

Treatment Persistence of First-Line Advanced Therapies in Older Adults With Ulcerative Colitis Using US Claims Data

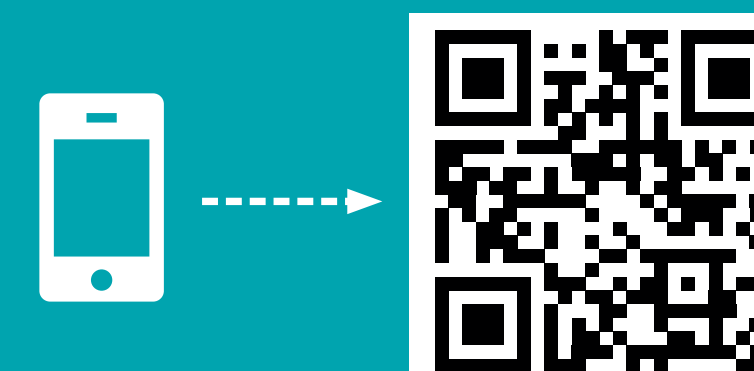
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Background

- Advanced therapies are indicated for the treatment of adults with moderate-to-severe UC.¹ With several advanced therapies approved in the USA,¹ understanding the factors that impact treatment selection is essential to support informed treatment decisions
- Older adults with UC may experience more comorbidities and a higher risk of treatment-related complications than younger patients²
- Treatment persistence can be considered a proxy for effectiveness and safety. Although a previous real-world study demonstrated greater persistence of vedolizumab than adalimumab as a first-line advanced therapy in a cohort with a mean age of 43.7 years,³ data on the selection and persistence of advanced therapies in older adults with UC are limited

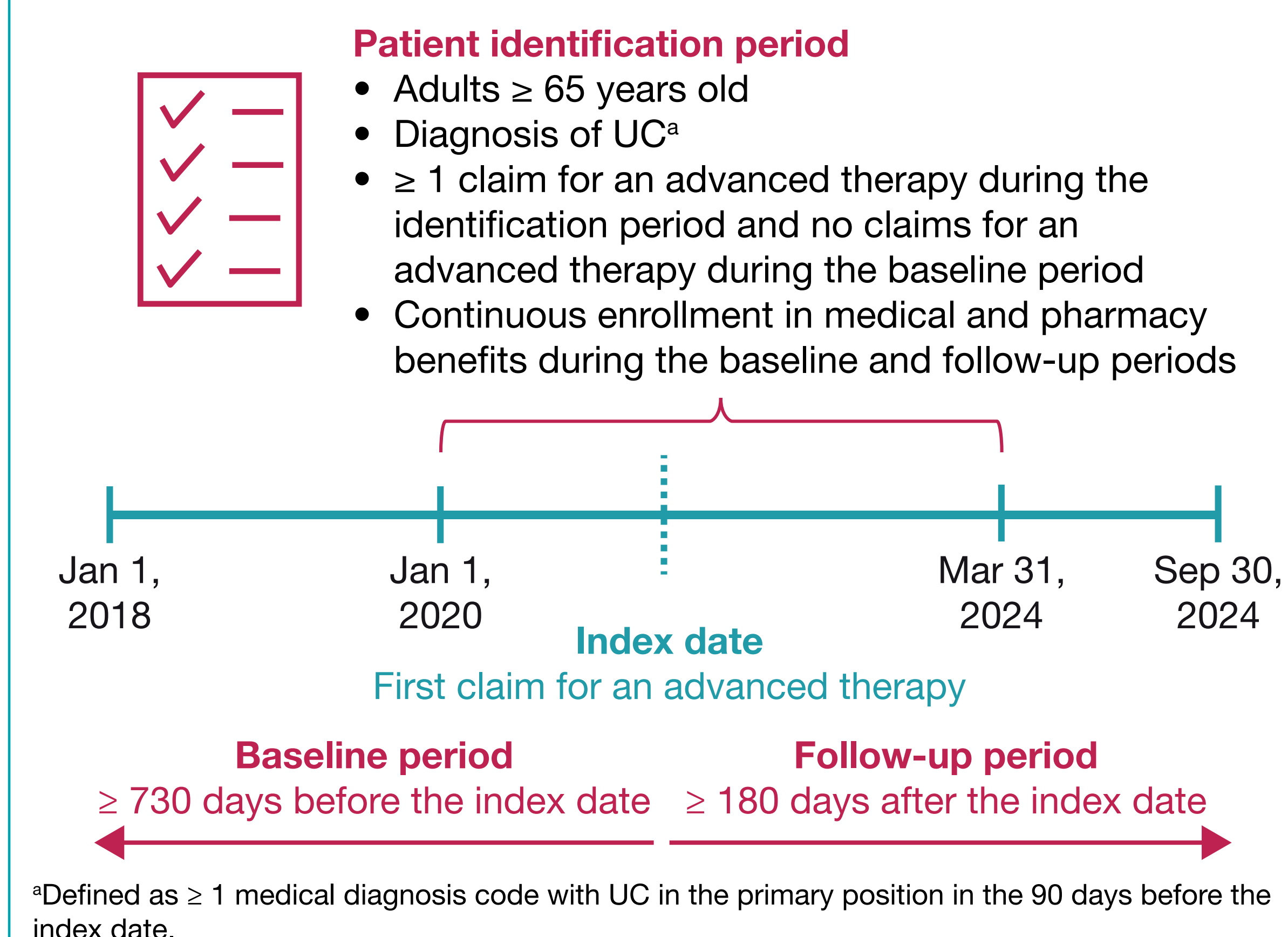
Aim

- To evaluate the distribution and treatment persistence of first-line advanced therapies in older adults with UC

Methods

Figure 1. Study design

This retrospective cohort study of older adults (≥ 65 years old) with UC who initiated advanced therapy used claims data from Optum's de-identified Clinformatics® Data Mart database.



- Baseline characteristics and advanced therapy distribution were summarized descriptively
- Median time to discontinuation (defined as the time from advanced therapy initiation to advanced therapy end date, switching, end of continuous enrollment, or study end) was estimated by Kaplan–Meier analysis
- HRs for treatment discontinuation were calculated using univariable Cox proportional hazards models
- Advanced therapies with < 10 patients receiving treatment were not included in the discontinuation analysis

Results

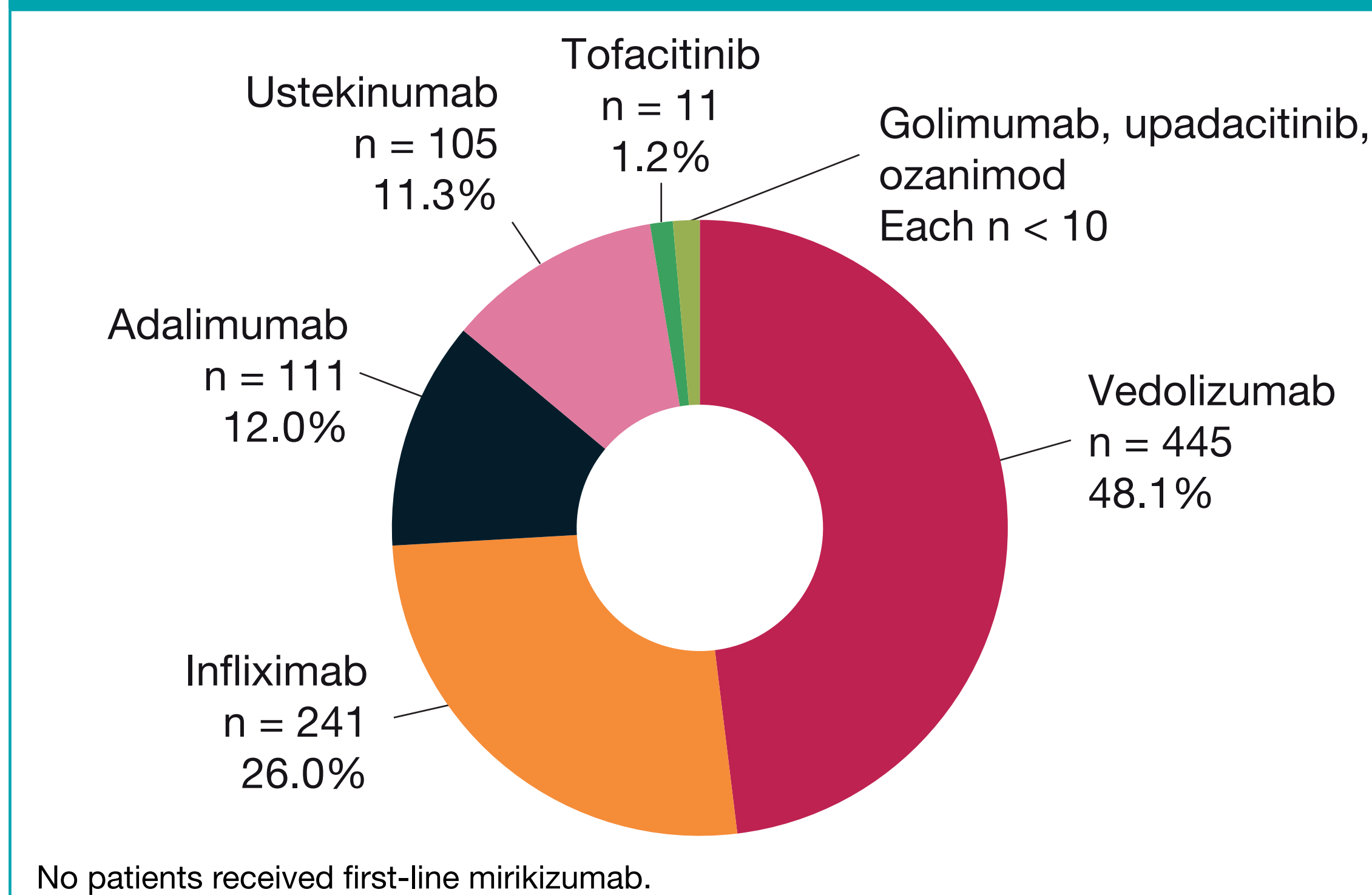
Table 1. Baseline demographics and clinical characteristics of older adults with UC

Of 926 included patients, the mean age was 73.7 years, approximately half were male, the majority were White or of unknown race, and some Black and Asian patients were represented. Most patients had Medicare coverage.

Demographic or characteristic	Patients (N = 926)
Age, years, mean (SD)	73.7 (5.4)
Sex, n (%)	
Female	480 (51.8)
Race, n (%)	
White	587 (63.4)
Black	48 (5.2)
Asian	25 (2.7)
Unknown	266 (28.7)
Ethnicity, n (%)	
Not Hispanic	638 (68.9)
Hispanic	40 (4.3)
Not reported	242 (26.1)
Unknown	6 (0.6)
US region, n (%)	
South	324 (35.0)
Midwest	240 (25.9)
West	219 (23.7)
Northeast	143 (15.4)
Insurance type, n (%)	
Medicare	850 (91.8)
Commercial	76 (8.2)
CCI score, mean (SD)	3.4 (2.9)
UC severity score, mean (SD)	11.2 (6.8)

Figure 2. Proportion of older adults with UC receiving each first-line advanced therapy

The most frequently prescribed first-line advanced therapy was vedolizumab, followed by infliximab, adalimumab, and ustekinumab.



References

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Figure 3. Kaplan–Meier plot for persistence of first-line advanced therapies in older adults with UC

Time to discontinuation was significantly different between first-line advanced therapies.

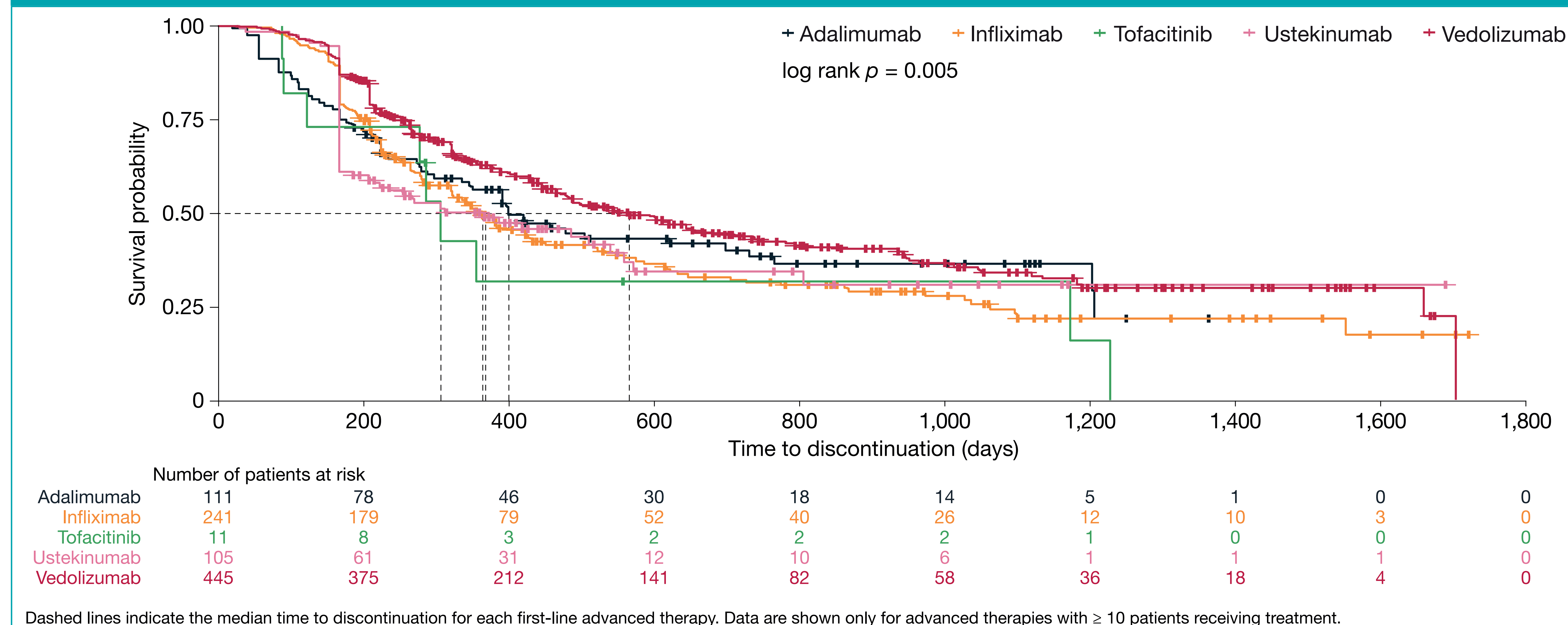


Table 2. Median time to discontinuation of first-line advanced therapies in older adults with UC

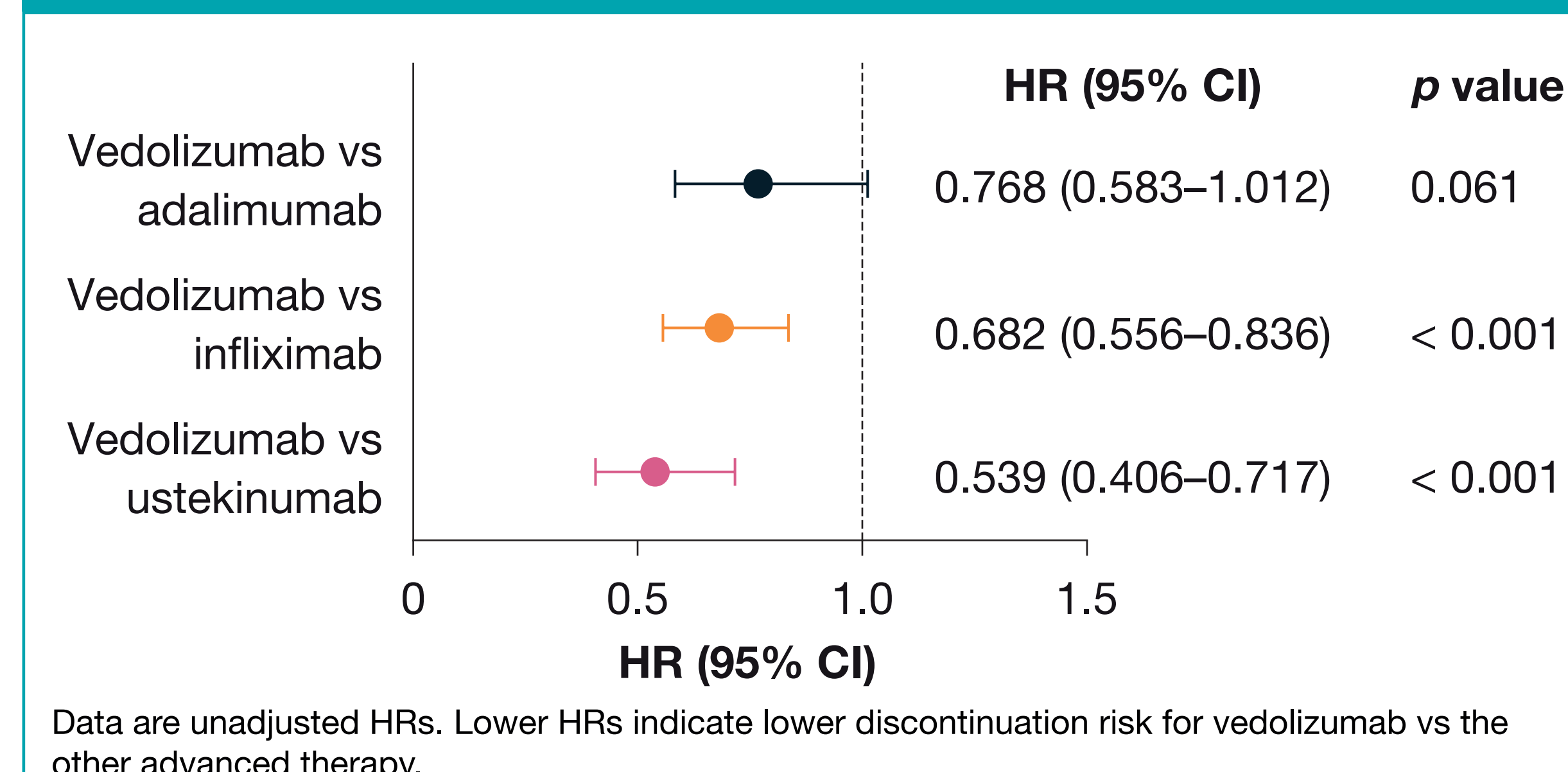
Median time to discontinuation of first-line advanced therapy was longest for vedolizumab, followed by adalimumab.

First-line advanced therapy	Median time to discontinuation, days (95% CI)
Vedolizumab	567 (472–672)
Adalimumab	400 (297–701)
Ustekinumab	368 (188–559)
Infliximab	364 (322–428)
Tofacitinib	308 (92–1,171)

Data are shown only for advanced therapies with ≥ 10 patients receiving treatment.

Figure 4. Likelihood of treatment discontinuation with each first-line advanced therapy in older adults with UC

Discontinuation risk was numerically lower for vedolizumab than adalimumab, and significantly lower for vedolizumab than infliximab or ustekinumab.



Limitations

- Claims data may contain inaccurate or missing information that could lead to treatment misclassification
- This study employed a 2-year lookback period to determine previous treatment exposure; patients who received advanced therapy outside of this period may have been misclassified as naïve to advanced therapy
- HRs were not adjusted for confounding characteristics such as age or disease severity

Summary and Conclusions

- In this retrospective cohort study of older adults with UC, vedolizumab was the most frequently prescribed first-line advanced therapy
 - However, 12% of patients received adalimumab, which suggests delayed uptake of updated clinical guidance and head-to-head trial evidence demonstrating the efficacy of vedolizumab over adalimumab^{1,4}
- Vedolizumab had the greatest treatment persistence among first-line advanced therapies, including anti-TNFα treatments and tofacitinib. This builds on a previous study demonstrating greater persistence of vedolizumab versus adalimumab³
- In the context of advanced therapy prescribing hesitancy and undertreatment of older adults,⁵ these real-world data support the use of vedolizumab in older adults with moderate-to-severe UC

Abbreviations

CCI, Charlson Comorbidity Index; CI, confidence interval; HR, hazard ratio; SD, standard deviation; TNF, tumor necrosis factor; UC, ulcerative colitis.

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Disclosures

Anita Afzali is a consultant and has served as an advisory board member for AbbVie, Bristol Myers Squibb, Eli Lilly, Janssen, Pfizer, and Takeda and has received speaker's fees from AbbVie, Bristol Myers Squibb, Janssen, Pfizer, and Takeda. Zheng Si, Wenzhuo Zhao, Yen-Hua Chen, and Jennifer Friderici are employees of KMK Consulting Inc. and received no personal compensation for their involvement in this research. Kiraat Munshi was an employee of Takeda Pharmaceuticals U.S.A., Inc. at the time of the study. Emily Gravlee is a consultant for Takeda Pharmaceuticals U.S.A., Inc. Ben Muller, Abigail M Wojtowicz, and Joshua Brown are employees of and hold stock/stock options at Takeda Pharmaceuticals U.S.A., Inc.