## Patient-Reported Anxiety Impacts Utilization of Injectable On-demand Treatment of Hereditary Angioedema Attacks

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## Background

- People living with HAE experience unpredictable, painful and debilitating attacks of tissue swelling in various locations of the body that can be lifethreatening depending on the location affected
- WAO/EAACI 2021 updated guidelines recommend that all HAE patients<sup>1</sup>
  - consider treating all attacks as early as possible
  - have access to sufficient medication to treat two attacks
  - carry on-demand treatment at all times, regardless of prophylactic therapy
- Anxiety related to the use of injectable treatments is common in patients with hereditary angioedema (HAE)<sup>2</sup>

## Objective

 Our aim was to characterize how anxiety associated with injectable on-demand therapies impacts the decision to treat attacks and the time to treatment

## Methods

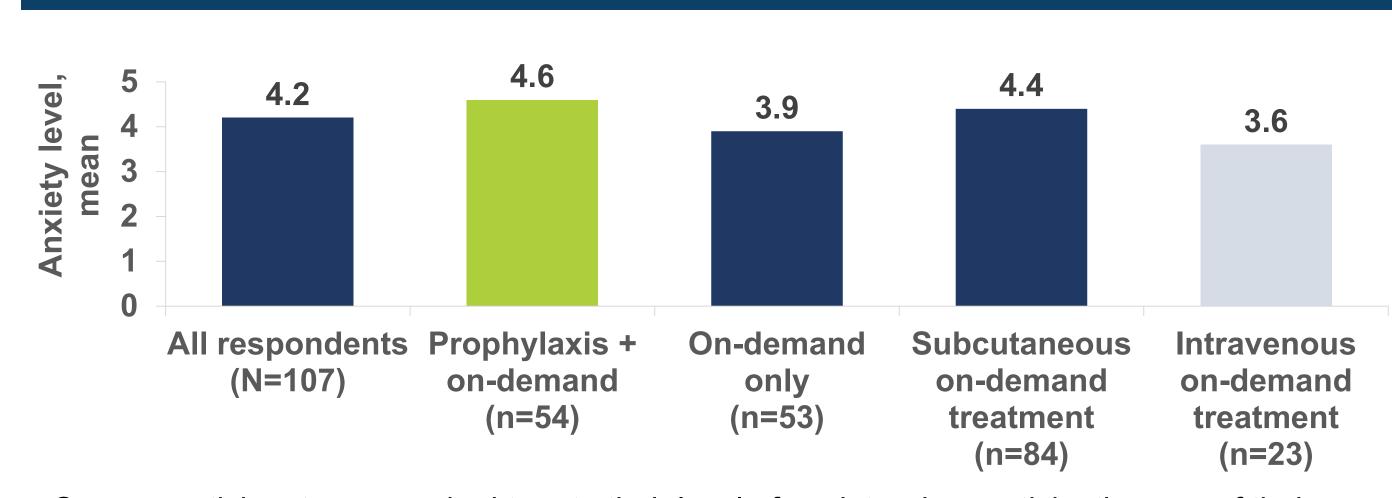
- The US Hereditary Angioedema Association (HAEA) recruited people living with HAE to complete an online survey
  - Recruitment was stratified to include 50% of patients taking on-demand therapy only and 50% receiving long-term prophylaxis + ondemand therapy
- The survey was self-reported and took respondents approximately 20 minutes to complete
- The survey was completed by 107 individuals between September 6 and October 19, 2022; response rate 69% (107/155)
- Anxiety when anticipating use of on-demand treatment was rated on a numeric scale between 0-"not anxious" and 10-"extremely anxious"
- Analysis was performed using descriptive statistics

### Results

Table 1. Respondent characteristics

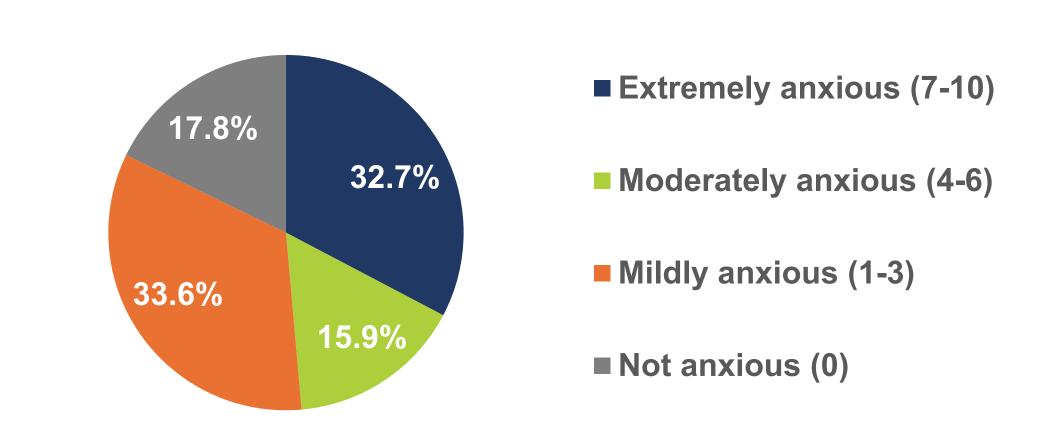
Characteristic	Total (N=107)
Age, mean (range), years	41 (16-83)
Gender, n (%) Female Male	86 (80.4) 21 (19.6)
Type of therapy, n (%) On-demand only Prophylaxis and on-demand	53 (49.5) 54 (50.5)
On-demand treatments used Icatibant C1 esterase inhibitor (recombinant) C1 esterase inhibitor (human) Ecallantide	84 (78.5) 13 (12.1) 9 (8.4) 1 (0.9)
Prophylactic treatments used, n (%) of those using prophylaxis (n=54)  Lanadelumab  Berotralstat  C1 esterase inhibitor (subcutaneous)  Androgens/steroids  C1 esterase inhibitor (intravenous)	31 (57.4) 7 (13.0) 7 (13.0) 5 (9.3) 4 (7.4)

Figure 1. Mean anxiety level (0-10) when anticipating the use of parenteral on-demand treatment



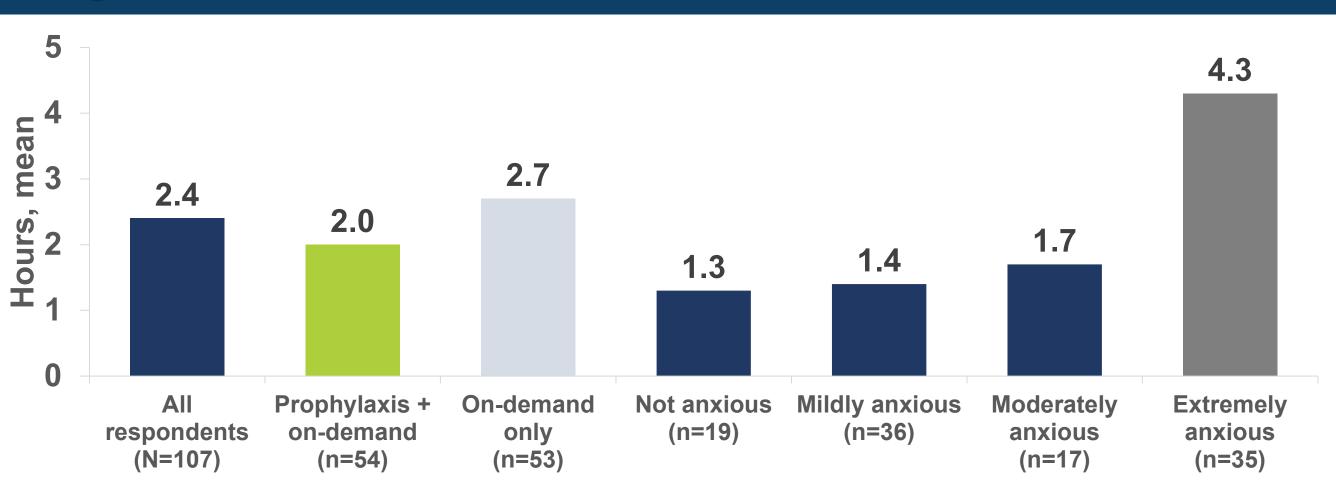
Survey participants were asked to rate their level of anxiety when anticipating use of their current on-demand treatment.

Figure 2. Respondents' level of anxiety when anticipating use of their current on-demand treatment



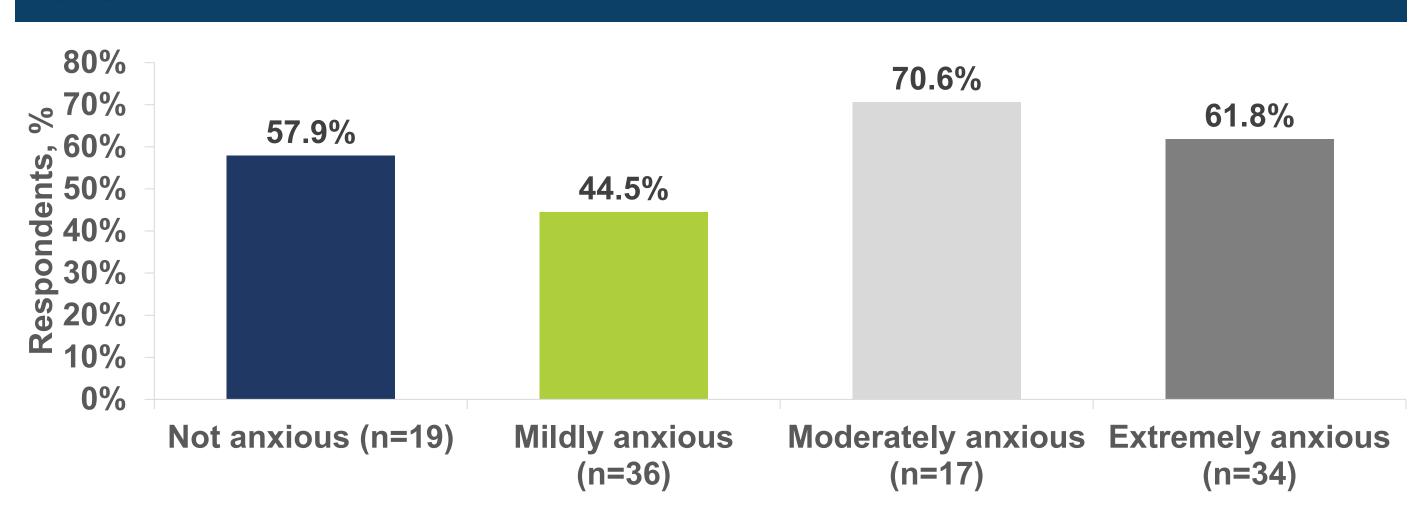
Survey participants were asked to rate their level of anxiety when anticipating use of their current on-demand treatment.

Figure 3. Time to initiating on-demand treatment after the first recognition of an HAE attack



Survey participants were asked how long they waited on average before initiating on-demand treatment after the first recognition of an HAE attack.

# Figure 4. Percentage of patients who do not treat all attacks by anxiety level



Survey participants who responded that they did not treat all their HAE attacks were stratified by their level of anxiety.

Nearly all respondents (95%) reported experiencing a decreased level of anxiety once they realized they were recovering from their HAE attack

## Conclusions

- Results highlight that respondents who were anxious about utilizing injectable on-demand treatment were more likely to delay initiating on-demand treatment or not treat their HAE attacks
- Alternative on-demand treatment options may reduce patient anxiety, resulting in better compliance with guidelines

Neil Malloy - Consultant fees from KalVista Pharmaceuticals

#### Referen

- Maurer M., et al. The international WAO/EAACI guideline for the management of hereditary angioedema The 2021 revision and update. World Allergy Organ J. 2022 Apr 7;15(3):100627.
- 2. Burnette A, et al. Anxiety Associated With Parenteral On-Demand Treatment For Hereditary Angioedema (HAE). Presented at AAAAI 2023 Annual Meeting, February 24-27, 2023, San Antonio, Texas.

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