

Trends in Volume of On-demand Hereditary Angioedema Treatments in the US: A Retrospective Analysis of a Large Multi-payer Claims Database

Daniel F. Soteres¹, Chirag Maheshwari², Abhishek Sharma², Alice Wang³, Paul K. Audhya³, Raffi Tachdjian⁴

¹Asthma & Allergy Associates, PC and Research Center, Colorado Springs, CO, USA; ²Pharmsight, Haryana, India; ³KalVista Pharmaceuticals, Cambridge, MA, USA; ⁴University of California Los Angeles, School of Medicine, Los Angeles, CA, USA

Background

- Hereditary angioedema (HAE) is characterized by unpredictable swelling attacks affecting cutaneous and submucosal tissues, which are typically painful, debilitating, and potentially fatal
- Management of HAE is comprised of two main pharmacological strategies: effective on-demand treatment of attacks and the addition of non-androgen long-term prophylaxis (LTP) in appropriate patients
- Treatment guidelines recommend the early use of on-demand treatment following attack recognition to reduce morbidity and prevent mortality¹⁻³
 - All currently available on-demand treatments for HAE attacks are administered subcutaneously or intravenously³
- Prior to 2017, the only LTP treatment available was administered intravenously (IV)
- The use of subcutaneous and oral LTP treatments has grown substantially since 2017 (subcutaneous C1 inhibitor: approved Q2 2017; lanadelumab: approved Q3 2018; berotralstat: approved Q4 2020)
- Real-world data on utilization of on-demand treatments in years following the introduction of these agents is limited

Methods

- The IQVIA PharMetrics® Plus Claims Database (Q3 2018 – Q3 2023), a large nationally representative database comprised of commercial health plan information from managed care plans throughout the United States, were used for the analysis
- Eligible patients had ≥1 claim for FDA-approved HAE-specific on-demand treatment
- Descriptive analyses of total number of claims reimbursed and quantity dispensed over study period were conducted

References

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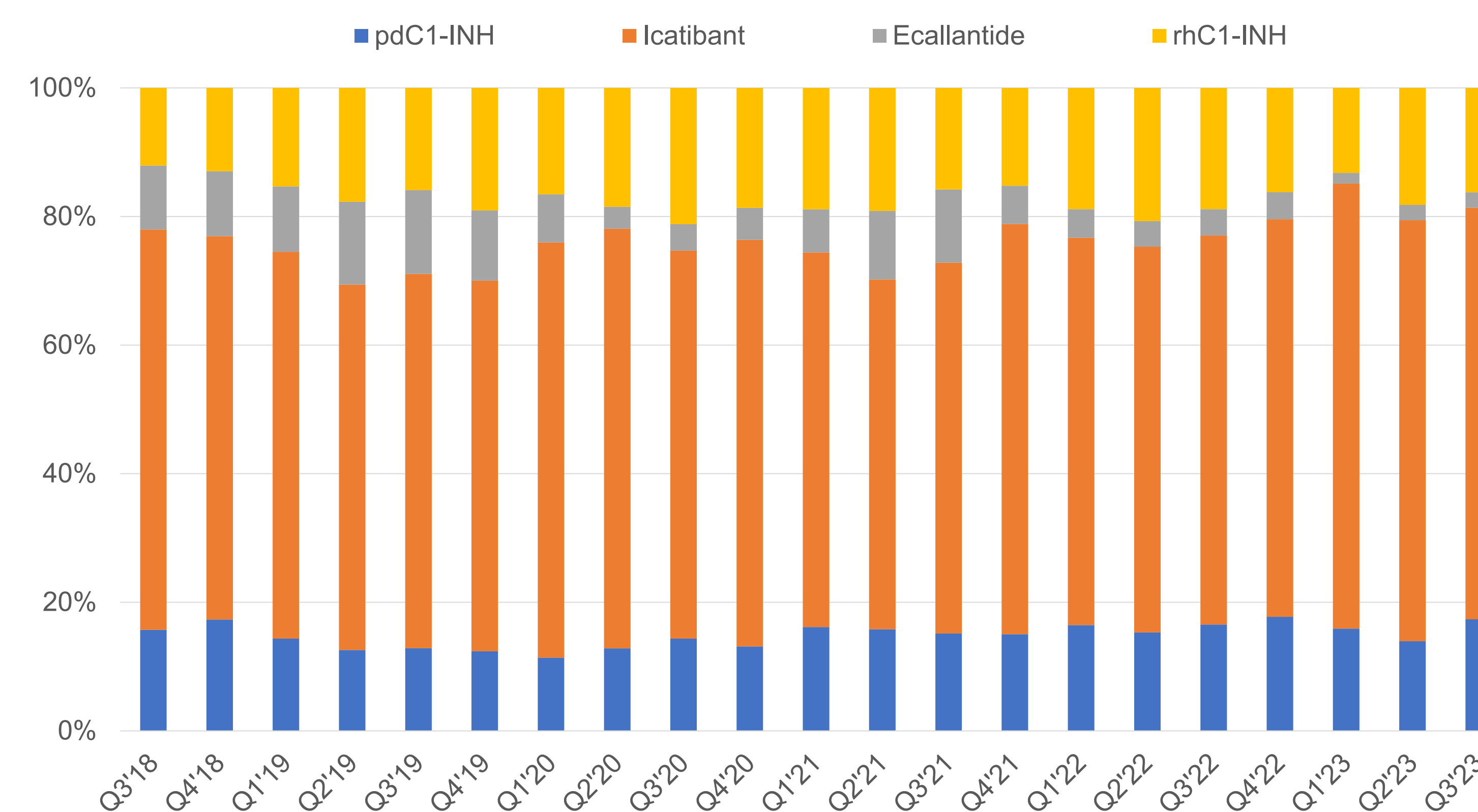
Results

Table 1. Participant Characteristics

	Total (N=1,706)
Age on Q3 2023 (Years)	
Mean ± SD	44.89 ± 16.8
Median (IQR)	45 (32, 58)
Female, n (%)	1,128 (66.1)
Geographic Region, n (%)	
South	746 (43.7)
Midwest	389 (22.8)
West	305 (27.9)
Northeast	263 (15.4)
Unknown/missing	3 (0.0)

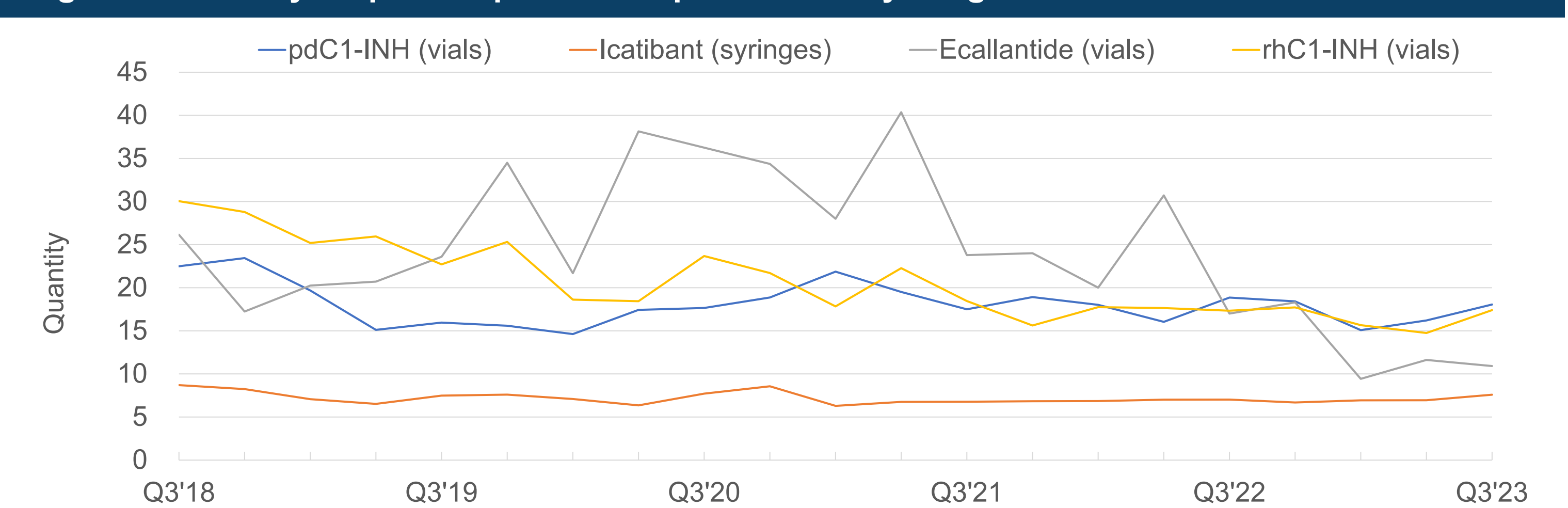
- A total of 1,706 patients with ≥1 claim for FDA-approved HAE-specific on-demand treatment were identified
- The total number of patients with on-demand claims per quarter declined from 314 in Q3 2018 to 257 in Q4 2020 and climbed back to 312 in Q2 2023
- On average, 291 patients were dispensed on-demand HAE treatments per quarter, with an average of 592 claims reimbursed per quarter

Figure 1. Percentage of Unique Claims by Drug (Q3 2018 – Q3 2023)



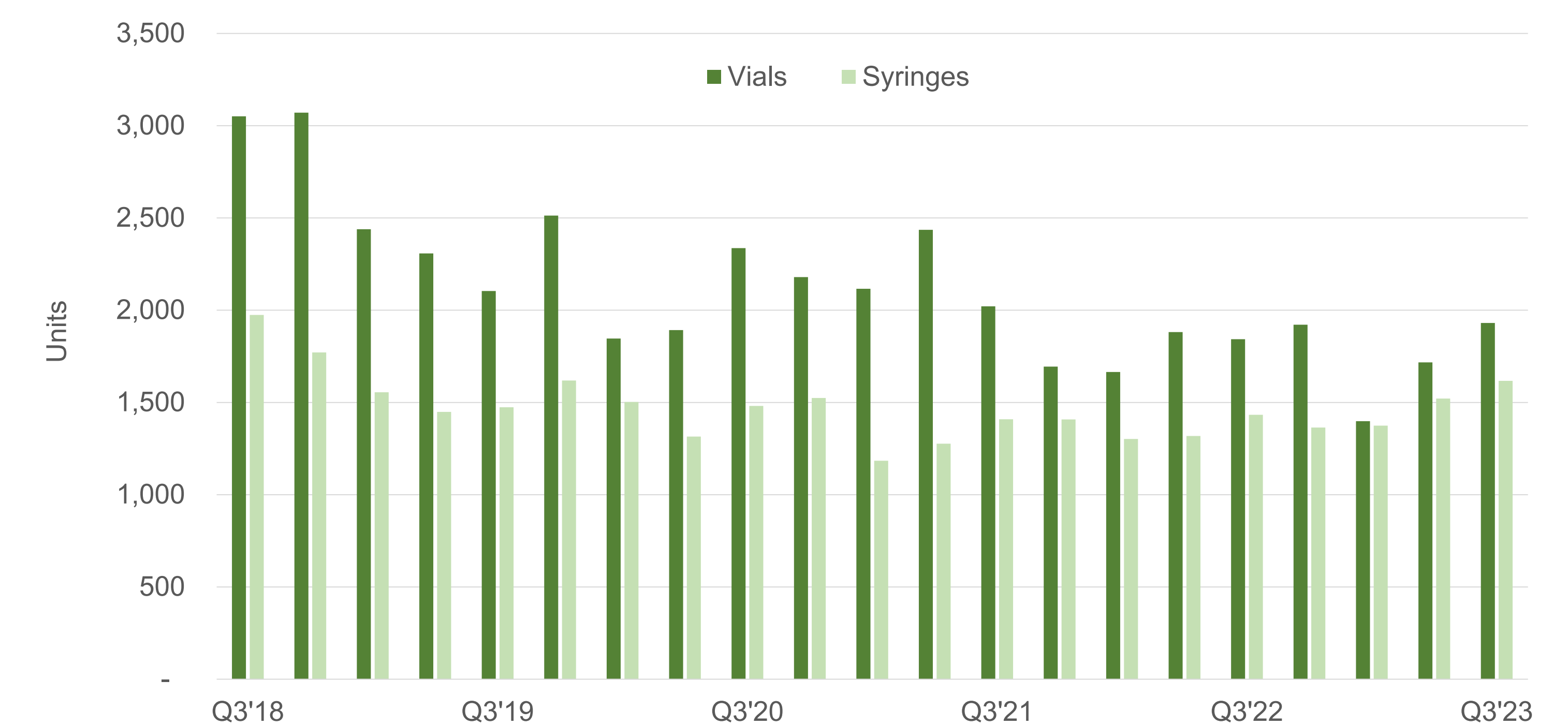
- Overall, across the study period, icatibant accounted for about 61% of the total claims, 15% plasma-derived C1 esterase inhibitor (pdC1-INH), 17% recombinant C1 esterase inhibitor (rhC1-INH), and 7% ecallantide

Figure 2. Quantity Dispensed per Patient per Quarter by Drug



- On average, 21 vials of rhC1-INH per patient per quarter were dispensed, 18 vials of pdC1-INH, 24 vials of ecallantide, and 7 syringes of icatibant; icatibant remained most stable over the study period

Figure 3. Total Quantity Dispensed



- Total quantity dispensed has been broadly stable during the analysis period, with an average year-over-year change in the total number of syringes and vials dispensed per quarter within 3% and 10%, respectively

Conclusions

- Despite the advent of SC and oral multiple non-androgen LTPs since 2017, the overall trend in the total number of claims reimbursed and quantity dispensed for on-demand treatments has remained stable
- Icatibant was the most commonly used on-demand therapy (>60%), and usage was stable over time with an average of 7 syringes dispensed per patient per quarter

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