Early Insights From Real-World Use of Aflibercept 8 mg in Eyes With Neovascular Age-Related Macular Degeneration Switching From Other Anti-VEGF Agents

Rishi P. Singh, MD,[1] Steven Sherman, MPH,[2] Dana Murdock, PhD,[2] Keran Moll, PhD,[2] Nick Boucher, BS,[3] Nitish Mehta, MD,[4] Michael Javaheri, MD,[5] Durga Borkar, MD,[6] Theodore Leng, MD,[7] Ferhina S. Ali, MD, MPH[8]

[1]Cleveland Clinic Martin Hospitals, Cleveland Clinic Florida, Stuart, Florida; [2]Regeneron Pharmaceuticals, Inc., Tarrytown, New York; [3]Vestrum Health, Naperville, Illinois; [4]Department of Ophthalmology, NYU Langone Health, New York, New York; [5]Retina Specialists of Beverly Hills, Beverly Hills, California; [6]Duke University Eye Center, Durham, North Carolina; [7]Byers Eye Institute, Stanford University School of Medicine, Palo Alto, California; [8]New York Medical College, Valhalla, New York

Presented at the American Society for Retina Specialists (ASRS) Annual Meeting, July 30–August 2, 2025

Disclosures

- Rishi P. Singh reports personal fees from Apellis, Iveric Bio, EyePoint, REGENXBIO, Genentech, Bausch + Lomb, Zeiss, Alcon, and Regeneron Pharmaceuticals, Inc., and research grants from Janssen. Theodore Leng reports funding from Astellas and has acted as consultant for Astellas, Boehringer Ingelheim, Regeneron Pharmaceuticals, Inc., Roche/Genentech, Topcon, and Virtual Field. Steven Sherman, Dana Murdock, and Keran Moll are employees and stockholders of Regeneron Pharmaceuticals, Inc. Nick Boucher is an employee of Vestrum Health. Nitish Mehta has no disclosures to report. Michael Javaheri has acted as a speaker and consultant and partaken in advisory boards with Genentech and Regeneron Pharmaceuticals, Inc. Durga Borkar has acted as consultant for Astellas, Apellis, AbbVie/Allergan, EyePoint, Genentech, Glaukos, ONL Therapeutics, Regeneron Pharmaceuticals, Inc., and served as a speaker for Astellas. Ferhina S. Ali has received honoraria and served on speaker bureaus for 4DMT, Allergan, Apellis, EyePoint, Genentech, Iveric Bio, OcuTerra, Optomed, Ocuphire, Outlook Therapeutics, and Regeneron Pharmaceuticals, Inc.

- This study was sponsored by Regeneron Pharmaceuticals, Inc. (Tarrytown, NY). The sponsor participated in the design and conduct of the study, analysis of the data, and preparation of this abstract

- Medical writing support was provided by Matthew Young, DPhil, and editorial support was provided by Isobel Markham, MSc, of Core (a division of Prime, London, UK), in accordance with Good Publication Practice guidelines, and funded by Regeneron Pharmaceuticals, Inc. (Tarrytown, New York)

Background and Objectives

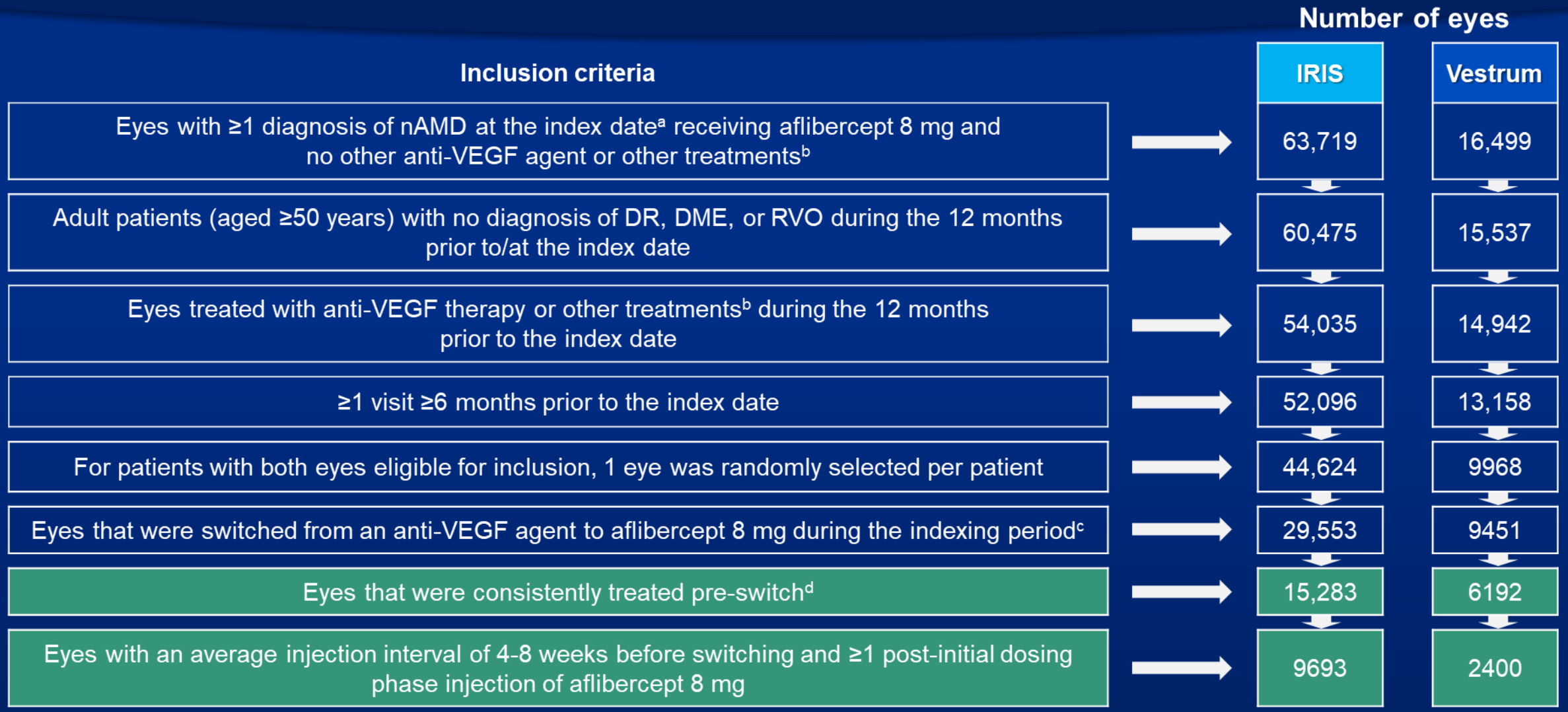
- In the PULSAR trial, aflibercept 8 mg with extended dosing achieved similar VA outcomes with fewer injections compared to aflibercept 2 mg in patients with nAMD through 96 weeks[1,2]
- Real-world evidence for use of aflibercept 8 mg in previously treated patients with nAMD could be informative for clinical practice

This analysis aimed to describe real-world treatment patterns in patients with nAMD who were previously treated with other anti-VEGF agents before switching to aflibercept 8 mg

nAMD, neovascular age-related macular degeneration; VA, visual acuity; VEGF, vascular endothelial growth factor.

1. Lanzetta P et al. *Lancet*. 2024;403:1141–1152. 2. Korobelnik J. Presented at: American Academy of Ophthalmology; November 3-6, 2023; San Francisco, CA.

Inclusion Criteria and Attrition



Criteria in the green boxes apply to injection interval analyses. [a]Index date was date of first aflibercept 8-mg injection. [b]Other treatments included intravitreal steroids and/or laser therapy. [c]Indexing period was between August 18, 2023, and June 30, 2024, for the IRIS cohort, or between August 18, 2023, and July 31, 2024, for the Vestrum cohort. [d]Treated with an anti-VEGF agent for ≥6 months and an average injection interval of ≤8 weeks for the most recent anti-VEGF agent. DME, diabetic macular edema; DR, diabetic retinopathy; IRIS, Intelligent Research in Sight; RVO, retinal vein occlusion.

Outcomes

- Injection intervals were evaluated for eyes that were consistently treated with anti-VEGF (defined as ≥6 months of treatment with an average injection interval of ≤8 weeks for the most recent anti-VEGF agent) and ≥1 post-initial dosing phase injection
- The last observed injection interval in the pre-switch phase (during 12 months prior to the index date) and after the initial dosing phase (defined as the first 3 injections or 90 days, whichever occurred first) were assessed, stratified by mean injection interval before switching (4-<6 or ≥6-8 weeks)

Patient Characteristics at the Index Date

	IRIS (n=29,533)	Vestrum (n=9451)
Age, mean (SD), years	80.9 (7.4)	81.3 (7.6)
Males, n (%)	11,807 (40)	3549 (38)
Race/ethnicity, n (%)		
Hispanic or Latino	554 (2)	NA
White	22,555 (85)	NA
Black or African American	279 (1)	NA
Asian or Pacific Islander	500 (2)	NA
Other	2689 (10)	NA
Bilateral disease, n (%)	14,173 (48)	4625 (49)
Fellow eye treated with aflibercept 8 mg at the index date, n (%)	6044 (20)	1639 (17)
VA, mean (SD), ETDRS letters	60.5 (22.1)	67.6 (11.5)

ETDRS, Early Treatment of Diabetic Retinopathy Study; NA, not available (due to limitation of the Vestrum database); SD, standard deviation.

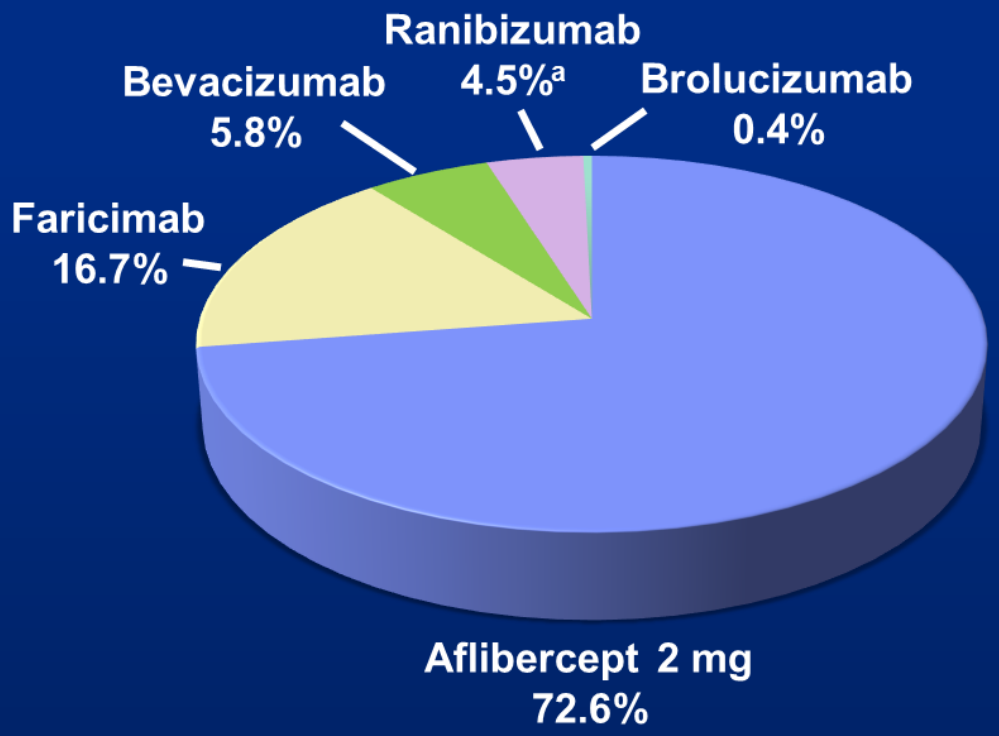
Treatment Patterns During Follow-Up

	IRIS (n=29,553)	Vestrum (n=9451)
Duration of post-switch follow-up, days		
Mean (SD)	186 (113)	240 (119)
Median (Q1, Q3)	183 (92, 269)	238 (153, 336)
Number of aflibercept 8-mg injections during follow-up[a]		
Mean (SD)	4 (2)	4 (1)
Median (Q1, Q3)	3 (2, 5)	3 (2, 4)

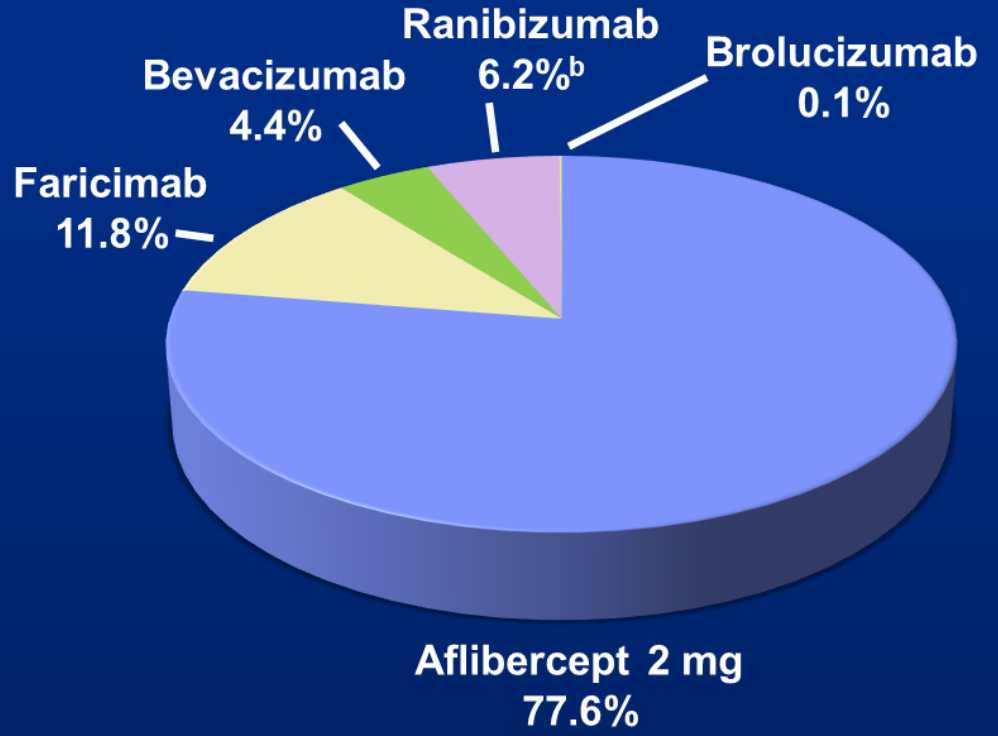
[a]Including the index date (date of the first aflibercept 8-mg injection).
Q, quartile.

Anti-VEGF Agent Used Before Switching to Aflibercept 8 mg

IRIS (n=29,553)



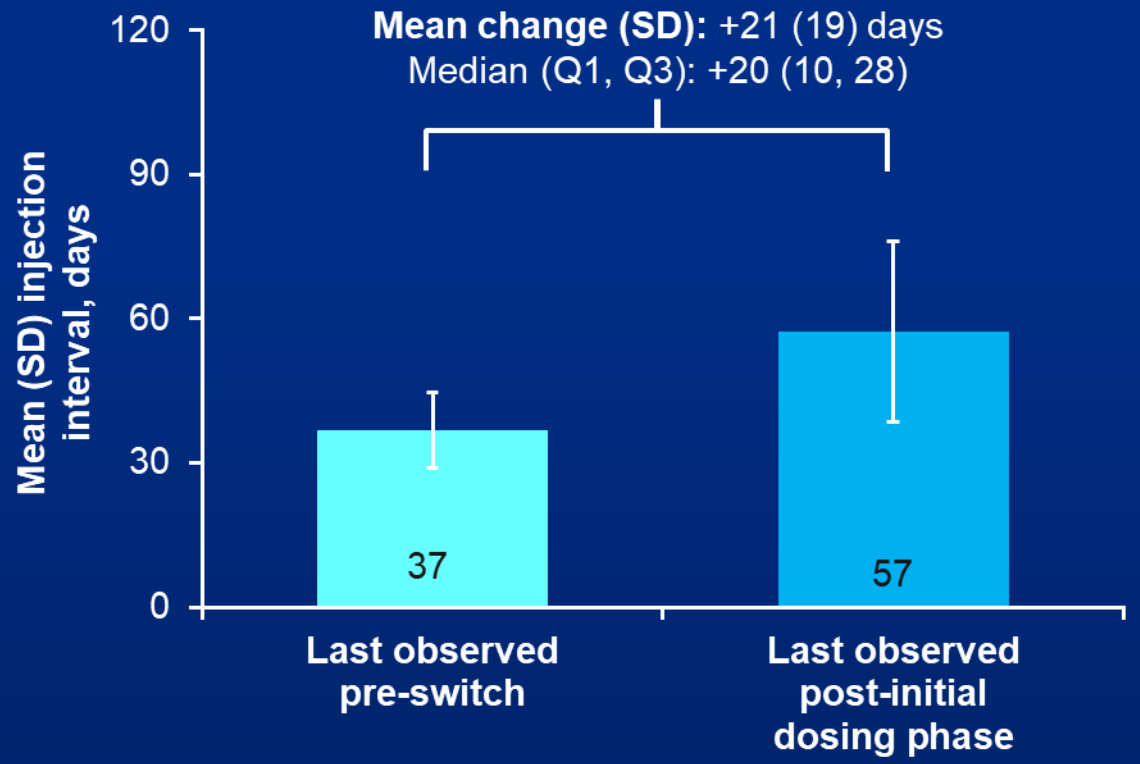
Vestrum (n=9451)



Data represent the proportion of eyes receiving each anti-VEGF agent. Values may not add up to 100% due to rounding.
[a]Ranibizumab comprised ranibizumab-eqrn (2.5%), ranibizumab (1.6%), and ranibizumab-nuna (0.4%) in the IRIS cohort.
[b]Ranibizumab comprised ranibizumab-eqrn (4.7%), ranibizumab (1.4%), and ranibizumab-nuna (0.1%) in the Vestrum cohort.

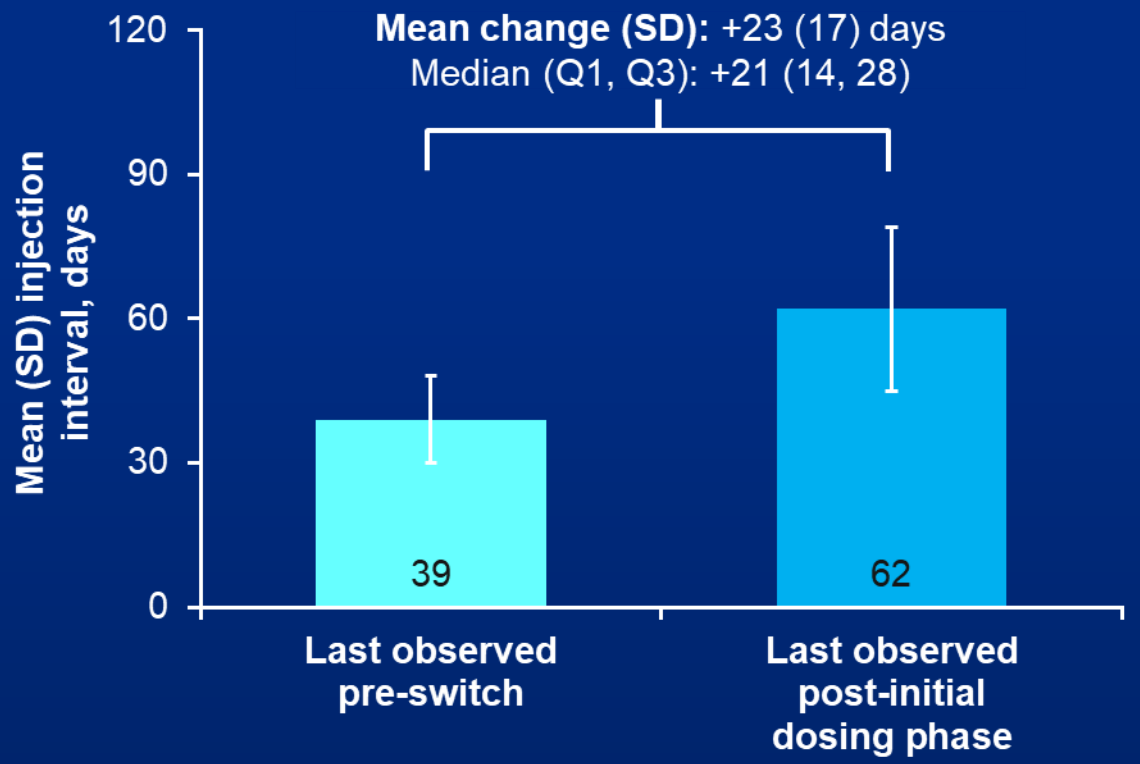
Injection Interval Extension of ~3 Weeks After Switching to Aflibercept 8 mg in Eyes With an Average Pre-Switch Injection Interval of 4 to <6 Weeks[a]

IRIS (n=4413)



Median (Q1, Q3) injection interval, days:	Last observed pre-switch	Last observed post-initial dosing phase
	35 (29, 42)	56 (49, 63)

Vestrum (n=1008)



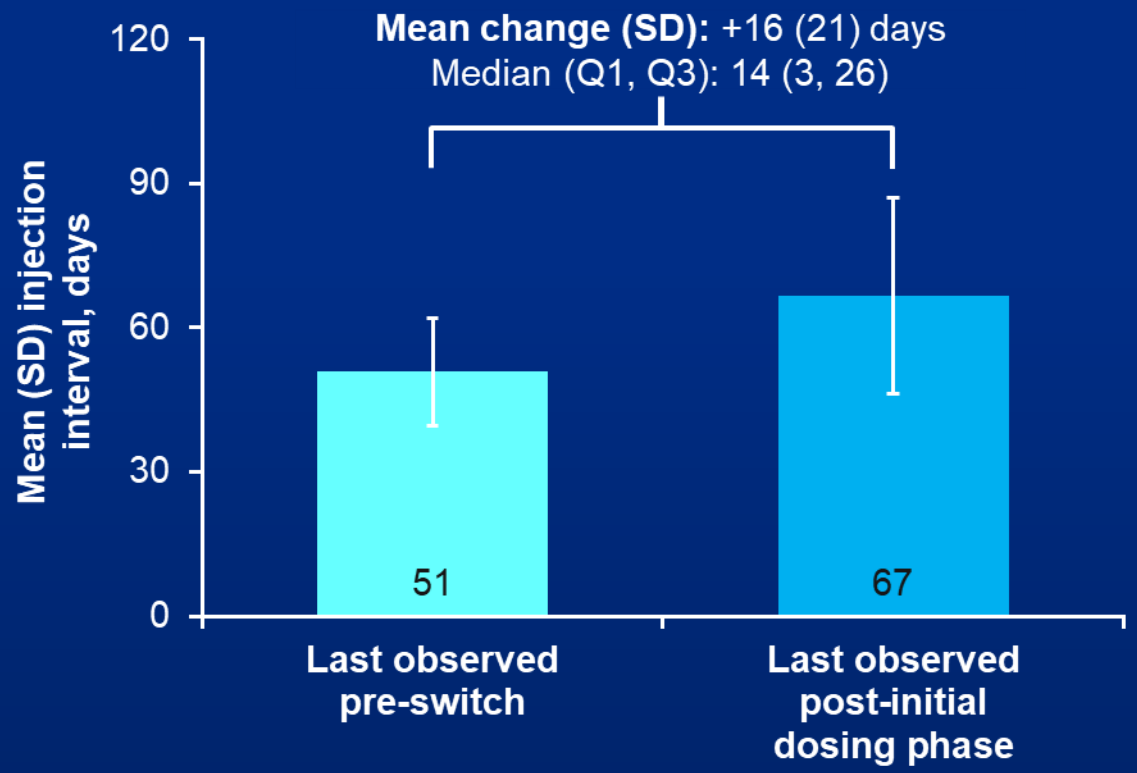
Last observed pre-switch	Last observed post-initial dosing phase
37 (34, 42)	56 (52, 70)

Values on the bars indicate the mean injection interval in days.

[a]Among eyes that were consistently treated: ≥6 months of treatment prior to switch with an average pre-switch injection interval of 4-<6 weeks and ≥1 post-initial dosing phase aflibercept 8-mg injection.

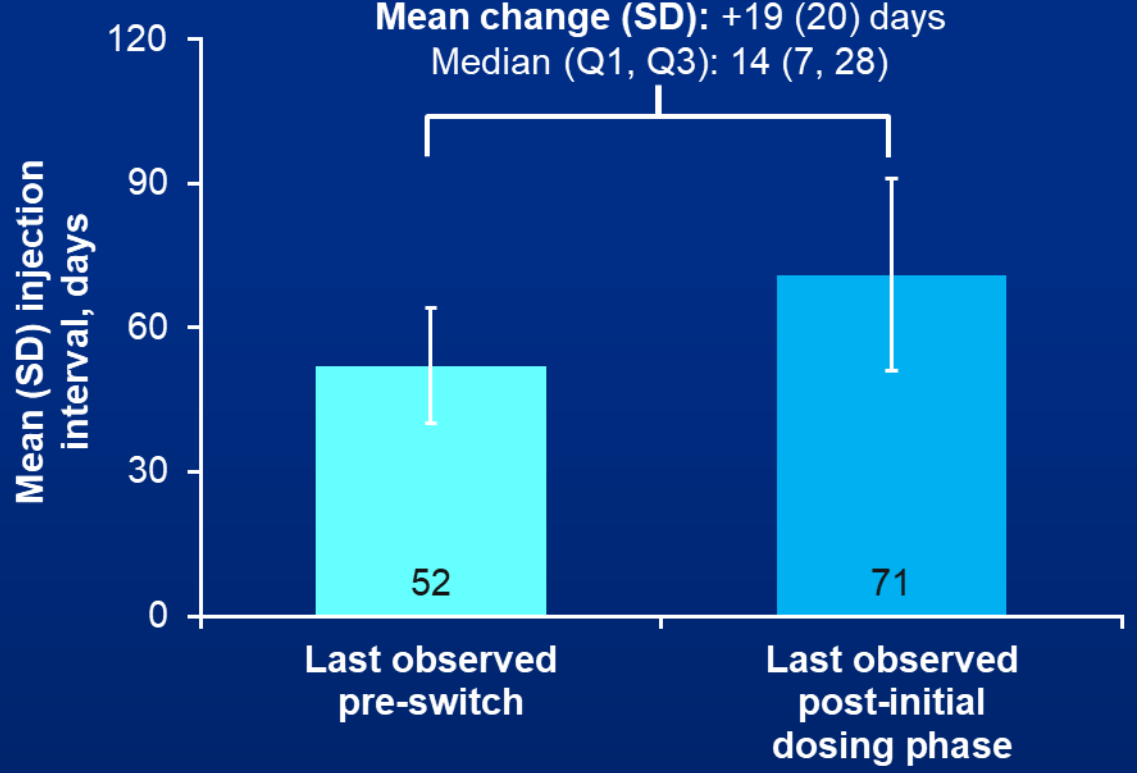
Injection Interval Extension of ~2-3 Weeks After Switching to Aflibercept 8 mg in Eyes With an Average Pre-Switch Injection Interval of ≥6 to 8 Weeks[a]

IRIS (n=5280)



Median (Q1, Q3) injection interval, days:	Last observed pre-switch	Last observed post-initial dosing phase
	49 (42, 56)	63 (56, 74)

Vestrum (n=1392)



Last observed pre-switch	Last observed post-initial dosing phase
49 (42, 56)	65 (56, 78)

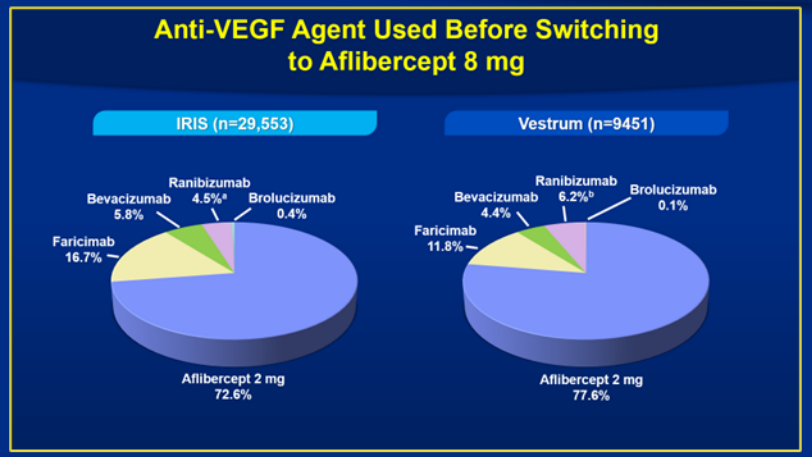
Values on the bars indicate the mean injection interval in days.

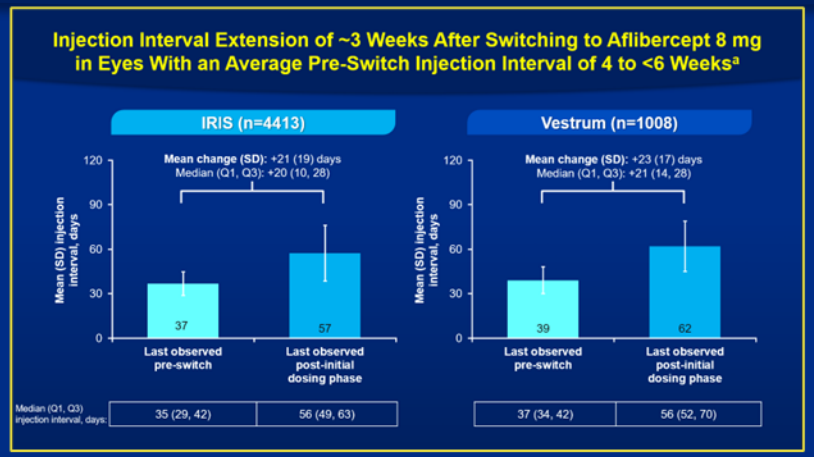
[a]Among eyes that were consistently treated: ≥6 months of treatment prior to switch with an average pre-switch injection interval of ≥6-8 weeks and ≥1 post-initial dosing phase aflibercept 8-mg injection.

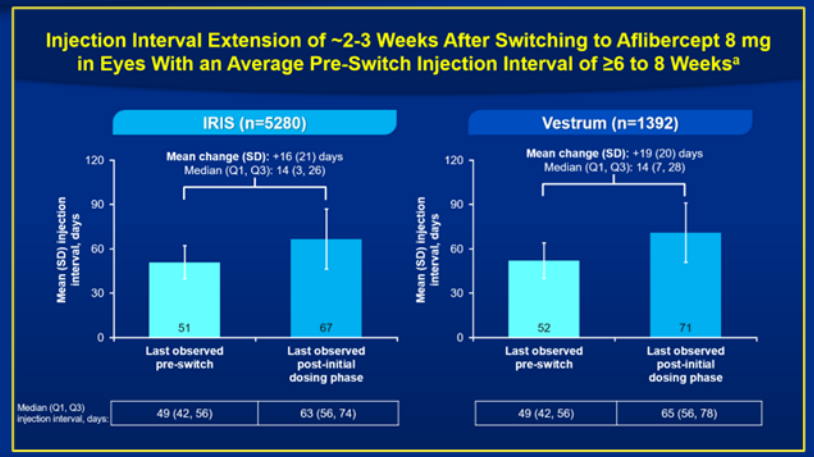
Limitations

- This study was based on data from electronic medical records, which may not reflect patients' full medical history, including treatment history
- A subset of patients among those who switched to aflibercept 8 mg from other anti-VEGF therapies were included in this analysis, which may not represent the wider population
- This analysis represents early real-world experience with aflibercept 8 mg and had a limited follow-up period

Conclusions







- Most eyes were consistently treated with aflibercept 2 mg prior to initiating aflibercept 8-mg treatment
- Eyes switching to aflibercept 8 mg after consistent treatment with a previous anti-VEGF agent had an average injection interval extension of:
  - Approximately 3 weeks for eyes with an average pre-switch injection interval of 4-<6 weeks
  - Approximately 2-3 weeks for eyes with an average pre-switch injection interval of ≥6-8 weeks
- Additional analyses with longer-term follow-up are ongoing to assess real-world durability and outcomes of aflibercept 8 mg in previously treated patients with nAMD