

Impact of Anxiety on Healthcare Utilization Among Hereditary Angioedema Patients Receiving Long-Term Prophylaxis: Results of a Claims Database Analysis

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Background

- Despite the availability of multiple non-androgen long-term prophylaxis (LTP) therapies, patients with hereditary angioedema (HAE) still experience attacks, which negatively affect health-related quality of life and work productivity¹⁻³
- Beyond the physical burden of HAE attacks, anxiety is common among patients with HAE^{1,3-5}
- Anxiety may stem from disease- and treatment-related concerns^{6,7}
- This retrospective analysis utilized a national administrative claims database to assess the impact of anxiety on healthcare resource utilization (HRU) in US patients with HAE receiving LTP

Methods

- Source:** IQVIA PharMetrics® Plus Closed Health Plan Database
- Study population:** US patients with ≥1 claim for LTP (plasma-derived subcutaneous (SC) or intravenous (IV) C1 esterase inhibitor [C1INH], berotralstat, or lanadelumab) and ≥12 months of continuous enrollment both before (baseline period) and after (follow-up period) the index date
- Study period:** January 1, 2019 – December 31, 2024
- Index date:** date of the first claim for LTP
- Anxiety diagnosis:** International Classification of Diseases version 10 (ICD-10) code F41.x
- Outcomes:** inpatient, outpatient, emergency room (ER), and home health visits
- Statistical analysis:** HRU in patients with and without anxiety was compared using odds ratios (s); *P* values were calculated per the χ^2 test

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Disclosures

RT has received grants, consulting fees, honoraria, and/or served on advisory boards and/or data safety monitoring for Allakos, AstraZeneca, Astria, BioCryst, CSL Behring, GSK, Ionis Pharmaceuticals, KalVista Pharmaceuticals, Pharming, Pharvaris, Regeneron, Sanofi, and Takeda. DFS has received grants, consulting fees, and/or honoraria from BioCryst, BioMarin, CSL Behring, KalVista Pharmaceuticals, Pharming, Pharvaris, and Takeda. MO has received grants, royalties or licenses, consulting fees, honoraria, payment for expert testimony, meeting/travel support, and/or served on advisory boards and/or data safety monitoring for ADMA, ARS, AstraZeneca, BioCryst, Blueprint, Cogent, Cycle Pharma, Grifols, GSK, KalVista Pharmaceuticals, Novartis, Pharming, Pharvaris, Regeneron, Sanofi, and Takeda. AS received consulting fees from KalVista. AW and PKA are salaried employees of KalVista Pharmaceuticals. TC served as a speaker/researcher for Astria, CSL Behring, KalVista Pharmaceuticals, and Takeda; a researcher for ADARx, Argo, BioMarin, Intellia, Ionis, and Pharvaris; speaker for Grifols; consultant for ADARx, Astria, BioCryst, CSL Behring, Intellia, KalVista Pharmaceuticals, Pharvaris, and Takeda; Director of the ACARE International Hereditary Angioedema Center; and member of the Medical Advisory Board for the United States Hereditary Angioedema Association (HAEA).

Results

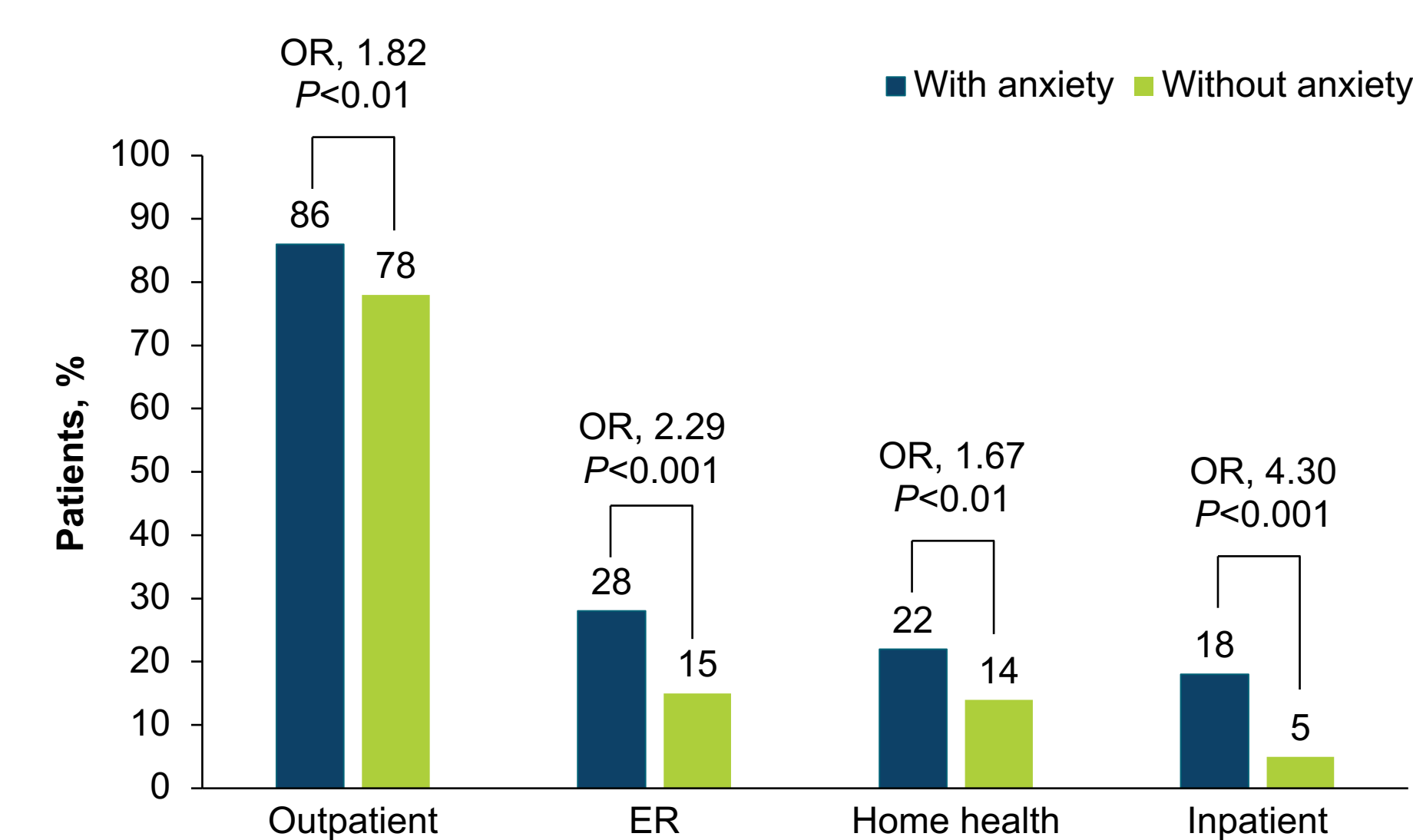
Patients

- Overall, 874 patients were included (73% female; mean age at index 39 [SD, 17] years)
- The most commonly used LTP were lanadelumab-flyo (61%), IV C1INH (16%), berotralstat (16%), and SC C1INH (7%)
- During the follow-up period, 221 patients (25%) had an anxiety diagnosis

Healthcare Resource Utilization

- Across all visit types, HRU during follow-up was significantly greater among LTP users with anxiety versus without anxiety (all *P*<0.01; **Figure 1**)
 - The percentage of patients with claims for outpatient visits was highest, with the greatest differences between subgroups seen in inpatient (OR, 4.30; *P*<0.001) and ER visits (OR, 2.29; *P*<0.001)

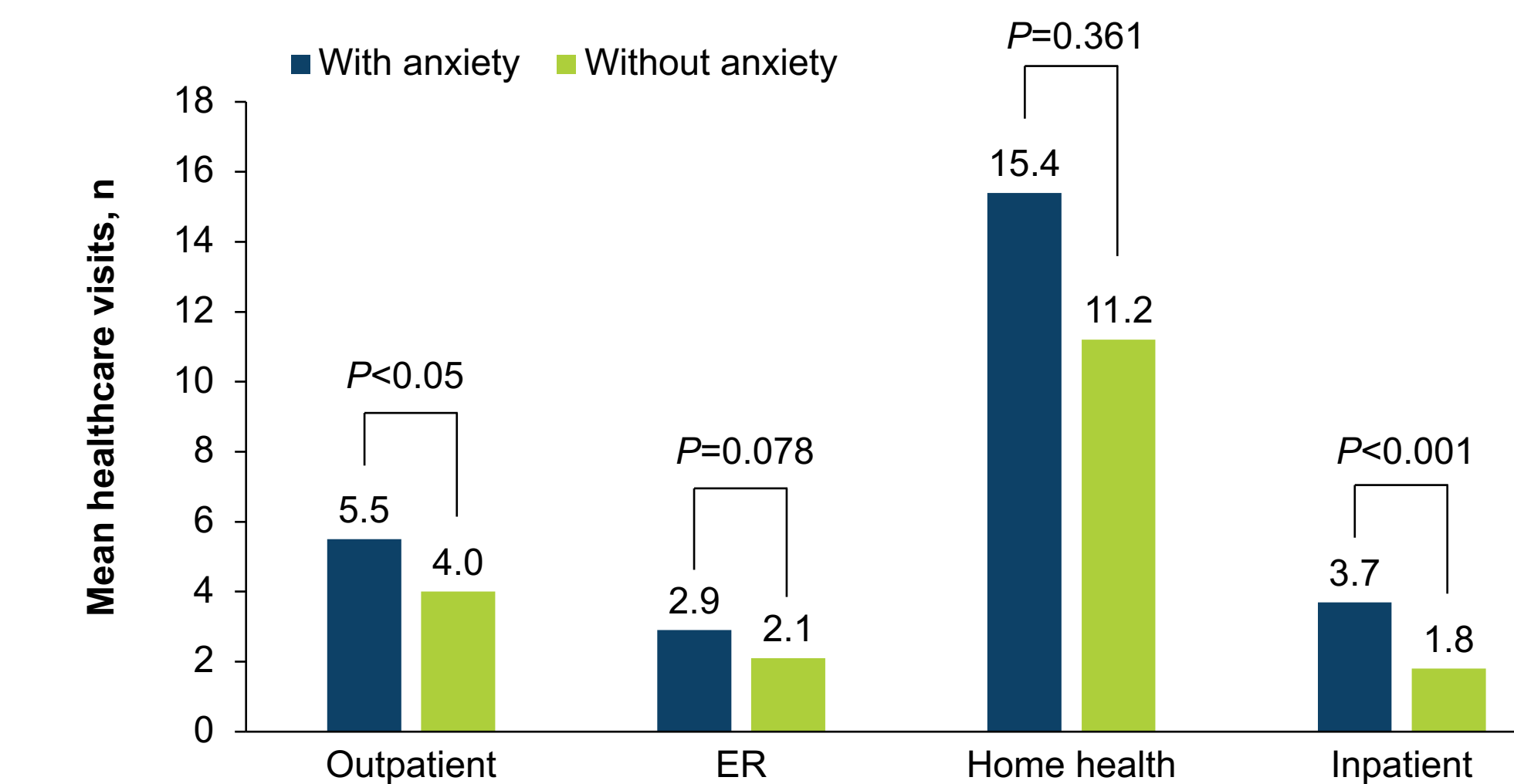
Figure 1. HRU by visit type in LTP users with and without anxiety



ER, emergency room; HRU, healthcare resource utilization; LTP, long-term prophylaxis; OR, odds ratio.

- Irrespective of type, the mean number of healthcare visits during follow-up was numerically greater in patients with anxiety relative to those without; the differences between subgroups were significant for the numbers of inpatient and outpatient visits (**Figure 2**)

Figure 2. Mean number of healthcare visits during the follow-up period in LTP users with and without anxiety



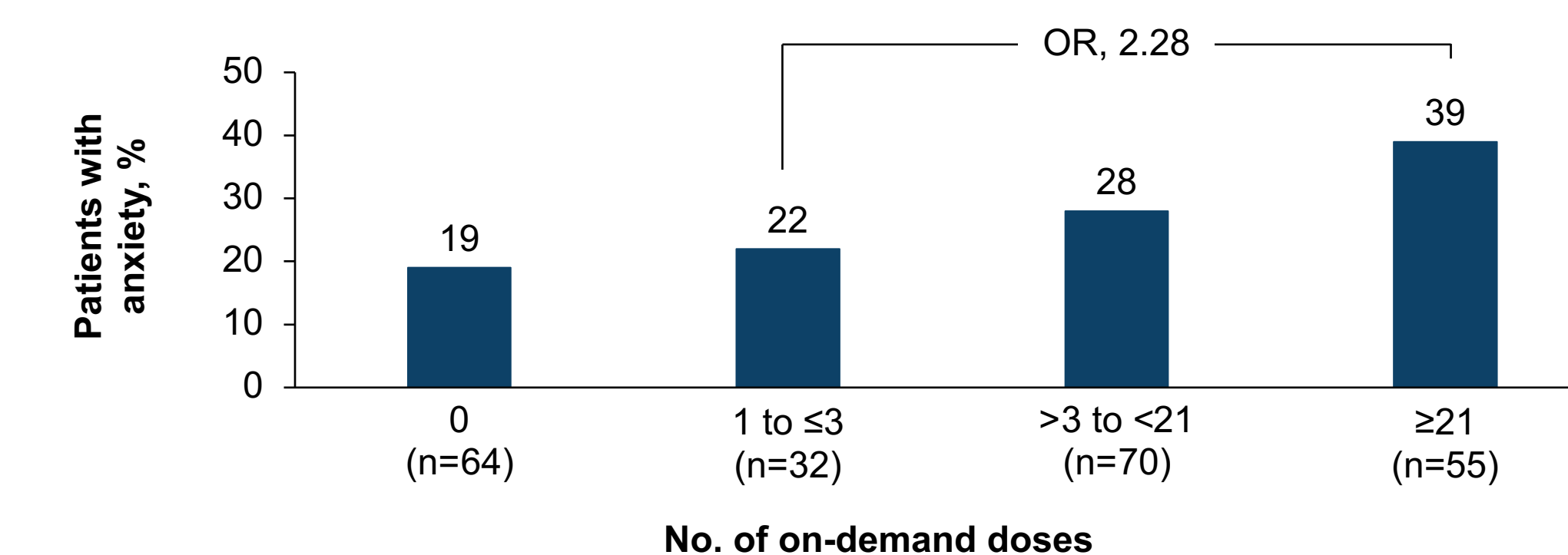
ER, emergency room; LTP, long-term prophylaxis.

Conclusions

- Anxiety is a common comorbidity among patients with HAE receiving non-androgen LTP**
- Healthcare burden was greater in LTP users with anxiety**
 - The odds of utilizing more healthcare services increased by 1.82- to 4.30-times in those with anxiety, with the largest increases seen for inpatient and ER visits
- LTP users with anxiety had claims for a significantly greater number of on-demand treatment doses than those without anxiety**
- Overall, the prevalence of anxiety was higher in patients with greater versus lower on-demand treatment use**
- These findings support that patients with HAE should be routinely monitored for disease activity, impact, and control, consistent with guideline recommendations⁸**
- Expanding the breadth of available treatment options may help reduce anxiety in patients with HAE receiving LTP**

- The number of on-demand treatment doses received during follow-up was significantly higher among patients using LTP who had anxiety compared to those without (26.0 vs 18.7 doses; *P*<0.05)
- Prevalence of anxiety was higher among patients who received ≥21 doses (n=55) than among patients who received 1 to ≤3 doses (n=32) (39% vs 22%; OR, 2.28; **Figure 3**)
 - Patients who received ≥21 doses had 2.28-times the odds of experiencing anxiety than patients who received 1 to ≤3 doses of on-demand treatment

Figure 3. LTP users with anxiety by the number of on-demand treatment doses received during the follow-up period^a



^aOn-demand doses may provide context to real-world attack rates; the actual number of attacks or attacks treated are unknown in claims.
LTP, long-term prophylaxis; OD, on-demand treatment; OR, odds ratio.

Acknowledgments

Medical writing and editorial support for the development of this poster, under the direction of the authors, were provided by Tiffany DeSimone, PhD, and Mary C. Wiggins of Ashfield MedComms, an Inizio company, and were funded by KalVista Pharmaceuticals, Inc.

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