

Delayed On-demand Treatment of Hereditary Angioedema Attacks and Associated Barriers Reported by Italian Patients

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Disclosures

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Background

- Hereditary angioedema (HAE) is characterized by unpredictable swelling attacks affecting mucosal and subcutaneous tissues, which are typically painful, debilitating, and potentially fatal
- WAO/EAACI guidelines recommend the early use of on-demand treatment following recognition of an HAE attack to reduce morbidity and prevent mortality¹⁻³
- Despite the recommendation for early treatment, recent research suggests that patients delay on-demand treatment of their attacks⁴
- We assessed patient's time to treatment of their last attack along with identifying barriers contributing to treatment delay

Methods




- Individuals with Type 1 or 2 HAE due to C1 inhibitor deficiency were recruited through the Italian Network for Hereditary and Acquired Angioedema (ITACA) between September 2023 and January 2024
- Respondents enrolled were ≥ 12 years old and had to have treated with an approved on-demand therapy ≥ 1 HAE attack within 3 months prior to the survey
- The survey was self-reported, and took respondents approximately 20 minutes to complete

Respondents Characteristics

	Total (n=56)	On-Demand Only (n=25)	On-Demand + LTP (n=31)	Adults (n=48)	Adolescents (n=8)
Current age (years; mean)	41	41	40	45	15
Age of diagnosis (years; mean)	17	21	14	19	8
<u>Gender</u>					
Male	23 (41%)	10 (40%)	13 (42%)	18 (38%)	5 (63%)
Female	33 (59%)	15 (60%)	18 (58%)	30 (63%)	3 (38%)
<u>HAE Type</u>					
Type I	51 (91%)	24 (96%)	27 (87%)	44 (92%)	7 (88%)
Type II	5 (9%)	1 (4%)	4 (13%)	4 (8%)	1 (13%)

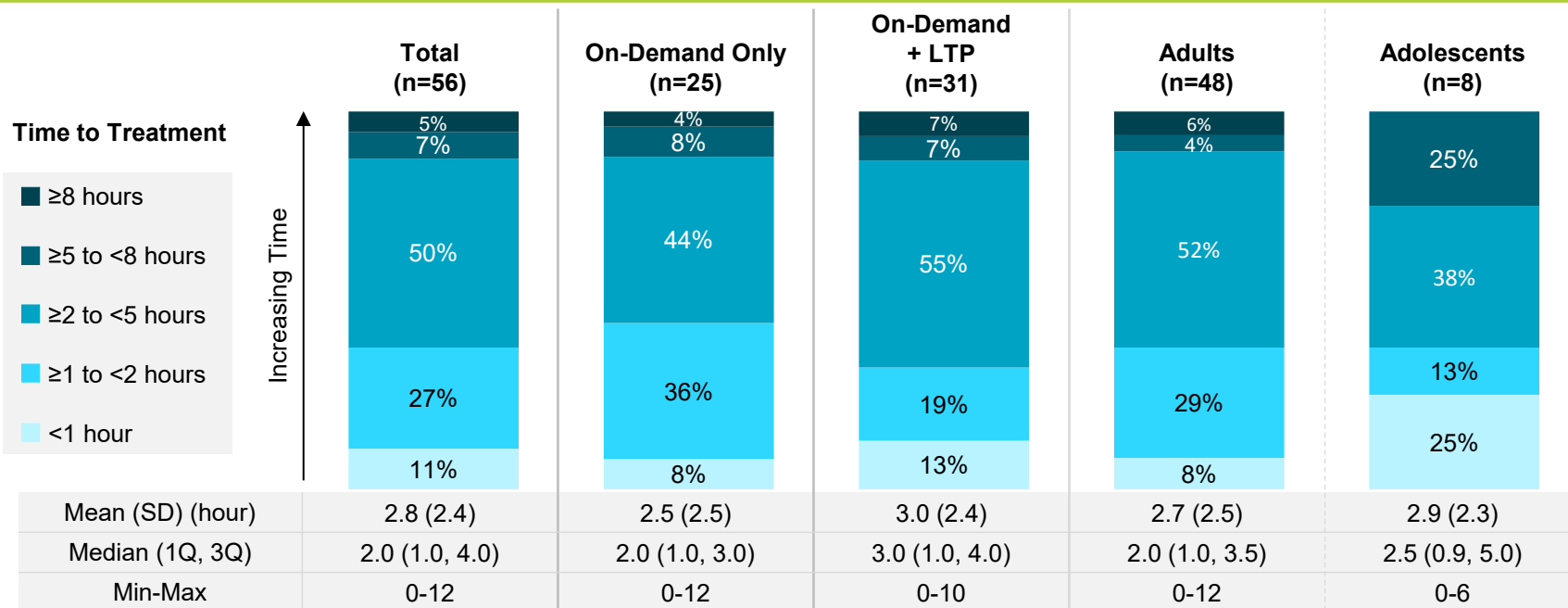
- This interim analysis included 56 respondents, including 48 adults and 8 adolescents (<18 years)
- 55% were receiving long-term prophylaxis (LTP) at the time of their most recent treated HAE attack

First On-Demand Treatment for Last Treated Attack

Treatment Used (n=56)		On-Demand Only (n=25)	On-Demand + LTP (n=31)	Adults (n=48)	Adolescents (n=8)
Icatibant (Firazyr and generic)	 55%	44%	65%	63%	13%
Plasma derived C1 esterase inhibitor (Berinert)	 43%	56%	32%	35%	88%
Plasma derived C1 esterase inhibitor (Cinryze)	 2%	–	3%	2%	–
Recombinant C1 esterase inhibitor (Ruconest)	0%	–	–	–	–

- Most adults used icatibant for on-demand treatment for their last attack while most adolescents used plasma derived C1 esterase inhibitor

Time to On-Demand Treatment After Attack Onset

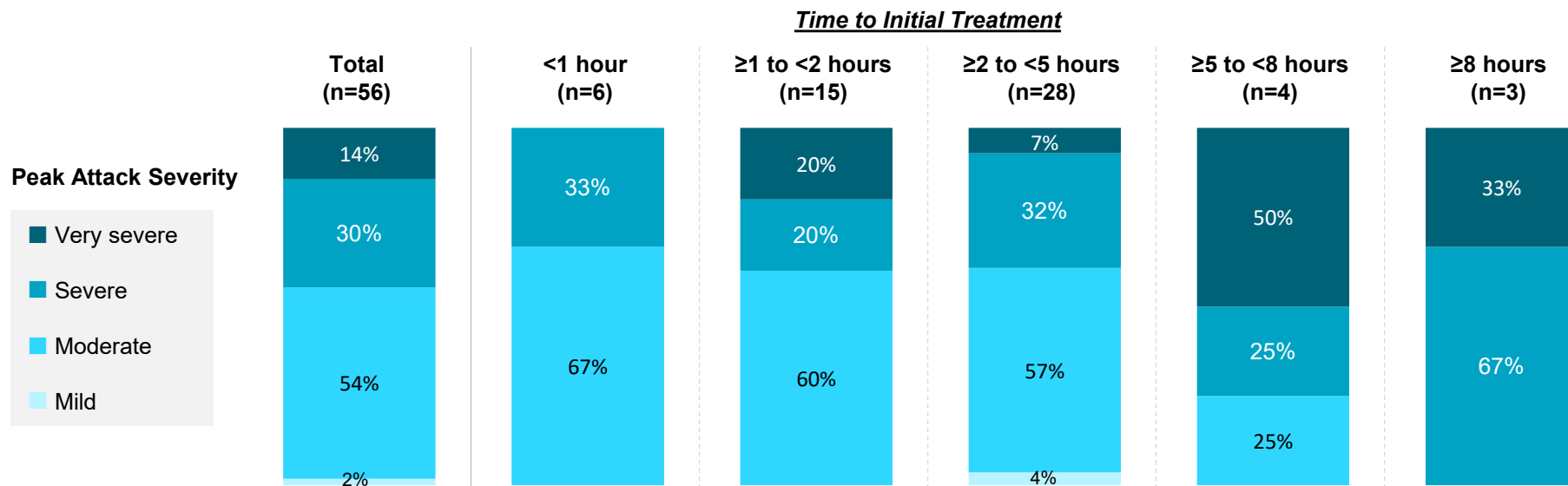


Note: Values less than 5 percent are not labeled

Q33. After you first noticed the start of the attack, how much time passed until you treated the attack with on-demand treatment?

- The median time to treatment was 2 hours (interquartile range: 1-4) overall, but 3 hours for those receiving LTP and 2.5 hours for adolescents
- Only 11% of respondents (6/56) treated their attack in <1 hour

Peak Attack Severity by Time to Initial Treatment



Note: Values less than 5 percent are not labeled
Q31a. When the attack was at its most severe, how would you describe it?

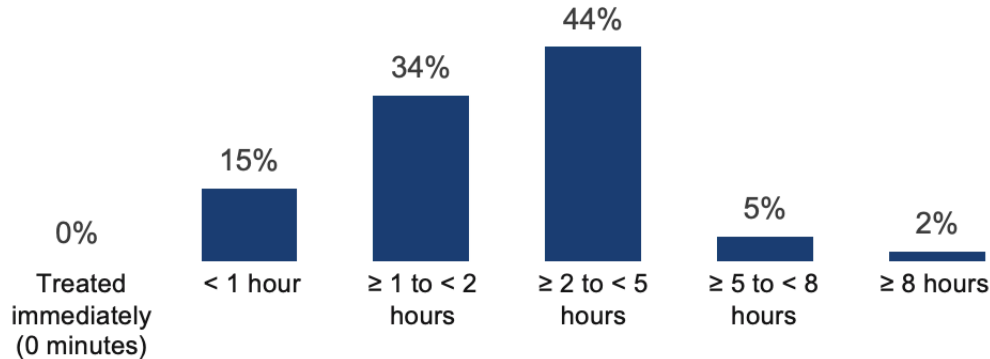
- Peak attack severity increased with time to initial treatment
- Only 33% of those who treated their attacks in less than 1 hour described their attack at peak as severe or very severe
- 40%, 39%, 75%, and 100% of those who treated within 1 to <2 hours, 2 to <5 hours, 5 to <8 hours, and 8 or more hours, respectively, reported the peak of their attack as severe or very severe

Perception of Time to Treatment as “Early”

“I Treated the Attack Early”

(n=41)

	<u>Hours</u>
Mean (SD)	2.2 (1.9)
Median (1Q 3Q)	2.0 (1.0, 3.0)
Min-Max	0-10



- 73% of respondents (41/56) believed they treated their attack early, despite only 15% of those respondents treating in less than one hour
 - The mean time to treatment for those who believed they treated early was 2.2 hours

Barriers to Treating HAE Attack Sooner

Barriers (Detailed) (Excluding those who treated the attack immediately; ranked top 5; n=45)

Ranked Top 5

			Adults (n=40)	Adolescents (n=5)
I was not certain it was a real / actual attack		44%	40%	80%
I thought the attack would be mild		40%	43%	20%
I wanted to save my on-demand treatment for a severe attack		27%	28%	20%
I waited to treat until the attack was severe		24%	23%	40%
I did not want to / could not interrupt what I was doing		18%	18%	20%
I did not have anyone to help me		11%	10%	20%
I did not have my on-demand treatment with me		9%	8%	20%
I did not have a private place to administer treatment		7%	5%	20%
I had to go to the hospital / emergency center for treatment		4%	5%	—
I wanted to avoid the burning, stinging or pain with the injection		4%	5%	—
I wanted to avoid the side effects of treatment		4%	5%	—
I wanted to avoid the pain of the needle		2%	3%	—
I did not feel well enough to prepare and administer the treatment		2%	3%	—
My on-demand treatment was expensive		2%	3%	—

Q35. What prevented you from treating this HAE attack sooner with on-demand treatment? (Top 5 in order of importance)

- Forty-five respondents (80%) who reported that they did not treat their most recent attack immediately were asked to rank their top 5 reasons for not treating earlier
- Uncertainty that the attack was real (44%), thinking the attack was mild (40%), and wanting to save on-demand treatment (27%) were the most common barriers; treatment-related barriers included not wanting to interrupt what they were doing (18%), not having anyone to help (11%), and not having a private place to administer treatment (7%)

Conclusions

- Many respondents did not meet guideline recommendations for prompt on-demand treatment following HAE attack onset
- Those who delayed treatment were more likely to have severe/very severe attacks
- Uncertainty that the attack was real and thinking the attack was going to stay mild were the most common barriers to treating earlier
- Treatment related barriers included not wanting to interrupt what they were doing, not having anyone to help, and not having a private place to administer treatment
- These findings highlight a need to proactively address barriers contributing to treatment delays, including a need for oral on-demand treatment options, especially among adolescents