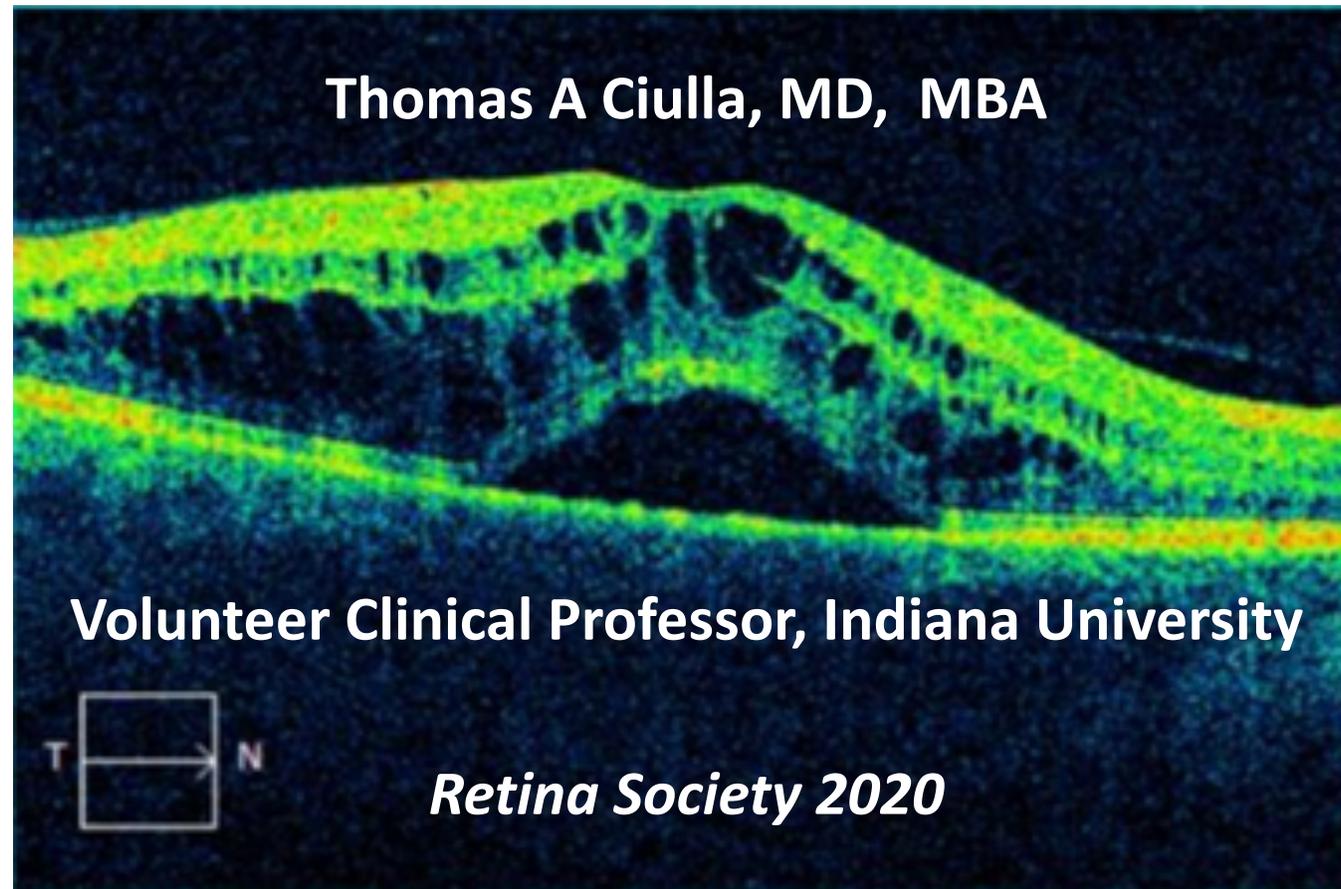
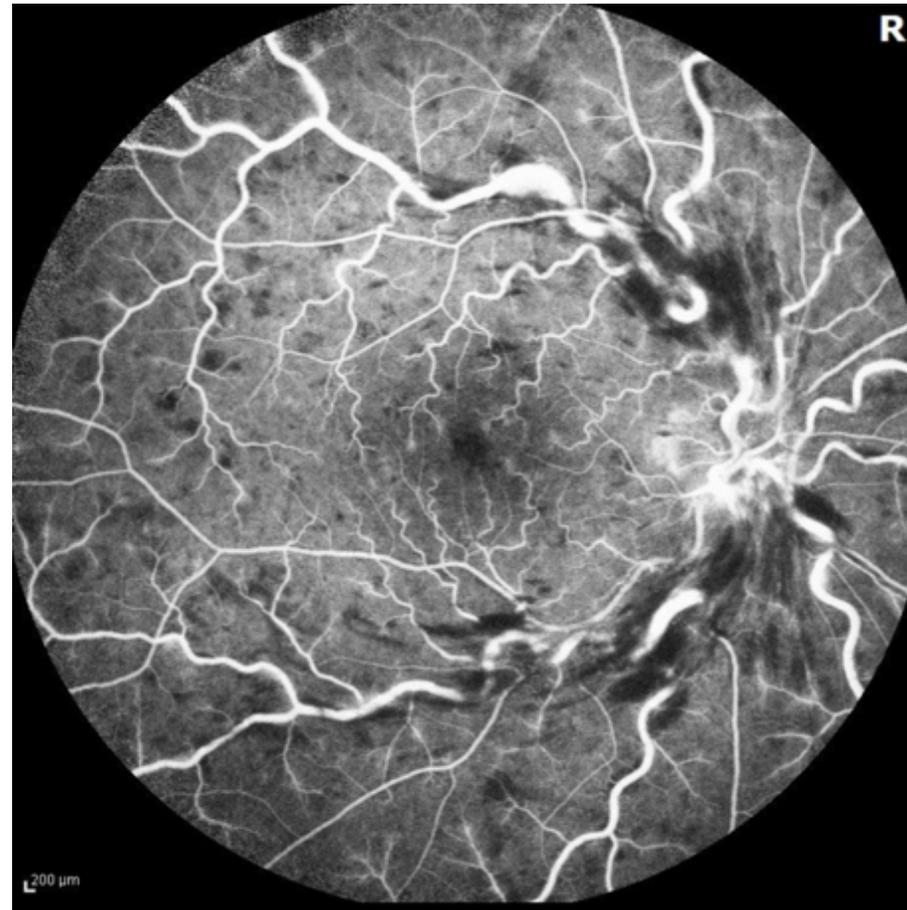


# Visual Acuity Outcomes and Anti-VEGF Intensity in Macular Edema due to RVO: A “Real World” Analysis in 12,214 Eyes



# Financial Disclosure

- Clearside Bio: Employment, Equity
- This project was unsponsored/unfunded, and conducted in my role as Volunteer Clinical Professor at Indiana University.



# Summary

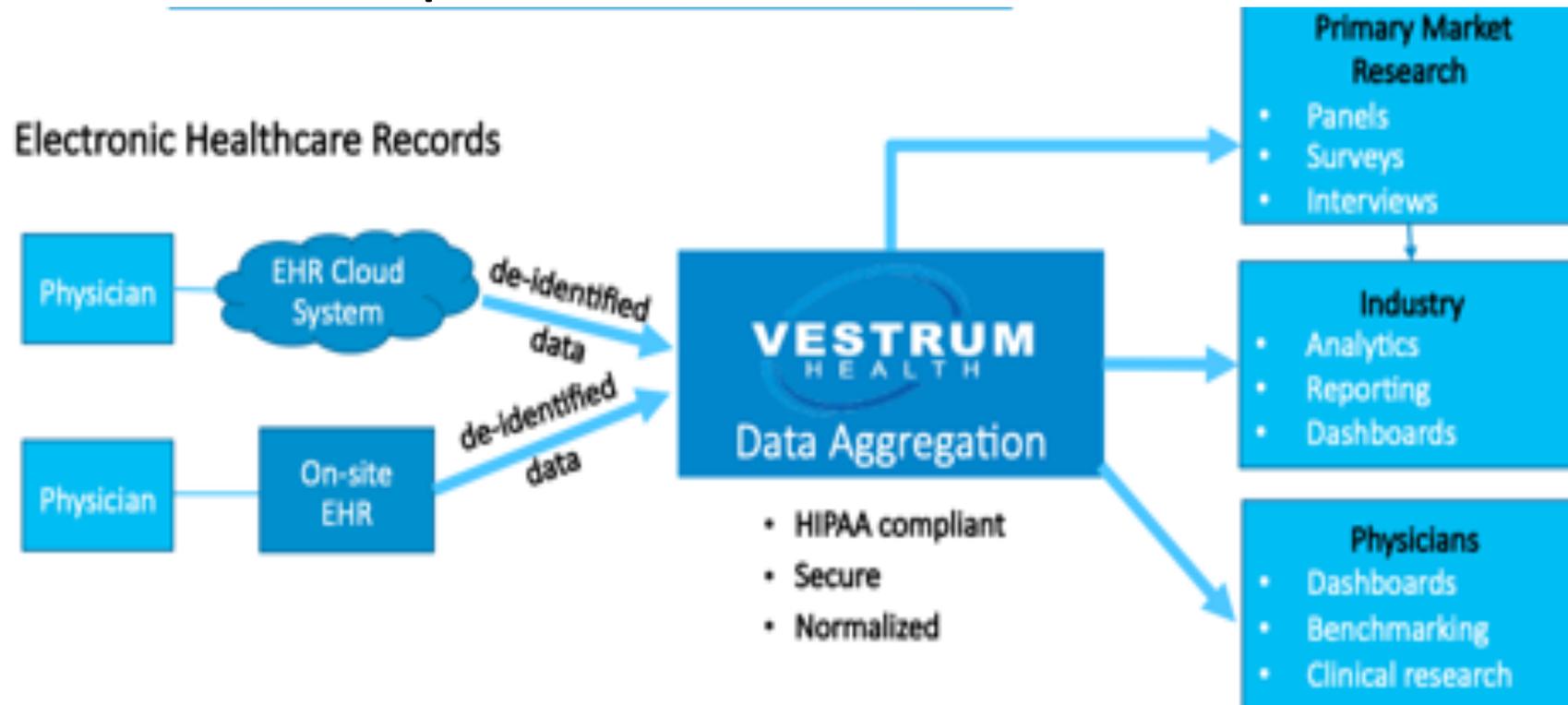
## US Real World RVO Outcomes

- 1. "Real world" RVO patients experience a modest gain in VA**
- 2. Injection frequency plays a large role in VA outcomes.**
- 3. Better baseline VA increases risk of VA loss**
  - Inverse relationship between outcomes and baseline VA
  - Reflects a ceiling effect
- 4. VA gain at 1 year worse than RCTs**
  - For BRVO, ~8 vs ~18 letters in ranibizumab and aflibercept registration trials
  - For CRVO, ~7 vs ~16 letters in ranibizumab and aflibercept registration trials
- 5. "Real world" RVO patients experience greater 1-year gain than "real world" AMD and DME patients**
  - However, there is a larger gap in visual gain when compared to respective RCTs

# "Real World" Experience with Anti-VEGF for RVO-ME in the US

## Vestrum Health Retina Database

- EMR from 100s of US retina MDs
- Demographically & geographically diverse
- >800,000 patients, >4.5M encounters



# How Does Treatment intensity affect outcomes?

## Eligibility Criteria

**Treatment naïve RVO-related macular edema**

**2013 to 2019**

**Must have received at least 1 injection**

**Follow up data through 1 year**

**Other retinal diagnoses excluded**

# Baseline Features BRVO and CRVO

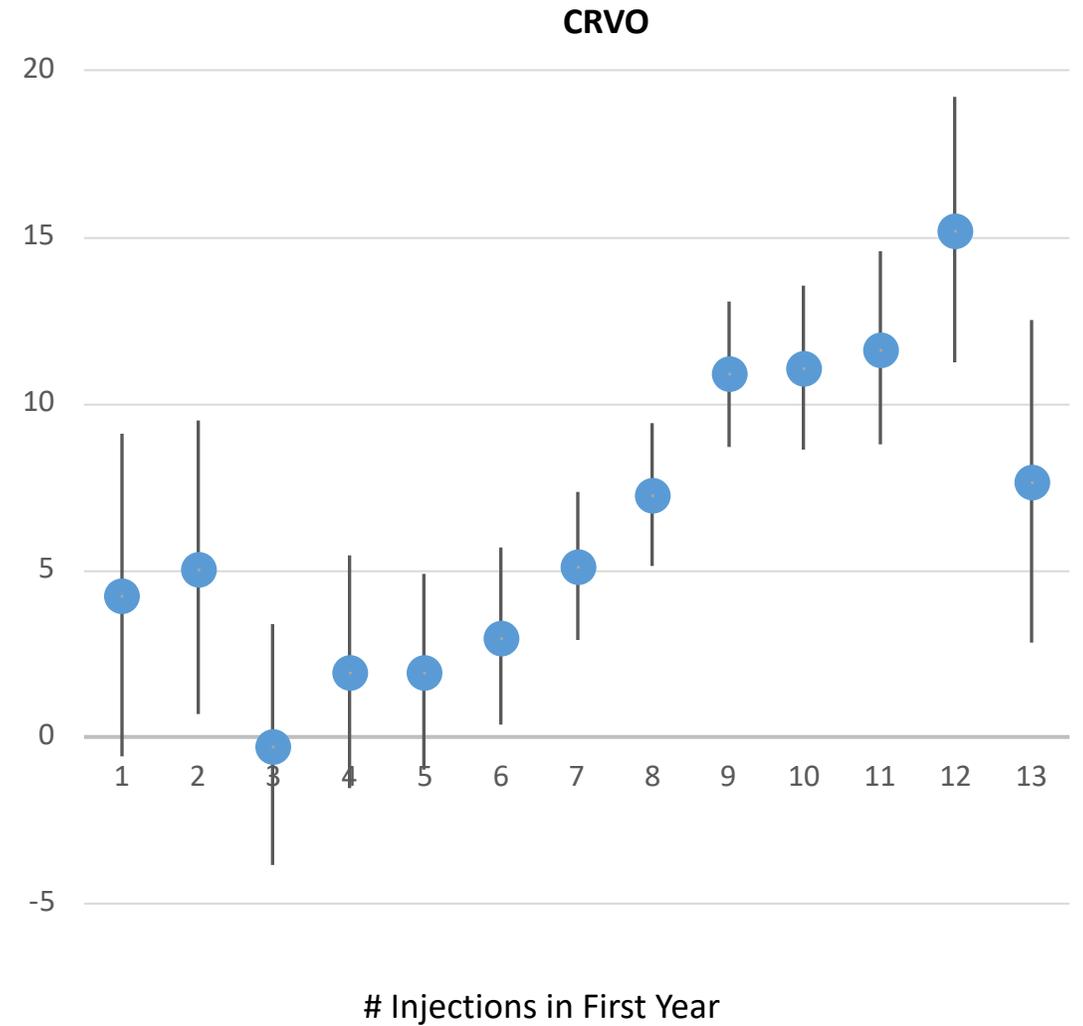
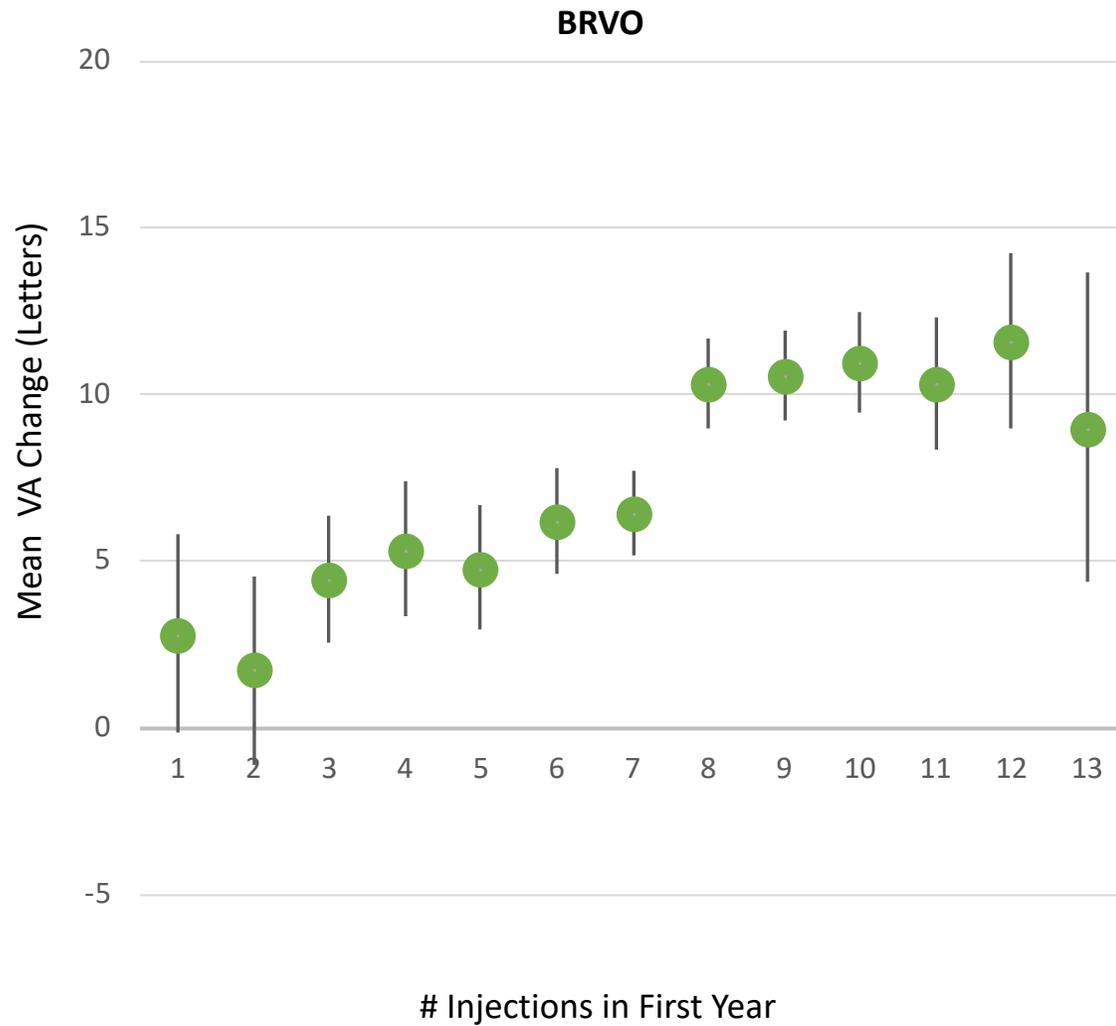
	BRVO	CRVO
<b># of Patient Eyes</b>	<b>6,914</b>	<b>5,300</b>
<b>Female</b>	<b>56%</b>	<b>51%</b>
<b>Mean Age (years)</b>	<b>72.3</b>	<b>72.9</b>
<b>Mean Baseline VA (letters, Snellen equiv)</b>	<b>56.6, 20/80</b>	<b>39.5, 20/160</b>

# Top line results – 1 year BRVO and CRVO

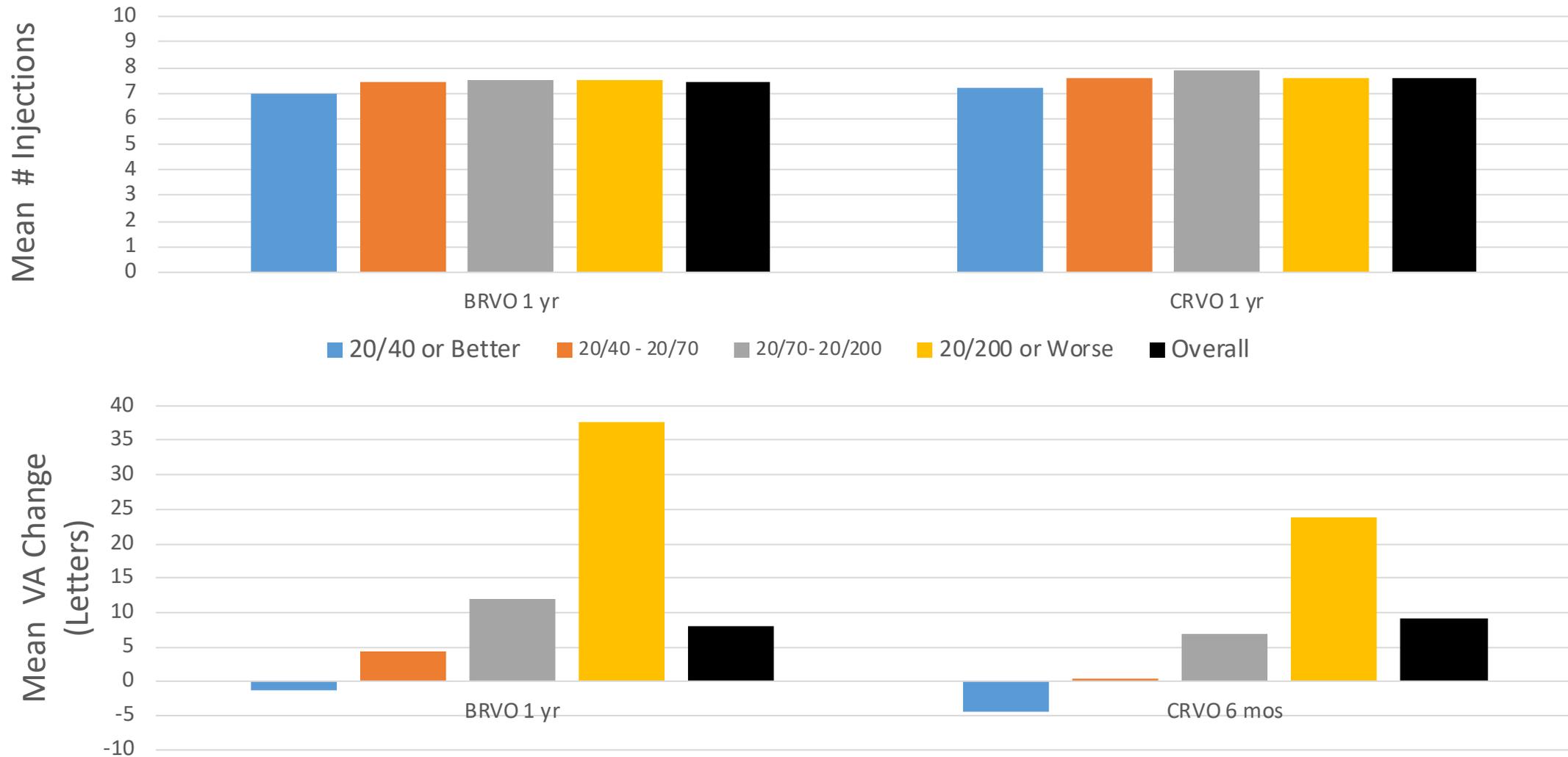
	BRVO	CRVO
<b>Mean # Anti-VEGF Injections</b>	<b>7.4</b>	<b>7.6</b>
<b>Additional therapies, %</b>		
IVT corticosteroids	9%	9%
Focal laser	12%	2%
Panretinal laser	3%	6%
<b>Mean Change VA (letters)</b>	<b>+8.1</b>	<b>+7.1</b>
P-Value	< 0.001	< 0.001
95% Confidence Interval	+7.6 to +8.6	+6.3 to +8.0

# Change in VA (letters) vs Injections Over 1 Year BRVO and CRVO

Mean gain at 1 year with 95% confidence interval

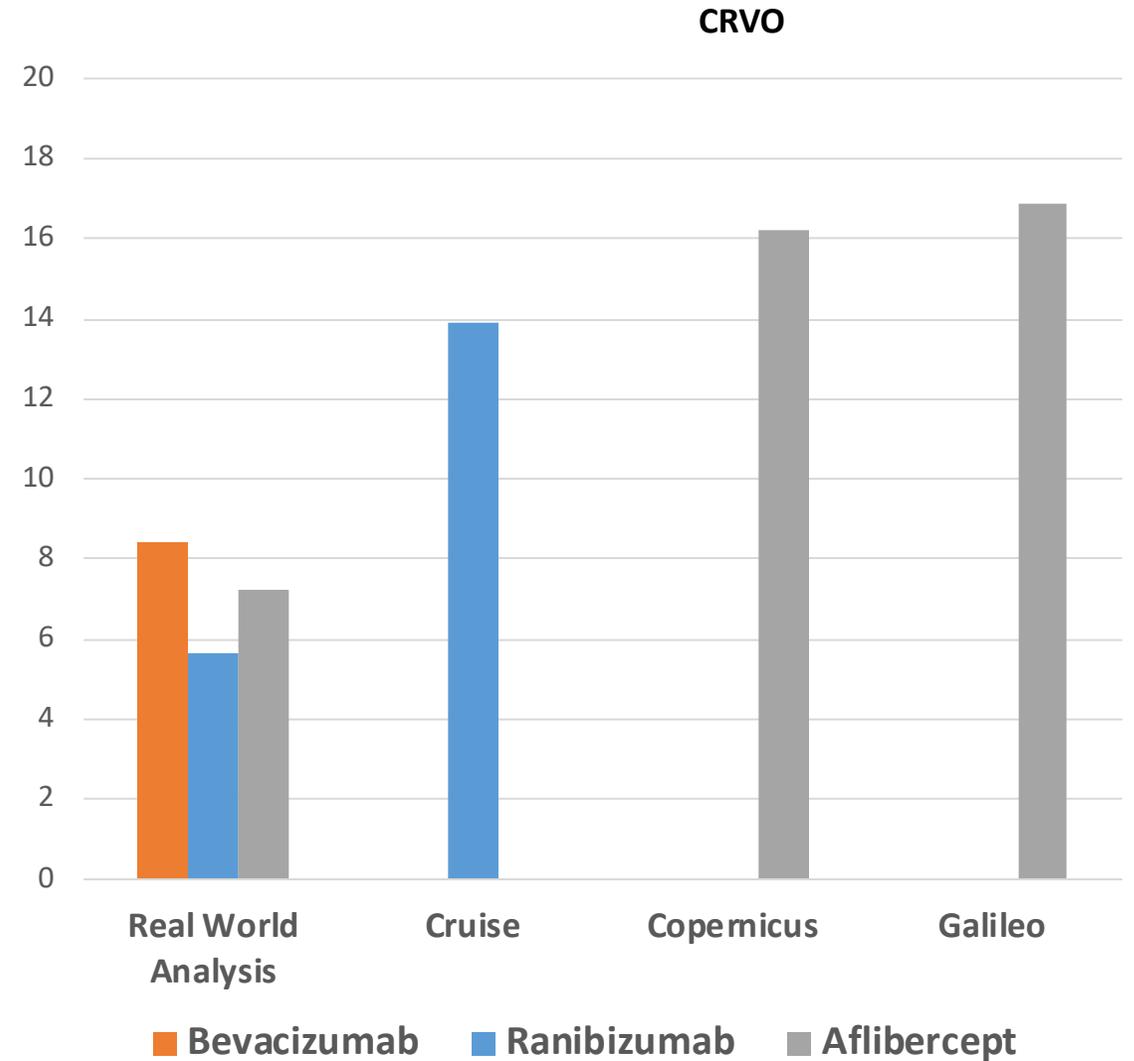
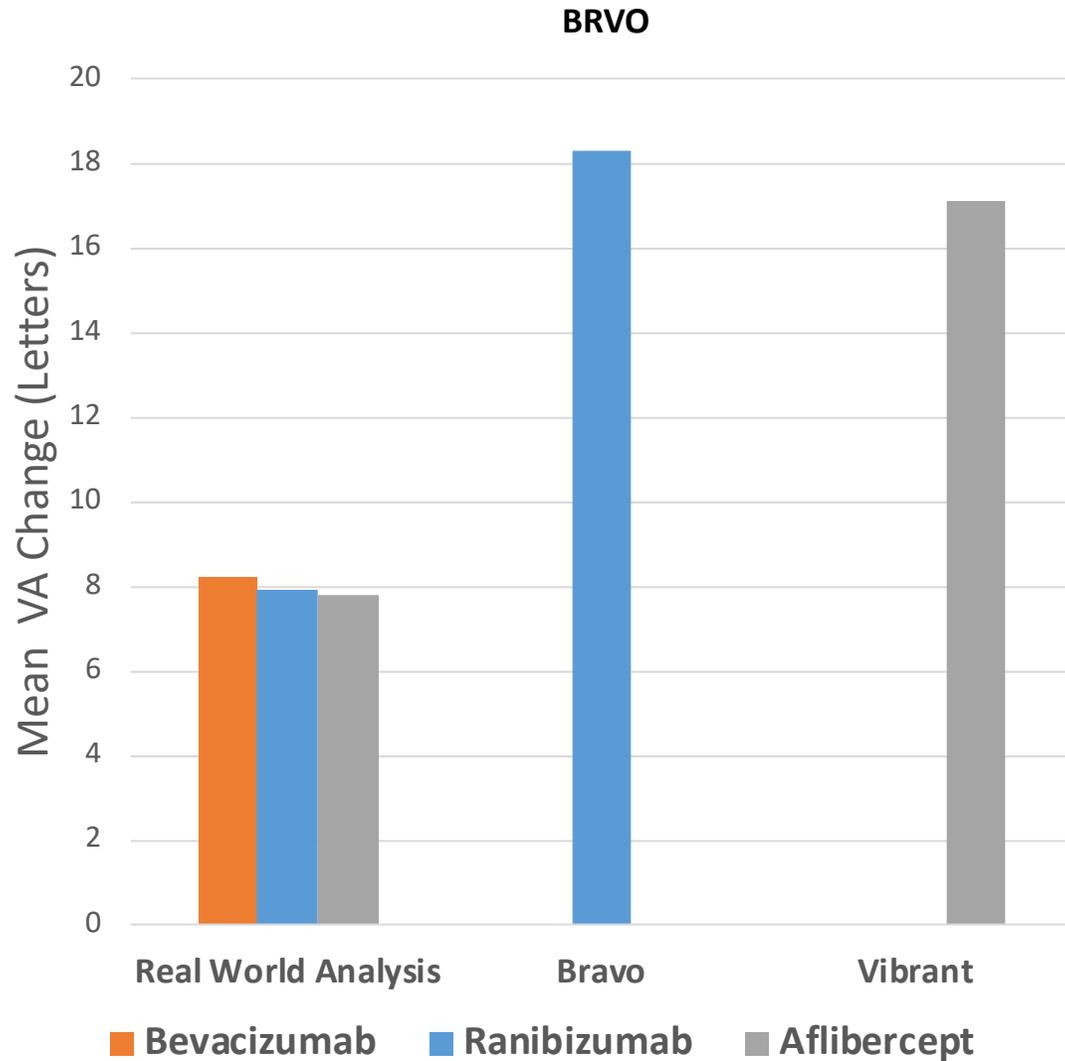


# Patients receive similar # injections regardless of baseline VA, but those with worse baseline VA gain more VA BRVO and CRVO



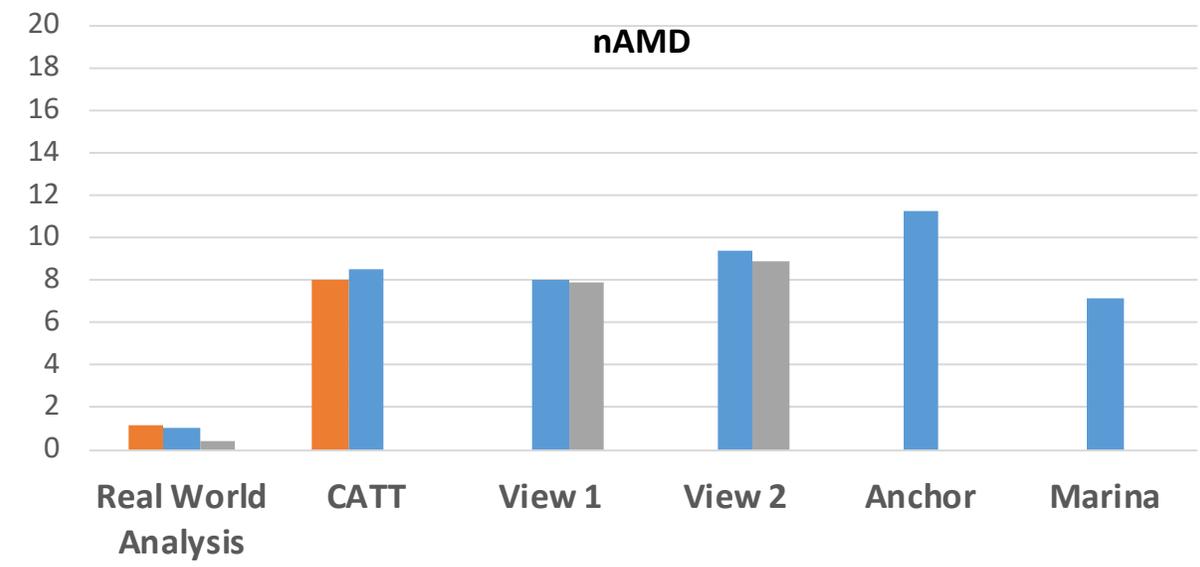
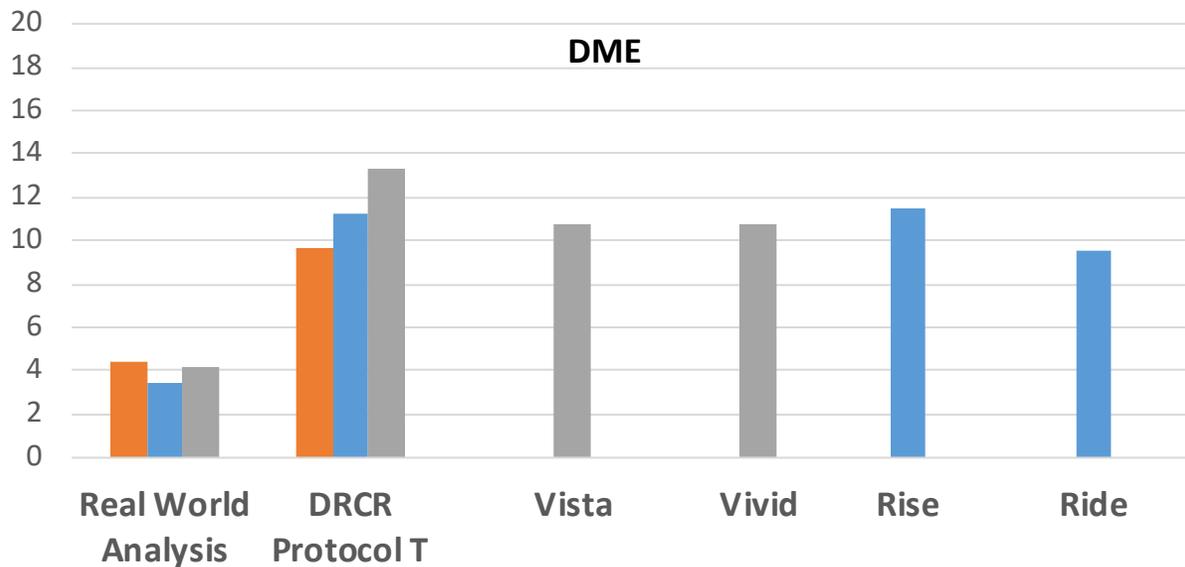
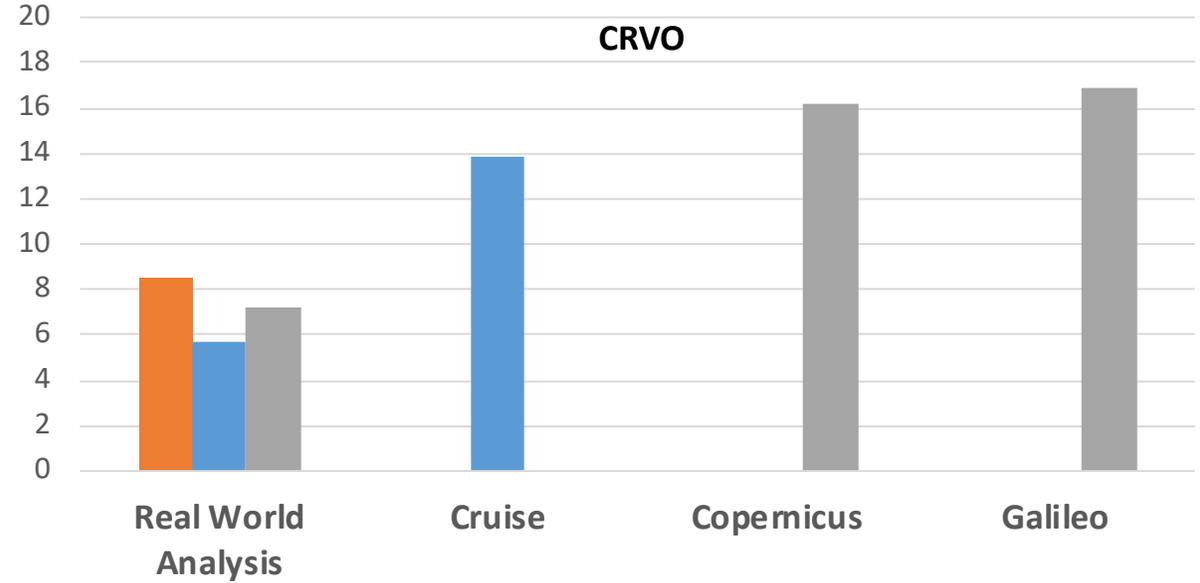
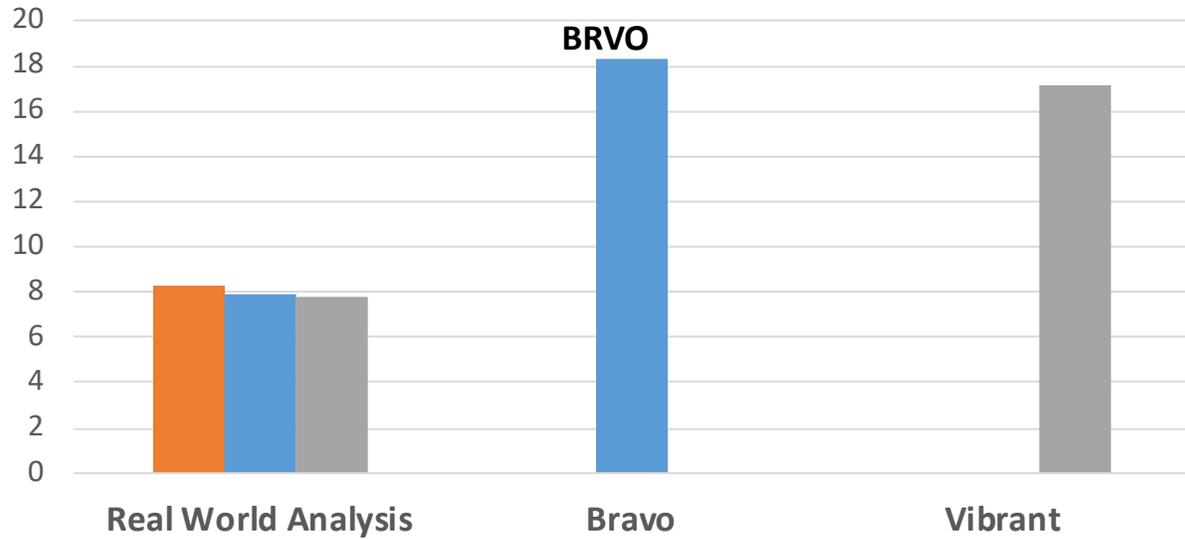
# Anti-VEGF for RVO-Related Macular Edema

## 1-Year VA Change: Real World Analysis vs RCTs



# Anti-VEGF for BRVO-ME, CRVO-ME, DME, nAMD

## 1-Year VA Change: Real World Analysis vs RCTs



■ Bevacizumab   
 ■ Ranibizumab   
 ■ Aflibercept

# Summary

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