

# Treatment Patterns of Patients Requiring Redosing of an On-demand Treatment After the Return of an HAE Attack

Constance Katelaris,<sup>1</sup> Michael Manning,<sup>2</sup> Sally van Kooten,<sup>3</sup> Neil Malloy,<sup>4</sup> Markus Heckmann,<sup>3</sup> Julie Ulloa,<sup>5</sup> William Lumry<sup>6</sup>

<sup>1</sup>Department of Medicine, Campbelltown Hospital and Western Sydney University, Sydney, NSW, Australia; <sup>2</sup>Allergy, Asthma & Immunology Associates, Ltd., Internal Medicine, UA College of Medicine-Phoenix, Scottsdale, Arizona, United States; <sup>3</sup>KalVista Pharmaceuticals, Inc., Cambridge, Massachusetts, United States; <sup>4</sup>Summit Global Health, United States; <sup>5</sup>Outcomes Insights, Agoura Hills, California, United States; <sup>6</sup>Allergy and Asthma Research Associates, Dallas, Texas, United States.

## Background

- Hereditary angioedema (HAE) is a rare genetic disease resulting in deficiency (type I) or dysfunction (type II) in the C1-inhibitor protein and subsequent uncontrolled activation of the kallikrein-kinin system
- People living with HAE experience unpredictable, painful and debilitating attacks of tissue swelling in various locations of the body that can be life-threatening depending on the location affected
- Although self-administered on-demand parenteral (subcutaneous or intravenous) treatment has enhanced overall HAE attack management, some people living with HAE require an additional dose of an on-demand treatment to manage the return of an attack

## Objective

- The objective of this analysis was to characterize treatment patterns of patients requiring an additional dose of parenteral on-demand treatment after the return of an HAE attack

## 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 only and 50% receiving LTP plus on-demand
- 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)
- Respondents provided consent for their data to be used anonymously or in aggregate
- Analysis was performed using descriptive statistics

## Disclosures

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## Results

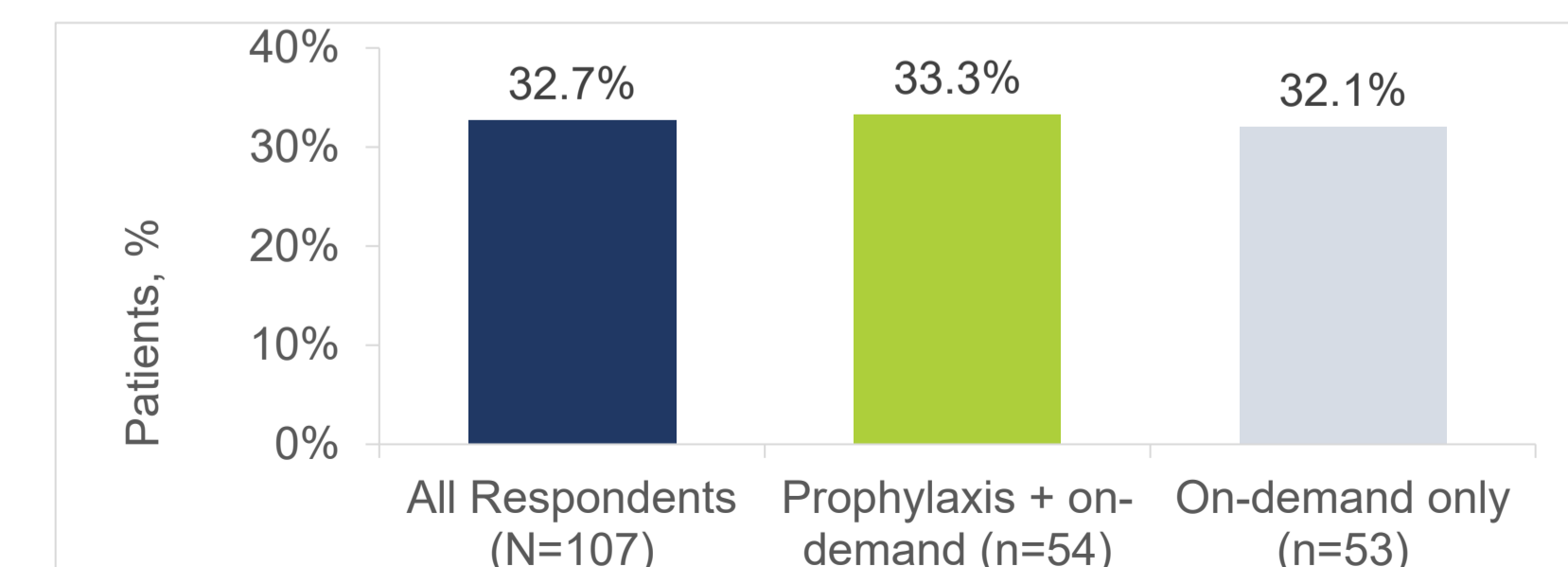
- Respondents included 107 Type I or II HAE patients, 80.4% female, mean age 41 years (Table 1)

Table 1. Respondent characteristics

| Characteristic   | Total (N=107) |
|--|---------------|
| <b>Age, mean (range), years</b>  | 41 (16-83)    |
| <b>Gender, n (%)</b>   |               |
| Female   | 86 (80.4)     |
| Male   | 21 (19.6)     |
| <b>Type of therapy, n (%)</b>  |               |
| On-demand only   | 53 (49.5)     |
| Prophylaxis with on-demand   | 54 (50.5)     |
| <b>On-demand treatments used, n (%)</b>                                      |               |
| Icatibant  | 84 (78.5)     |
| C1 esterase inhibitor (recombinant)  | 13 (12.1)     |
| C1 esterase inhibitor (human)  | 9 (8.4)       |
| Ecallantide  | 1 (0.9)       |
| <b>Time to administration of on-demand treatment, n (%)</b>                  |               |
| <1 hour  | 46 (43.0)     |
| ≥1 hour  | 61 (57.0)     |
| <b>Prophylactic treatments used, n (%) of those using prophylaxis (n=54)</b> |               |
| Lanadelumab  | 31 (57.4)     |
| Bertralstat  | 7 (13.0)      |
| C1 esterase inhibitor (subcutaneous)   | 7 (13.0)      |
| Androgens/steroids   | 5 (9.3)       |
| C1 esterase inhibitor (intravenous)  | 4 (7.4)       |

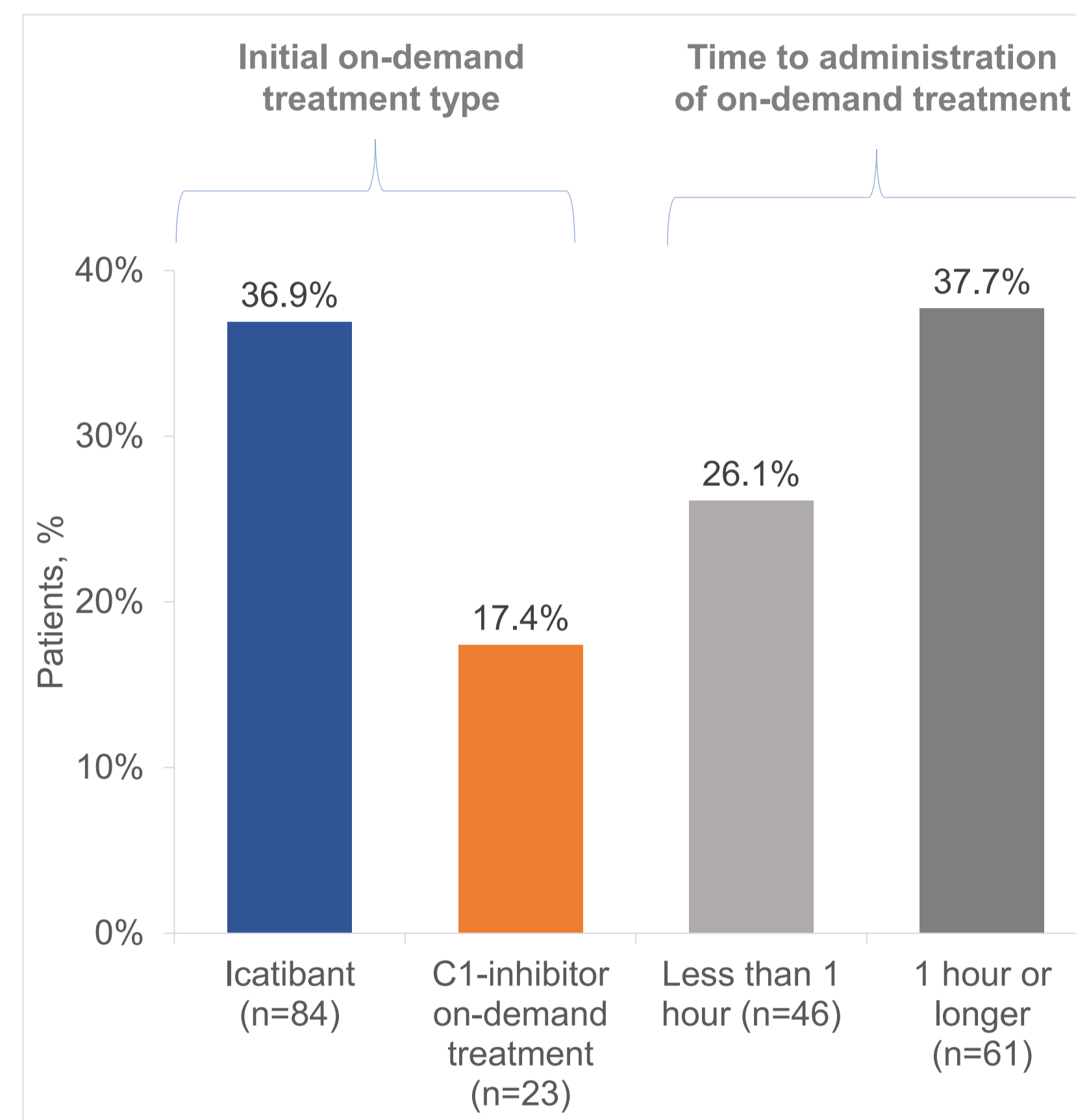
- Overall, 32.7% experienced return of HAE attack after initial use of an on-demand treatment (Figure 1)
  - Of these, 88.6% had administered icatibant injection as their initial treatment

Figure 1. Proportion of patients who experienced return of an HAE attack after initial use of on-demand treatment



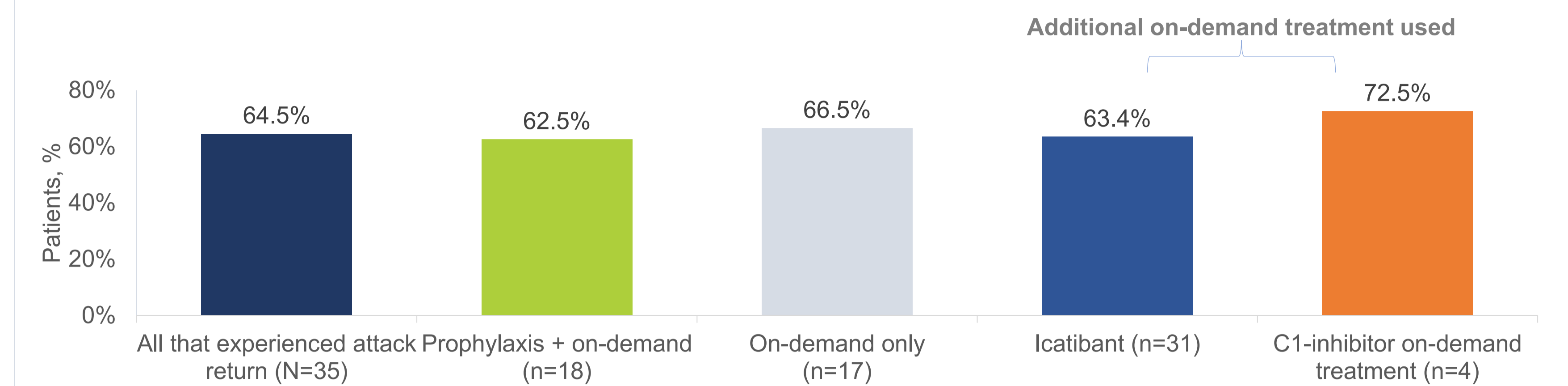
- HAE attacks initially treated within 1 hour returned less frequently (26.1%) compared with attacks treated after ≥1 hour (37.7%; Figure 2)

Figure 2. Proportion of patients who experienced return of an HAE attack after initial use of on-demand treatment by treatment and time to initial treatment



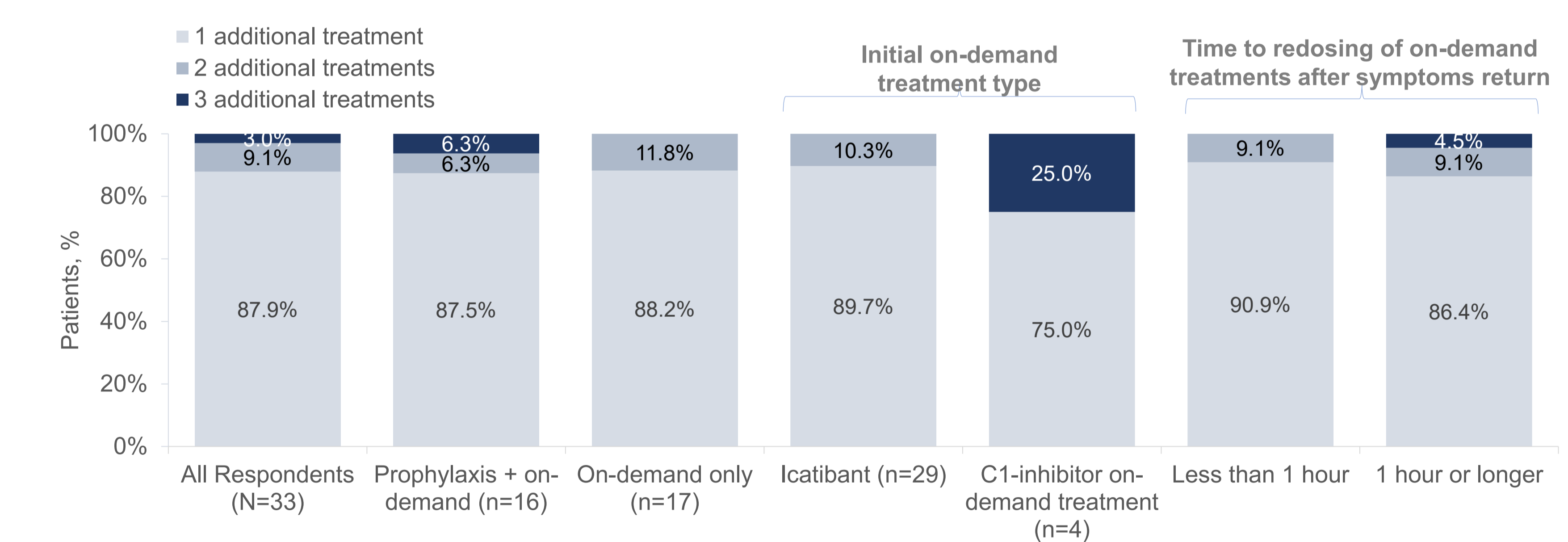
- Upon attack return, 64.5% took an additional on-demand treatment; of these, 63.4% used icatibant as their additional treatment (Figure 3)

Figure 3. Proportion of patients who administered an additional on-demand treatment after an attack returned\*



- Although the additional treatment was often the same as the initial treatment, 17.5% of initial icatibant-treated patients opted for a different on-demand treatment for their additional treatment
- For most (87.9%), one additional dose of on-demand therapy was required to manage attack return (Figure 4)
  - This rate was similar for people using prophylaxis + on-demand and those using on-demand only

Figure 4. Number of additional treatments administered to manage attack return



## Conclusions

- Almost one third of people with HAE experienced the return of an HAE attack requiring ≥1 additional dose of on-demand treatment
- HAE attacks initially treated within 1 hour returned less frequently compared with attacks treated after ≥1 hour
- For most, 1 additional dose of on-demand treatment was required to manage attack return; this rate was similar for people using prophylaxis + on-demand and those using on-demand only

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