Outcomes of Patients With DME and Baseline BCVA 20/50 or Worse, and 20/40 or Better Who Were Treated with Aflibercept 8 mg and 2 mg: A Post-hoc Analysis of the Phase 2/3 PHOTON Trial

Justus G. Garweg,[1] Priya S. Vakharia,[2] Sean Adrean,[3]
on behalf of the PHOTON study investigators

[1]Swiss Eye Institute and Clinic for Vitreoretinal Diseases, Berner Augenklinik, Bern, Switzerland;
[2]Retina Vitreous Associates of Florida, Palm Harbor, FL, USA;
[3]Retina Consultants of Orange County, Fullerton, CA, USA

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Disclosures

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DME

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PHOTON: Multi-center, Randomized, Double-masked Study[1]

DME

Patients with DME[a,b]: Randomized 1 (2q8) : 2 (8q12) : 1 (8q16)

2q8
Aflibercept 2q8
after 5 initial monthly injections
n=167

8q12
Aflibercept 8q12
after 3 initial monthly injections
n=328

8q16
Aflibercept 8q16
after 3 initial monthly injections
n=163

	Day 1	Week 4	Week 8	Week 12	Week 16	Week 20	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48
2q8	X	X	X	X	X	o	X	o	X	o	X	o	X
8q12	X	X	X	o	o	X	o	o	X	o	o	X	o
8q16	X	X	X	o	o	o	X	o	o	o	X	o	o

Primary endpoint at W48: Mean change in BCVA (non-inferiority)
Key secondary endpoint at W48: Proportion of patients with ≥2-step improvement in DRSS

DRM Criteria for Shortening Dosing Interval[c]

- >10-letter loss in BCVA due to persistent or worsening DME

AND

- >50-micron increase in CRT

DRM in Year 1

- Intervals can only be **shortened**
- **Multiple opportunities** to shorten interval
- Minimum interval for all patients was **Q8**

Week 16 and 20: Patients on 8q12 and 8q16 meeting DRM criteria shortened to Q8

Week 24: Patients on 8q16 meeting DRM criteria shortened to Q12

Week 32 and 44 for 8q12 and Week 40 for 8q16: Treatment interval shortened by 4 weeks for patients meeting DRM criteria

Note: Figure does not reflect all dosing options once a patient's dosing interval is shortened. Stippled boxes = initial treatment phase; X = active injection; o = sham injections.
[a]Treatment naïve and previously treated. [b]End of study time point for PHOTON is Week 96, with optional 1-year extension period. [c]All assessments compared to Week 12.
BCVA, best-corrected visual acuity; **CRT**, central subfield retinal thickness; **DME**, diabetic macular edema; **DRM**, dose regimen modification; **DRSS**, Diabetic Retinopathy Severity Scale; **Q8**, every 8 weeks; **Q12**, every 12 weeks. 1. Brown DM. *Lancet*. 2024:S0140–6736(23)02577–1. Online ahead of print.

Methods: Post-hoc analysis of PHOTON based on BCVA

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DME

- The impact of baseline BCVA on clinical outcomes following treatment with aflibercept 8 mg is not well characterized
  - This post hoc analysis evaluated visual and anatomic outcomes in patients with DME stratified by baseline BCVA
- Patients were grouped as follows:

Baseline BCVA 20/50 or worse:	<69 ETDRS letters
Baseline BCVA 20/40 or better:	≥69 ETDRS letters

- Key outcomes assessed in the FAS[a] include:
  - Mean change in BCVA through Week 48
  - Mean change in CRT through Week 48
  - Proportion of patients who maintained their original randomized dosing intervals through Week 48
- All analyses were descriptive

[a]Patients who were randomized and treated with aflibercept 8 mg or 2 mg.
FAS, full analysis set.

Baseline Characteristics by Baseline BCVA

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DME

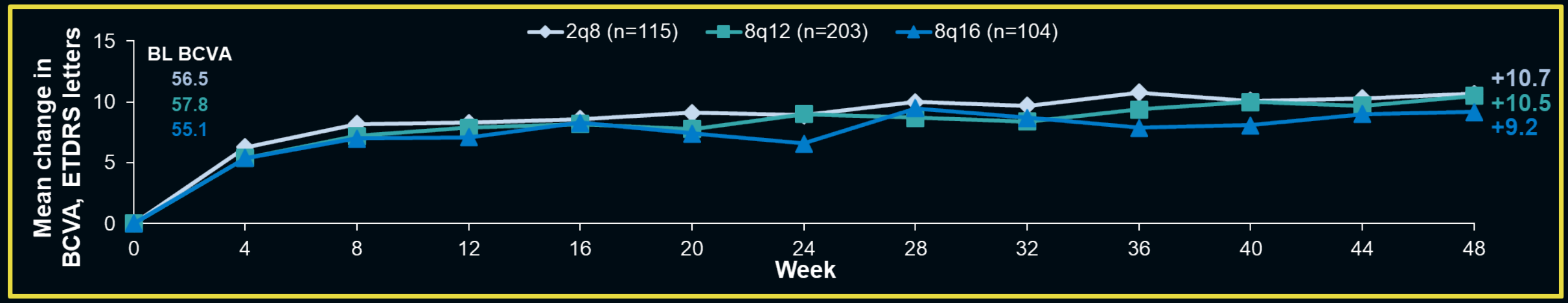
	Baseline BCVA 20/50 or Worse			Baseline BCVA 20/40 or Better		
	2q8 (n=115)	8q12 (n=203)	8q16 (n=104)	2q8 (n=52)	8q12 (n=125)	8q16 (n=59)
BCVA, ETDRS letters	56.5 (9.9)	57.8 (8.3)	55.1 (10.1)	72.6 (2.9)	73.2 (2.7)	72.6 (2.6)
CRT, µm	482.9 (154.2)	472.7 (136.4)	491.5 (120.4)	400.6 (97.8)	411.1 (100.7)	405.3 (90.8)
Prior DME treatment, n (%)	51 (44.3)	95 (46.8)	53 (51.0)	23 (44.2)	48 (38.4)	18 (30.5)
DRSS score, n (%)						
DRSS 43 or better	66 (57.4)	115 (56.7)	62 (59.6)	39 (75.0)	82 (65.6)	45 (76.3)
DRSS 47 or worse	40 (34.8)	73 (36.0)	33 (31.7)	13 (25.0)	40 (32.0)	13 (22.0)
Missing/ungradable	9 (7.8)	15 (7.4)	9 (8.7)	0	3 (2.4)	1 (1.7)

FAS. Data are mean (SD) unless otherwise indicated.
DRSS, Diabetic Retinopathy Severity Scale.

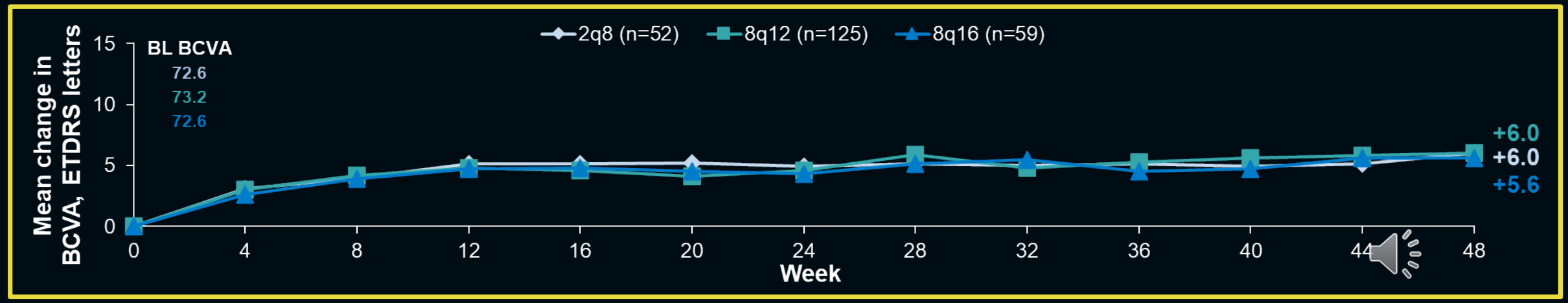
Mean Change in BCVA Through Week 48 by Baseline BCVA

DME

Baseline BCVA 20/50 or Worse



Baseline BCVA 20/40 or Better

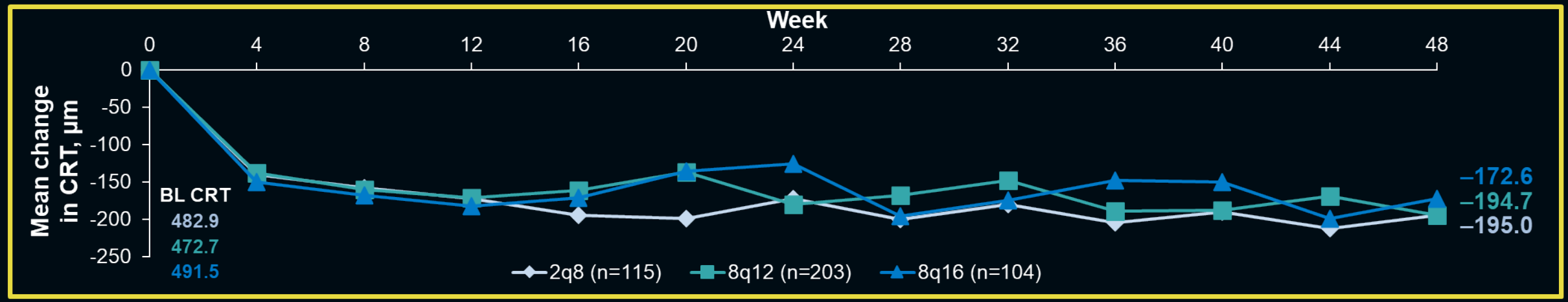


FAS, observed cases. N values represent the number of patients at baseline.

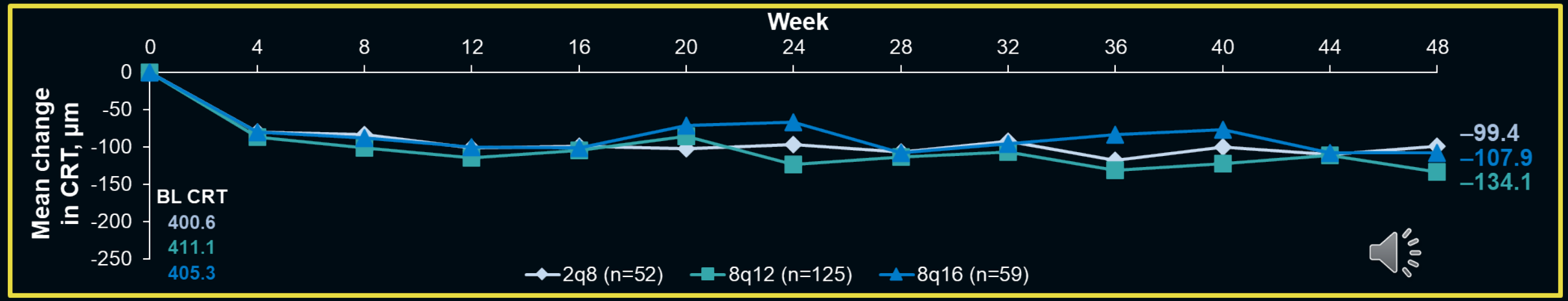
Mean Change in CRT Through Week 48 by Baseline BCVA

DME

Baseline BCVA 20/50 or Worse



Baseline BCVA 20/40 or Better

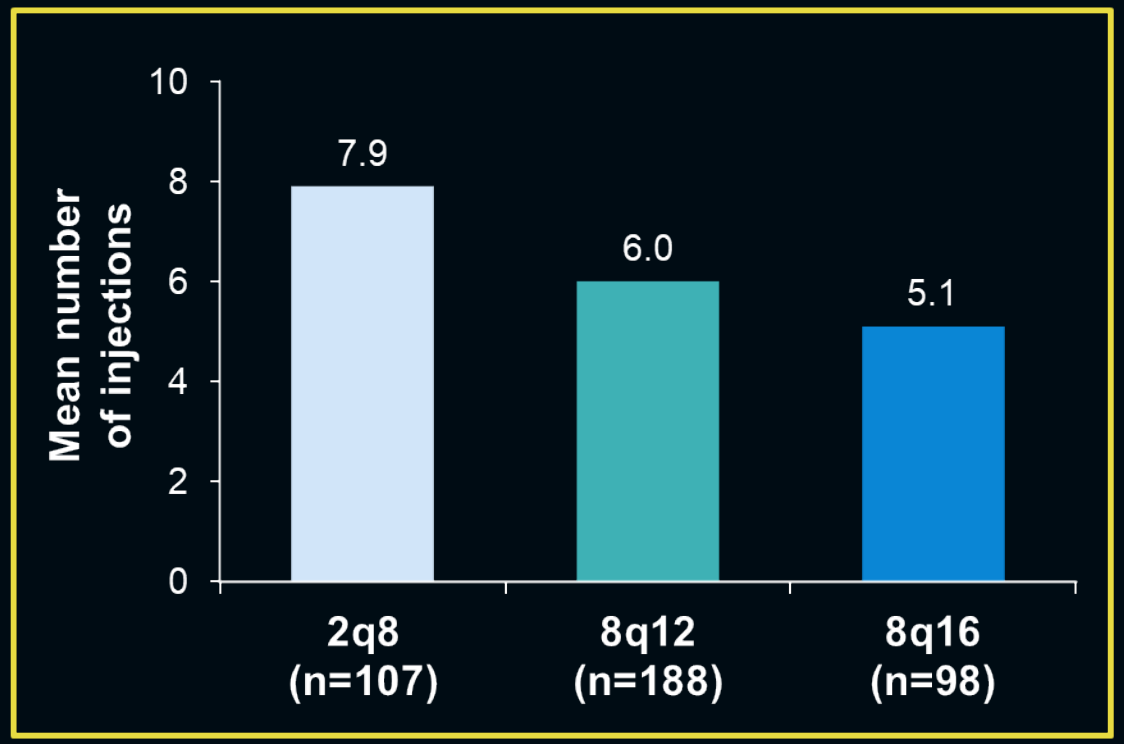


FAS, observed cases. N values represent the number of patients at baseline.

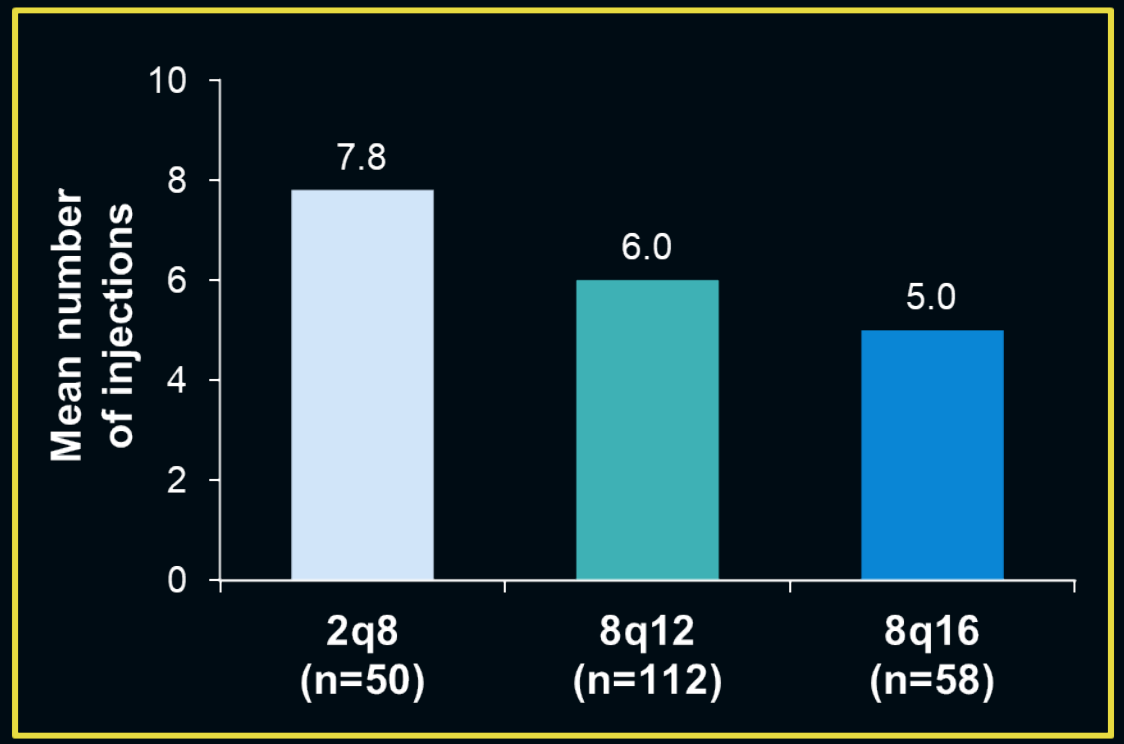
Treatment Exposure Through Week 48 by Baseline BCVA

DME

Baseline BCVA 20/50 or Worse



Baseline BCVA 20/40 or Better



FAS, patients who completed Week 48.

Proportion of Aflibercept 8 mg-treated Patients Who Maintained Their Randomized Dosing Interval by Baseline BCVA

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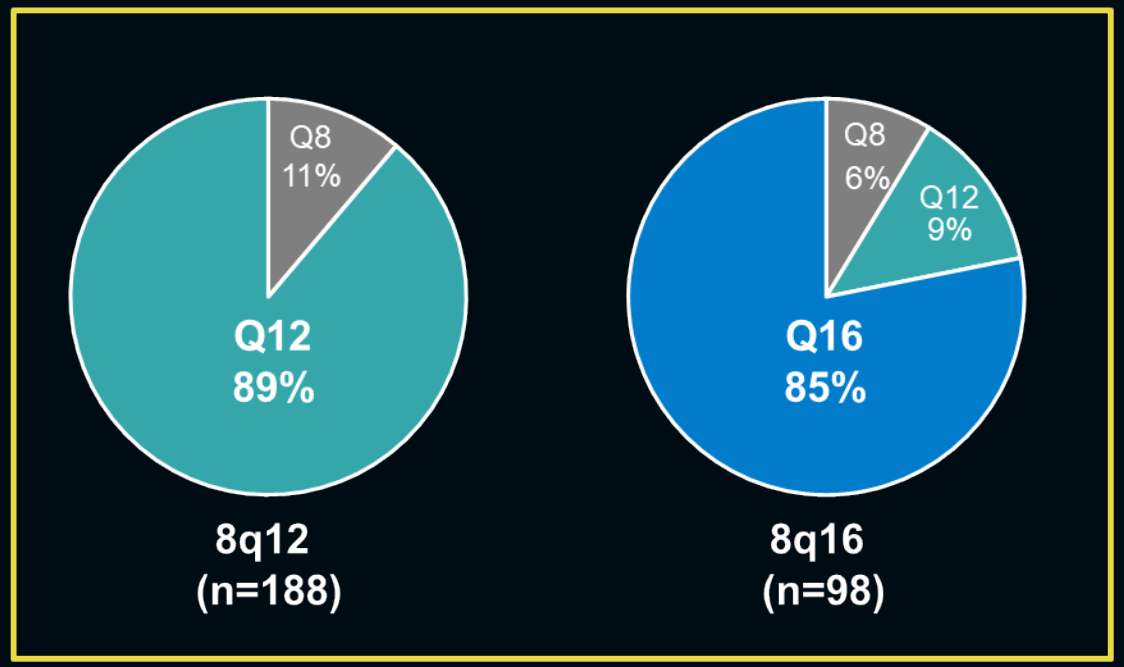
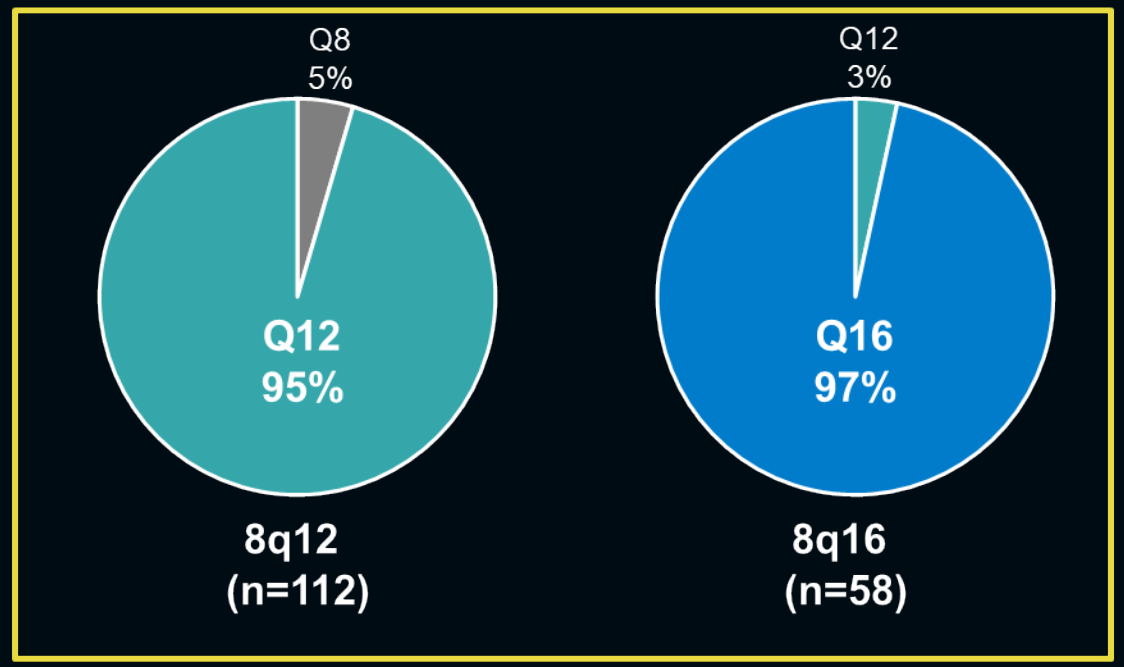
DME

Baseline BCVA 20/50 or Worse



Baseline BCVA 20/40 or Better



FAS, patients who completed Week 48.

Conclusions

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DME

- Aflibercept 8 mg demonstrated meaningful visual and anatomic improvements from baseline to Week 48 that were comparable to 2 mg in patients with DME with fewer injections, irrespective of baseline BCVA
  - As expected, patients with baseline BCVA 20/50 or worse achieved numerically greater visual gains and improvements in CRT than those with baseline BCVA 20/40 or better with both aflibercept 8 mg and 2 mg
- Greater proportions of aflibercept 8 mg-treated patients with baseline BCVA 20/40 or better versus 20/50 or worse maintained their randomized dosing intervals through Week 48