

Retrospective Analysis: Subcutaneous C1-Inhibitor Prophylaxis for Hereditary Angioedema and Associated Patient Outcomes

William Lumry, Timothy Craig, John Anderson, Marc Riedl, Henry Li, Raffi Tachdjian, Michael Manning, Paolo Bajcic, Frank Rodino, Sam Wang, Thomas R Sexton, Jonathan A Bernstein

HIGHLIGHTS



This qualitative study **assessed the clinical and disease burden outcomes using a hybrid method involving medical chart data retrieval supplemented with patient interviews**



LTP implementation with C1-INH (SC) **resulted in lower HAE attack frequency, markedly lessened severity of breakthrough attacks, reduced on-demand medication use, and improved QoL**

INTRODUCTION



Hereditary angioedema (HAE) can have a significant impact on QoL for patients and their families, with treatment goals aimed at disease control and improved QoL



Routine C1-INH (SC) use as long-term prophylaxis (LTP) in HAE and on-demand medication use patterns while on prophylaxis were evaluated to determine the clinical and QoL impact

STUDY CHARACTERISTICS

Objective

Assess the clinical and QoL impact of C1-INH (SC) as LTP in HAE patients

Study design

Hybrid; combined semi-structured, qualitative patient interviews and retrospective medical record review

Patient population

36 patients, ≥18 years of age with HAE type 1 or 2; biweekly* LTP with C1-INH (SC)

*Dosing frequency was reported as biweekly (24 patients) or every 3-4 days (11 patients), and it was not reported for 1 patient.

RESULTS

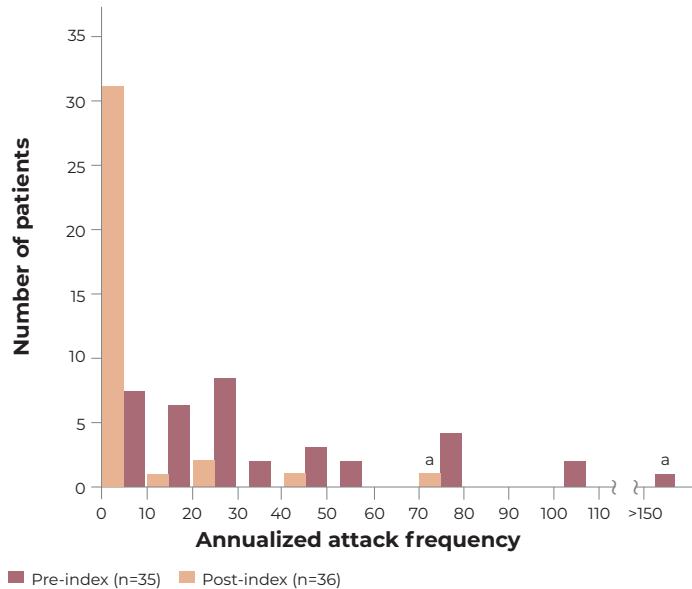
Figure 1. Patient distribution histogram by annualized HAE attack frequency, pre- and post-index



Patients with ages ranging from 24 to 77 years (mean age, 47.9) were included



20 patients had ≤1 annualized attacks, and 12 of these reported no attacks, post-LTP with C1-INH (SC)

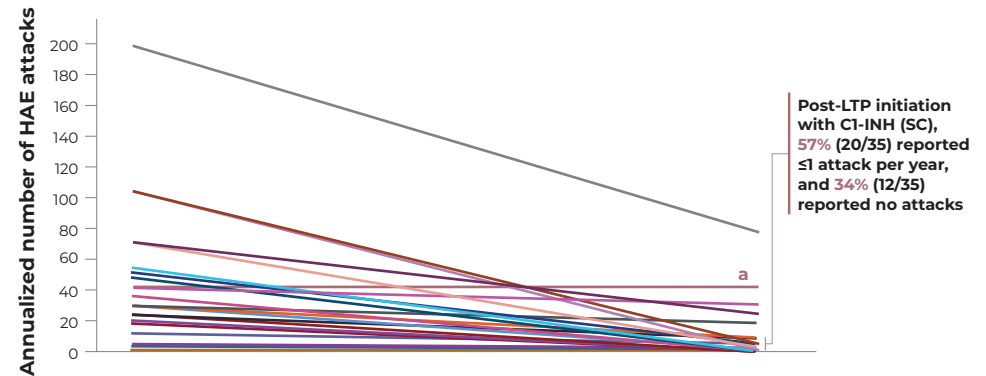


Index refers to the initiation of LTP with C1-INH (SC).
 *1 outlier patient with particularly burdensome disease with pre-index annualized frequency of ~198 attacks per year (15-18 attacks per month). Post-index, annualized rate decreased to 78 attacks per year (6-7 per month).

Figure 2. Individual annualized HAE attack frequencies, pre- and post-index (n=35)



96.7% decrease in the median annualized attack rate, from 30 to 1 attack per year



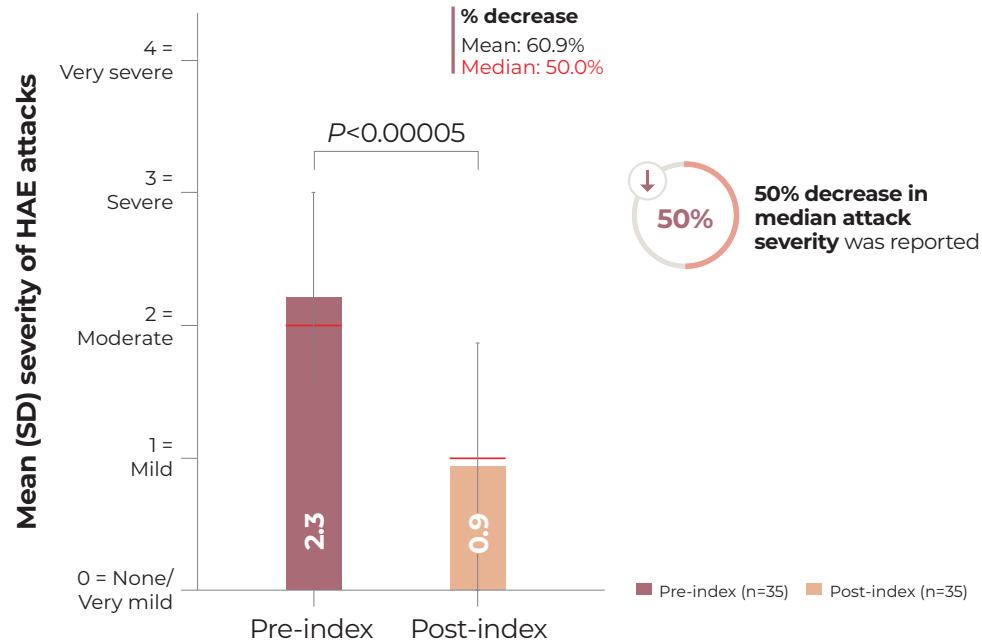
*Patient reported ~42 severe attacks per year pre-index; post-index attack frequency of 1 attack per month was noted.

	Pre-index	Post-index	% reduction
Mean (SD) no. of attacks	38.8 (38.8)	7.0 (15.3)*	82%
Median no. of attacks	30	1	96.7%

*P<0.00005, pre-index vs post-index.

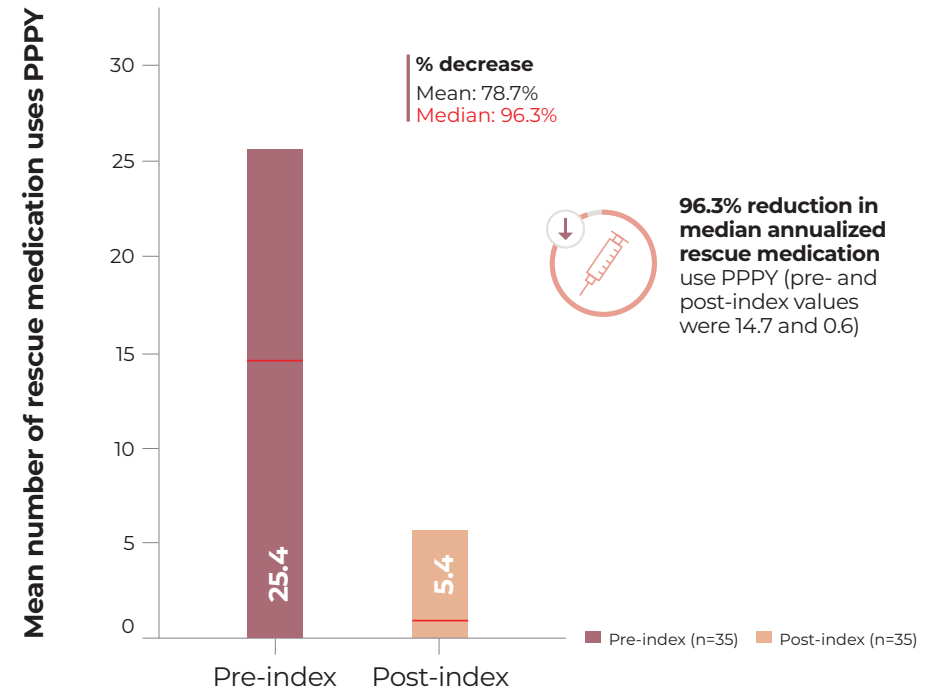
RESULTS

Figure 3. Mean reported severity of HAE attacks, pre- and post-index (n=35)*



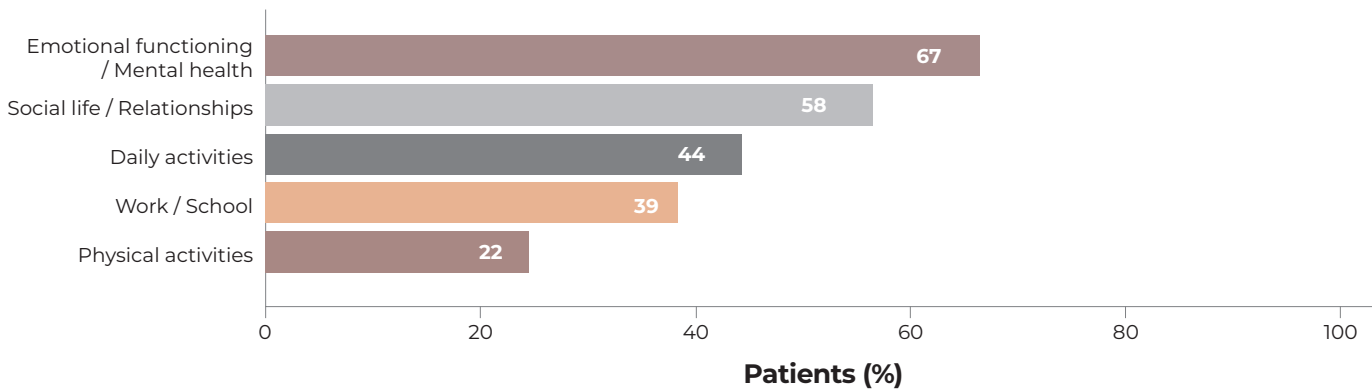
Red lines represent median values.
Attack severity was captured from patient interviews; narrative descriptions of severity were translated into numerical severity scores based on a scale of 0=none/very mild, 1=mild, 2=moderate, 3=severe, and 4=very severe.
*1 patient remained on C1-INH (SC) throughout pregnancy and reported increased attack frequency and severity.

Figure 4. Mean rescue medication use per patient per year (PPPY) pre-index vs post-index



Red lines represent median values.

Figure 5. Proportion of patient-reported subjective improvements related to quality-of-life domains while using C1-INH (SC)



Abbreviations

C1-INH: C1-esterase inhibitor; HAE: hereditary angioedema;
LTP: long-term prophylaxis; PPPY: per patient per year; QoL: quality of life;
SC: subcutaneous.

Reference

Lumry W, Craig T, Anderson J, et al. *Allergy Asthma Clin Immunol.* 2023;19(1):105.



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