

Survey Results from Italy, the US, UK, and France: Anxiety in Patients Using Injectable On-Demand Treatments for Hereditary Angioedema Attacks

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Introduction

- Studies report a high prevalence of anxiety among patients with hereditary angioedema (HAE). Currently, all approved on-demand treatments for managing these attacks require parenteral administration, which can be painful and challenging to administer and may contribute to treatment-related anxiety¹⁻²
- This study aimed to quantify levels of anxiety associated with the use of injectable on-demand therapies

Methods

- Patients with Type 1 or Type 2 HAE from Italy, the US, UK, and France were recruited by a physician association (ITACA) and patient advocacy groups (HAEA, HAE UK, AMSAO), respectively, to complete an online survey
- Patients had to have treated an attack within the 3 months prior to the survey with an approved on-demand therapy
- The survey was self-reported, and took respondents approximately 20 minutes to complete
- Respondents rated their anxiety using an 11-point GA-NRS ranging from 0 “not anxious” to 10 “extremely anxious” to answer the question “How much anxiety did you feel about treating this HAE attack with on-demand treatment?”
- Attack severity was reported on a 4-point Patient Global Impression of Severity (PGI-S) scale ranging from 1 “Mild” to 4 “Very Severe”

Results

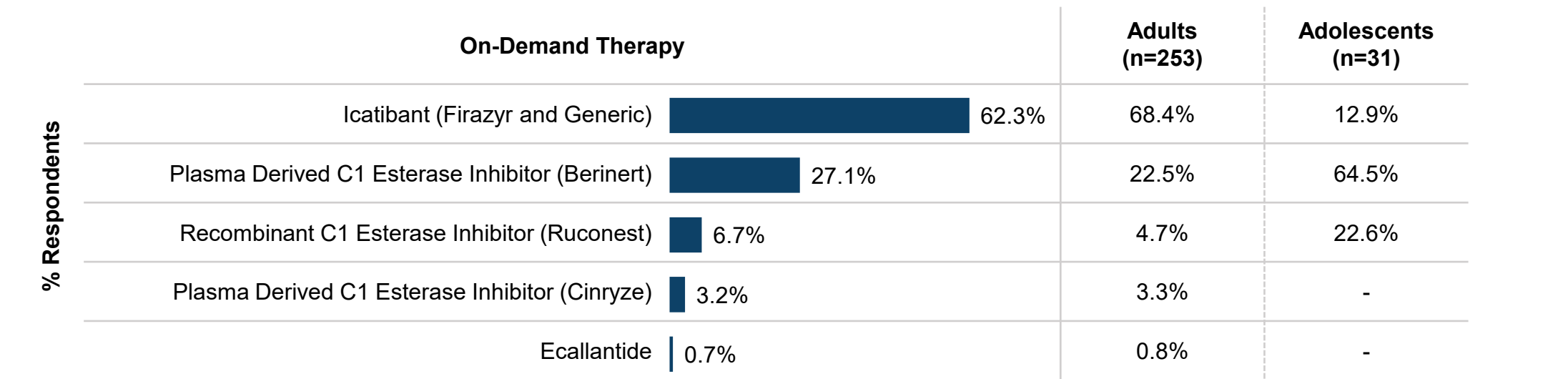
Table 1. Patient Demographics and Clinical Characteristics

Characteristic	Total (N=284)	On-Demand IV (n=105)	On-Demand SC (n=179)	Adults (n=253)	Adolescents (n=31)
Current Age, years mean (SD)	41.0 (16.4)	33.4 (15.6)	45.4 (15.3)	44.3 (14.3)	14.3 (1.6)
Age of Diagnosis, years mean (SD)	17.6 (13.2)	13 (12.1)	20.3 (13.1)	19 (13.3)	6.3 (3.6)
Gender, n (%)					
Male	93 (32.7%)	34 (32.4%)	59 (33.0%)	74 (29.2%)	19 (61.3%)
Female	190 (66.9%)	70 (66.7%)	120 (67.0%)	178 (70.4%)	12 (38.7%)
Country, n (%)					
Italy	101 (33.1%)	46 (43.8%)	55 (30.7%)	87 (34.4%)	14 (45.2%)
United States	94 (35.6%)	31 (29.5%)	63 (35.2%)	80 (31.6%)	14 (45.2%)
United Kingdom	48 (16.9%)	25 (23.8%)	23 (12.8%)	46 (18.2%)	2 (6.5%)
France	41 (14.4%)	3 (2.9%)	38 (21.2%)	40 (15.8%)	1 (3.2%)
HAE Type, n (%)					
Type I	258 (90.8%)	97 (92.4%)	161 (89.9%)	231 (91.3%)	27 (87.1%)
Type II	26 (9.2%)	8 (7.6%)	18 (10.1%)	22 (8.7%)	4 (13.9%)
Days Since Last Attack, mean (SD)	20.7 (19.5)	16.6 (15.8)	23.2 (21.1)	20.6 (19.1)	21.9 (23.4)

- This analysis included 284 respondents (253 adults [≥18yrs] and 31 adolescents [range 12-17yrs old]) from Italy (n=101), US (n=94), UK (n=48), and France (n=41)
- 57% were receiving long-term prophylaxis

Results

Figure 1. On-Demand Therapy Used for Last Treated Attack



- 87% of adolescents and 31% of adults used an IV on-demand treatment to treat their last attack

Figure 2. Long-term Prophylaxis at Time of Last Treated Attack

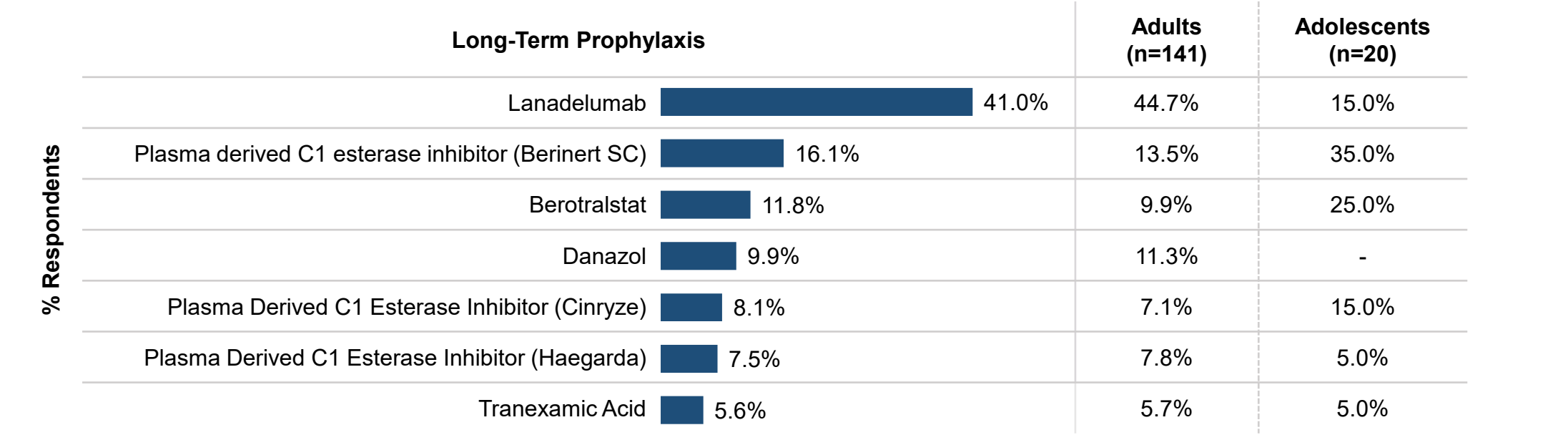
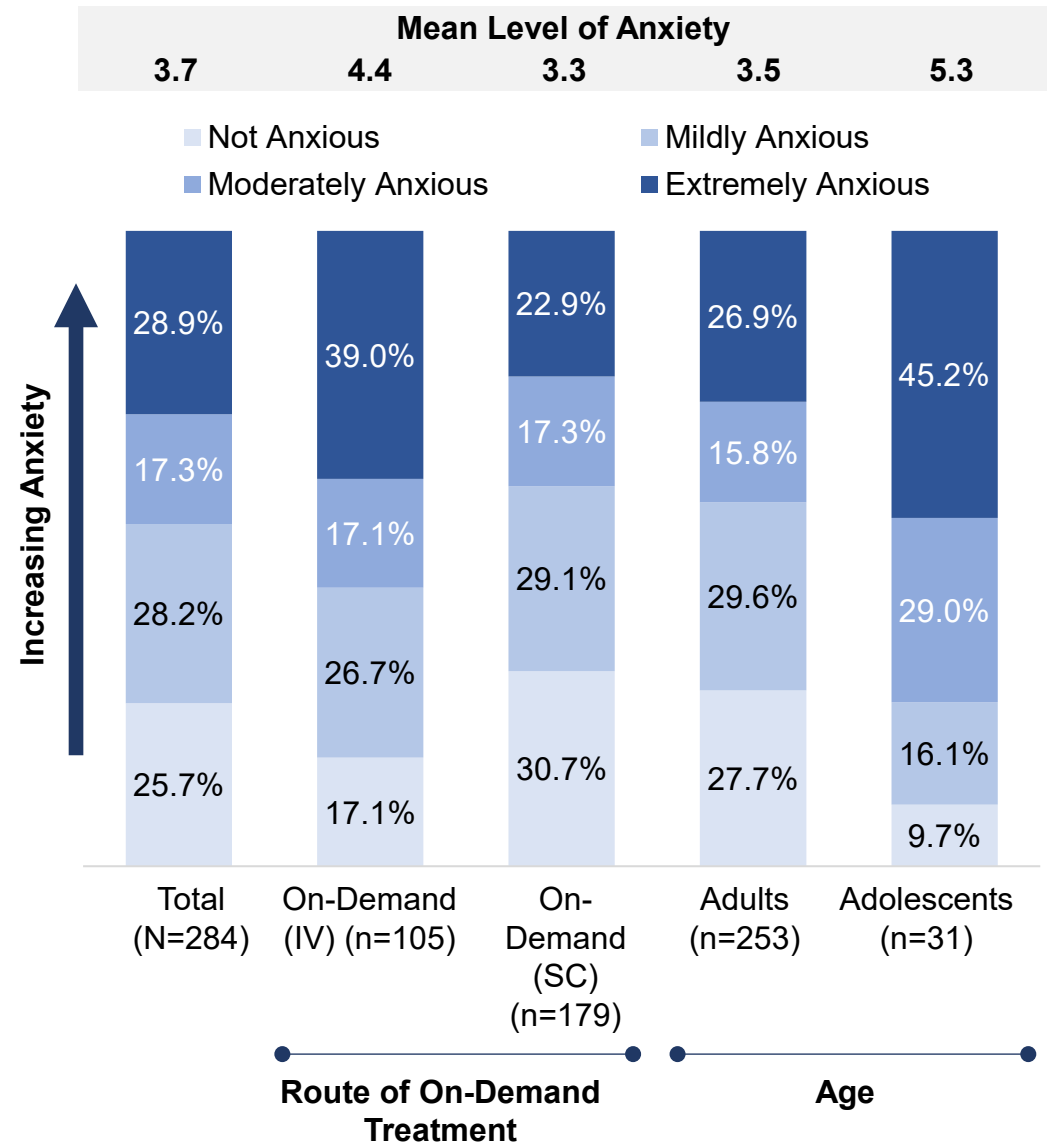
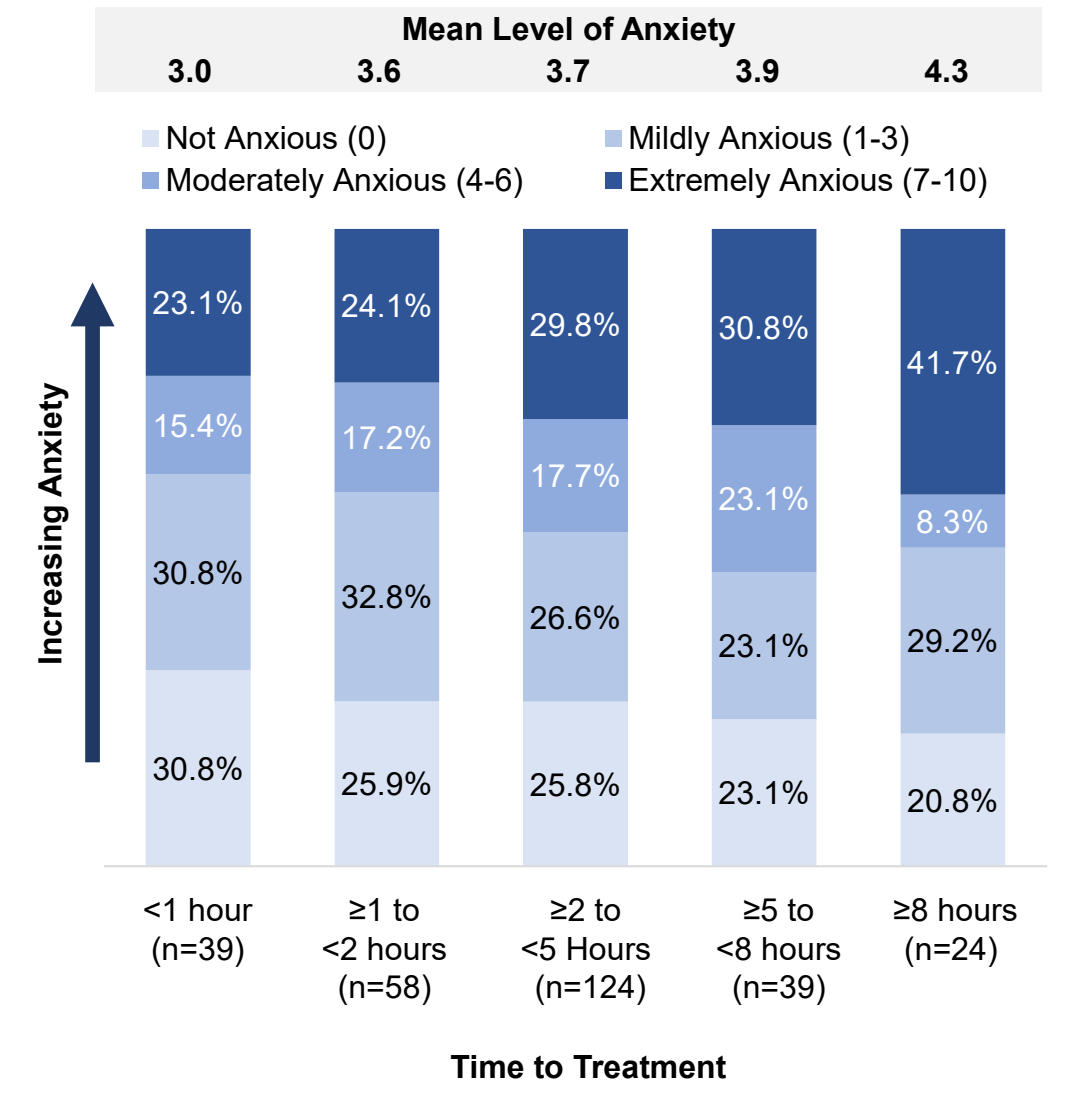


Figure 3. Anxiety About Treating with On-demand Treatment



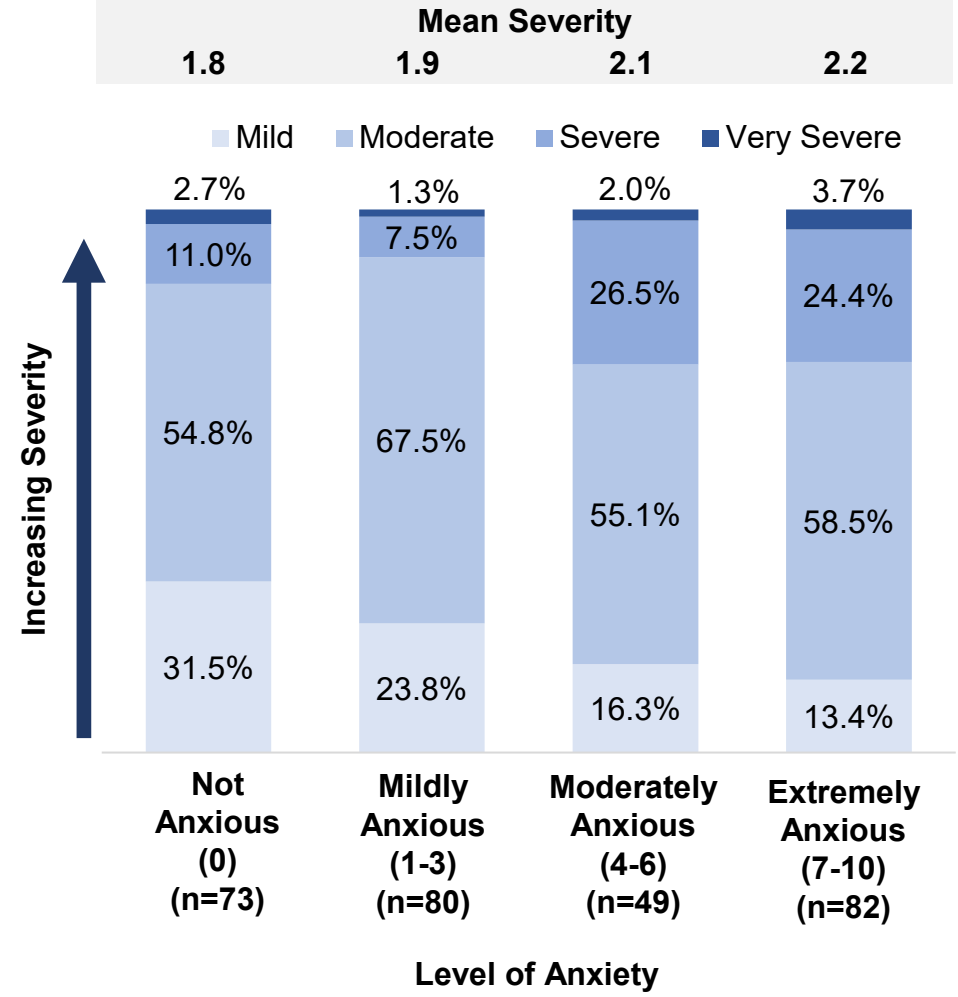
- During the last treated attack, 29% of respondents felt extremely anxious (anxiety 7-10), 17% moderately anxious (anxiety 4-6), and 28% mildly anxious (anxiety 1-3)
- The mean anxiety rating was 3.5 for adults vs 5.3 for adolescents
- For respondents receiving IV treatment, the mean anxiety rating was 4.4, with 39% reporting extreme anxiety

Figure 4. Time to On-demand Treatment and Anxiety



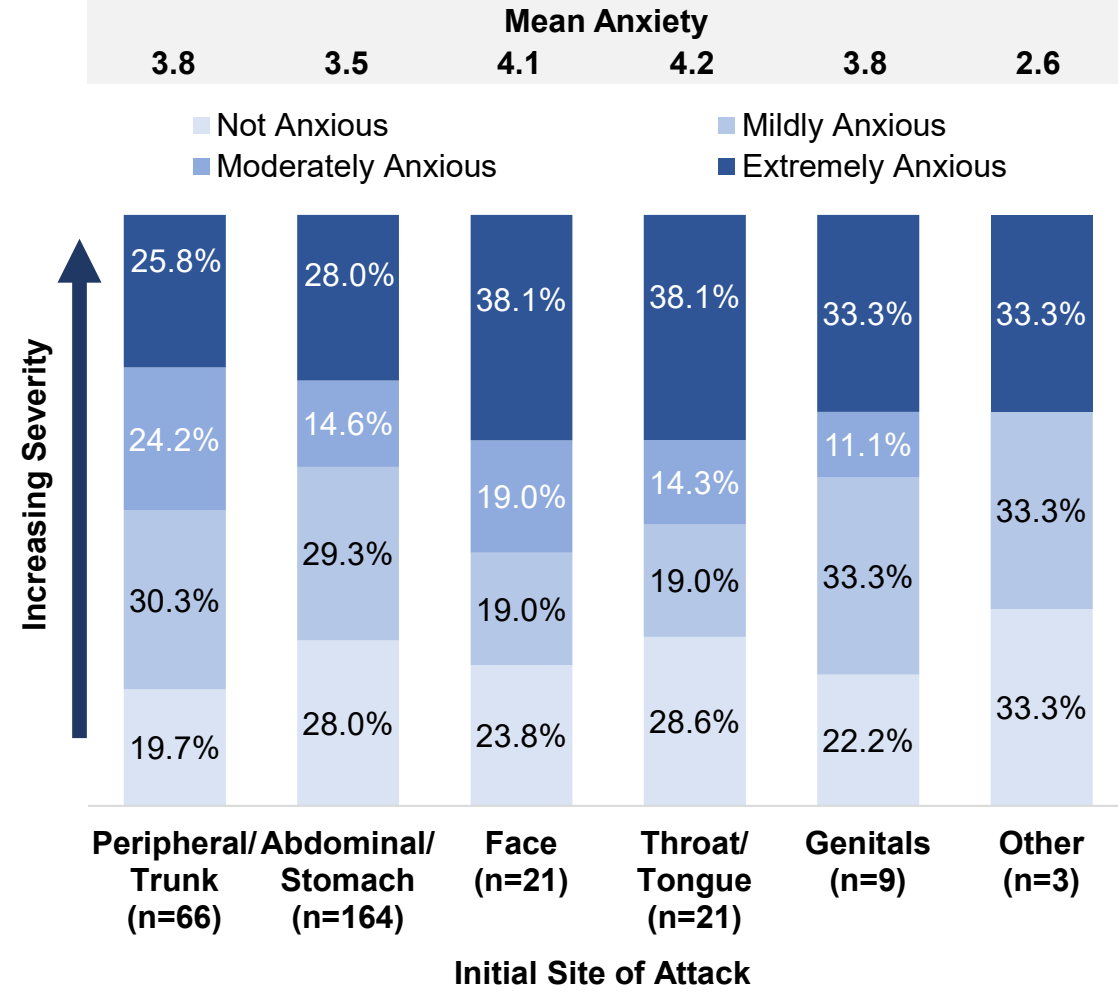
- 16% of respondents treated in <1 hour
- Increased anxiety was associated with increased time to treatment

Figure 5. Anxiety Associated with On-demand Treatment by Attack Severity at Time of Treatment



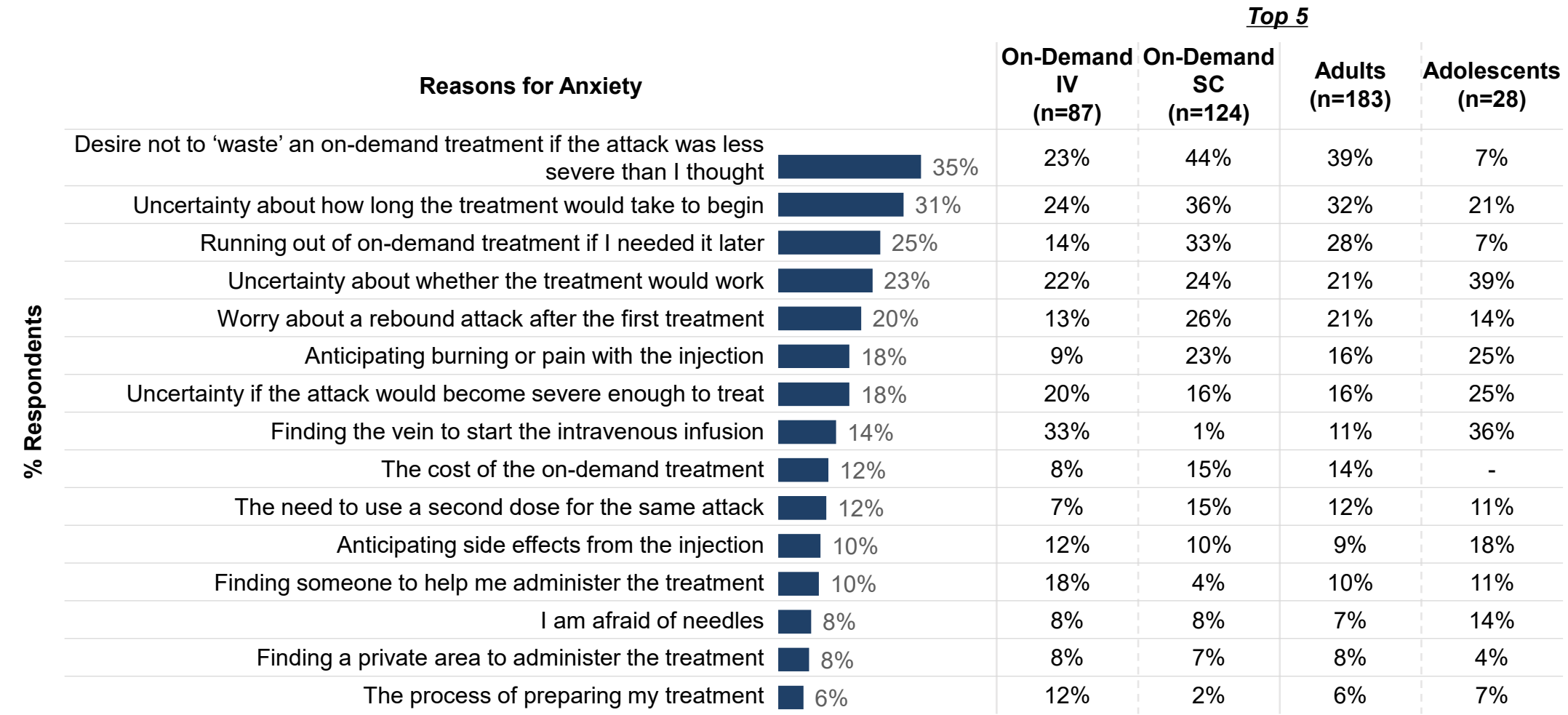
- Increased anxiety was associated with greater attack severity at the time of treatment

Figure 6. Anxiety Associated with On-demand Treatment by Attack Location



- Moderate to extreme anxiety occurred for all attack locations, but was highest in the face or throat/tongue

Figure 7. Reasons for Anxiety Associated with On-demand Treatment



- Finding a vein to start infusion was the most common administration-related reason for anxiety among those receiving IV on-demand treatment (33%) and anticipating burning or pain with injection was the most common administration-related reason for respondents using SC treatment (23%)

Discussion

- Nearly one third of survey respondents experienced moderate to extreme anxiety due to anticipated use of injectable on-demand treatment, particularly adolescents and those receiving IV therapy
- Greater levels of anxiety were associated with longer on-demand treatment delays and attack severity
- Among the reasons related to treatment administration, finding a vein to start infusion and burning or pain with injection were the most common causes of anxiety
- An oral on-demand therapy could reduce the treatment administration-related causes of anxiety associated with currently approved on-demand therapies

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