

Impact of Hereditary Angioedema Attacks on Quality of Life and Ability to Work Among UK Patients Receiving Long-term Prophylaxis or On-demand Treatment Only

Sinisa Savic,¹ Tariq El-Shanawany,² Padmalal Gurugama,³ Rashmi Jain,⁴ Vibha Desai,⁵ Tomas Andriotti*,⁵ Paul Audhya,⁵ Sherry Danese,⁶ Julie Ulloa,⁶ Tomaz Garcez,⁷ Sorena Kiani-Alikhan,⁸ and Patrick Yong⁹

¹Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds; Department of Allergy and Clinical Immunology, St James's University Hospital NHS Trust, Leeds, United Kingdom; ²Department of Immunology, University Hospital of Wales, Heath Park, Cardiff, United Kingdom; ³Department of Clinical Immunology and Allergy, Cambridge University Hospitals NHS Foundation Trust, Addenbrookes, United Kingdom; ⁴Clinical Immunology, Oxford University Hospital Trust, Oxford, United Kingdom; ⁵KalVista Pharmaceuticals, Inc., Cambridge, Massachusetts, United States; ⁶Outcomes Insights, Agoura Hills, California, United States; ⁷Manchester University NHS Foundation Trust, Manchester, United Kingdom; ⁸Royal Free London NHS Foundation Trust, London, United Kingdom; ⁹Frimley Health NHS Foundation Trust, Frimley, United Kingdom; * Employee of KalVista Pharmaceuticals at the time the study was conducted

Background

- Although reductions in frequency of HAE attacks have been demonstrated with non-androgen long-term prophylaxis (LTP), many patients continue to experience attacks requiring on-demand treatment
- Global HAE treatment guidelines recommend that people living with HAE should consider treating all attacks, regardless of use of LTP, to reduce the severity and duration¹⁻³

Objective

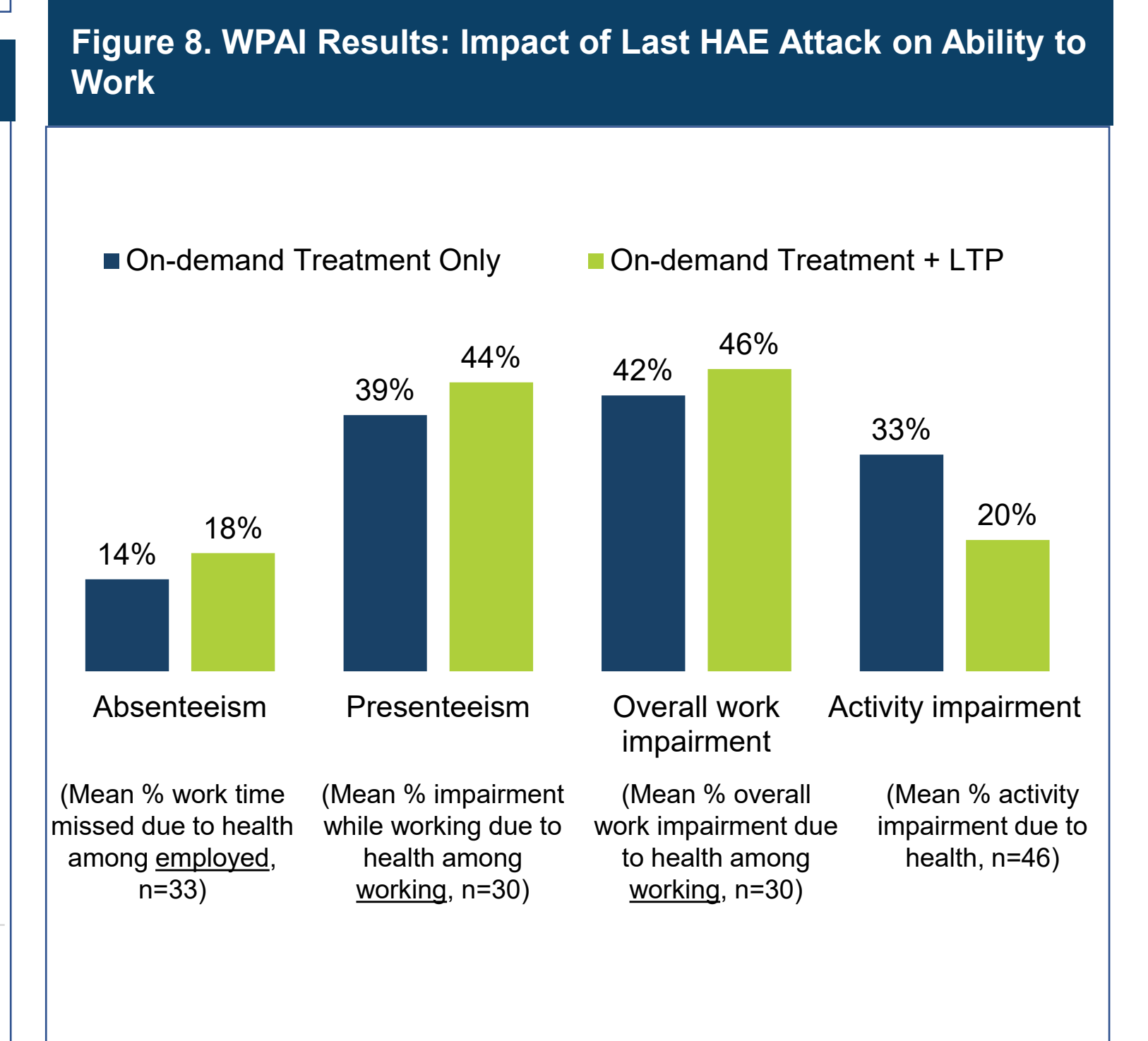
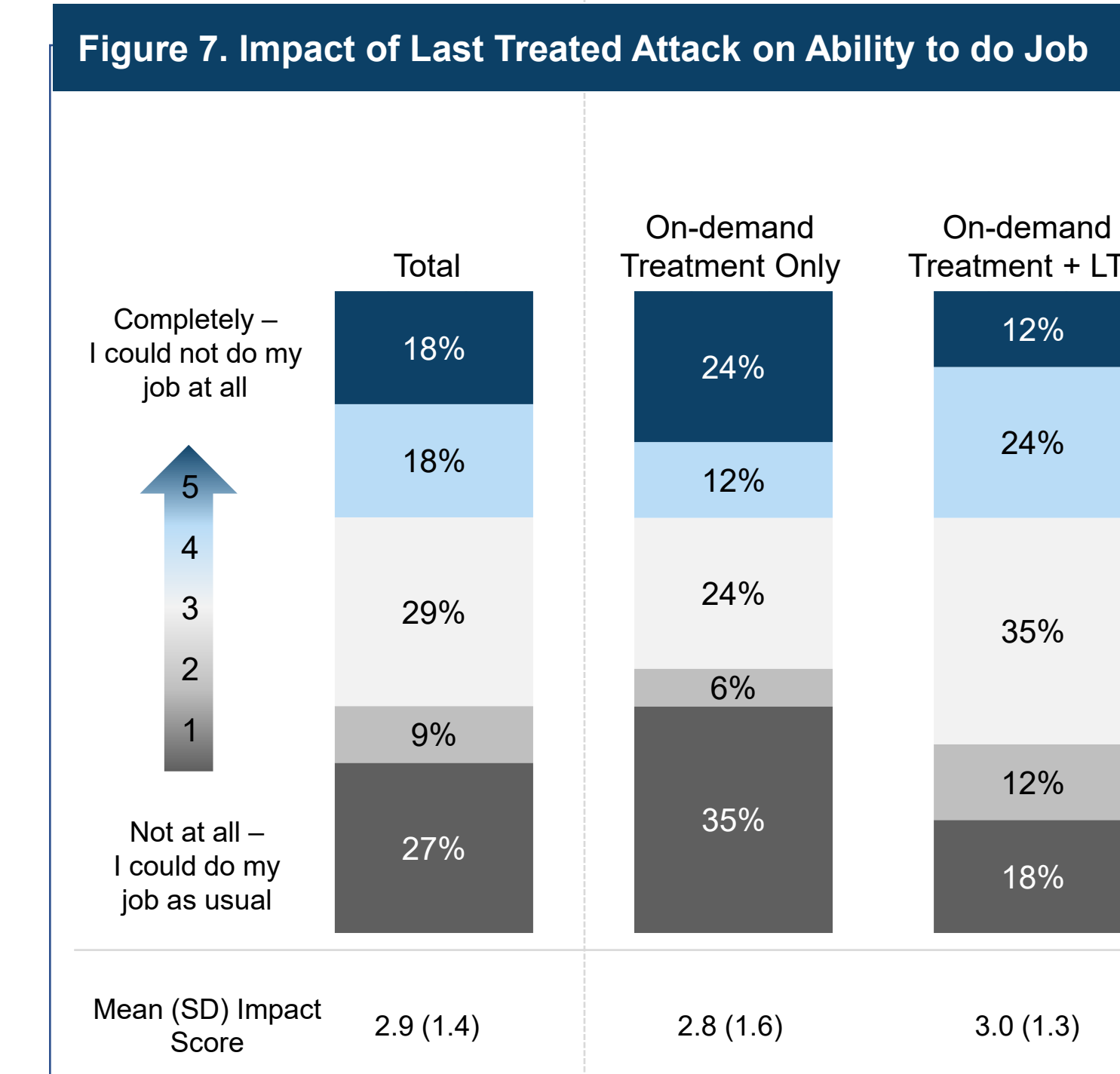
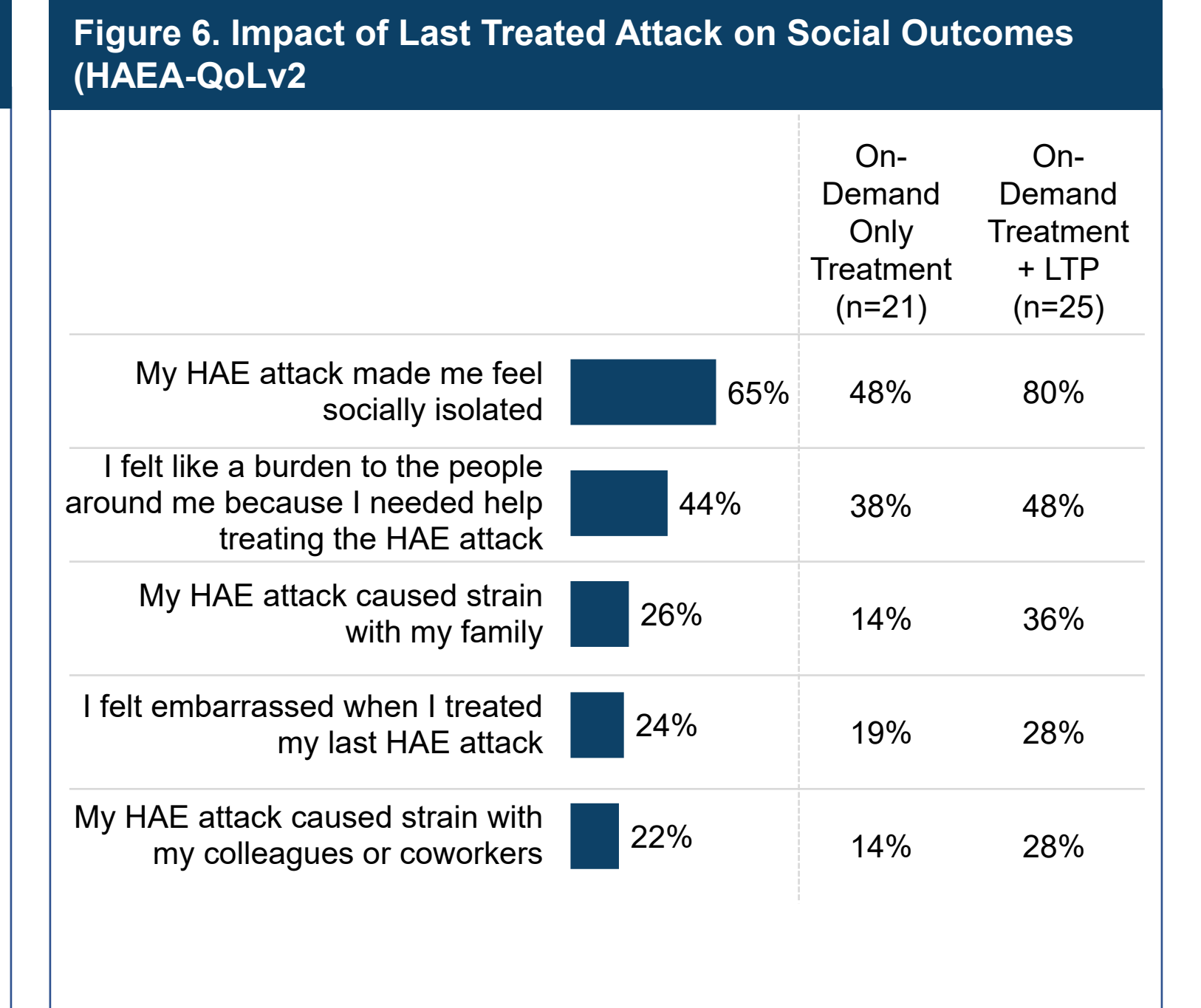
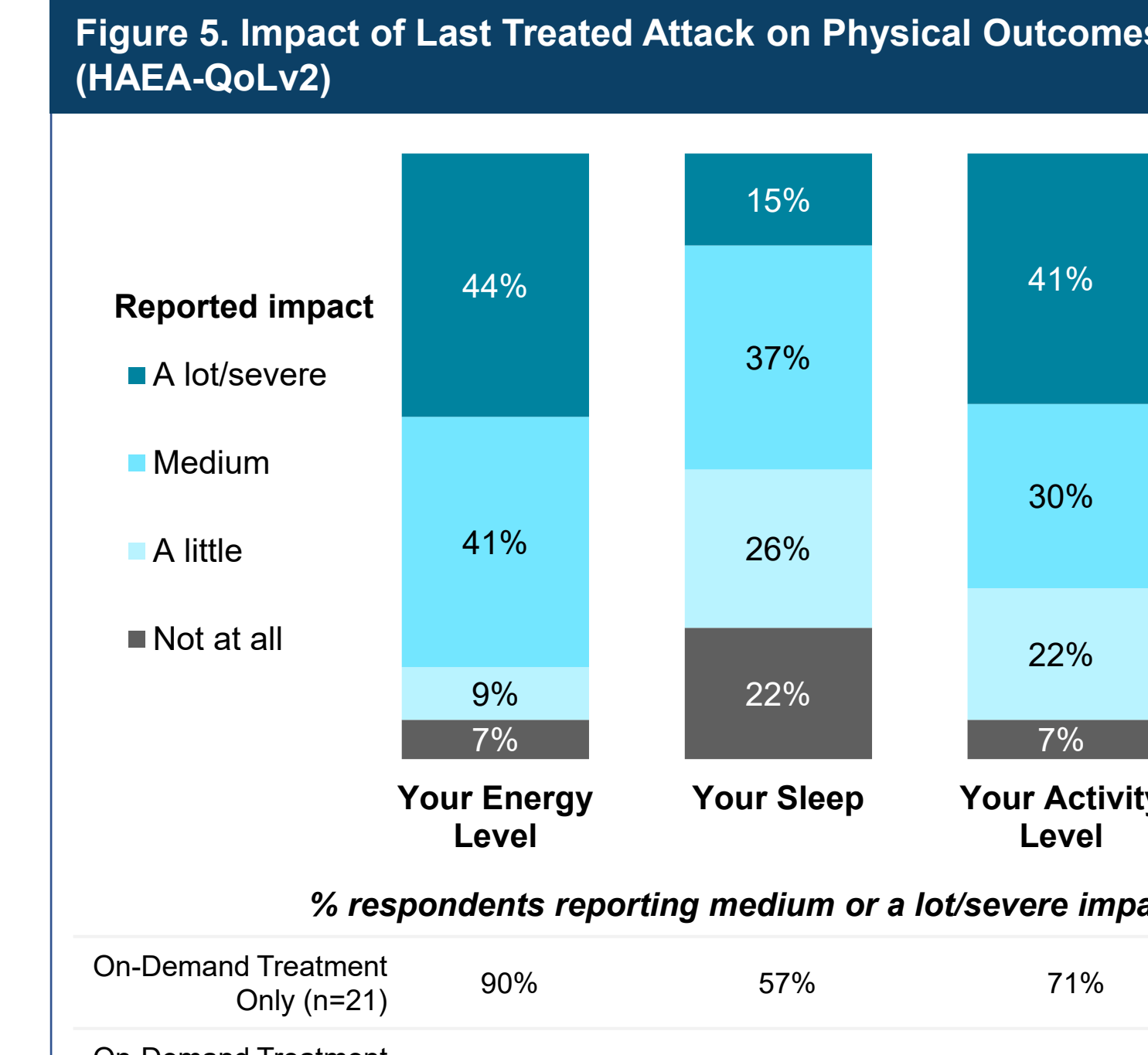
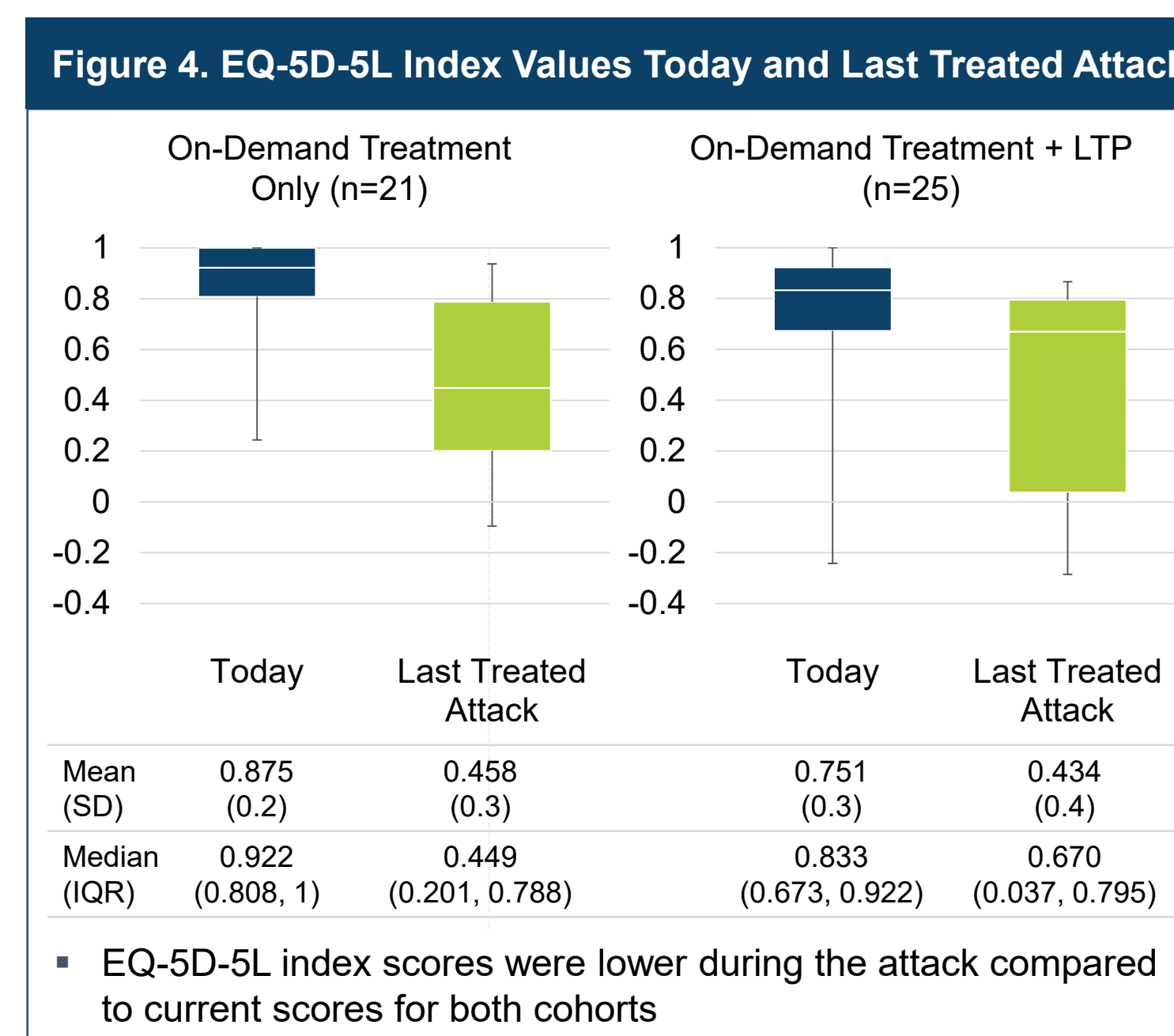
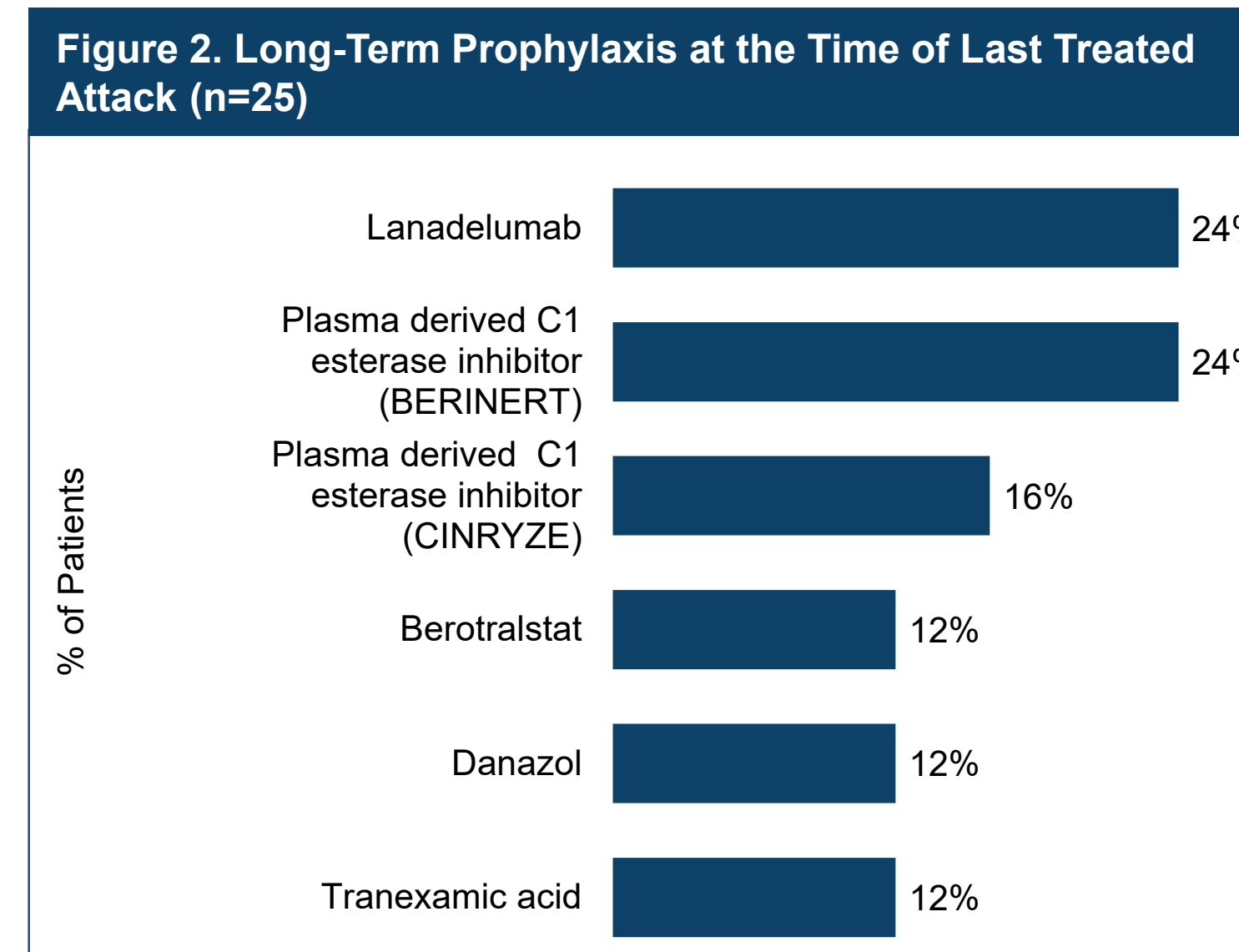
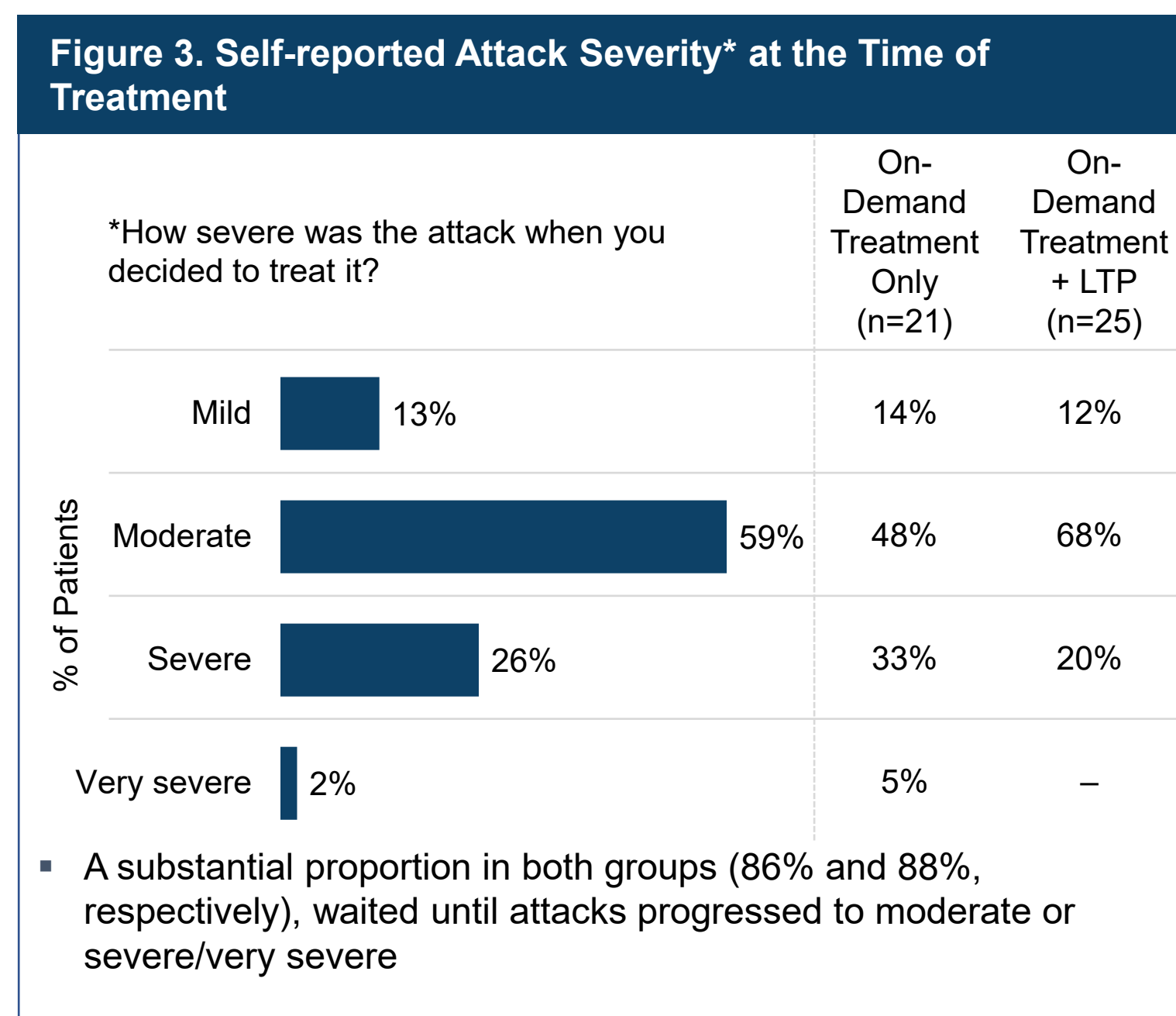
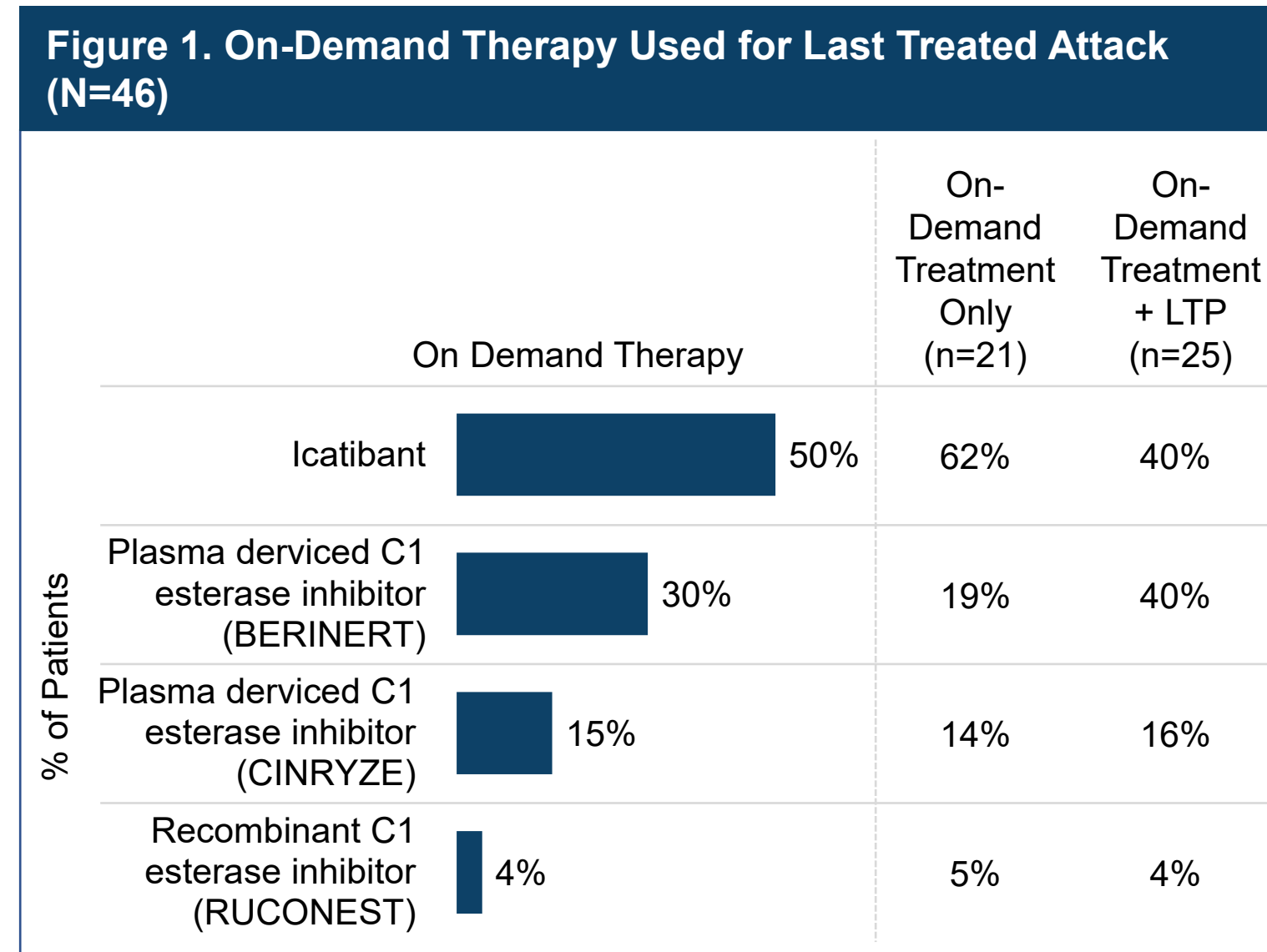
- This analysis describes the ramifications of HAE attacks on quality of life (QoL) and ability to work in patients receiving on-demand therapy only or LTP in addition to on-demand therapy

Methods

- Participants with Type 1 or 2 HAE who were at least 18 years old, and had treated at least one HAE attack within the prior three months with an approved on-demand therapy were recruited through the patient organization, HAE UK, between April and May 2023
 - Recruitment was stratified to include ~50% of participants taking on-demand only and ~50% receiving long-term prophylaxis (LTP) + on-demand
- Respondents provided consent for their data to be used anonymously or in aggregate
- The survey was self-reported and took respondents approximately 20 minutes to complete
- The EuroQol Five-Dimensions Five-Levels (EQ-5D-5L), a self-report survey, was used to assess physical and mental QoL "today" (i.e., current QoL) and at the time of the last treated attack
 - EQ-5D-5L Index Score = QoL composite of items across 5 domains: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression
 - Range from -0.59 (lowest possible health state) to 1 (best possible health state)
- Physical and social QoL was assessed using a modified version of the Hereditary Angioedema Quality of Life Questionnaire (HAEA-QoLv2)
- The Work Productivity and Activity Impairment Questionnaire: General Health assessed the impact of the last treated attack on participants' ability to work and perform daily activities during the 7 days following the onset of the attack
- Analysis included all participants 18 and older

Results

Characteristic	Total (N=46 Adults)	On-demand Only (n=21, 46%)	On-demand + LTP (n=25, 54%)
Current Age (Mean)	44 years	42 years	46 years
Age of Diagnosis (Mean)	17 years	17 years	17 years
Gender			
Male	28%	33%	24%
Female	70%	67%	72%
Prefer not to respond	2%	-	4%
Race / Ethnicity			
White	91%	95%	88%
Black / Black British / Caribbean or African	-	-	-
Asian or Asian British	7%	5%	8%
Other	-	-	-
Prefer not to respond	2%	-	4%
HAE Type			
Type I	100%	100%	100%
Type II	-	-	-
Time Since Last Treated Attack (Mean)	16 days	13 days	18 days



Conclusions

- Despite the use of LTP, respondents experienced a substantial burden during their last treated HAE attack
 - Energy levels were most impacted, followed by activity level and these proportions did not differ with the use of LTP
 - Mean impairment (presenteeism) at work was 39% for on-demand treatment only group and 44% for on-demand + LTP group
 - Mean overall work impairment was 42% for on-demand treatment only patients and 46% for on-demand + LTP group
- Feeling socially isolated was the most common social impairment, followed by feeling like a burden to people around them
- Overall mean activity level impairment was 33% for on-demand treatment only patients and 20% for on-demand + LTP group

References

- Betschel S, Badiou J, Binkley K, et al. The International/Canadian Hereditary Angioedema Guideline. *Allergy, Asthma & Clinical Immunology*. 2019;11(25):15(1):72. doi:10.1186/s13223-019-0376-8
- Busse PJ, Christiansen SC, Riedl MA, et al. US HAEA Medical Advisory Board 2020 Guidelines for the Management of Hereditary Angioedema. *J Allergy Clin Immunol Pract*. 2021;9(1):132-150.e3. doi:10.1016/j.jaip.2020.08.046
- Maurer M, Magerl M, Betschel S, et al. The international WAO/EAACI guideline for the management of hereditary angioedema-The 2021 revision and update. *Allergy*. Jul 2022;77(7):1961-1990. doi:10.1111/all.15214

Disclosures

Sinisa Savic: Consulting fees and/or honoraria from CSL Behring, BioCryst, KalVista Pharmaceuticals, Inc, Pharvaris, Novartis, and Astra Zeneca. Tariq El-Shanawany: Educational support, research support and/or been an advisory boards member for Alive DX, ALK, Allergy Therapeutics, CSL, KalVista, Novartis, Octapharma, Takeda and Viartis. Padmalal Gurugama: Advisory board for KalVista Pharmaceuticals, Inc. Rashmi Jain: Supported by CSL and Takeda to attend educational events and conferences. Advisory board for KalVista. Vibha Desai: Employee of and own stock in KalVista Pharmaceuticals, Inc. Tomas Andriotti: Owns stock in KalVista Pharmaceuticals, Inc. Paul Audhya: Employee of and own stock in KalVista Pharmaceuticals, Inc. Sherry Danese: Consulting fees from KalVista Pharmaceuticals, Inc. Julie Ulloa: Consulting fees from KalVista Pharmaceuticals, Inc. Tomaz Garcez: Consulting, advisory work and educational support from: BioCryst, CSL Behring, KalVista, Novartis, Octapharma, Pharming, Pharvaris and Takeda. Sorena Kiani-Alikhan: Honorarium for consulting work and advisory boards: Shire/Takeda, CSL Behring, BioCryst, Biotest, KalVista, Pharvaris, Astria, Ionis, X4 pharmaceuticals. Patrick Yong: Consulting fees, honoraria and/or support for attending meetings from Astra, BioCryst, CSL Behring, KalVista, Pharming, Pharvaris and Takeda.

Presented Global Angioedema Forum (GAF) 2024, October 4 & 5, Copenhagen, Denmark.

To view this poster after the presentation, visit KalVista Virtual Medical Booth.

