BACKGROUND
• Surveys were conducted in 2010 and 2013 in the US to identify trends in clinician characteristics pertaining to hereditary angioedema (HAE), in diagnostic and treatment paradigms, factors that influence diagnosis and patient management, and outcome indicators.
• Analysis of the findings illustrated changes in HAE treatment paradigms over these years, including HAE medication specifications, significant changes in patient demographics, and significant changes in clinician management of HAE patients with HAE taking home, greater patient satisfaction with HAE treatment, and reduced side effects.
• The objective of this follow-up survey was to build upon the results of the two previous studies and further evaluate current HAE management, including the impact of new treatment options on evolving clinician practice patterns over time.

METHODS
• The survey was a voluntary, web-based survey of US clinicians treating patients with HAE.
• Potential participants were identified using mailing lists obtained from the US Hereditary Angioedema Association and the American College of Allergy, Asthma, and Immunology.
• During June and July 2019, 3,922 clinicians were contacted via postal mail with a request to complete a 47-question online survey hosted by SurveyMonkey® (Palo Alto, CA) closely patterned after the previous two surveys.
• One follow-up reminder was sent via postal mail.
• Respondents were given a $25 honorarium
• For each question survey, de-identified data were analyzed, and basic descriptive statistics were generated.
• Statistical analysis was used on responses to select questions to evaluate differences and/or trends between the three surveys.

RESULTS
Data Collection
• A total of 171 clinicians responded to the survey (response rate 20%), with 108 indicating that they treat patients with HAE (Table 1).
• In the 2010 and 2013 surveys, a total of 172 and 245 clinicians treating HAE responded, respectively.

Prophylaxis Patterns
• Use of long-term prophylaxis appeared to vary among clinicians, though over half of respondents (53.9%) indicated that 41–100% of their patients are on prophylaxis (Table 1).
• The factors clinicians regarded as most influential when deciding to prescribe prophylaxis include attack severity, attack frequency, and a history of hospitalization (21.7% in 2010, 10.6% from 2013 to 2019, and the prescription of IV pain medication to 32.5% in 2013 to 54.2% in 2019).

Management of Acute HAE Attacks
• For acute attacks, 52.9% and 31.9% of clinicians indicated they prescribe C1-INH (recombinant) or home care, respectively, to 32.5% in 2013 to 54.2% in 2019.

CONCLUSIONS
• This updated survey reflects important developments in HAE treatment patterns among US clinicians from 2010 through 2019, consistent with published evidence-based guidelines.
• C1-INH is now reported as the most frequently prescribed agent for prophylaxis, and the use of androgens as a preferred agent has significantly decreased.
• The home environment replaced the in-hospital setting as the most frequently reported setting for acute attacks and reported use of the emergency department among patients has decreased significantly.
• Clinician-perceived patient satisfaction with treatment remains high.