Clinical and Economic Impact of Faricimab-Treated Diabetic Macular Edema: A Linked Analysis of Administrative Claims and IRIS Registry Data

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Introduction

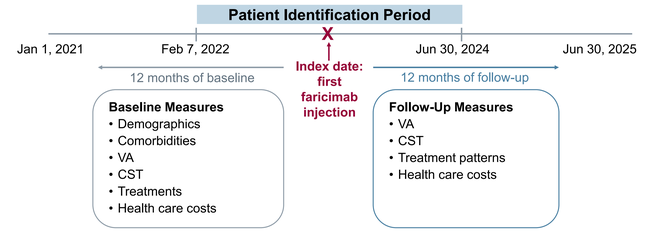
- Faricimab is a bispecific antibody targeting both angiopoietin-2 and vascular endothelial growth factor (VEGF)-A, offering a novel intraocular treatment for diabetic macular edema (DME)[1,2]
- However, real-world data on the long-term clinical and economic impacts of faricimab treatment for DME are limited

Objective

- This study assessed the real-world treatment patterns, clinical outcomes, and health care costs incurred by patients with DME who initiated faricimab therapy

Methods

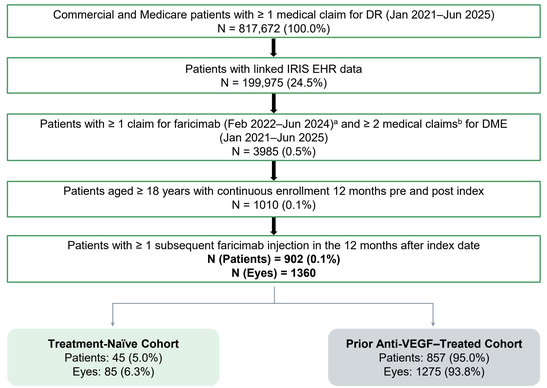
- This retrospective study linked US administrative claims data for a DME cohort with EHR data from the American Academy of Ophthalmology IRIS® Registry
- Patient eligibility included:
  - Adults from a large national payor with commercial and Medicare coverage and linked EHR data and ≥ 2 medical claims for DME (Jan 2021–Jun 2025)
  - ≥ 1 Faricimab injection between Feb 2022 and Jun 2024 (index date: first faricimab injection during this period) with specified laterality and ≥ 1 faricimab injection in the subsequent 12 months
  - Continuous medical/pharmacy health insurance coverage ≥ 12 months pre and post index
- Patients were stratified by history of anti-VEGF treatment during the 12-month preindex period (“treatment naïve” or “prior anti-VEGF treated”)



Results

1. (A) Cohort Attrition and (B) Baseline Characteristics

A

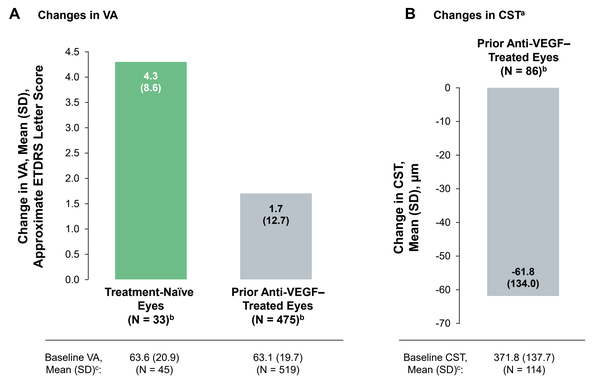


B

Characteristic	Treatment-Naïve Patients N = 45	Prior Anti-VEGF–Treated Patients N = 857
Age, mean (SD), years	69.3 (7.9)	70.8 (8.9)
Male, n (%)	22 (48.9)	438 (51.1)
Race, n (%)		
White	24 (53.3)	532 (62.1)
Black	5 (11.1)	100 (11.7)
Asian	0 (0)	25 (2.9)
Other	9 (20.0)	100 (11.7)
Unknown	7 (15.6)	100 (11.7)
Region, n (%)		
Northeast	14 (31.1)	307 (35.8)
South	17 (37.8)	290 (33.8)
Midwest	9 (20.0)	177 (20.7)
West	3 (6.7)	80 (9.3)
Insurance, n (%)		
Commercial	11 (24.4)	87 (10.2)
Medicare Advantage	34 (75.6)	770 (89.8)
SVI, mean (SD)	0.7 (0.2)	0.7 (0.2)
CCI, mean (SD)	4.4 (2.6)	4.5 (2.4)

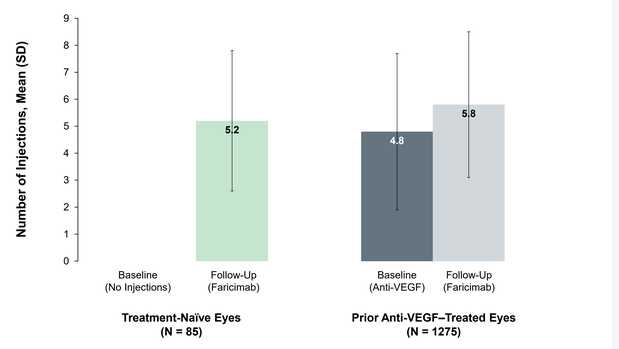
[a] Index date was the date of first faricimab injection during this period; only patients with specified laterality were included.
[b] ≥ 28 days apart.

2. Changes in VA and CST During the 12 Months Following Faricimab Initiation



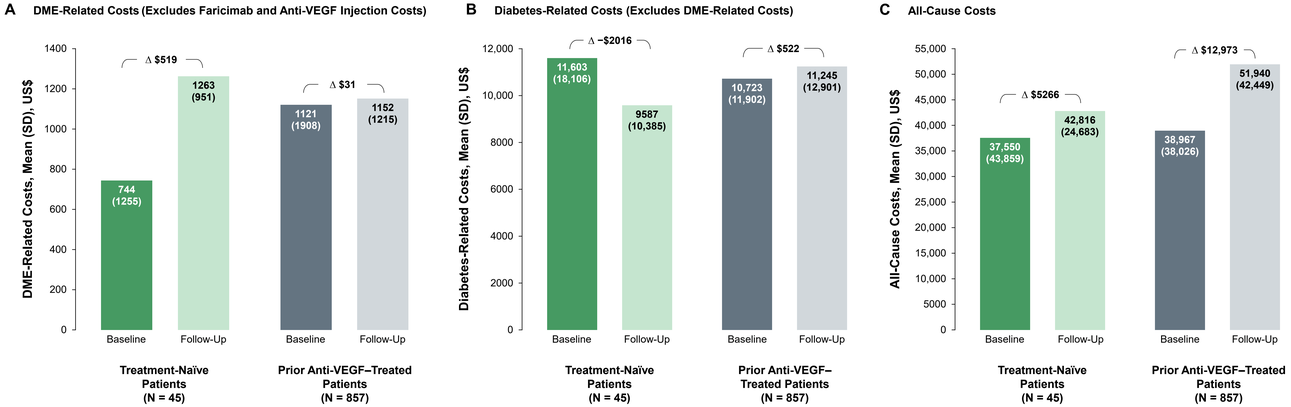
[a] CST results for treatment-naïve eyes were not reported due to small sample size. [b] Among patients with available data at baseline and at follow-up. [c] Among patients with available data at baseline.

3. Intravitreal Injections Received During the 12 Months Before and After Faricimab Initiation



Baseline and follow-up represent the 12 months before and after faricimab initiation, respectively.

4. Health Care Costs During the 12 Months Before and After Faricimab Initiation



Baseline values reflect health care costs during the 12 months before faricimab initiation.

Conclusions

Among the 902 patients who initiated faricimab treatment for DME, 95% had received an anti-VEGF therapy in the previous 12 months

Treatment-naïve eyes had numerically greater improvements in VA and received fewer faricimab injections during the 12 months after faricimab initiation than prior anti-VEGF–treated eyes; improvements in CST were also observed in prior anti-VEGF–treated eyes

During the 12 months following faricimab initiation, treatment-naïve patients incurred lower diabetes-related and all-cause costs compared with prior anti-VEGF–treated patients; factors including time from DME diagnosis and DME/diabetes severity may account for these differences

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References
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2. Wong TY et al. *Ophthalmology*. 2024;131(6):708-723.

Financial Disclosures
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- XS, LL, DD, YL, YW: Employee: CVS Health Corporation
- BAC: Consultant: American Diabetes Association, EyePoint, Genentech, Inc., Optomed; Speaker: Optomed

Study and Product Disclosures
- Faricimab is approved for the treatment of neovascular age-related macular degeneration, diabetic macular edema, and retinal vein occlusion in multiple countries worldwide
- This was a retrospective observational study using claims data from CVS Health and EHR data from the American Academy of Ophthalmology IRIS® Registry. The study was considered exempt from IRB review, as the research involved the collection of only existing data, which had been deidentified and are unable to be traced
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Abbreviations
CCI, Charlson Comorbidity Index; CST, central subfield thickness; DME, diabetic macular edema; DR, diabetic retinopathy; EHR, electronic health record; ETDRS, Early Treatment Diabetic Retinopathy Study; IRIS, Intelligent Research in Sight; SD, standard deviation; SVI, Social Vulnerability Index; VA, visual acuity; VEGF, vascular endothelial growth factor.