Real-World Clinical and Anatomical Outcomes in Patients With Neovascular Age-Related Macular Degeneration Treated With Faricimab: The FARETINA-AMD Study

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Presented at the Association for Research in Vision and Ophthalmology Annual Meeting | Seattle, WA | May 5–9, 2024

Faricimab is approved for the treatment of neovascular age-related macular degeneration, diabetic macular edema, and retinal vein occlusion in multiple countries worldwide. Faricimab is not currently approved for use outside these indications. Funding was provided by Genentech, Inc. for the study and third-party writing assistance, which was provided by Sofia Pedro, PhD, of Envision Pharma Group

Disclosures

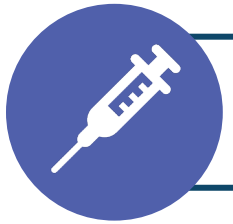
Financial Disclosures

- DT, SK: Employee: Genentech, Inc.
- DB: Consultant: Allergan/AbbVie, Glaukos, Iveric Bio
- TL: Grants: Astellas; Consultant: Alcon, Apellis, Astellas, Graybug, Nanoscope, Protagonist Therapeutics, Regeneron, Roche/Genentech, Verana Health
- FA: Consultant: Allergan/AbbVie, Apellis, EyePoint, Genentech, Inc., Iveric Bio, OcuTerra, Optomed, Regeneron; Speaker: Apellis, Iveric Bio
- JS, BLK, RM, AL: Nothing to disclose
- RPS: Research Grant: Aerie, Apellis, Graybug; Consultant: Alcon, Bausch + Lomb, Genentech, Inc., Gyroscope, Novartis, Regeneron

Study and Product Disclosures

- Faricimab is approved for the treatment of retinal vein occlusion in the USA, and neovascular age-related macular degeneration and diabetic macular edema in multiple countries worldwide. Faricimab is not currently approved for use outside these indications
- This study is a noninterventional, retrospective secondary data use study, leveraging data from the IRIS® Registry. The study was considered exempt from institutional review board (IRB) review as the research involved only the collection of existing data, which had been de-identified and are unable to be traced
- Funding was provided by F. Hoffmann-La Roche Ltd. for the study and third-party writing assistance, which was provided by Neil Norcross, PhD, of Envision Pharma Group

Intravitreal Anti-VEGF Treatment for nAMD and DME: Need for More Durable Therapies



Intravitreal anti-VEGF is considered the standard of care for patients with nAMD or DME[1,2]

Injections may be as frequent as monthly, placing burdens on patients and caregivers in terms of time and potential loss of earnings[1-4]

High frequency of injections and appointments limits health care system capacity to treat new referrals[4]

DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration; VEGF, vascular endothelial growth factor. 1. Sivaprasad S and Oyetunde S. *Clin Ophthalmol.* 2016;10:939-946. 2. Mehta H et al. *Clin Ophthalmol.* 2020;14:3331-3342. 3. Ohara H et al. *Medicina (Kaunas).* 2023;59(6):1125. 4. Meunier A et al. *Eye (Lond).* 2024. doi: 10.1038/s41433-024-03043-y.

The Number of Real-World Studies of Faricimab for nAMD Continues to Grow

- Faricimab (Vabysmo™) was approved in the US in January 2022 for the treatment of nAMD and DME[1]
- Other studies are collecting evidence of real-world faricimab treatment patterns and outcomes[2-8]:

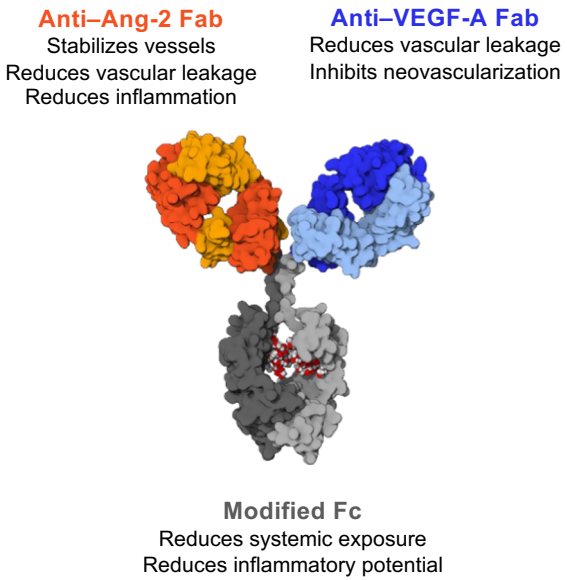
TRUCKEE: An independent, physician-led, real-world study of faricimab in patients with nAMD (n = 337 previously treated eyes; n = 39 treatment-naïve eyes)

Leung et al: An independent, physician-led, real-world study of faricimab among treatment-resistant nAMD patients (n = 190 eyes)

Pandit et al: An independent, physician-led, real-world study of faricimab among treatment-resistant nAMD patients (n = 218 eyes)

FARWIDE: A Roche-sponsored retrospective, observational, multicenter, real-world study evaluating faricimab treatment patterns in patients with nAMD and DME in the UK

VOYAGER: A Roche-sponsored noninterventional, prospective, multinational, multicenter study of faricimab (and PDS with ranibizumab) in patients with nAMD and DME



Ang-2, angiopoietin-2; DME, diabetic macular edema; Fab, fragment antigen binding; Fc, fragment crystallizable; nAMD, neovascular age-related macular degeneration; PDS, port delivery system; VEGF-A, vascular endothelial growth factor-A.

1. VABYSMO [package insert]. South San Francisco, CA: Genentech, Inc; 2022. 2. Bhandari R. Presented at: American Academy of Ophthalmology Annual Meeting; July 13–14, 2022, New York, NY. 3. Leung EH et al. *Clin Ophthalmol.* 2023;5(17):1287-1293. 4. Khanani AM et al. *Eye (Lond)*. 2023;37(17):3574-3581. 5. Pandit SA et al. *Ophthalmol Retina*. 2024;8(4):360-366. 6. Patel PJ. Presented at: ASRS Annual Meeting; July 28–August 1, 2023; Seattle, WA. 7. Gale R. Presented at: ASRS Annual Meeting; July 28–August 1, 2023; Seattle, WA. 8. Guymer R et al. Presented at: Angiogenesis Exudation and Degeneration 2023 Virtual Edition; February 10–11, 2023.

FARETINA-AMD Is a Retrospective, Real-World Study of Faricimab Using Data From the IRIS® Registry

The American Academy of Ophthalmology (IRIS®) Registry (**I**ntelligent **R**esearch **I**n **S**ight) contains data from:

- **540 million** de-identified patient encounters
- **> 75 million** de-identified unique patients
- **16,000** clinicians
- **60** electronic medical record systems across the United States

METHODS

Inclusion Criteria:

- ✓ Documented diagnosis for nAMD and known laterality
- ✓ ≥ 1 faricimab injection received from **February 2022** to **September 2023**
  - **Index date –** first faricimab injection
- ✓ **≥ 12 months of medical data before faricimab start**
- ✓ **≥ 6 months of follow-up medical data**
- ✓ **≥ 2 best-documented VA measures on/after first faricimab injection**

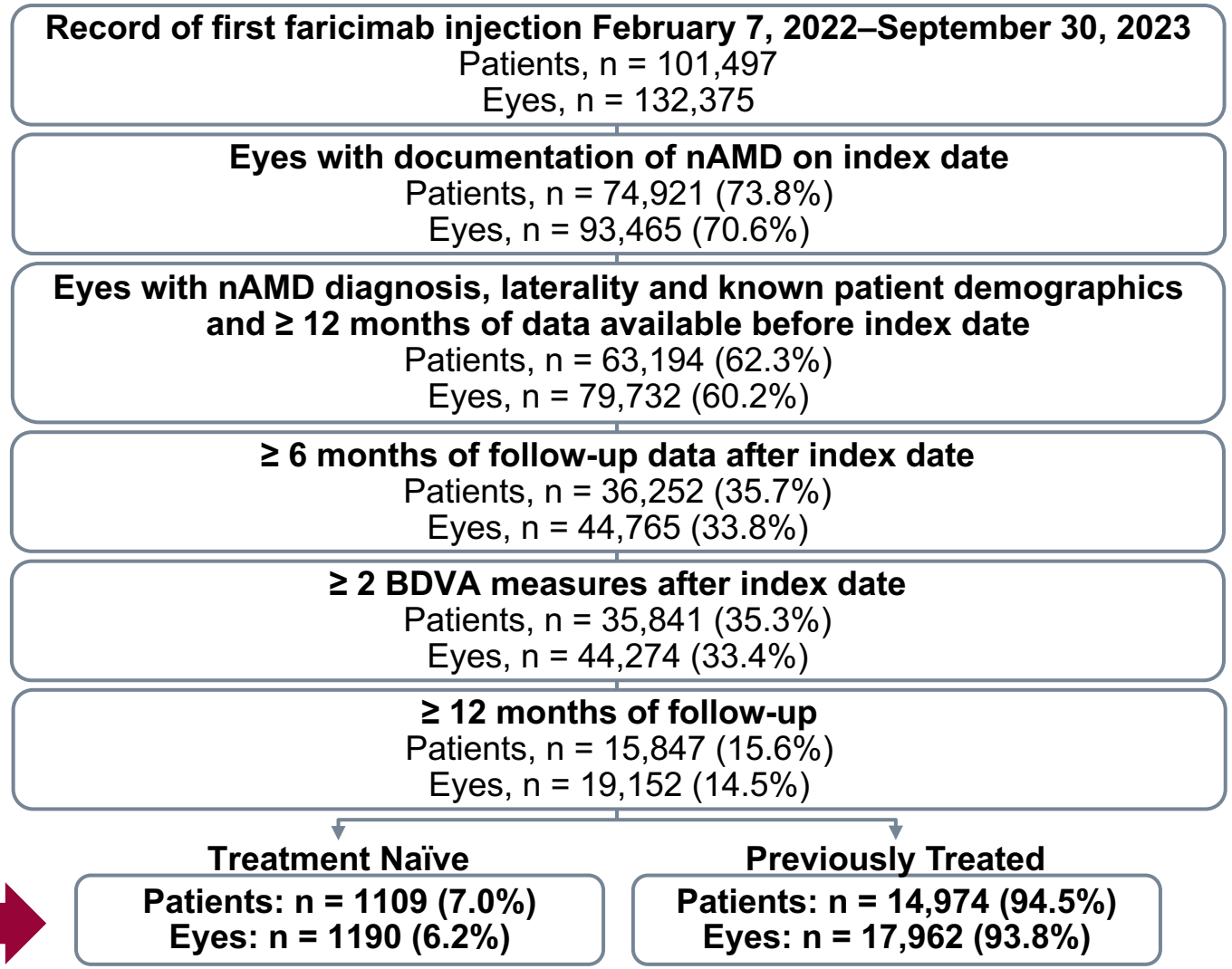
CST (Subgroup) Criteria[a]:

- ✓ Patients with a baseline CST measurement (0–30 days before index)
- ✓ ≥ 2 CST measurements in ≤ 180 days before index and ≥ 2 CST measurements in 180 days post index

Eligible patient eyes were analyzed for BDVA and CST outcomes, and injection frequency, after faricimab initiation

In March 2023, FARETINA-AMD transitioned to IRIS® Registry data ingested directly by Verana Health. Excluded patients with < 12 months of prior medical data and unknown laterality or missing demographics.
Patients receiving ≥ 4 faricimab injections were included in injection intervals and BDVA analyses. [a] CST measurements 1–14 days after an injection were excluded from analysis.
AMD, age-related macular degeneration; CST, central subfield thickness; IRIS®, Intelligent Research In Sight; nAMD, neovascular age-related macular degeneration; VA, visual acuity.

Faricimab nAMD Cohort



Index date is first injection of faricimab during study period. Treatment groups defined at eye-level. Treatment-naïve eyes are those with no evidence of anti-VEGF injections up to 12 months before initiating faricimab.
BDVA, best-documented visual acuity; DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration; VEGF, vascular endothelial growth factor.

Baseline Patient Demographics and Visual Acuity of 12-Month nAMD Cohort

Baseline Characteristics (Patient-Level)	Treatment-Naïve Patients, n = 1109	Previously Treated Patients, n = 14,974
Age at first faricimab injection, mean (SD)	80.5 (7.4)	80.2 (7.5)
Sex, n (%)		
Female	701 (63.2)	8798 (58.8)
Race, n (%)		
White or Caucasian	859 (77.5)	11,864 (79.2)
Black or African American	6 (0.6)	80 (0.5)
Asian	11 (1.0)	173 (1.2)
Other	52 (4.7)	775 (5.2)
Unknown	181 (16.3)	2082 (13.9)
Ethnicity, n (%)		
Hispanic	13 (1.2)	250 (1.7)
Non-Hispanic	726 (65.5)	10,621 (70.9)
Unknown	370 (33.4)	4103 (27.4)
Insurance Status, n (%)		
Medicare	1002 (90.4)	13,087 (87.4)
Medicaid	3 (0.3)	64 (0.4)
Commercial	71 (6.4)	1381 (9.2)
Other	33 (3.0)	442 (3.0)
Baseline Visual Acuity (Patient-Eyes): 12-Month Cohort, n (%)	**Treatment Naïve, n = 1167**	**Previously Treated, n = 17,462**
20/40 or better	492 (42.2)	9014 (51.6)
Worse than 20/40–20/80	377 (32.3)	4654 (26.7)
Worse than 20/80–better than 20/200	80 (6.9)	1400 (8.0)
20/200 or worse	218 (18.7)	2394 (13.7)

Treatment groups defined at eye-level. Treatment-naïve eyes are those with no evidence of anti-VEGF injections up to 12 months before initiating faricimab.
nAMD, neovascular age-related macular degeneration; SD, standard deviation; VEGF, vascular endothelial growth factor.

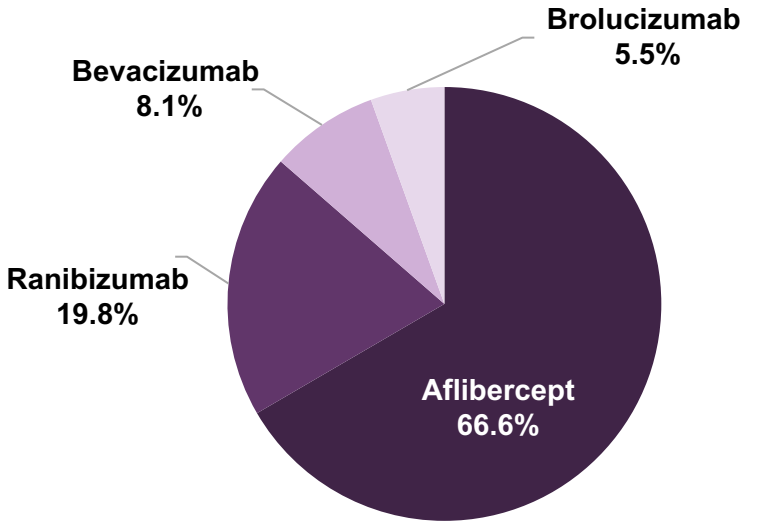
Approximately 67% of Previously Treated Eyes Were Switched From Aflibercept

- Mean prior anti-VEGF injection frequency was approximately **7 injections in prior 12 months**
- Last prior treatment interval was on average **45 days (6 weeks)** apart
- Mean length of follow-up was **457 days for treatment-naïve eyes** and **474 days for previously treated eyes**

Prior Anti-VEGF Treatment Experience[a] (n = 17,962)

Number of injections in prior 12 months	
Mean (SD)	7.2 (2.9)
Most recent prior treated interval (days)[b]	
Mean (SD)	44.5 (25.5)

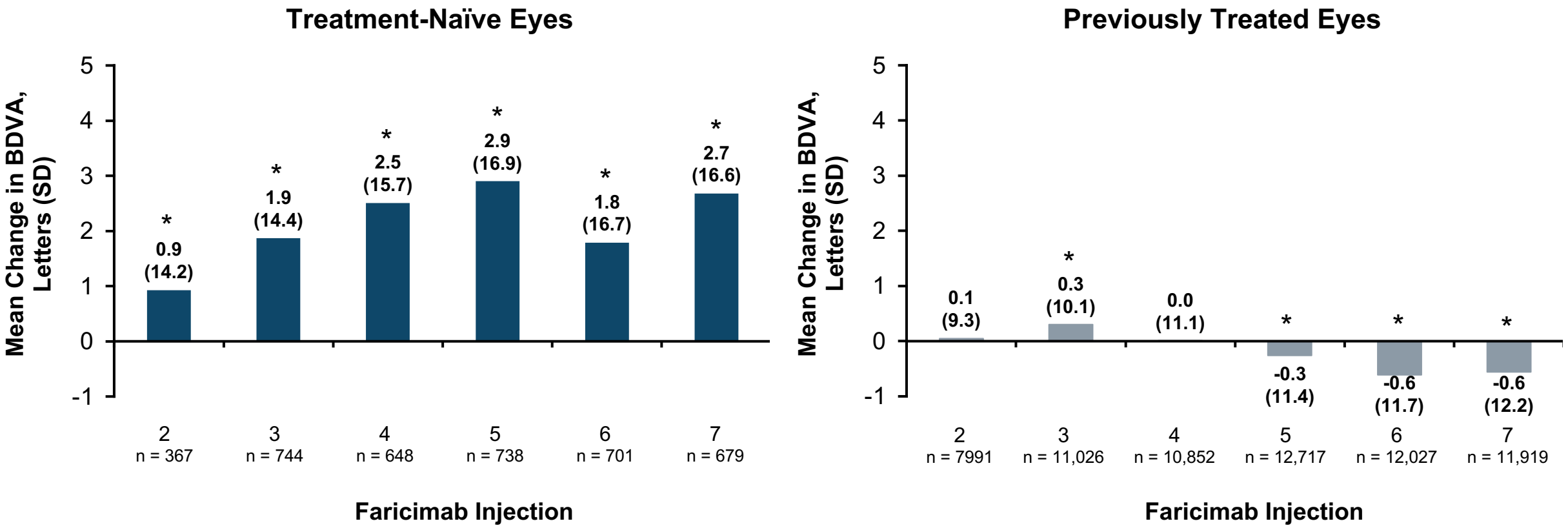
12-Month Cohort: Percentage of nAMD Previously Treated Eyes by Prior Anti-VEGF Agent



[a] Includes lookback of available medical record data ≥ 12 months before the faricimab initiation date in the IRIS® Registry. Medical data lookback includes records for anti-VEGF samples. [b] Among most recent prior 2 injections.
IRIS®, Intelligent Research In Sight; nAMD, neovascular age-related macular degeneration; SD, standard deviation; VEGF, vascular endothelial growth factor.

Vision Improved by Approximately 3 Letters After 5 Injections in Treatment-Naïve Eyes and Was Stable in Previously Treated Eyes

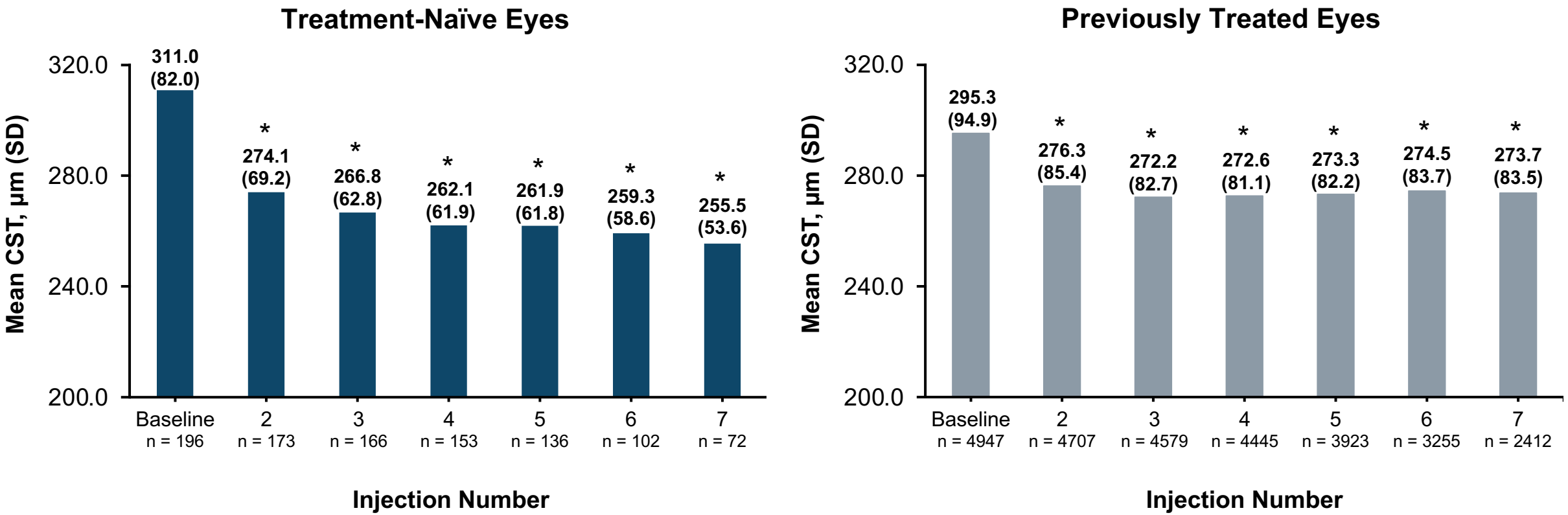
12-Month Cohort: Change in Visual Acuity From Baseline by Faricimab Injection[a]



[a] Among eyes with a baseline VA. Assessments were captured within the –6 to +7-day window around each injection visit. * Nominal *P* value < 0.05 vs baseline. *P* values are nominal and not adjusted for multiplicity; no formal statistical conclusion should be made based on the *P* values.
BDVA, best-documented visual acuity; SD, standard deviation; VA, visual acuity.

Mean CST Improved by -37 µm in Treatment-Naïve Eyes and -19 µm in Previously Treated Eyes After 2 Injections of Faricimab

Mean CST by Faricimab Injection (Among Patients With CST Available, n = 5143 eyes)[a]



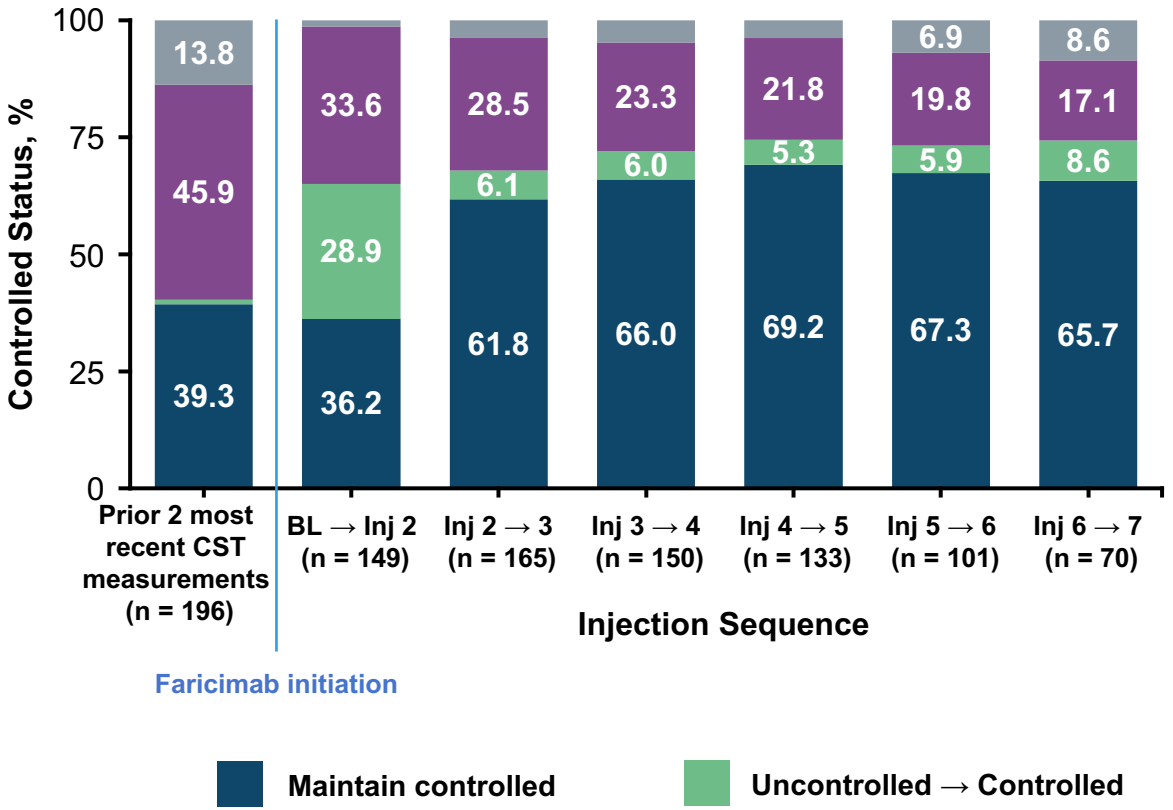
[a] Among eyes with a baseline CST measurement (0–30 days before index) between February 7, 2022 and June 30, 2023, and 2+ CST measures in ≤ 180 days before index and 2+ CST in 180 days post index, excluding CST measurements ≤ 14 days after an injection. Statistical test for change in CST from baseline. * Nominal P value < 0.01 vs baseline. P values are nominal and not adjusted for multiplicity; no formal statistical conclusion should be made based on the P values. Approximately 16% of faricimab patient-eyes had CST measurements available in the IRIS® Registry, including 51.1% of eyes with 12 months of follow-up in FARETINA-AMD at data extraction in September 2023.

CST, central subfield thickness; IRIS®, Intelligent Research In Sight; nAMD, neovascular age-related macular degeneration; SD, standard deviation.

Eyes With Disease Control (CST ≤ 280 µm) Increased to ~60% After 2 Faricimab Injections in Patients with nAMD

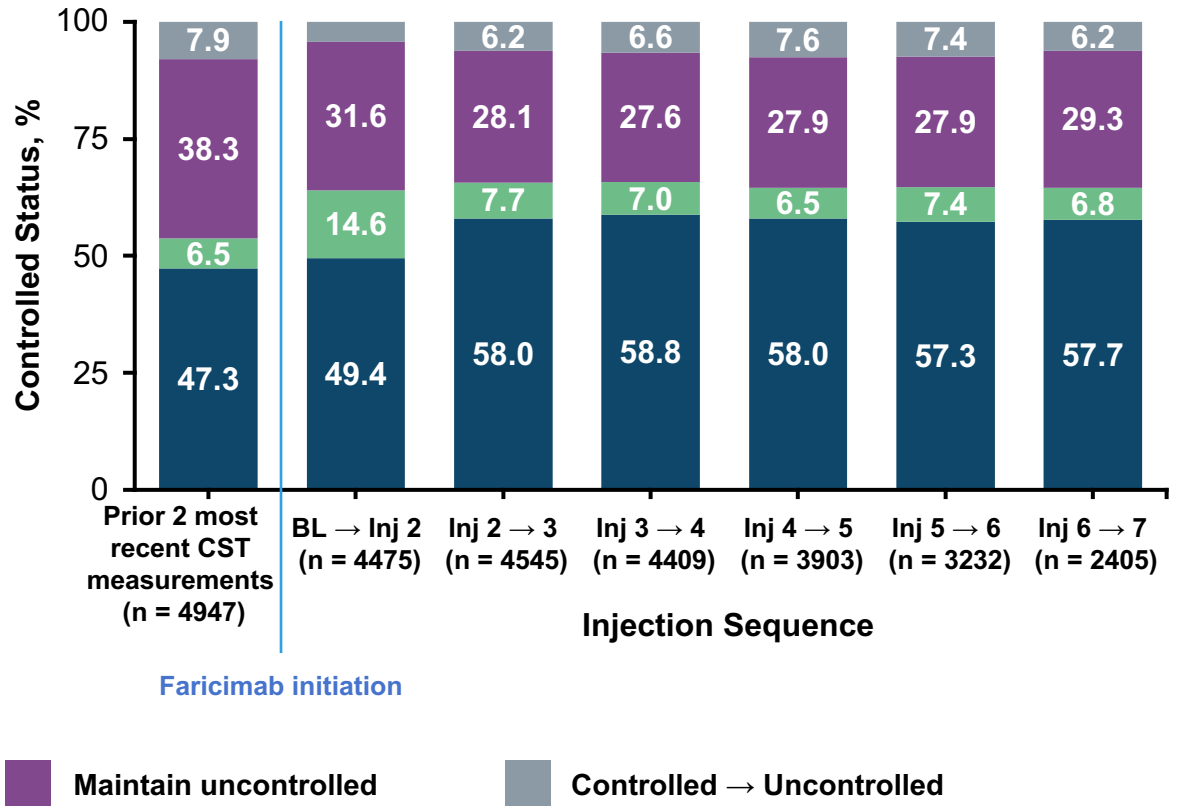
Treatment-Naïve Eyes

Controlled Status (CST ≤ 280 µm) Pre- and Post-Faricimab Initiation[a]



Previously Treated Eyes

Controlled Status (CST ≤ 280 µm) Pre- and Post-Faricimab Initiation[a]

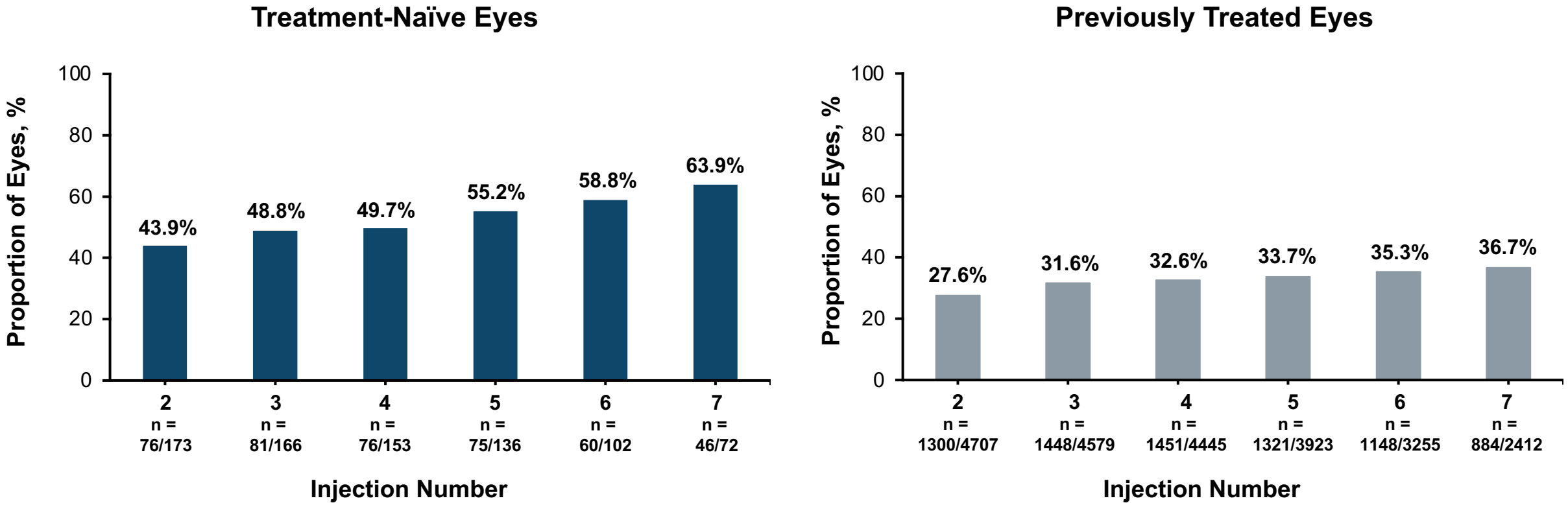


Maintain controlled | Uncontrolled → Controlled | Maintain uncontrolled | Controlled → Uncontrolled

For clarity, only percentages of 5% or higher are displayed. [a] Among eyes with a baseline CST measurement (0–30 days before index) between February 7, 2022 and June 30, 2023, and 2+ CST measures in ≤ 180 days before index and 2+ CST in 180 days post index, excluding CST measurements ≤ 14 days after an injection. Approximately 16% of faricimab patient-eyes had CST measurements available in the IRIS® Registry.
BL, baseline; CST, central subfield thickness; Inj, injection; IRIS®, Intelligent Research In Sight; nAMD, neovascular age-related macular degeneration.

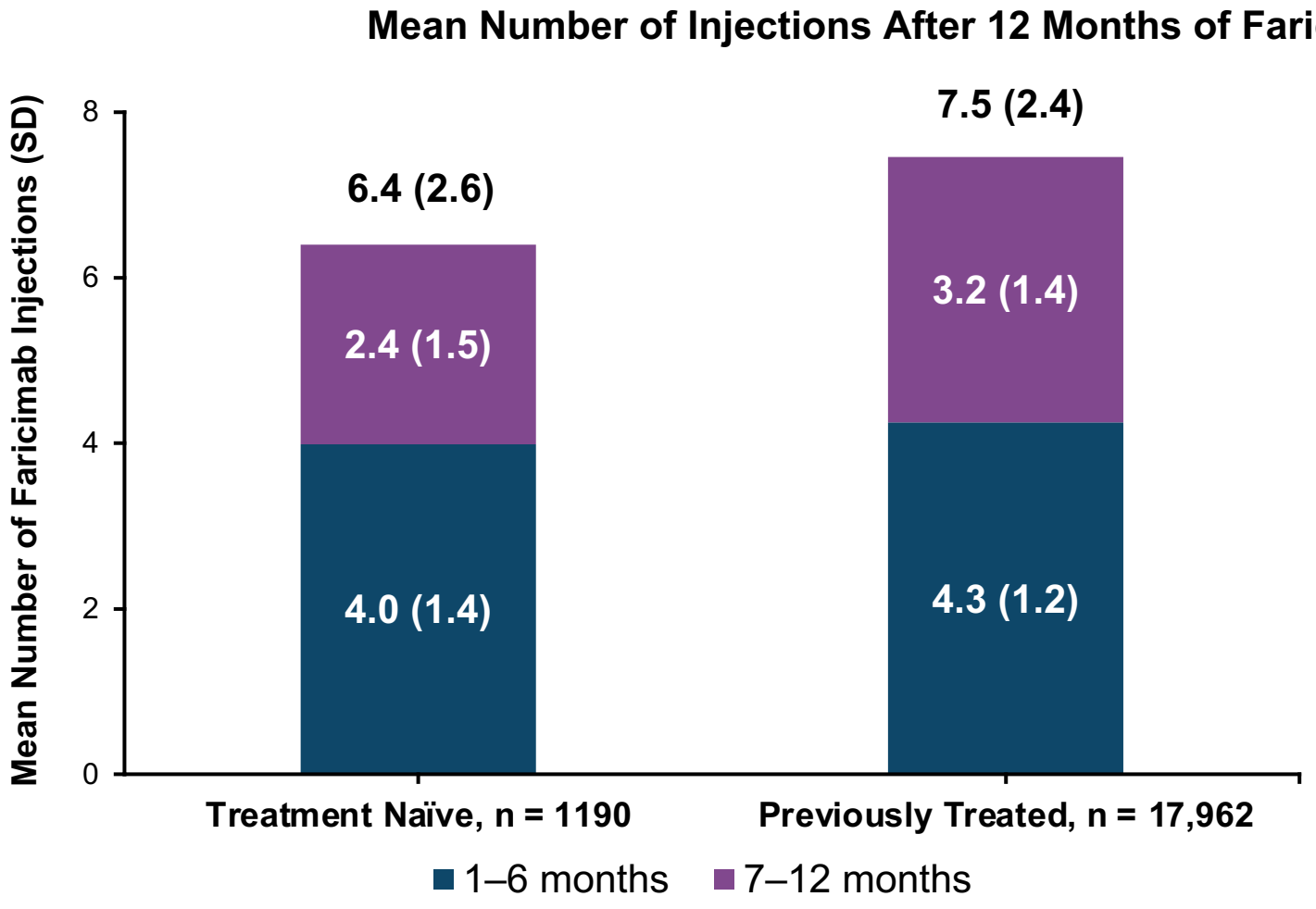
~64% of Treatment-Naïve Eyes That Received 7 Injections Achieved at Least 10% CST Reduction vs Baseline

Proportion of Patients With ≥ 10% Reduction in CST by Faricimab Injection[a]



[a] Among patients with CST available (n = 5143 eyes) with a baseline CST measurement (0–30 days before index) between February 7, 2022 and June 30, 2023, and 2+ CST measures in ≤ 180 days before index and 2+ CST in 180 days post index, excluding CST measurements ≤ 14 days after an injection. Approximately 16% of faricimab patient-eyes had CST measurements available in the IRIS® Registry. CST, central subfield thickness; IRIS®, Intelligent Research in Sight.

Faricimab Treatment Interval Extension Evident in Latter 6 Months of Year 1 in nAMD



TENAYA/LUCERNE
Faricimab T&E[a]

2.1 (0.5)

Week 28–48
(n = 634)

4.4 (0.6)

Through week 24
(n = 664)

[a] Safety-Evaluable Population. nAMD, neovascular age-related macular degeneration; SD, standard deviation; T&E, treat and extend.

Real-World Use of Faricimab and Observed Rates of IOI and Endophthalmitis

Number of Injections Across FARETINA-AMD/DME Cohorts	Treatment-Naïve Injections (n = 19,578)	Previously Treated injections (n = 256,668)
Endophthalmitis, n (%)[a,b]	11 (0.06%)	138 (0.05%)
Intraocular Inflammation (IOIs), n (%)[a,b]	23 (0.12%)	249 (0.1%)

149 endophthalmitis and 272 IOI events were recorded in the study period

Recorded endophthalmitis rate per injection was approximately 0.05% and 0.1% across FARETINA AMD and DME subgroups, respectively

[a] Among 26,278 nAMD and 6343 DME patients and approximately 276,246 injections meeting the inclusion/exclusion criteria of the FARETINA-AMD/DME studies. First diagnosis (identified by ICD-10 diagnosis codes of endophthalmitis [H44.0, H44.19, and H20.05], iridocyclitis and iritis [H20.00, H20.01, H20.02, H20.1, H20.9], uveitis [H30.0, H30.1, H30.2, H30.8, H30.9, H44.1], and vitritis [H43.89]) in the IRIS® Registry EHR following faricimab initiation with no diagnoses at least 12 months prior among patient eyes with the following criteria:

1) Diagnosis of nAMD or DME, initiating faricimab February 7, 2022 through June 30, 2023 in the IRIS® Registry, and known laterality
2) ≥ 12 months of medical data before initiating faricimab in the IRIS® Registry
3) ≥ 6 months of data available after faricimab initiation
4) ≥ 2 BDVA measures on or after faricimab initiation

[b] FARETINA-AMD/DME is a noninterventional, retrospective, observational study of real-world treatment patterns and outcomes of patients in the United States. The study leverages the IRIS® Registry. All patients in the IRIS® Registry are de-identified and are unable to be traced. AEs derived from ICD-10 diagnosis codes may not accurately reflect incidence or prevalence of real-world AEs

AE, adverse event; AMD, age-related macular degeneration; BDVA, best-documented visual acuity; DME, diabetic macular edema; EHR, electronic health record; ICD-10, International Classification of Diseases, Tenth Revision; IOI, intraocular inflammation; IRIS®, Intelligent Research In Sight; nAMD, neovascular age-related macular degeneration.

Limitations

Limited to EHR data captured in routine practice

No standardized measurements of visual acuity

Anatomic outcomes only available for a subset of patients; CST results not normalized

No physician dosing frequency rationale

Current data do not necessarily reflect future treatment patterns

CST, central subfield thickness; EHR, electronic health records.

Take-Home Points

FARETINA-AMD Uses RWD From the IRIS® Registry for Large Sample, Generalizable Results

> 130,000 eyes treated | **> 90,000 eyes with AMD** | **40,605 in FARETINA-AMD**

At Faricimab Initiation

- Approximately half of patient-eyes had 20/40 or better vision
- Previously treated eyes[a]:
  - Most (67%) switched from aflibercept
  - Prior treatment intervals ~6 weeks apart

Real-World Effectiveness Outcomes

- Vision and anatomic improvements in treatment-naïve eyes
- Stable vision and anatomic improvements in previously treated eyes
- Fewer injections were observed from 6 months onwards on faricimab, indicating treatment interval extension

Safety Outcomes

- Overall incidence of IOI and endophthalmitis are lower than previously reported in faricimab phase 3 clinical trials[1]

These findings support the real-world effectiveness and durability of faricimab for treatment of nAMD

[a] Previously treated with anti-VEGF therapy before faricimab initiation.
AMD, age-related macular degeneration; IOI, intraocular inflammation; IRIS®, Intelligent Research In Sight; RWD, real-world data; VEGF, vascular endothelial growth factor.
1. Wykoff CC et al. *Lancet.* 2022;399(10326):741-755.

Implications of Real-World Data Findings for Faricimab: Patients, Caregivers, and Health Care systems

Fluid control is considered important for maintenance of long-term outcomes[1,2]

- Rapid, sustained fluid reduction by faricimab can support longer-term outcomes for patients with nAMD and DME

Results after one year of treatment indicate the real-world durability of faricimab

- More durable treatments in the real-world are needed to help lessen the overall treatment burden for patients with nAMD and DME, which may lead to better long-term outcomes[3-6]

Faricimab has the potential to reduce the number of appointments and missed work time for patients and caregivers, reducing the overall burden of intravitreal treatment[7,8]

- Faricimab durability may also improve clinic capacity to treat new referrals[8]

Developing real-world data are highlighting both the clinical benefits and potential for reduced treatment burden of faricimab compared with anti-VEGF monotherapy

DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration. 1. Jhaveri C et al. *Am J Ophthalmol*. 2022;236:12-19. 2. Khoramnia R et al. *Eye (Lond)*. 2024; 38:54-60. 3. Sivaprasad S and Oyetunde S. *Clin Ophthalmol*. 2016:10 939-946. 4. Mehta H et al. *Clin Ophthalmol*. 2020;14:3331-3342. 5. Ohara H et al. *Medicina (Kaunas)*. 2023;59(6):1125. 6. Meunier A et al. *Eye (Lond)*. 2024. doi: 10.1038/s41433-024-03043-y. 7. Ohara H et al. *Medicina (Kaunas)*. 2023;59(6):1125. 8. Meunier A et al. *Eye (Lond)*. 2024. doi: 10.1038/s41433-024-03043-y.