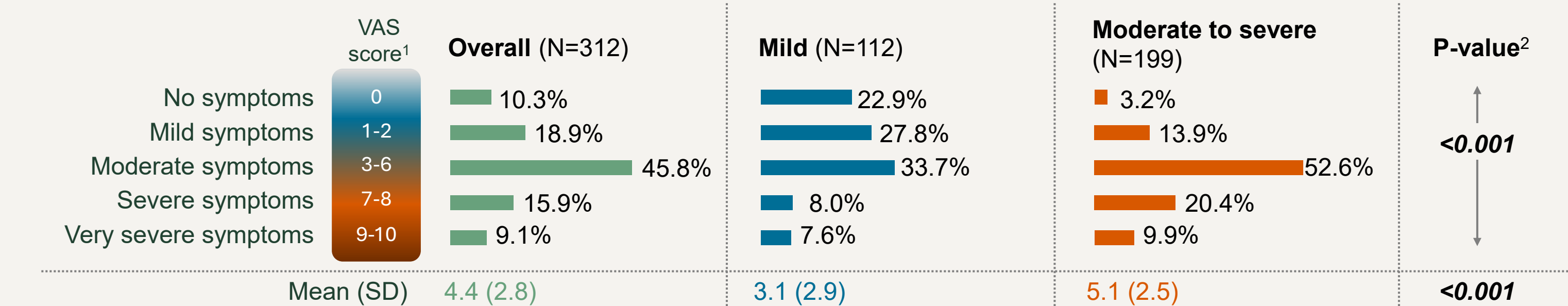
Self-reported symptoms among participants using TCS, overall and by CHE severity (Figure 5)

Severity and symptoms among participants who were on TCS

- Among participants treated with TCS within the last month without being concurrently treated with systemic or phototherapy, the majority (63.9%) were considered moderate to severe cases according to the photographic guide, and around a third (36.1%) were mild cases.
- Among the moderate to severe group on TCS, the mean scores for itch, pain, and sleep disturbance in the past 24 hours were significantly higher than in the mild group.

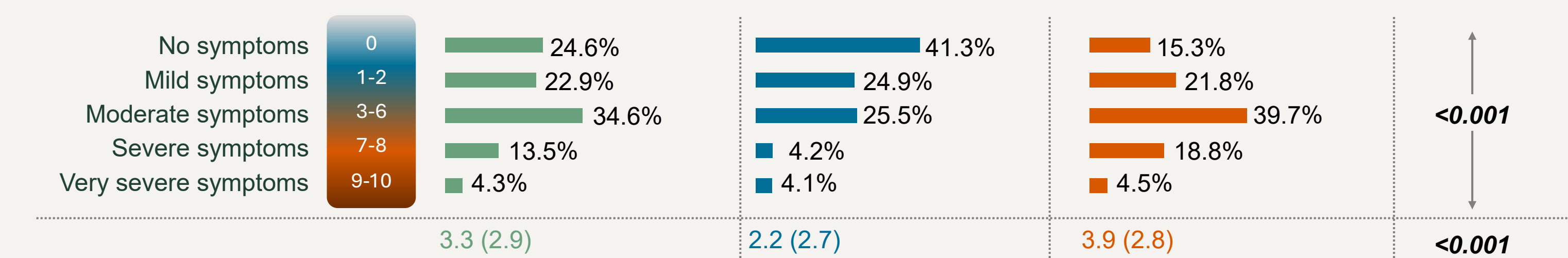
Itch in the past 24 hours

- Mild 3.1 (SD=2.9) vs moderate to severe 5.1 (SD=2.5), p < 0.001.
- In the moderate to severe group, 82.9% reported moderate to very severe itch (VAS score between 3-10) vs only 49.2% in mild group, p < 0.001.



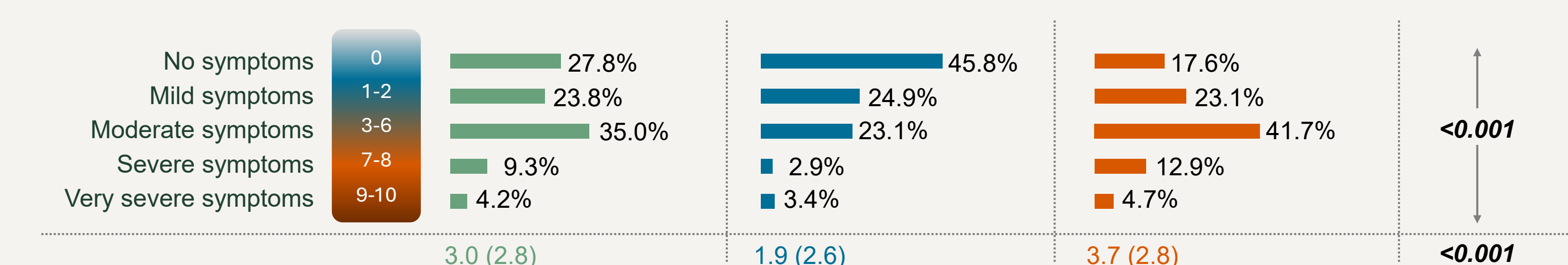
Pain in the past 24 hours

- Mild 2.2 (SD=2.7) vs moderate to severe 3.9 (SD=2.8), p < 0.001.
- Among participants with moderate to severe CHE, 63.0% reported moderate to very severe pain (VAS score between 3-10), while only 33.8% of the mild group said they experienced moderate to very severe pain in the past 24 hours, p < 0.001. While 15.3% of participants with moderate to severe CHE reported no pain, versus 41.3% among mild participants, p < 0.001.



Sleep disturbance in the past 24 hours

- Mild 1.9 (SD=2.6) vs moderate to severe 3.7 (SD=2.8), p < 0.001
- Most of participants with moderate to severe CHE (59.3%) reported moderate to very severe sleep disturbance (VAS score between 3-10), which was significantly higher than the 29.3% of mild participants who reported moderate to very severe sleep disturbance, p < 0.001.



¹0 = no symptoms, 3 to 6 = moderate symptoms, and 10 = very severe symptoms; ²Wilcoxon rank-sum test for complex survey samples; chi-squared test with Rao & Scott's second-order correction

One limitation of this study is that CHE prevalence estimates are based on patient-reported data.

Abbreviations CHE=Chronic hand eczema; IQR: Interquartile range; Min-Max: Minimum-Maximum; SD=standard deviation; TCS=topical corticosteroid; VAS=visual analog scale.

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