

OBJECTIVE

For Veterans treated with adalimumab and/or adalimumab-bwvd

- Describe the demographic and clinical characteristics
- Describe the treatment pattern, including adherence and persistence
- Describe overall and disease-specific healthcare resource utilization (HCRU) and costs

CONCLUSIONS

Transitioning patients from higher-cost reference adalimumab to biosimilar adalimumab-bwvd was

- Feasible and accomplished rapidly within the Veterans Health Administration (VHA) healthcare system
- Associated with favorable adherence
- Resulted in an average annual reduction of \$5,875 immune-related pharmacy costs per patient

ACKNOWLEDGMENTS

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Contact HL at u6061412@umail.utah.edu with questions or comments.

VA DISCLAIMERS

This views expressed in this publication are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

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INTRODUCTION

- Adalimumab-bwvd, approved by the FDA in 2019 as a biosimilar to adalimumab, has demonstrated comparable efficacy, safety, and structural similarities through numerous clinical trials and in vitro assays [1-4]
- The current wholesale acquisition cost (WAC) for adalimumab ranges from \$3461.31 to \$6922.64 per injection, depending on the dosage (10 mg – 80 mg per injection) [5]
- The current WAC of adalimumab-bwvd is \$519 per 40 mg injection [5]
- The VHA healthcare system replaced reference adalimumab on their formulary with biosimilar adalimumab-bwvd in March of 2024

METHODS

Study Design and Data Resource

- A retrospective cohort study using VHA Corporate Data Warehouse (CDW) and administrative data from 10/15/2015 to 08/01/2025

Index Date

- First date of prescription for adalimumab-bwvd; **OR**
- First date of adalimumab prescription for veterans without any record of adalimumab-bwvd

Baseline and Follow-up periods

- 12 months prior to and post the index date

Inclusion Criteria

- Veterans ≥ 18 years old
- Veterans with ≥ 1 pharmacy claim for adalimumab and/or adalimumab-bwvd
- Veterans with ≥ 1 outpatient or inpatient encounters (excluding emergency department(ED)) in the VHA system during the baseline periods

Exclusion Criteria

- None

Cohort Definition

- Adalimumab-bwvd only cohort:**
 - Veterans receiving adalimumab-bwvd only; **OR**
 - Veterans receiving adalimumab-bwvd who switched from adalimumab with a duration < 90 days
- Switch cohort:** Veterans switching from adalimumab to adalimumab-bwvd with a history of adalimumab ≥ 90 days
- Adalimumab only cohort:** veterans receiving adalimumab only

Treatment Pattern

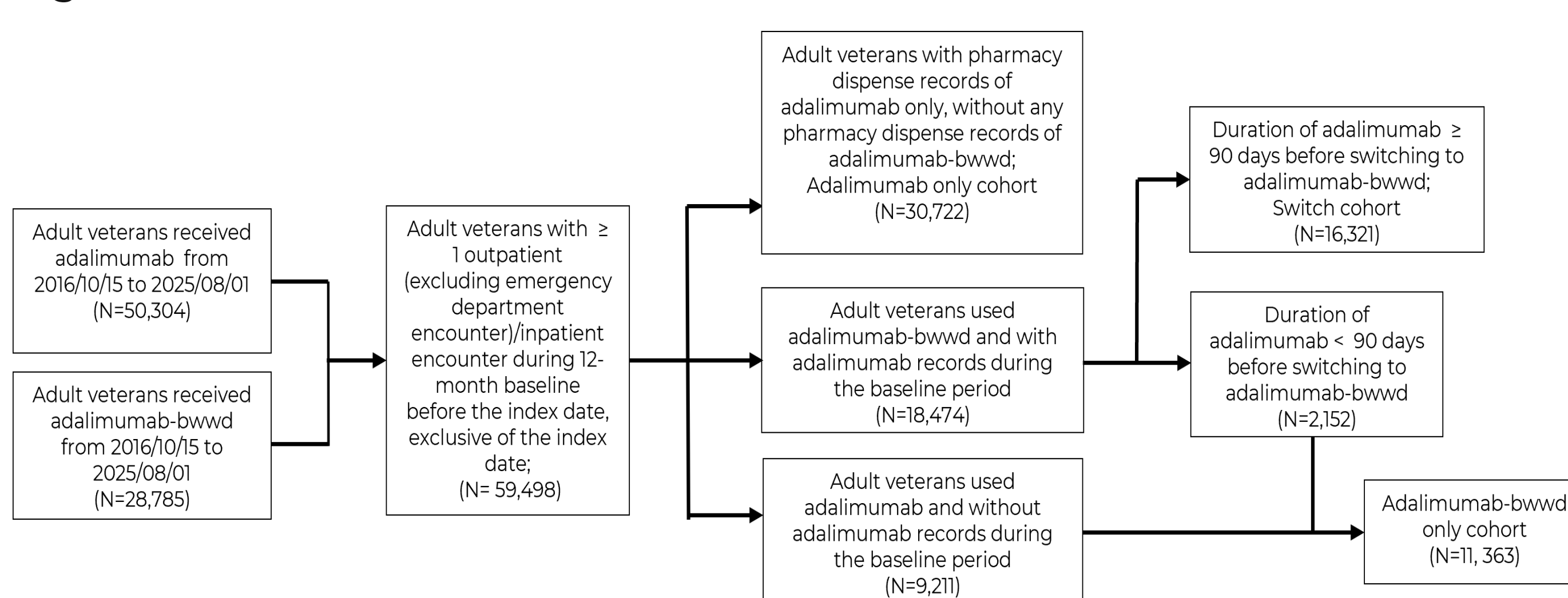
- The first three treatments recorded chronologically from the index date were defined as the patient's line of therapy;
- 5-ASA, non-TNF biologics and OSM were combined as other treatments in the Sankey diagram

Endpoints

- Adherence: Proportion of Days Covered (PDC)
- HCRU: outpatient, inpatient, ED and pharmacy visits
- Costs: outpatient, inpatient, ED and pharmacy
 - Only autoimmune-conditions related outpatient visits and pharmacy costs are reported in this poster

RESULTS

Figure 1. Flow Chart



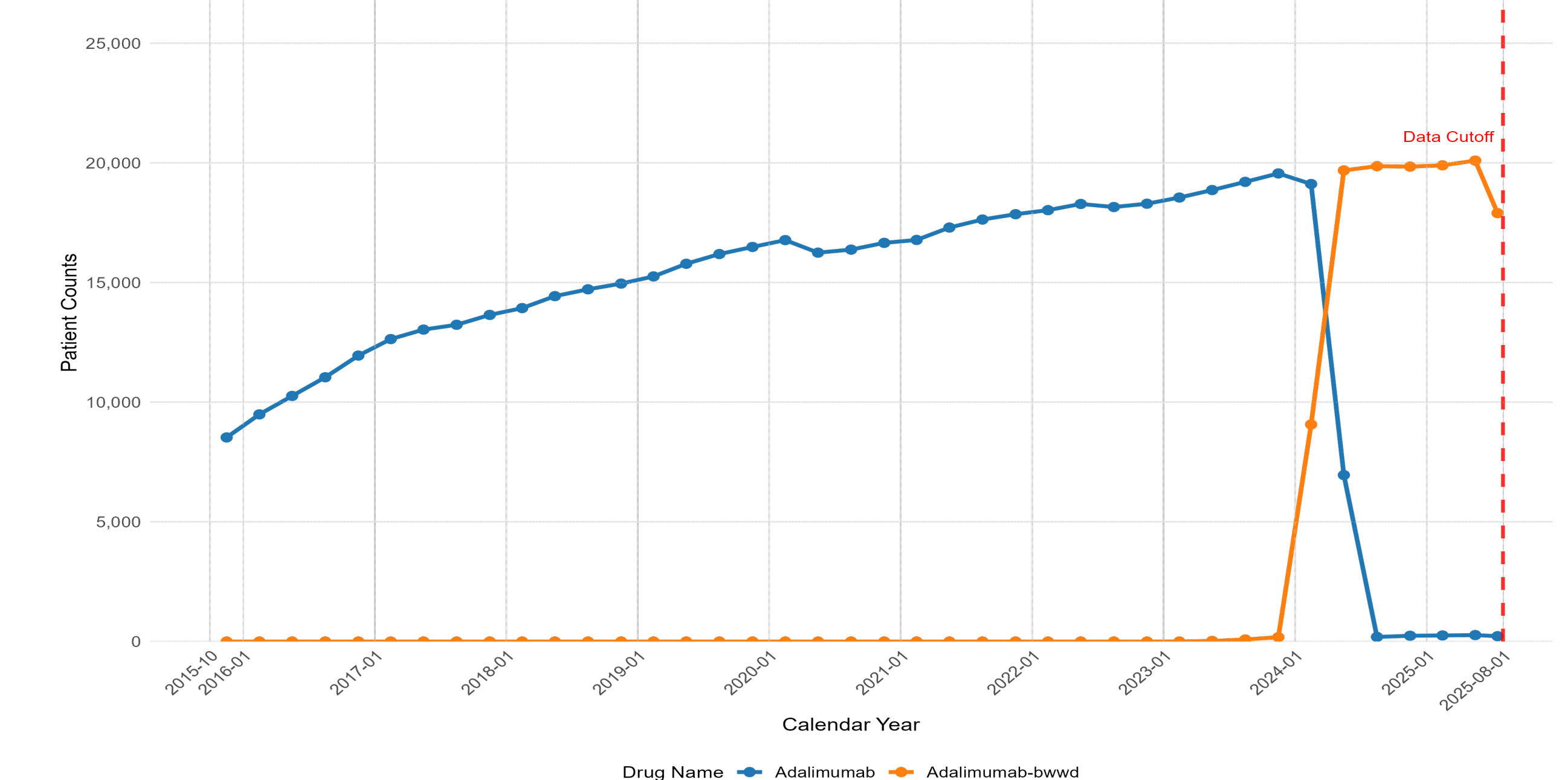
Results (Cont'd)

Table 1. Baseline Patient Demographics and Disease Characteristics

	Adalimumab-bwvd only cohort (N=11,363)	Switch cohort (N=16,322)	Adalimumab only cohort (N=30,722)
Age at index (year, mean±SD)	55.6 (± 15.4)	60.4 (±14.9)	57.4 (±14.9)
Sex, N (%)			
Male	9253 (81.4)	14173 (86.8)	26272 (85.5)
Female	2110 (18.6)	2149 (13.2)	4450 (14.5)
Race, N (%)			
White	8036 (70.7)	12306 (75.4)	23609 (76.8)
Black	1864 (16.4)	2301 (14.1)	4095 (13.3)
Others	567 (5.0)	698 (4.3)	1332 (4.3)
Missing	687 (6.0)	732 (4.5)	1185 (3.9)
Ethnicity, N(%)			
Hispanic	1036 (9.1)	1134 (6.9)	2217 (7.2)
Non-Hispanic	9639 (84.8)	14456 (88.6)	27317 (88.9)
Baseline Comorbidities, N (%)			
Essential hypertension	5246 (46.2)	8387 (51.4)	15020 (48.9)
Type 2 diabetes mellitus	2668 (23.5)	4336 (26.6)	7819 (25.5)
Hyperlipidemia	5414 (47.6)	8343 (51.1)	13614 (44.3)
Obesity	2903 (25.5)	3553 (21.8)	6553 (21.3)
Depression and major depressive disorder			
Anxiety disorder	3667 (32.3)	4227 (25.9)	8019 (26.1)
Malignant neoplasms	2879 (25.3)	3104 (19.0)	5125 (16.7)
Types of Prescribers, N (%)			
Rheumatologist	2725 (24.0)	4412 (27.0)	8292 (27.0)
Dermatologist	188 (1.7)	278 (1.7)	667 (2.2)
Gastroenterologist	432 (3.8)	1118 (6.8)	2129 (6.9)
Indication*, N(%)			
CD	577 (5.1)	1752 (10.7)	2846 (9.3)
UC	502 (4.4)	972 (6.0)	2032 (6.6)
RA	2290 (20.2)	3577 (21.9)	7439 (24.2)
PsA	1005 (8.8)	1374 (8.4)	3246 (10.6)
PsO	921 (8.1)	2170 (13.3)	3296 (10.7)
AS	600 (5.3)	1239 (7.6)	1474 (4.8)
HS	640 (5.6)	580 (3.6)	972 (3.2)
Uveitis	21 (0.2)	36 (0.2)	43 (0.1)
≥ 2 indications	325 (2.9)	789 (4.8)	1332 (4.3)
≥ 3 indications	12 (0.1)	31 (0.2)	40 (0.1)
Length of using adalimumab before the index date†, median days (IQR)			
CD	0.0 (0.0)	308.0 (84.0)	0.0 (196.0)
UC	0.0 (0.0)	319.0 (84.0)	0.0 (0.0)
RA	0.0 (0.0)	280.0 (112.0)	0.0 (90.0)
PsA	0.0 (0.0)	280.0 (140.0)	0.0 (0.0)
PsO	0.0 (0.0)	280.0 (112.0)	0.0 (168.0)
AS	0.0 (28.0)	280.0 (140.0)	0.0 (150.0)
HS	0.0 (0.0)	252.0 (168.0)	0.0 (0.0)
Uveitis	0.0 (0.0)	275.0 (114.0)	0.0 (0.0)

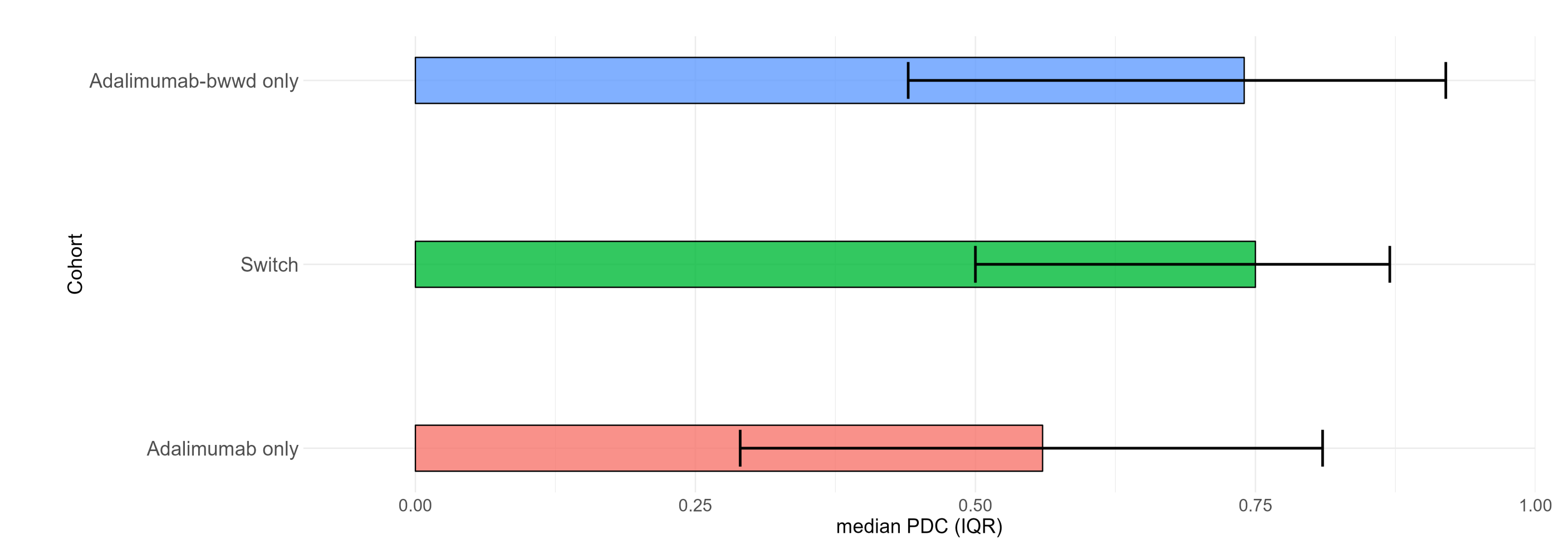
*Indications were captured by requiring 2 outpatient/inpatient encounters at separate dates for each autoimmune diseases between 365-day before and 30-day after the index date

Figure 2. Unique Individuals Prescribed Adalimumab/Adalimumab-bwvd by Calendar Year



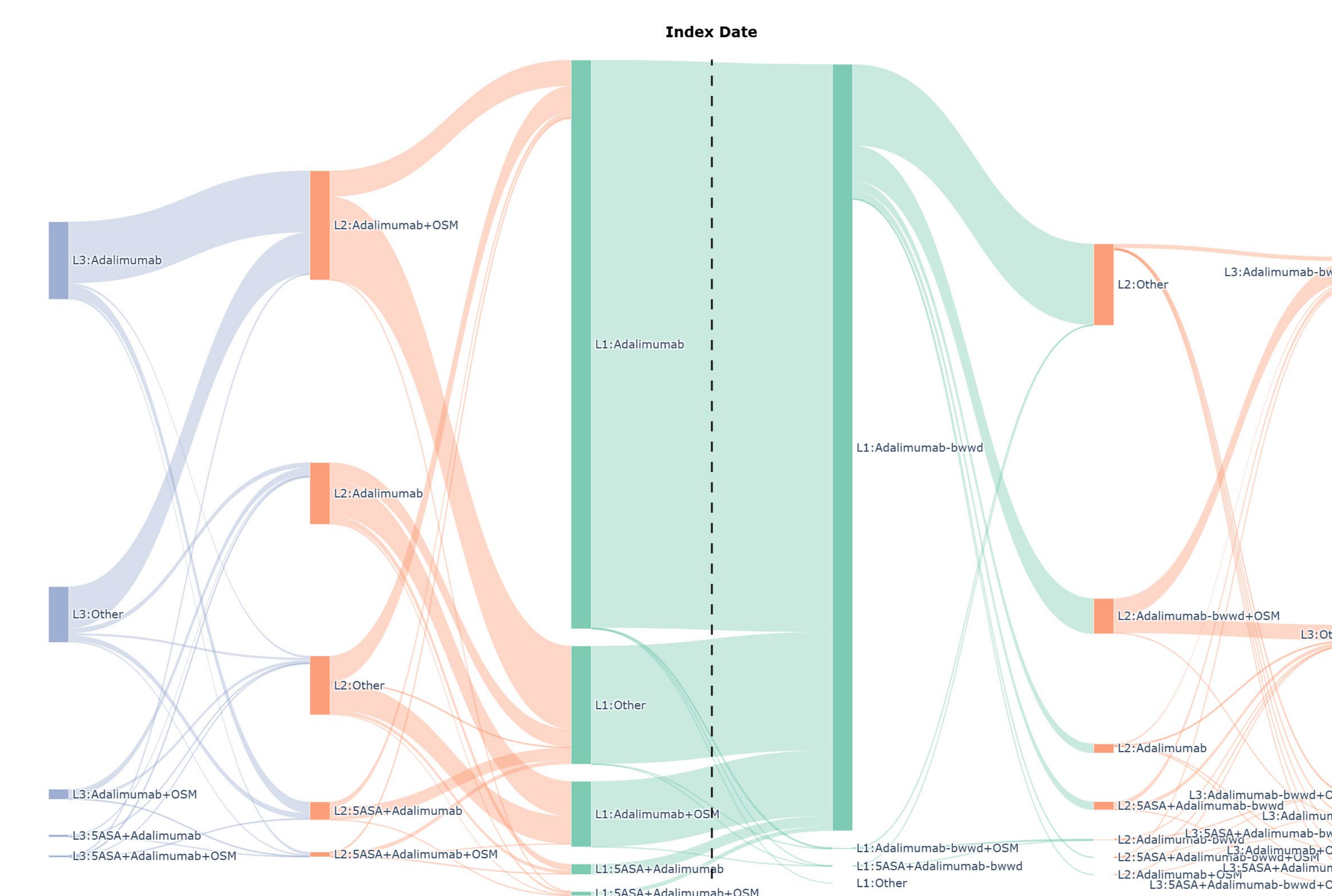
- 18,557 patients prescribed adalimumab on Jan, 2023;
- 19,904 patients prescribed adalimumab-bwvd on Jan, 2025

Figure 3. Medication Adherence



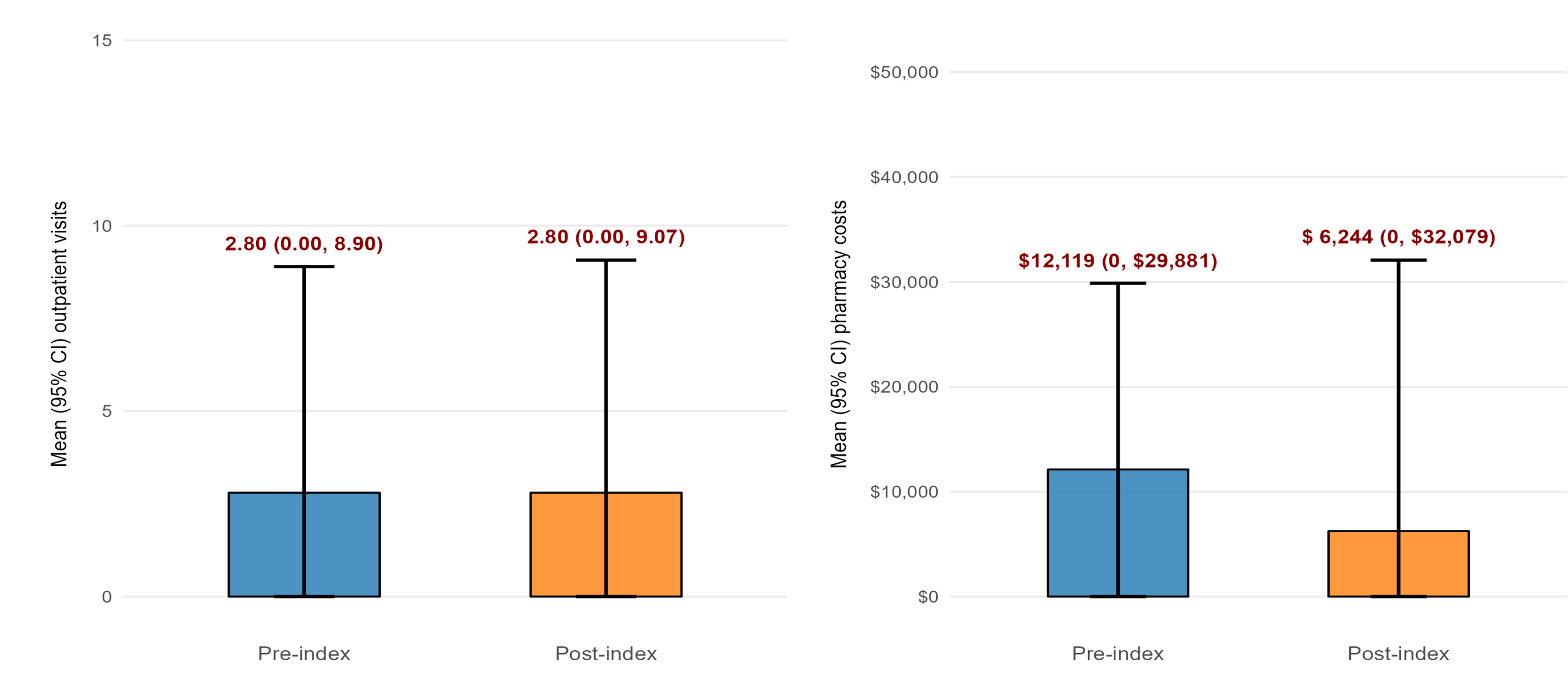
- Subjects new to adalimumab-bwvd (either switched or treatment naive) had similar observed adherence than those prescribed only adalimumab

Figure 4. Treatment Patterns of Subject Switched to Adalimumab-bwvd



Other included all treatment regimens without adalimumab/adalimumab-bwvd, and can be monotherapy or combination of 5-ASA, OSM, JAK inhibitors, or non-TNF biologics

Figure 5. Annual Autoimmune-Disease Related Outpatient Visits and Pharmacy Costs of Switch Cohort



- Mean autoimmune-disease related patient pharmacy costs fell by \$5,875 in the first year
- Mean adalimumab-specific per-patient pharmacy costs fell by \$8,100 in the first year, leading to a total \$132 million estimated savings to the VHA system

Abbreviations: CD: Crohn's Disease; UC: Ulcerative Colitis; RA: Rheumatoid Arthritis; PsA: Psoriatic Arthritis; PsO: Psoriasis; AS: Ankylosing Spondylitis; HS: Hidradenitis Suppurativa; OSM: oral small molecule medications; 5-ASA: 5-aminosalicylic acid