Early Insights From Real-World Use of Aflibercept 8 mg Among Eyes With Diabetic Macular Edema Switching From Other Anti-VEGF Agents

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Disclosures

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

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

This analysis aimed to describe real-world treatment patterns in patients with DME in the Academy IRIS® Registry and Vestrum Health Retina database who were previously treated with other anti-VEGF agents before switching to aflibercept 8 mg[a]

[a]Safety parameters were not accessed in this analysis.
BCVA, best-corrected visual acuity; DME, diabetic macular edema; IRIS, Intelligent Research in Sight; VEGF, vascular endothelial growth factor.
1. Brown DM et al. *Lancet*. 2024;403:1153–1163. 2. Do D. Presented at the American Academy of Ophthalmology Meeting; November 3-6, 2023; San Francisco, CA.

Study Design

Eyes with DME receiving aflibercept 8 mg on the index date[a]

Eligibility criteria

- Aged ≥18 years with a diagnosis of DME at the index date
- Initiated aflibercept 8 mg during indexing period,[b] and no other anti-VEGF agent or other treatments[c] on the index date
- Received anti-VEGF therapy or other treatments[c] in the baseline period[d]
- Had ≥1 visit 6 months prior to the index date
- No diagnosis of nAMD or RVO during baseline period/at the index date
- For patients with both eyes treated on index and eligible for inclusion, 1 eye was randomly selected per patient

Eyes switched from an anti-VEGF to aflibercept 8 mg during the indexing period[b]

Outcomes

Injection intervals were evaluated for eyes that were consistently treated[e] with anti-VEGF and received ≥1 post-initial dosing phase injection

The last observed injection intervals during the baseline period and after the initial dosing phase for aflibercept 8 mg[f] were assessed

Eyes were stratified by mean injection interval before switching (4-<6 or ≥6-8 weeks)

IRIS Registry: n=30,724	**IRIS Registry: n=13,820**	**IRIS Registry: 4-<6 weeks: n=1291 ≥6-8 weeks: n=1806**
Vestrum: n=13,820	**Vestrum: n=5884**	**Vestrum: 4-<6 weeks: n=322 ≥6-8 weeks: n=604**

[a]Index date was date of first aflibercept 8-mg injection. [b]For the IRIS Registry cohort, study period was between August 18, 2023 and March 31, 2025, with indexing period between August 18, 2023 and September 30, 2024. For the Vestrum cohort, study period was between August 18, 2023 and June 30, 2025, and indexing period was between August 18, 2023 and December 31, 2024. [c]Other treatments included intravitreal steroids and laser therapy. [d]Baseline period was 12 months prior to the index date. [e]Consistently treated was defined defined as ≥6 months of treatment with an average injection interval of ≤8 weeks for the most recent anti-VEGF agent prior to switch. [f]Defined as the first 3 injections or 90 days, whichever occurred first.
nAMD, neurovascular age-related macular degeneration; RVO, retinal vein occlusion; VEGF, vascular endothelial growth factor.

Patient Demographics and Ocular Characteristics at the Index Date[a]

	IRIS Registry (n=13,820)	Vestrum (n=5664)
Age, mean (SD), years	66.1 (10.6)	65.9 (10.9)
Male, n (%)	7595 (55)	3092 (55)
Race/ethnicity, n (%)		
Hispanic or Latino	1148 (10)	NA
White	7652 (63)	NA
Black or African American	1405 (12)	NA
Asian or Pacific Islander	351 (3)	NA
Other	1546 (13)	NA
BCVA, mean (SD), ETDRS letters	65.6 (18.1)	70.1 (10.6)
Bilateral DME, n (%)	12,633 (91)	4872 (86)
Fellow eye also treated with aflibercept 8 mg on the index date, n (%)	4802 (35)	1658 (29)

[a]Index date was date of first aflibercept 8-mg injection.
ETDRS, Early Treatment of Diabetic Retinopathy Study; NA, race/ethnicity data not available in the Vestrum database.

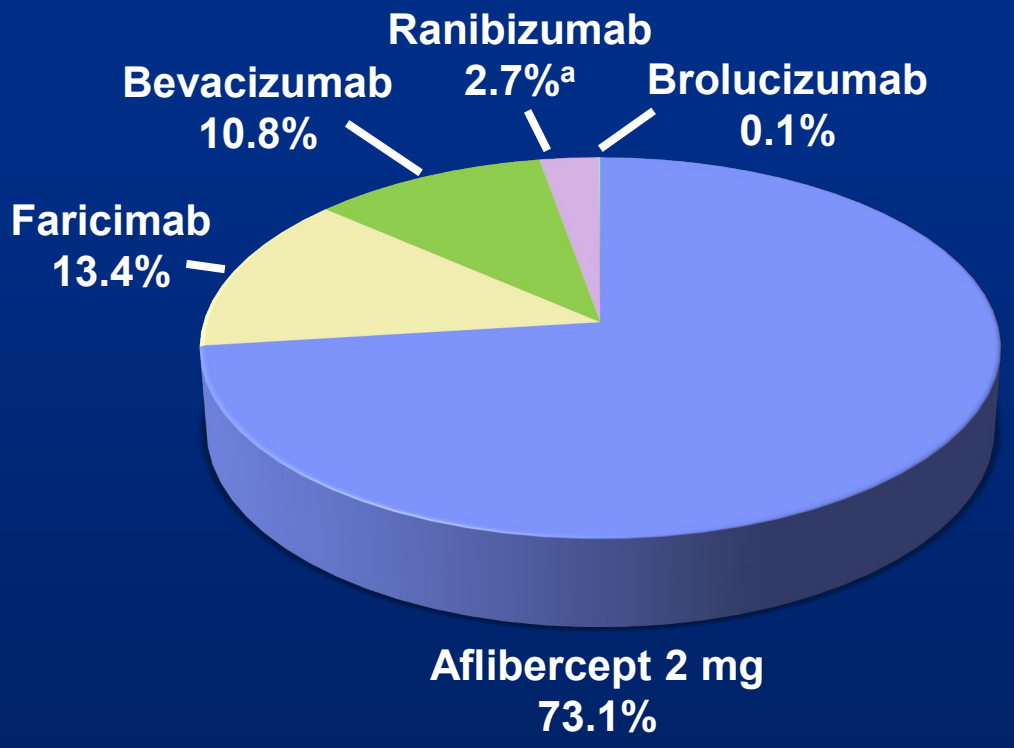
Treatment Exposure During Follow-Up

	IRIS Registry (n=13,820)	Vestrum (n=5664)
Duration of post-switch follow-up, days		
Mean (SD)	194 (128)	304 (152)
Median (Q1, Q3)	183 (85, 284)	306 (189, 426)
Number of aflibercept 8-mg injections during follow-up[a]		
Mean (SD)	3 (2)	4 (3)
Median (Q1, Q3)	3 (2, 5)	4 (2, 6)

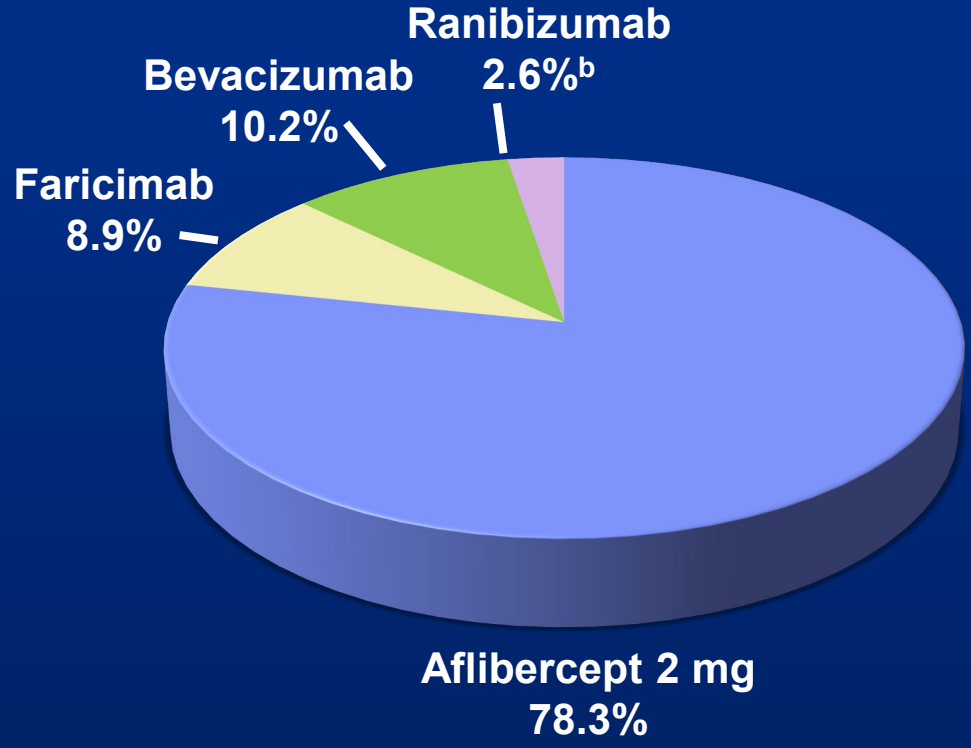
[a]Including the index date (date of the first aflibercept 8-mg injection).
Q, quartile.

Anti-VEGF Agent Used Immediately Prior to Switch to Aflibercept 8 mg

IRIS Registry (n=13,820)



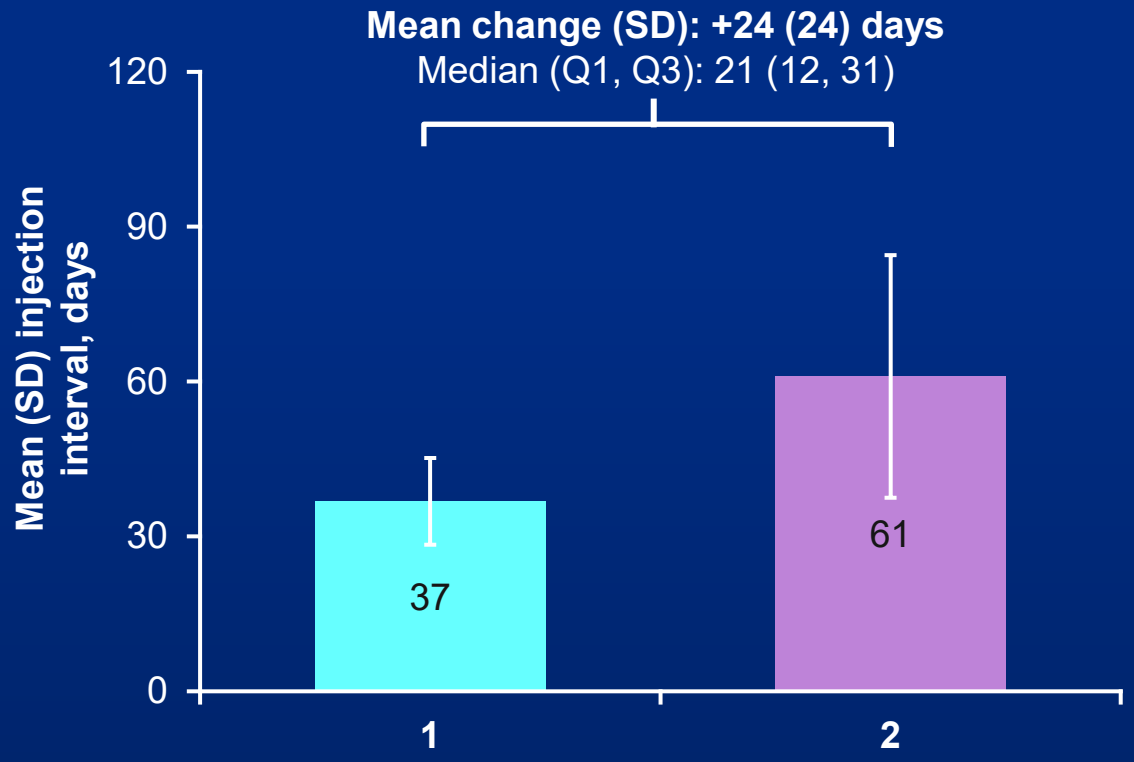
Vestrum (n=5664)



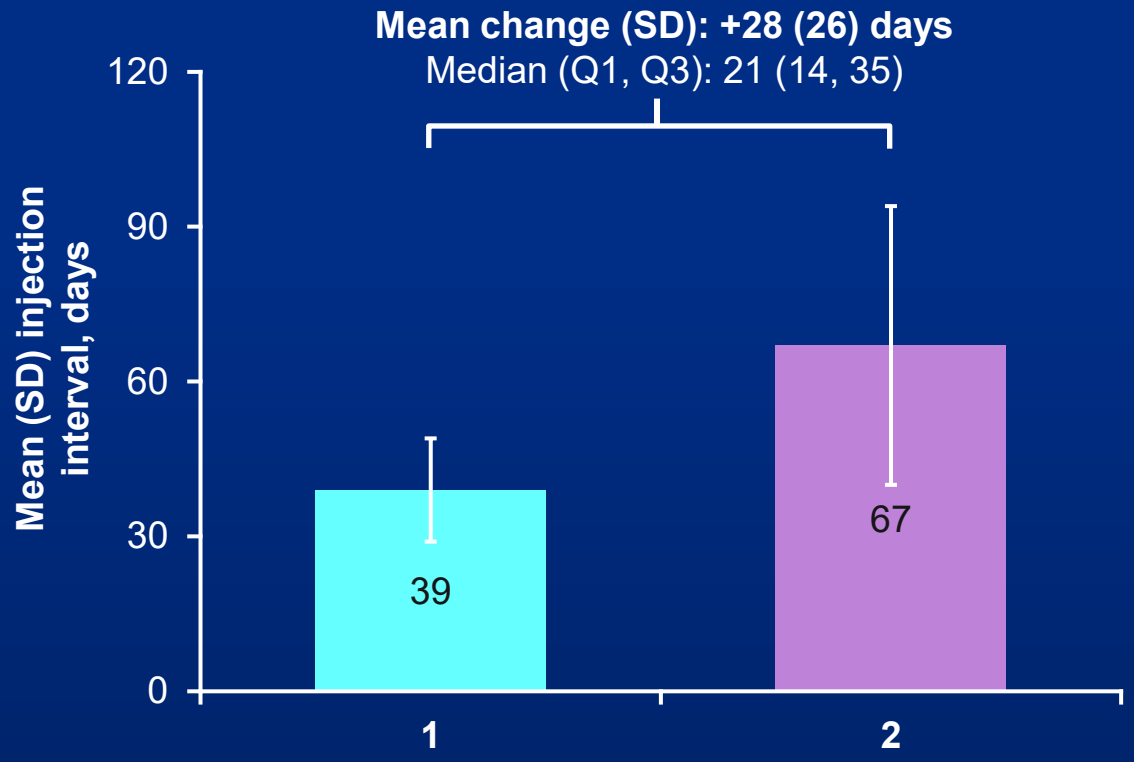
Data represent the proportion of eyes receiving each anti-VEGF agent. Values may not total 100% due to rounding.
[a]Ranibizumab comprised ranibizumab-eqrn (1.4%), ranibizumab (1.2%), and ranibizumab-nuna (0.1%) in the IRIS cohort.
[b]Ranibizumab comprised ranibizumab-eqrn (2.1%), ranibizumab (0.4%), and ranibizumab-nuna (0.1%) in the Vestrum cohort.

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

IRIS Registry (n=1291)



Vestrum (n=322)



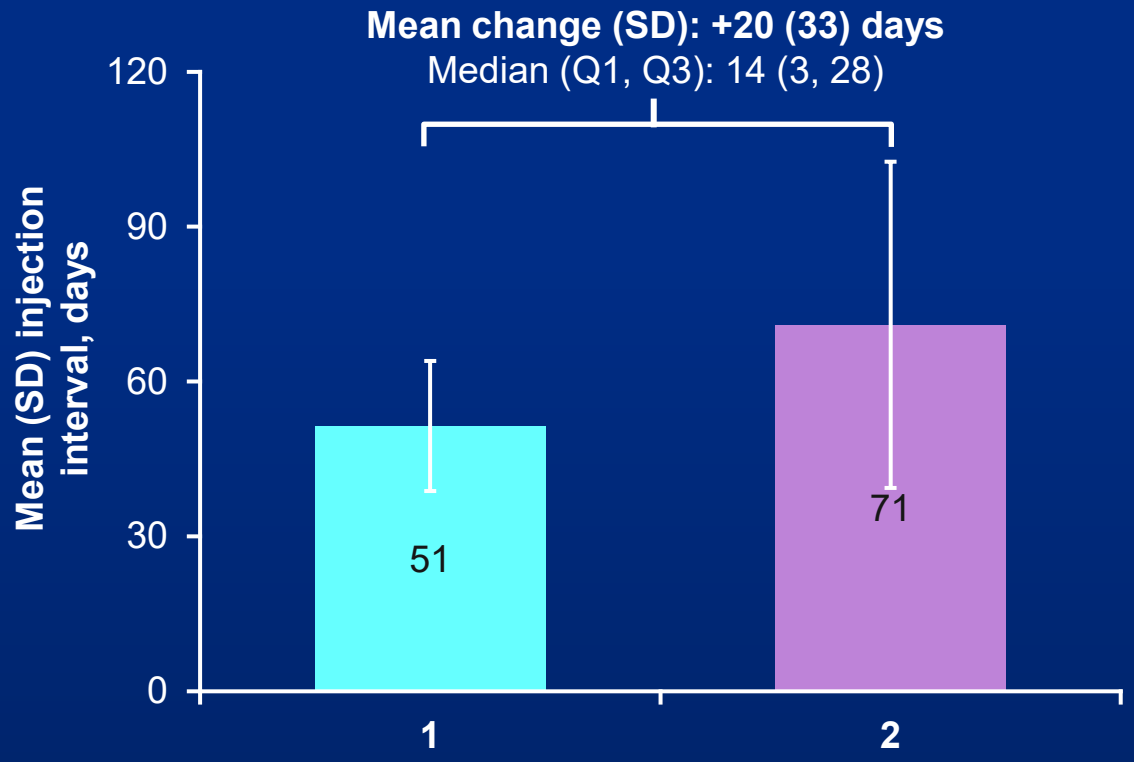
Median (Q1, Q3) injection interval, days:		
IRIS Registry (n=1291)	35 (30, 42)	56 (49, 69)
Vestrum (n=322)	37 (33, 42)	61 (56, 72)

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

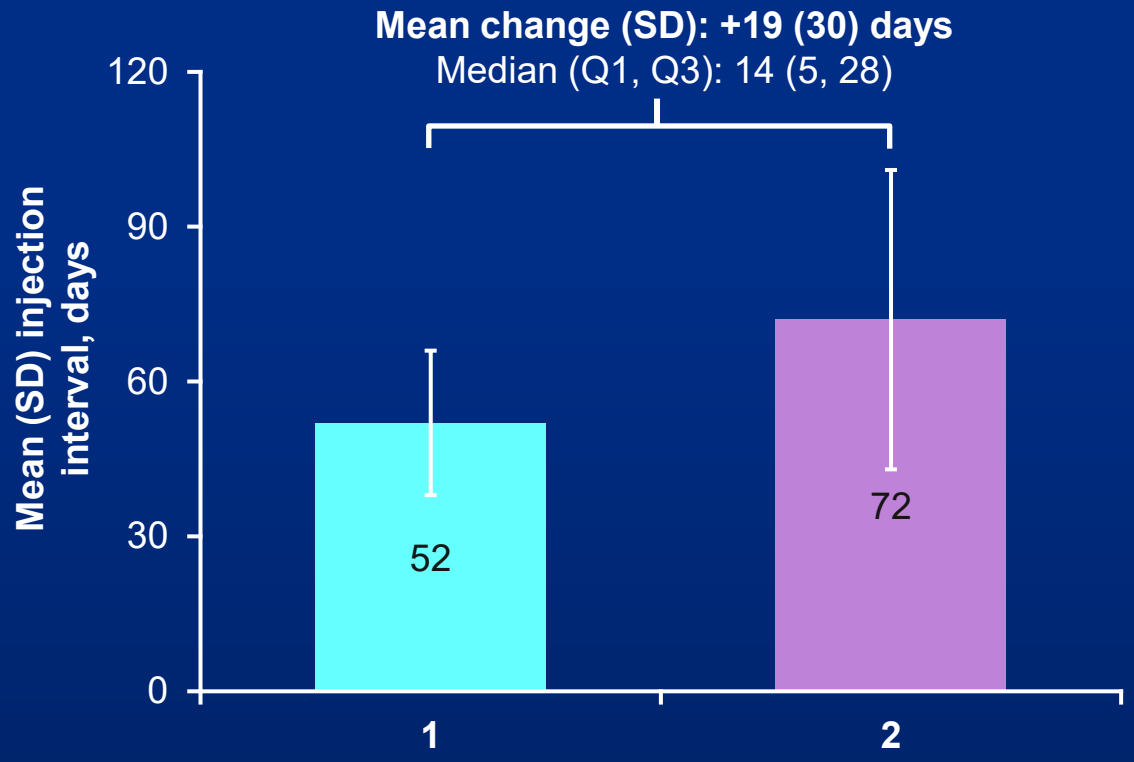
[a]Among eyes that were consistently treated: ≥6 months of treatment prior to switch with an average pre-switch injection interval of 4-<6 weeks and received ≥1 post-initial dosing phase aflibercept 8-mg injection.

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

IRIS Registry (n=1806)



Vestrum (n=604)



Median (Q1, Q3) injection interval, days:	49 (42, 56)	63 (56, 83)
	50 (42, 56)	63 (56, 84)

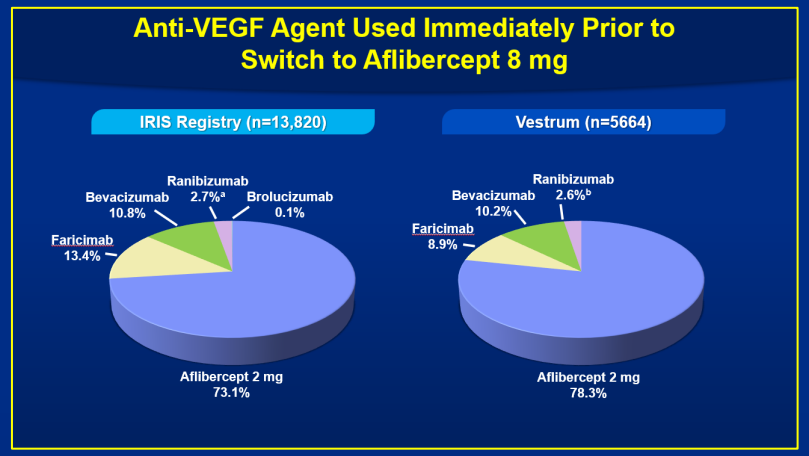
Values on the bars indicate the mean injection interval in days.

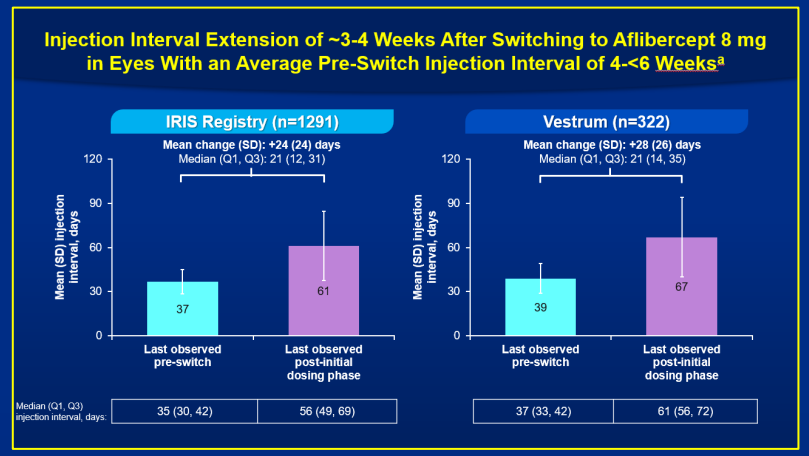
[a]Among eyes that were consistently treated: ≥6 months of treatment prior to switch with an average pre-switch injection interval of ≥6-8 weeks and received ≥1 post-initial dosing phase aflibercept 8-mg injection.

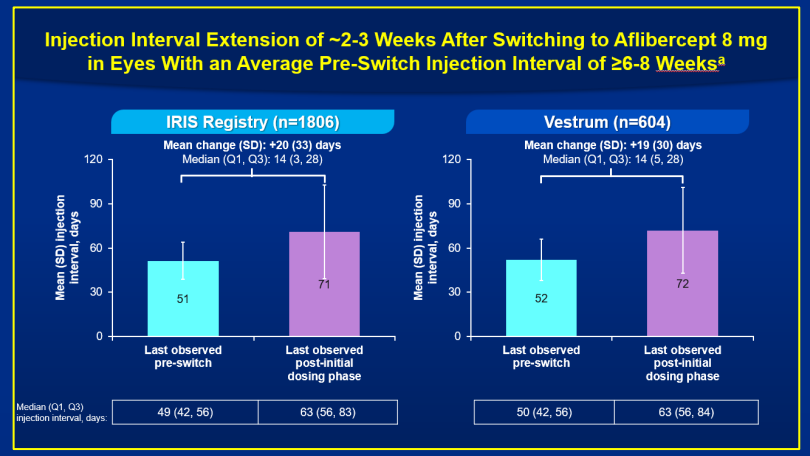
Limitations

- This study evaluated data available in electronic medical records, which may not reflect patients' full medical history, including treatment history
- A subset of patients who had ≥2 injections prior to switching to aflibercept 8 mg from other anti-VEGF therapies were included in this analysis, which may not represent the wider population treated with aflibercept 8 mg
- This analysis represents early real-world experience with aflibercept 8 mg with a limited follow-up period

Conclusions







- Most eyes switched from aflibercept 2 mg prior to initiating aflibercept 8 mg
- Eyes switching to aflibercept 8 mg after consistent treatment with a previous anti-VEGF agent had an average injection interval extension of:
  - Approximately 3-4 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 for aflibercept 8 mg in previously treated patients with DME