



# EYLEA<sup>®</sup> (aflibercept) Injection

For Intravitreal Injection

Q2 2020 Performance Update

*Wet AMD, DME, MEfRVO &  
DR w/out DME*

---

***FINAL REPORT: FULL SAMPLE***

- *Market Share*
- *Source of Business*
- *Dosing Interval*

*July 30, 2020*

**REGENERON**



# Key Findings

---



# Key Findings, Implications & Recommendations

- **EYLEA's position in the anti-VEGF market remains fairly consistent with Q1 2020 findings.**
- **EYLEA and Avastin lead the anti-VEGF market across indications, though Avastin takes a slight lead among MEfCRVO eyes.**
  - While not significant, Lucentis enjoys a slight increase in Q2 2020.
  - Brolucizumab share remains unchanged since last quarter.
- **As the Anti-VEGF market continues to evolve, it will be important for EYLEA to differentiate itself from the competition (new and old) through messaging focusing on EYLEA's high rates of satisfaction and history of efficacy.**
  - There is room for EYLEA to differentiate itself from the competition by focusing specifically on dosing messages, especially involving duration. Additionally, messages surrounding the pre-filled syringe continue to be highly rated for EYLEA.

- Consistent over time, EYLEA leads significantly on brand messages related to 'Patient Focus' and 'Confidence in clinical data', which are the leading drivers of satisfaction for Anti-VEGFs. Lucentis and Avastin trail behind while Brolucizumab significantly lags across most drivers.
- Anti-VEGF eligibility has remained very stable over time across disease states. Treatment remains relatively consistent across indications.
  - Two-thirds of total eyes are being treated with Anti-VEGF, and a quarter with EYLEA, which hold steady across all indications.

# Key Findings

- Source of business share across eye type and indication has remained consistent over time.
- The majority of anti-VEGF eyes across indications continue to be on their 1st line of therapy.
  - EYLEA continues its leadership position across all indications, for 2nd and 3rd line of therapy, with the exception of MEfCRVO where Lucentis leads in the third line setting.
  - For Wet AMD, EYLEA sees a slight uptick for 1st LOT, while 2nd and 3rd lines of therapy remain consistent.
  - For DME, EYLEA is consistent for 1st and 2nd LOT, but declines in the 3rd LOT setting, as Lucentis rises this quarter.
  - Similarly, in MEfCRVO EYLEA experiences a significant decline in 3rd LOT usage as Lucentis takes the lead.
  - In DR w/out DME, EYLEA share remains relatively consistent with last quarter.
- In the next 3 months, MDs anticipate EYLEA usage will remain consistent with current usage.
- EYLEA continues on a more favorable dosing track than Avastin and Lucentis, with EYLEA being given every 7-9 weeks (in comparison to every 5-6 for Avastin and Lucentis). In Wet AMD and MEfRVO, Brolucizumab is dosed less frequently compared to other treatments, including EYLEA.



# Key Drivers of Satisfaction & Brand Perceptions

---

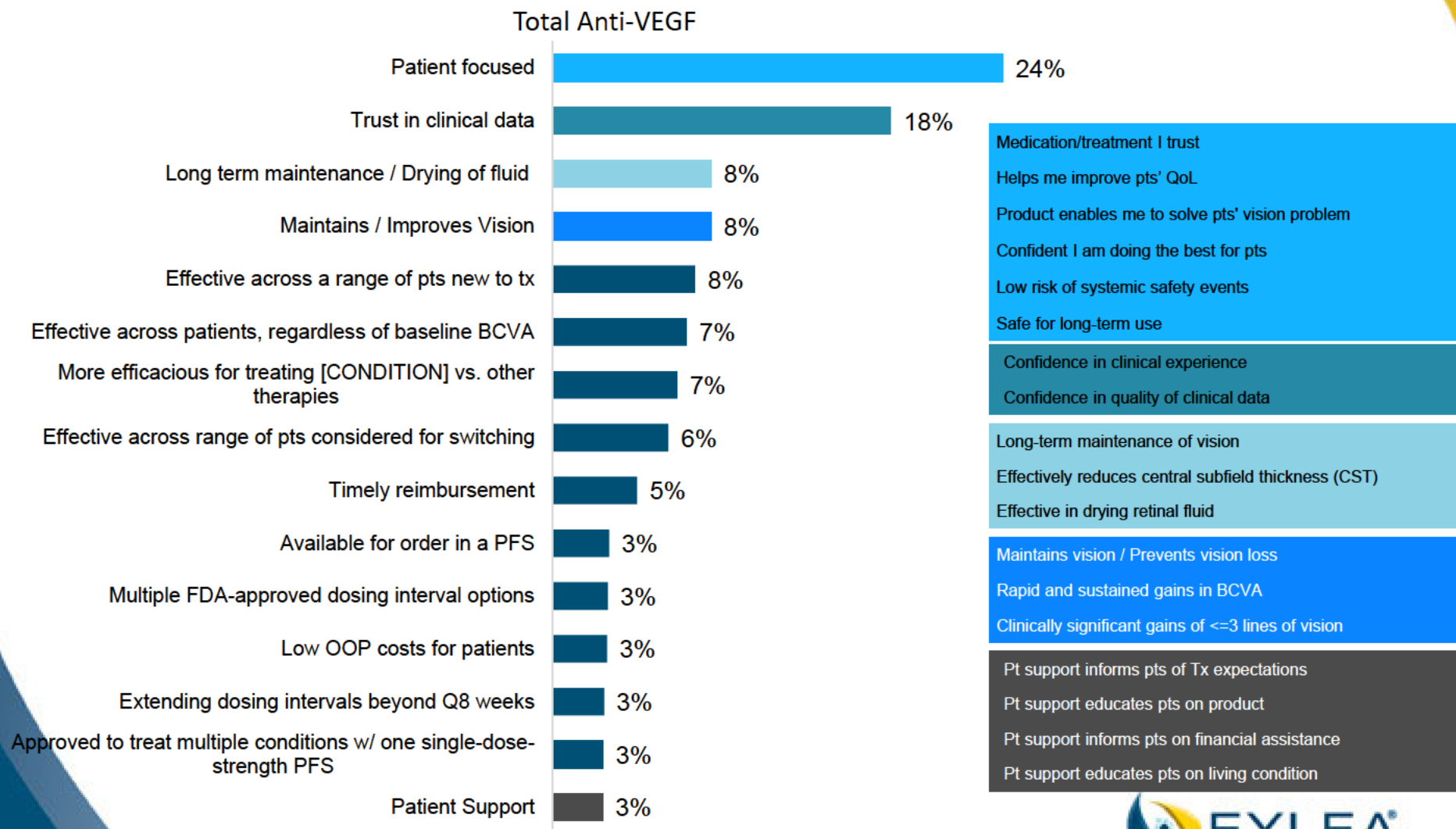


# Key Driver Analysis Findings

- ***Medication/treatment I trust*** is the top driver across the anti-VEGF market, followed by ***Helps improve patients quality of life*** and ***Enables me to solve my patients vision problem***.
- EYLEA continues to perform well, significantly leading both Avastin and Lucentis on most drivers across indications in Q2 2020. For Wet AMD, EYLEA experiences significant increases in several Patient Support messages this wave.

*Please note, beginning in Q4 2019, due to the number of attributes tested we have run a factor analysis to determine similar items. We then ran a regression to understand drivers of satisfaction across the anti-VEGF market.*

# Drivers of Satisfaction for Anti-VEGF's



*We ran factor analysis on the statements to identify similar ones. Color coded to show composition of each net.*

Maru/ - Confidential

*When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves*



# EYLEA Brand Ratings

| % Satisfied w/... (Top 2 Box) | Wet AMD | DME | MEfRV O | DR w/o DME |
|-------------------------------|---------|-----|---------|------------|
| EYLEA                         | 88%     | 90% | 86%     | 79%        |

% of MDs Feel Describe EYLEA...  
(Top 2 Box)

WET AMD DME MEfRVO DR w/o DME

Drivers of Satisfaction Anti-VEGF

Is a medication/treatment I trust

Helps me improve my patients' quality of life

Is a product that enables me to solve my patients' vision problem

Makes me feel confident I am doing the best for my patients

Low risk of systemic safety events

Is safe for long-term use

Confidence in clinical experience

Confidence in the quality of clinical data

Demonstrates long-term maintenance of vision

Effectively reduces central subfield thickness (CST)

20% 30% 40% 50% 60% 70% 80% 90% 100%

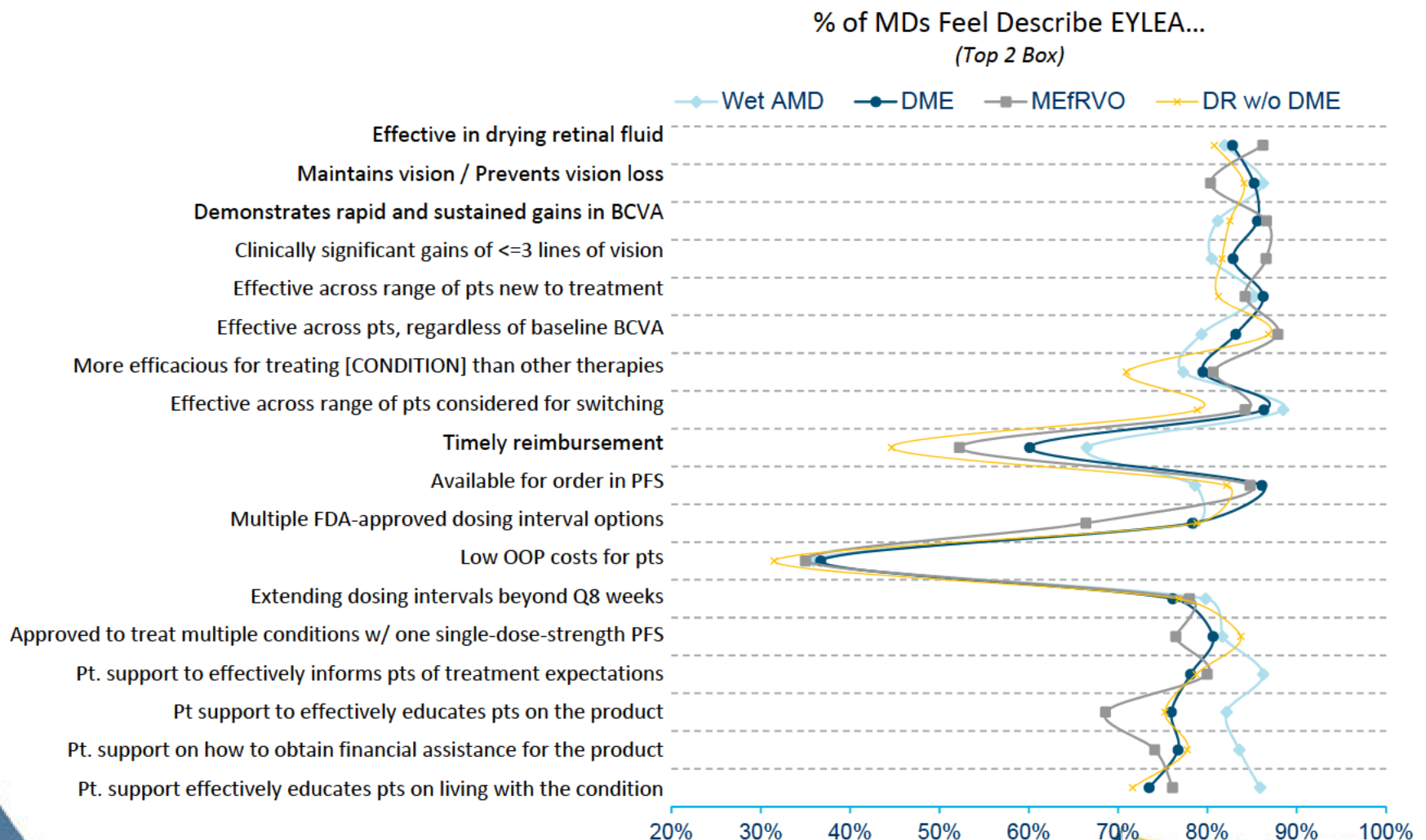


Wave on wave stat testing is not shown here, but shown on individual indication slides.

Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# EYLEA Brand Ratings (continued)



Wave on wave stat testing is not shown here, but shown on individual indication slides.



Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD Brand Ratings

| % Satisfied w/... (Top 2 Box) | EYLEA | Avastin | Lucentis | Brolucizumab  |
|-------------------------------|-------|---------|----------|---------------|
| Tx of Wet AMD                 | 88%   | 54%     | 58%      | 30%<br>↓(56%) |

Drivers of Satisfaction Anti-VEGF

Is a medication/treatment I trust

Helps me improve my patients' quality of life

Is a product that enables me to solve my patients' vision problem

Makes me feel confident I am doing the best for my patients

Low risk of systemic safety events

Is safe for long-term use

Confidence in clinical experience

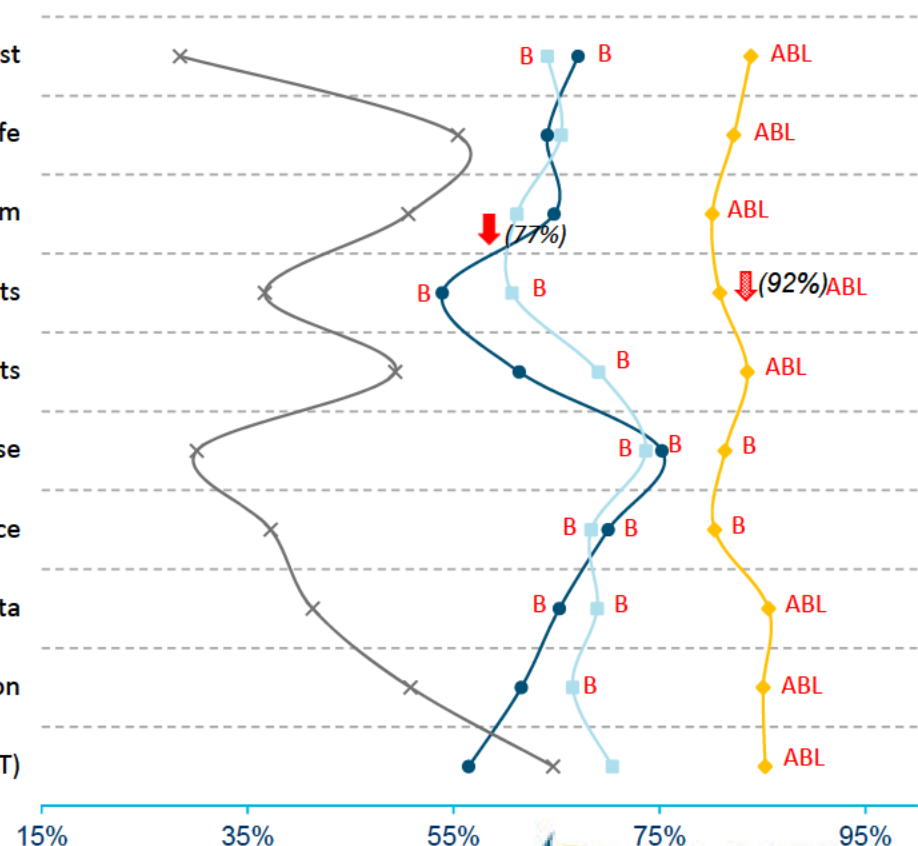
Confidence in the quality of clinical data

Demonstrates long-term maintenance of vision

Effectively reduces central subfield thickness (CST)

% of MDs Feel Describe ...  
(Top 2 Box)

— EYLEA — Avastin — Lucentis — Brolucizumab



A= Significantly greater than Avastin

L= Significantly greater than Lucentis

E= Significantly greater than EYLEA

B = Significantly greater than Brolucizumab

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

↑↓ Statistically significant at 95% confidence level vs. Q4 2019

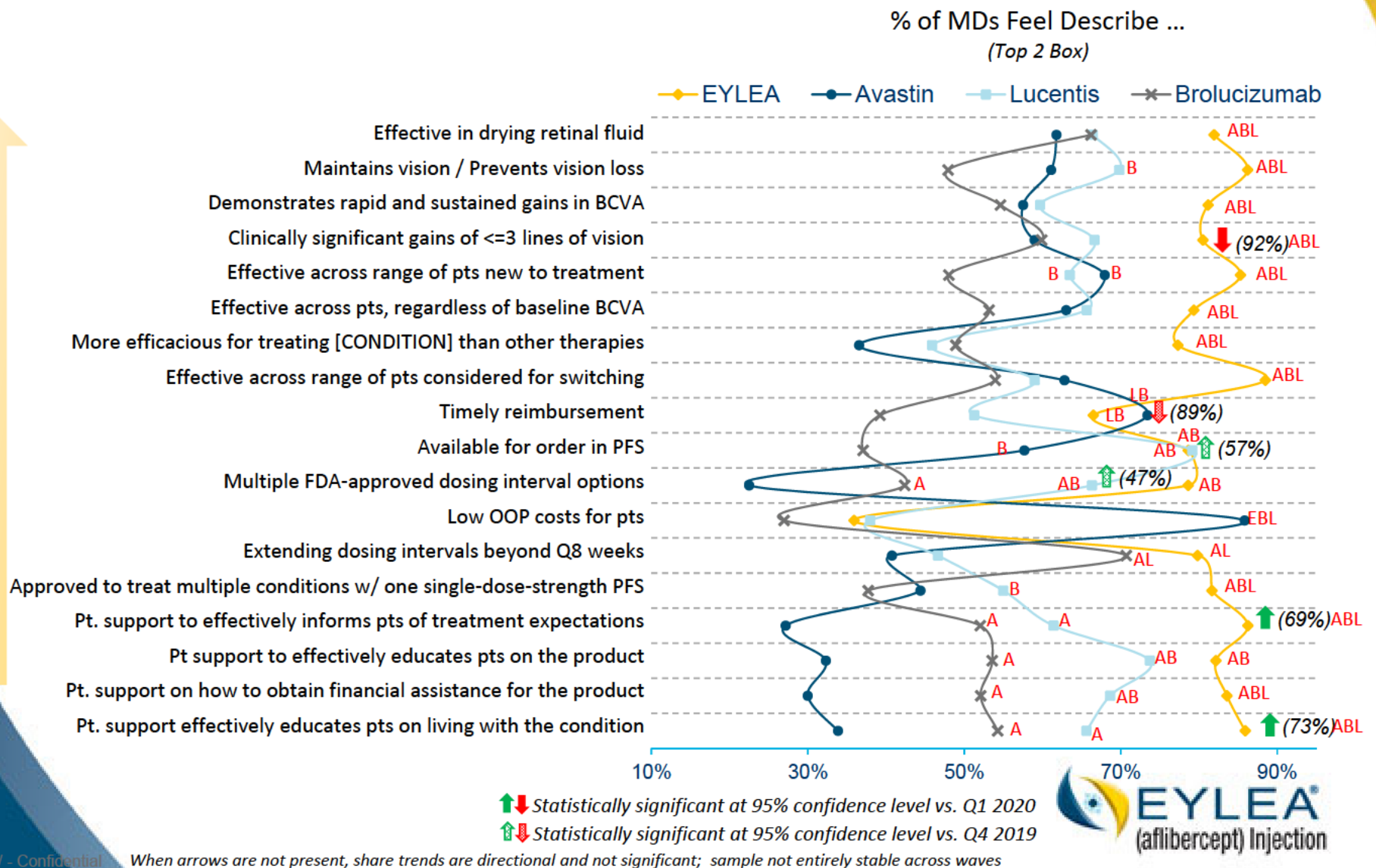
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential

# Wet AMD Brand Ratings (continued)

Drivers of Satisfaction Anti-VEGF



# DME Brand Ratings

| % Satisfied w/... (Top 2 Box) | EYLEA | Avastin | Lucentis | Brolucizumab |
|-------------------------------|-------|---------|----------|--------------|
| Tx of DME                     | 90%   | 48%     | 51%      | 22%          |

Drivers of Satisfaction Anti-VEGF

Is a medication/treatment I trust

Helps me improve my patients' quality of life

Is a product that enables me to solve my patients' vision problem

Makes me feel confident I am doing the best for my patients

Low risk of systemic safety events

Is safe for long-term use

Confidence in clinical experience

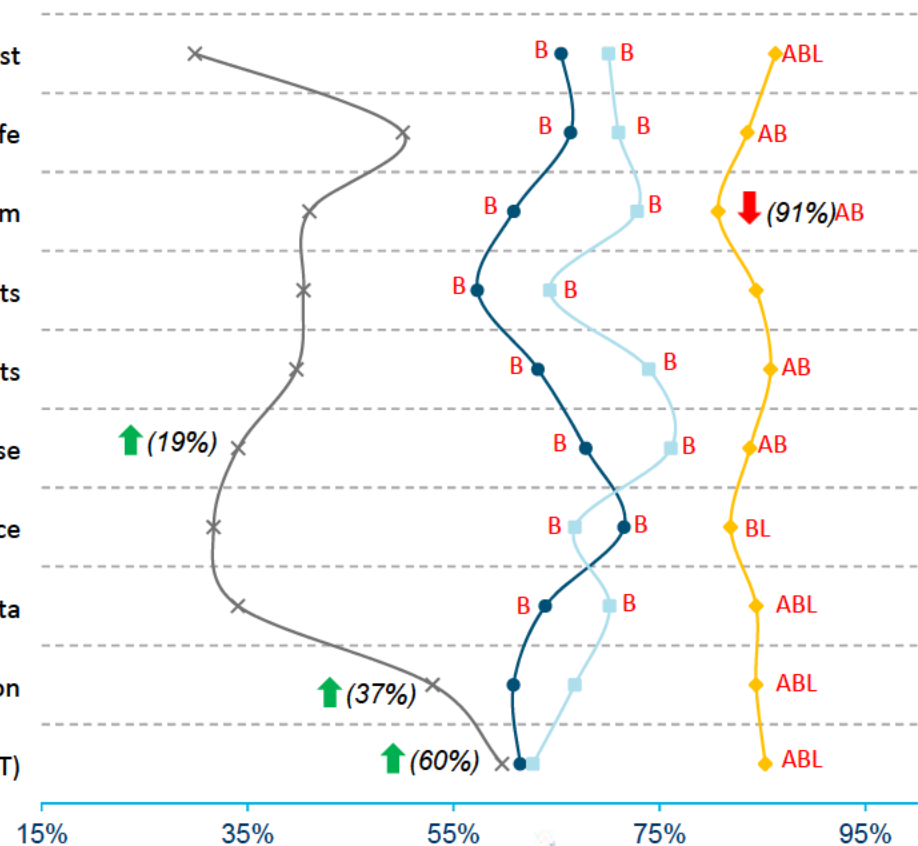
Confidence in the quality of clinical data

Demonstrates long-term maintenance of vision

Effectively reduces central subfield thickness (CST)

% of MDs Feel Describe ...  
(Top 2 Box)

— EYLEA — Avastin — Lucentis — Brolucizumab



A= Significantly greater than Avastin  
L= Significantly greater than Lucentis  
E= Significantly greater than EYLEA  
B= Significantly greater than Brolucizumab

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

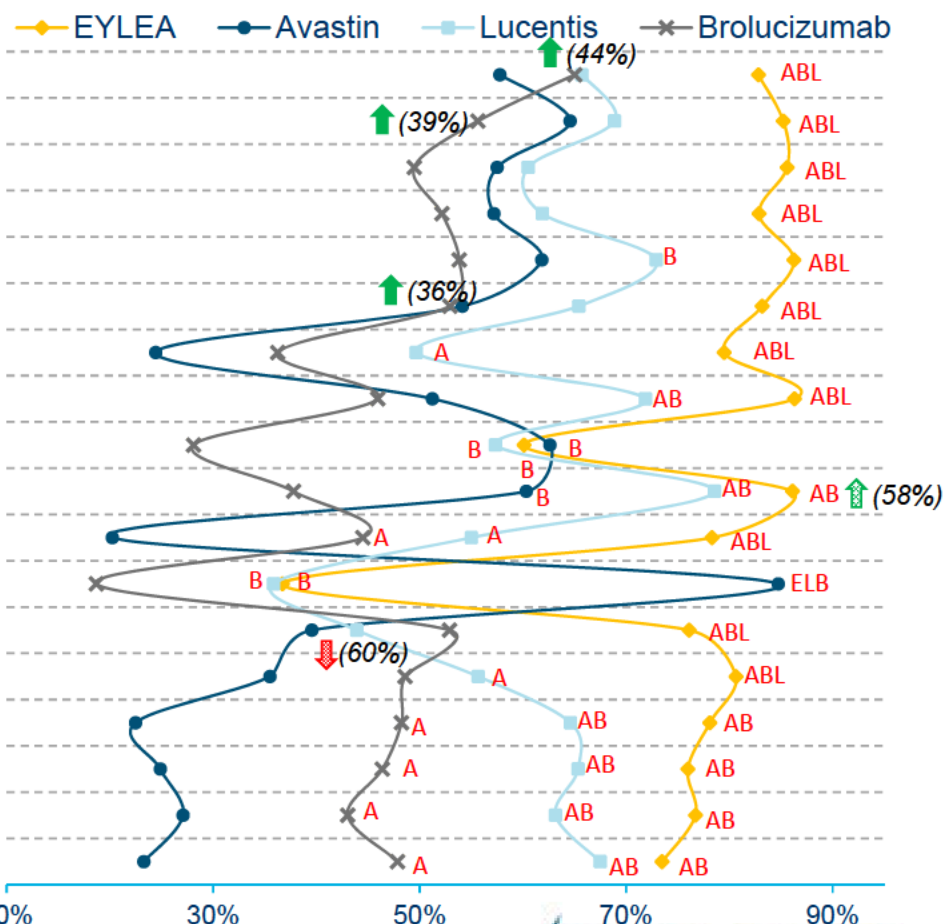
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential

# DME Brand Ratings (continued)

% of MDs Feel Describe ...  
(Top 2 Box)



↑↓ Statistically significant at 95% confidence level vs. Q1 2020

↑↓ Statistically significant at 95% confidence level vs. Q4 2019



Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfRVO Brand Ratings

| % Satisfied w/... (Top 2 Box) | EYLEA | Avastin | Lucentis | Brolucizumab |
|-------------------------------|-------|---------|----------|--------------|
| Tx of DME                     | 86%   | 59%     | 61%      | 19%          |

Drivers of Satisfaction Anti-VEGF

Is a medication/treatment I trust

Helps me improve my patients' quality of life

Is a product that enables me to solve my patients' vision problem

Makes me feel confident I am doing the best for my patients

Low risk of systemic safety events

Is safe for long-term use

Confidence in clinical experience

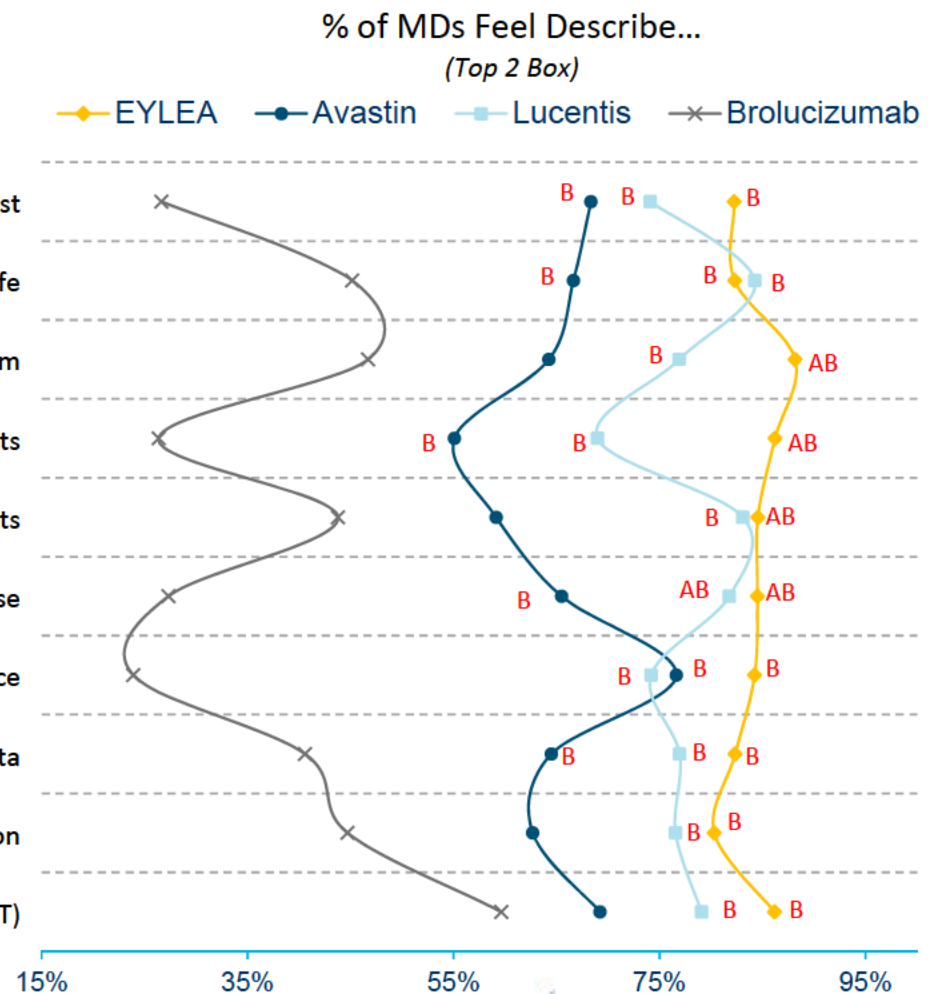
Confidence in the quality of clinical data

Demonstrates long-term maintenance of vision

Effectively reduces central subfield thickness (CST)

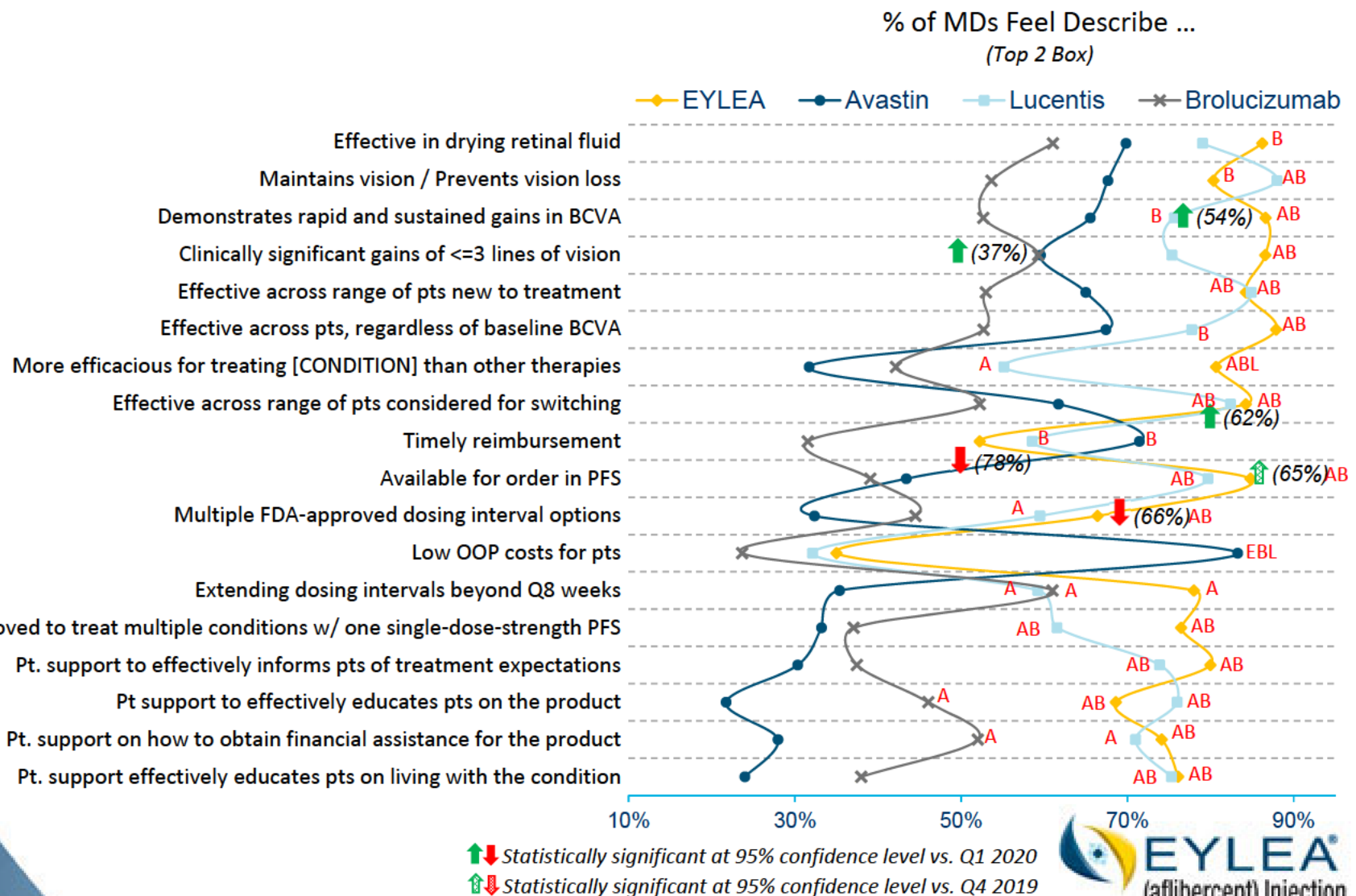
A= Significantly greater than Avastin  
 L= Significantly greater than Lucentis  
 E= Significantly greater than EYLEA  
 B = Significantly greater than Brolucizumab

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



# MEfRVO Brand Ratings (continued)

Drivers of Satisfaction Anti-VEGF



# DR w/o DME Brand Ratings

| % Satisfied w/... (Top 2 Box) | EYLEA | Avastin | Lucentis | Brolucizumab |
|-------------------------------|-------|---------|----------|--------------|
| Tx of DME                     | 79%   | 53%     | 56%      | 17%          |

Drivers of Satisfaction Anti-VEGF

Is a medication/treatment I trust

Helps me improve my patients' quality of life

Is a product that enables me to solve my patients' vision problem

Makes me feel confident I am doing the best for my patients

Low risk of systemic safety events

Is safe for long-term use

Confidence in clinical experience

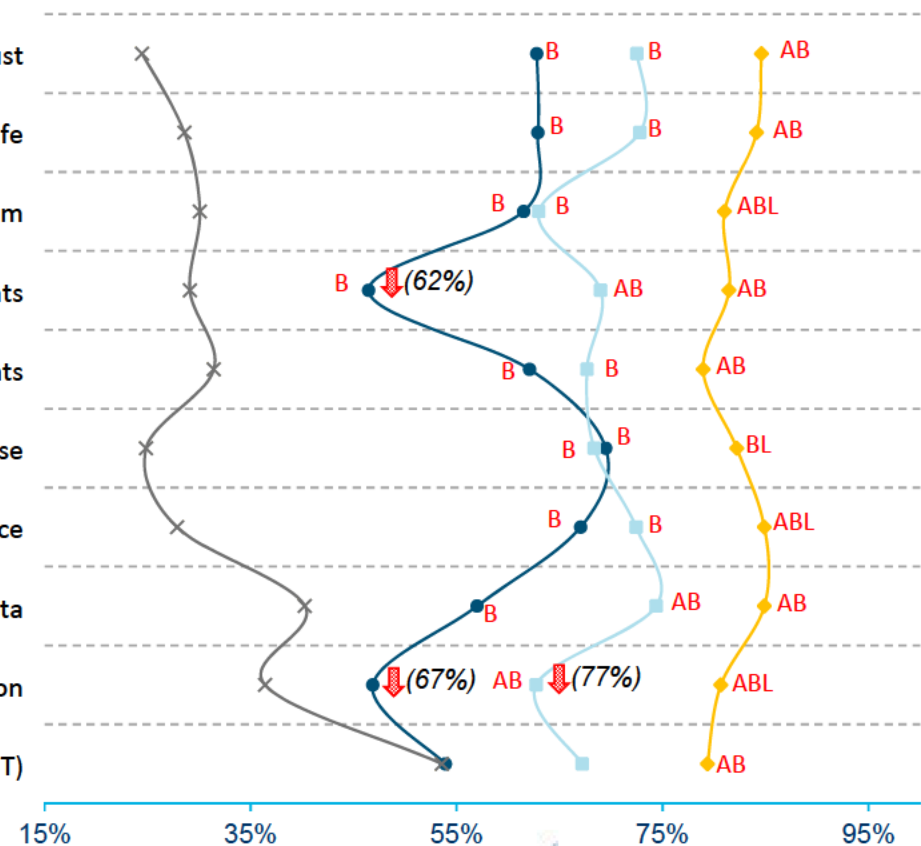
Confidence in the quality of clinical data

Demonstrates long-term maintenance of vision

Effectively reduces central subfield thickness (CST)

% of MDs Feel Describe...  
(Top 2 Box)

— EYLEA — Avastin — Lucentis — Brolucizumab



A= Significantly greater than Avastin

L= Significantly greater than Lucentis

E= Significantly greater than EYLEA

B = Significantly greater than Brolucizumab

Statistically significant at 95% confidence level vs. Q4 2019

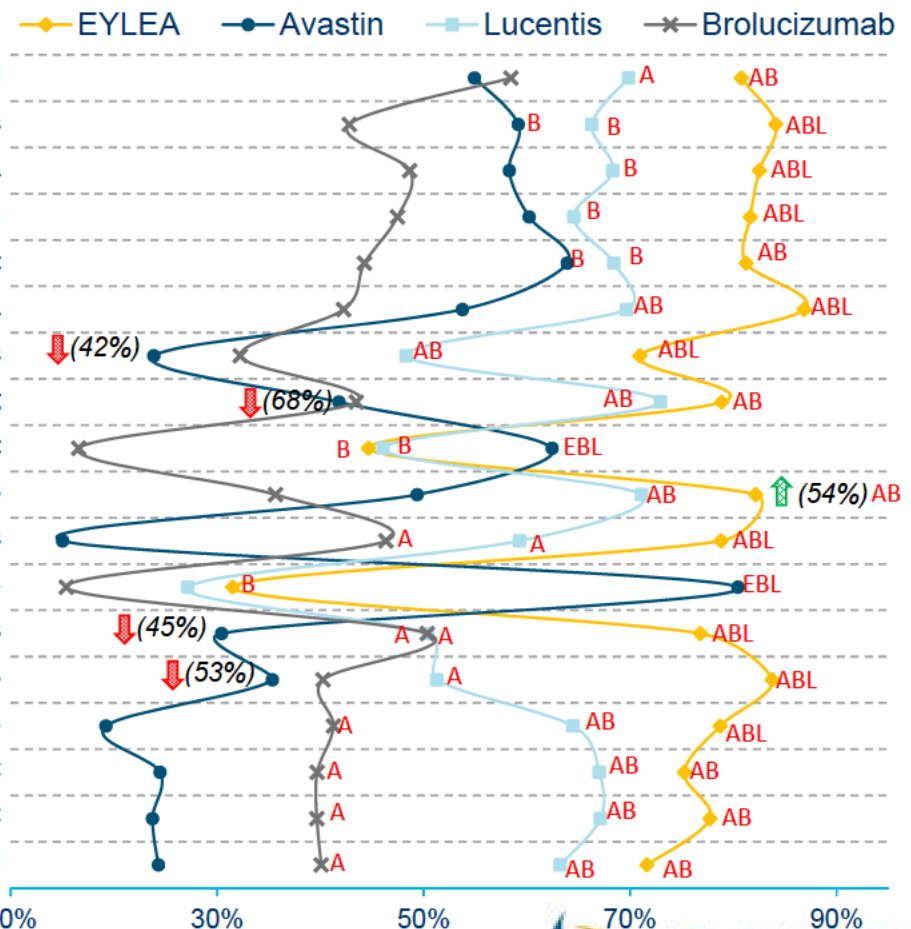
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential

# DR w/o DME Brand Ratings (continued)

% of MDs Feel Describe EYLEA...  
(Top 2 Box)



↑↓ Statistically significant at 95% confidence level vs. Q4 2019



# NPS Scores



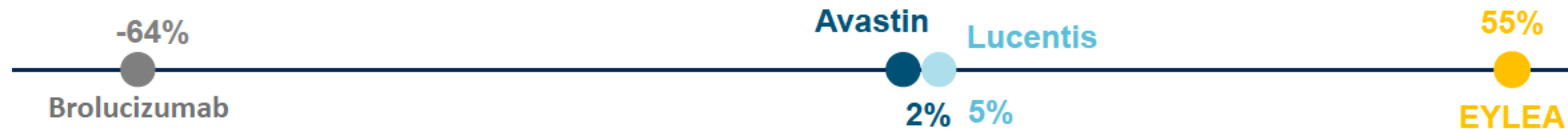
$$\text{NPS} = \% \text{ 😊 } - \% \text{ 😞 }$$

NPS is calculated by subtracting the percent of detractors who rate the brand 0-6 from the percent of promoters who rate the brand 9-10

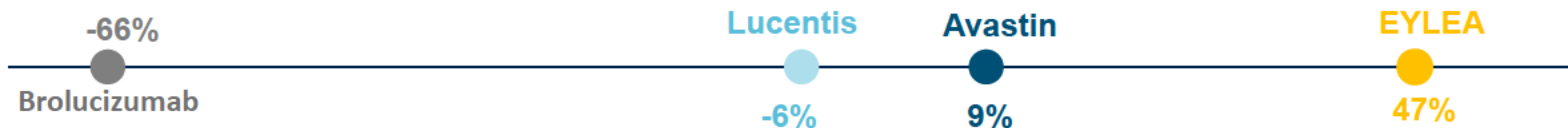
Wet AMD



DME



MEFRVO



DR no DME



Source: Q2 2020 ATU Study (n=201 retina specialists reporting Wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEFRVO, n=201 retina specialists reporting DR No DME; 166,174 eyes total)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



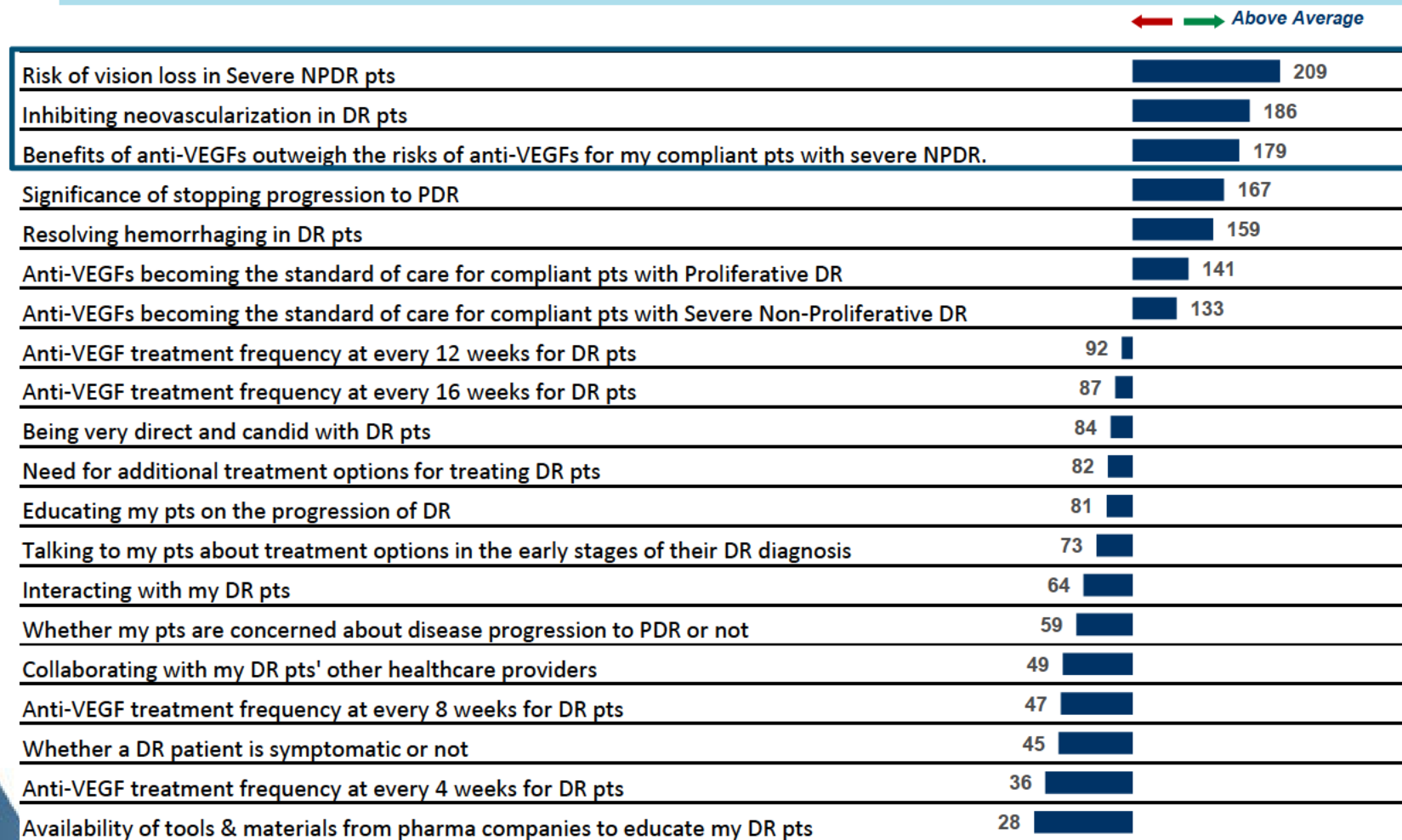


# Important Messages in Treating DR without DME Patients

---



# Importance When Treating DR w/out DME pts\*



**\* Note – Maxx Diff  
results are from Q3  
2019 ATU Study**

*Interpretation of Values*  
Average scores for individual messages is indexed against the average score across all features tested.  
Scores >100 are above average, while scores <100 are below.



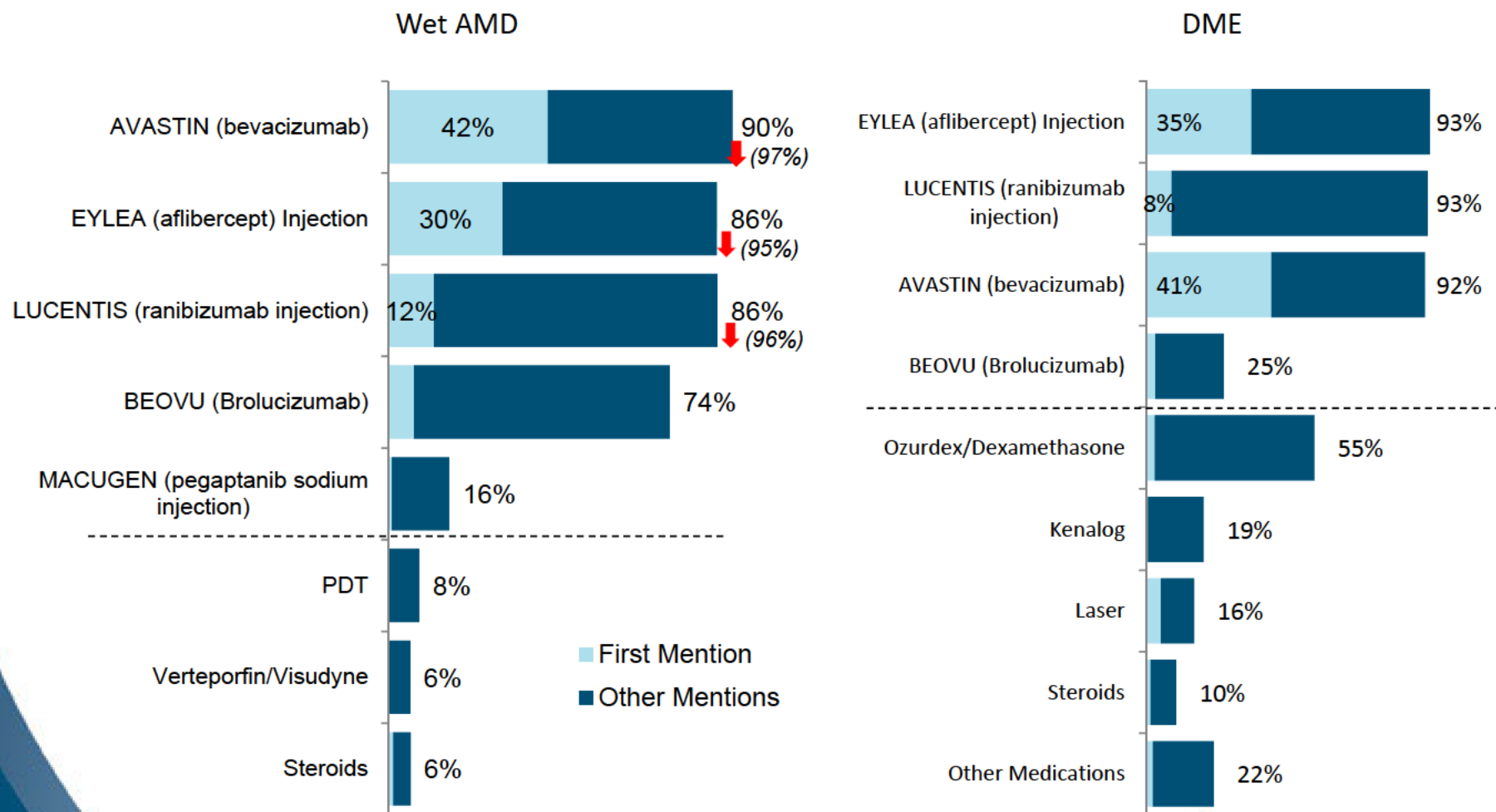


# Unaided Awareness of ANTI-VEGFs

---



# Unaided Awareness of Currently Available Medications



↑↓ Statistically significant at 95% confidence level vs. Q1 2020

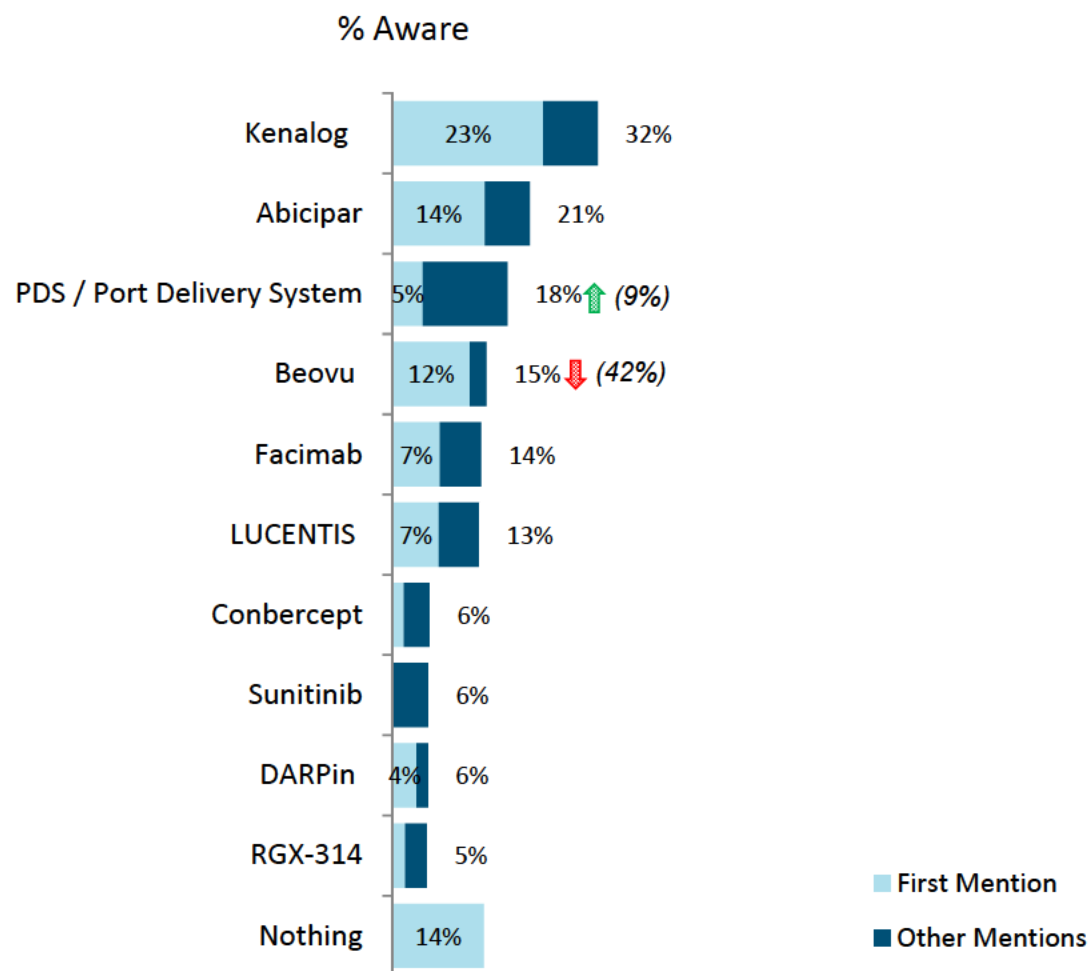
Mentions <5% are not shown.

Source: Q2 2020 ATU Study (Wet AMD: n=201 retina specialists; DME: n=200 retina specialists)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential

# Unaided Awareness of Soon to be Available Wet AMD Medications

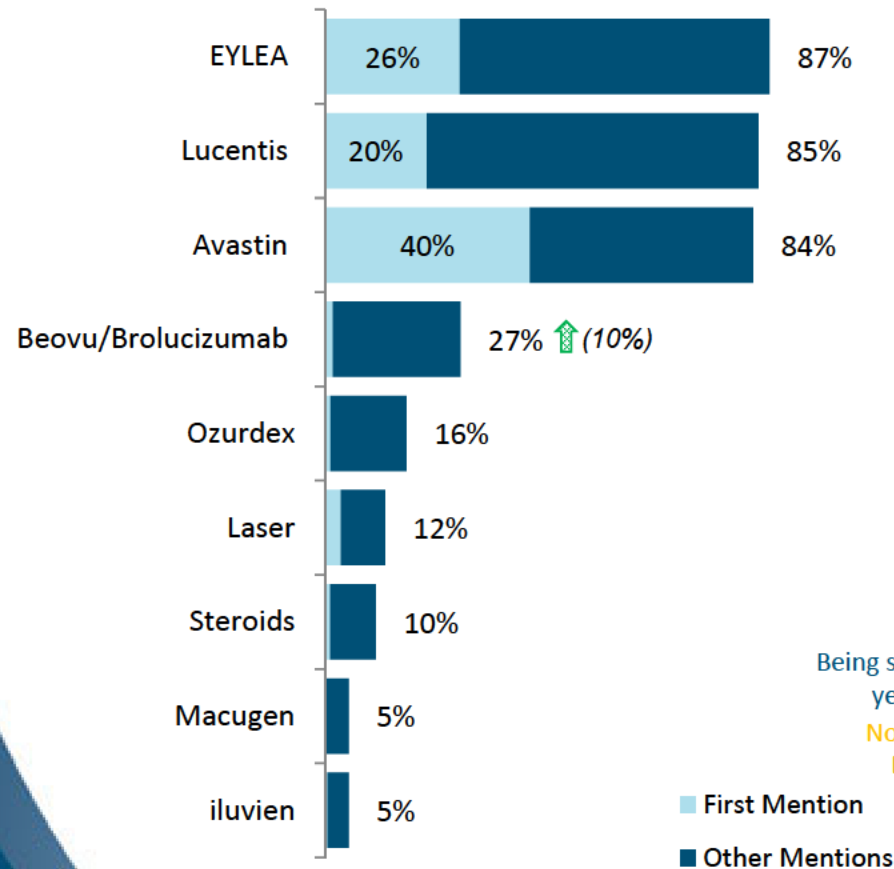


Mentions <5% are not shown. ↑ ↓ Statistically significant at 95% confidence level vs. Q4 2019  
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



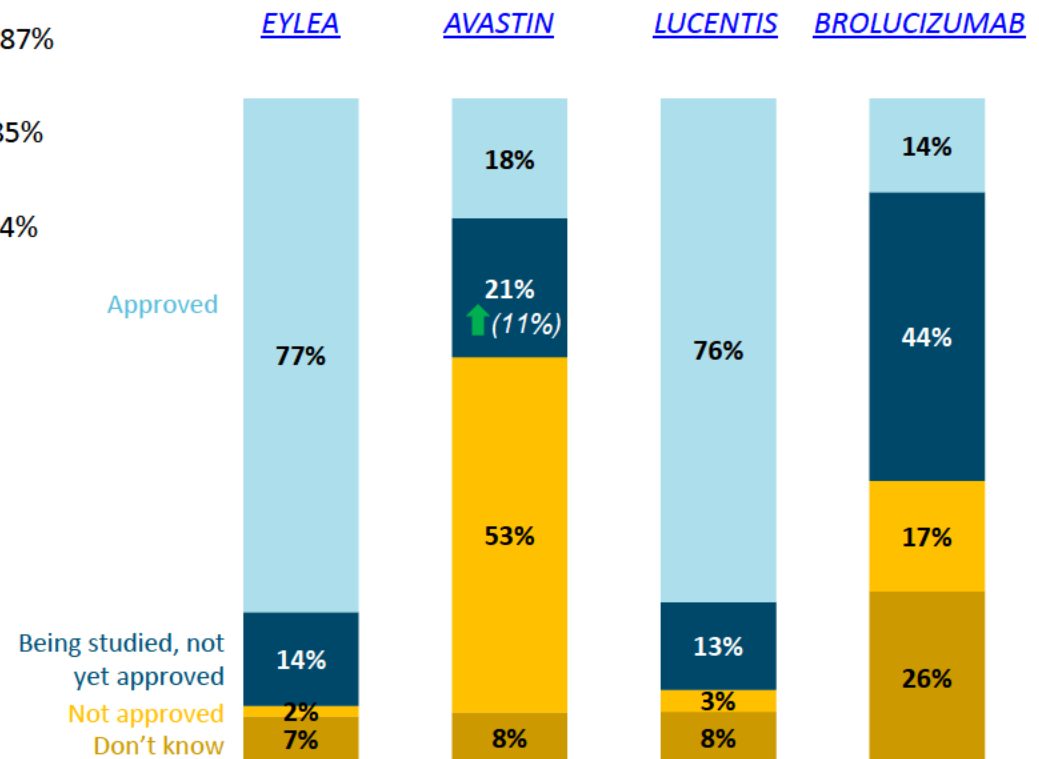
# Unaided Awareness of Available DR w/o DME Medications

Unaided Awareness of Available DR w/out DME Tx



Mentions <5% in Total Mentions are not shown.

Knowledge of Treatment Approval



↑↓ Statistically significant at 95% confidence level vs. Q1 2020

Source: Q2 2020 ATU Study (n=201 retina specialists) ↑↓ Statistically significant at 95% confidence level vs. Q4 2019

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves





## Stated Product Usage

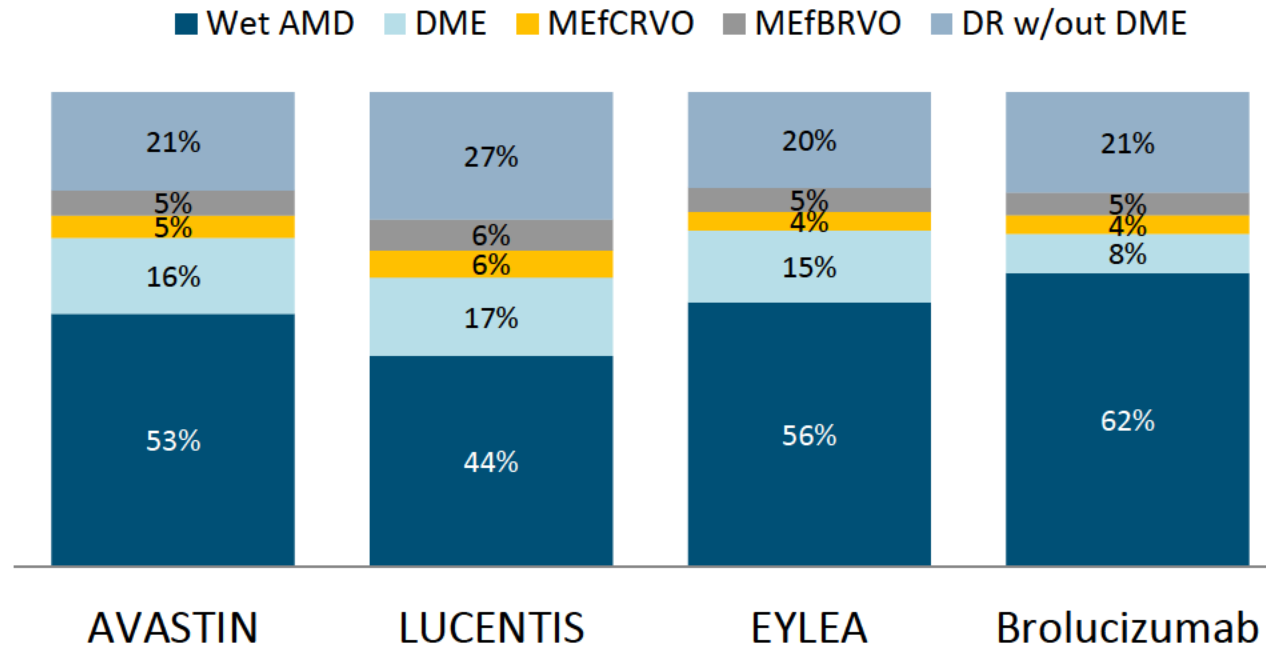
---



# Stated Product Usage by Indication

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes: All Indications  
Projected Distribution by Indication  
(Q2 wave n= 166,174 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total)

Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

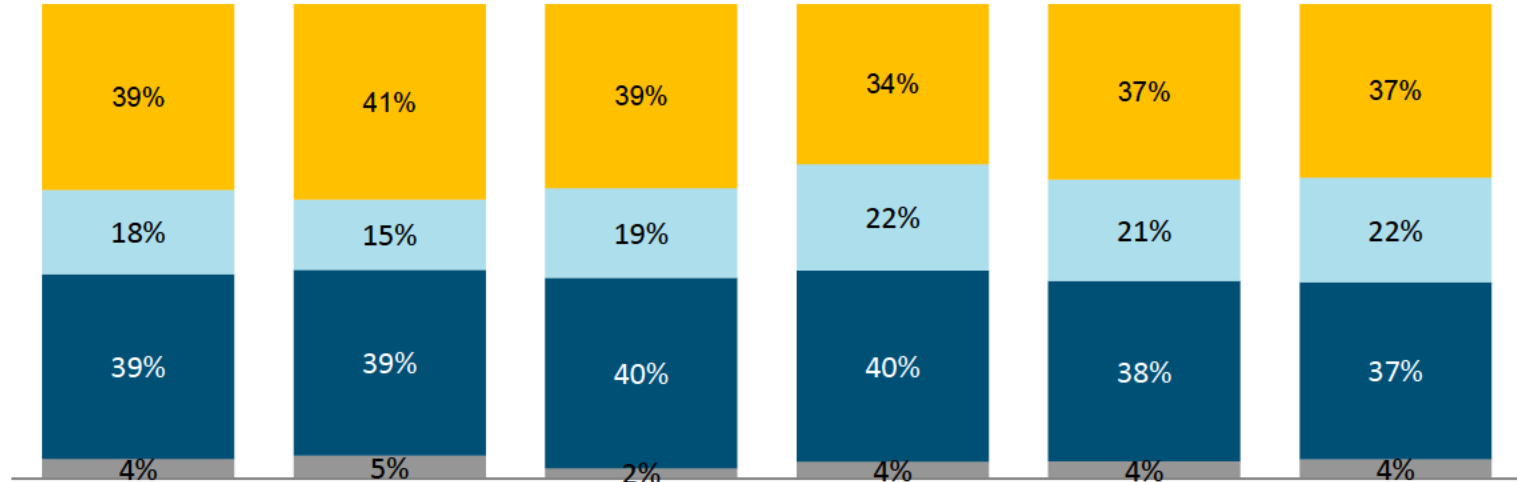


# Anti-VEGF Stated Product Usage Summary

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes: All Indications  
Projected Share Allocation Across Indications  
(Q2 wave n= 166,174 eyes)

■ EYLEA ■ LUCENTIS ■ AVASTIN ■ Brolucizumab



## Share Change vs Q1

|              | Overall | Wet AMD | DME | MEfCRVO | MEfBRVO | DR w/out DME |
|--------------|---------|---------|-----|---------|---------|--------------|
| EYLEA        | 0%      | +2%     | -2% | -3%     | -1%     | -4%          |
| LUCENTIS     | +3%     | +2%     | +3% | +7%     | +5%     | +5%          |
| AVASTIN      | -3%     | -4%     | -1% | -4%     | -6%     | -1%          |
| Brolucizumab | 0%      | 0%      | 0%  | 0%      | +2%     | 0%           |

Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total) \* Brolucizumab added to all indications in Q1 2020

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

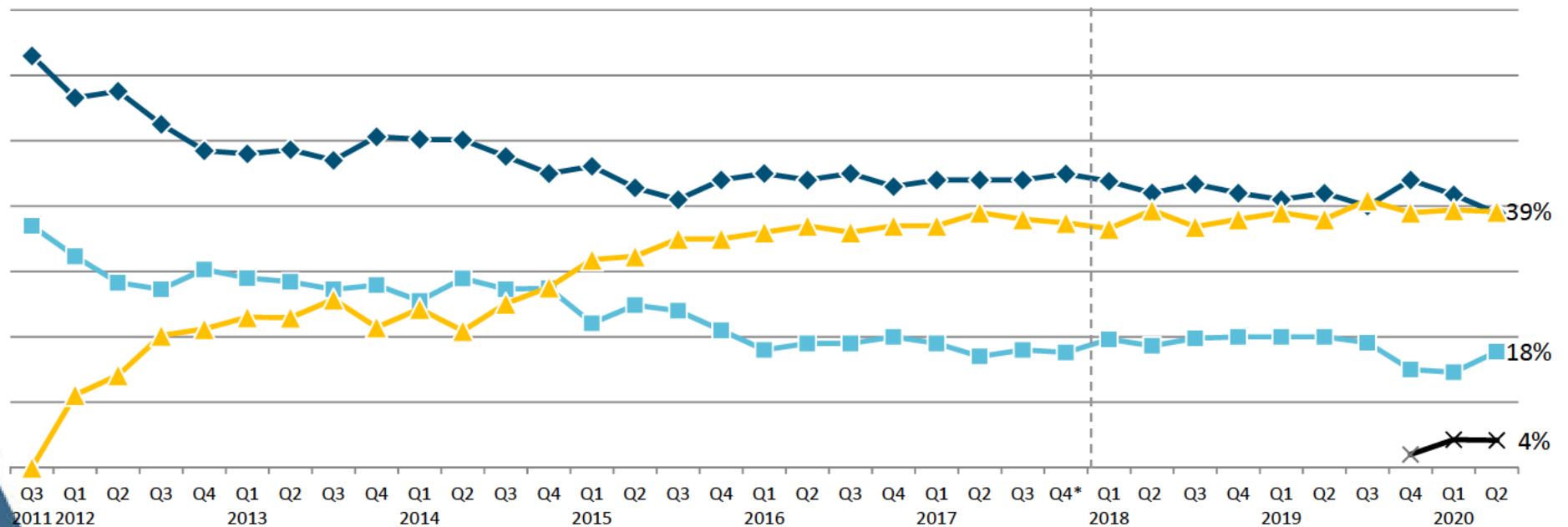


# Anti-VEGF Stated Product Usage

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes: All Indications  
Projected Share Allocation Across Indications  
(Q2 wave n= 166,174 eyes)

—◆— AVASTIN —■— LUCENTIS —▲— EYLEA —X— Brolucizumab



Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total) \* Brolucizumab added to all indications in Q1 2020

\* Maru began tracking DR w/out DME and included in total market share calculations



Maru/ - Confidential

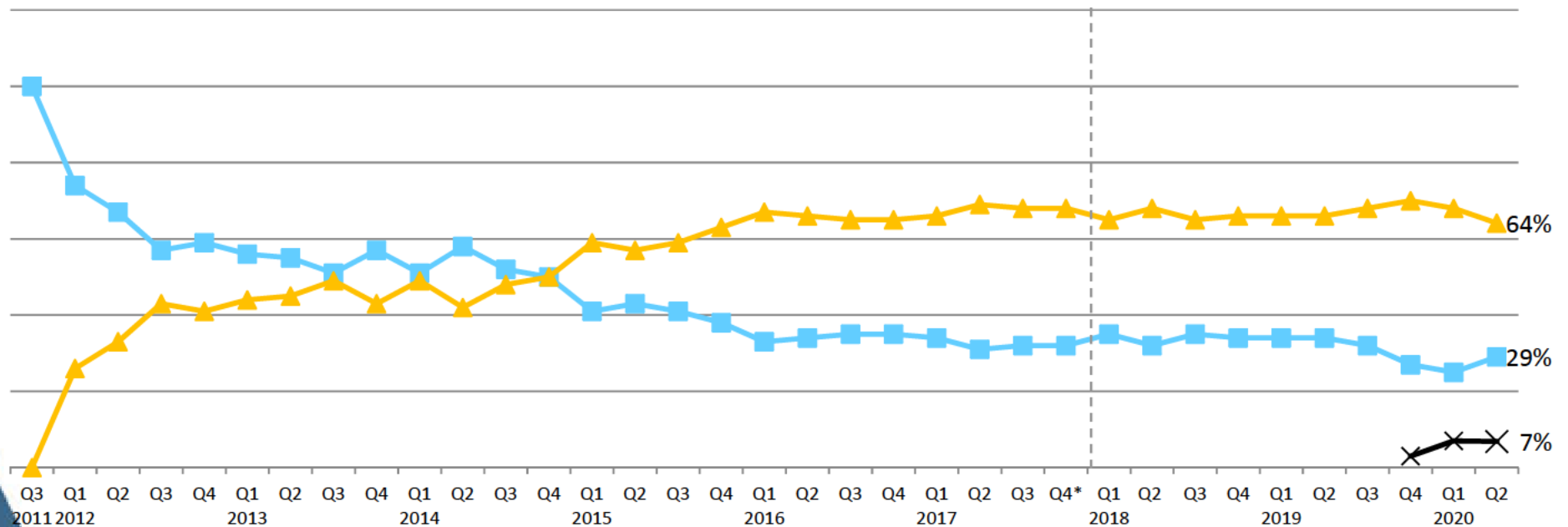
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Branded Anti-VEGF Stated Product Usage

(wAMD, DME, MEfRVO, DR w/out DME)

**Branded Anti-VEGF Treated Eyes: All Indications**  
*Projected Share Allocation Across Indications*  
 (Q2 wave n=102,410 eyes)

—■— LUCENTIS      —▲— EYLEA      —X— Brolucizumab



Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total) \* Brolucizumab added to all indications in Q1 2020

\* Maru began tracking DR w/out DME and included in total market share calculations



Maru/ - Confidential

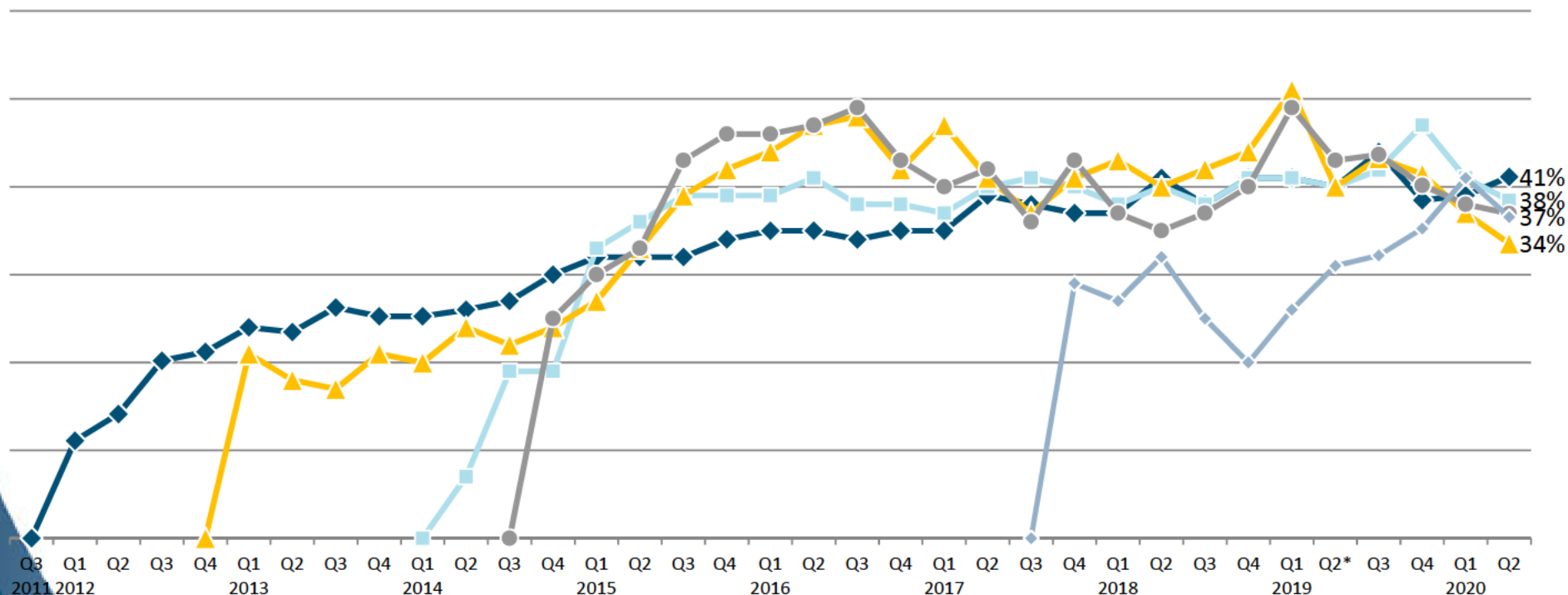
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# EYLEA Stated Product Usage Uptake Curves

(wAMD, DME, MEfRVO, DR w/out DME)

EYLEA Treated Eyes  
Projected Share Allocation by Indication  
(Q2 wave n= 166,174 eyes)

Wet AMD DME MEfCRVO MEfBRVO DR w/out DME



Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total)



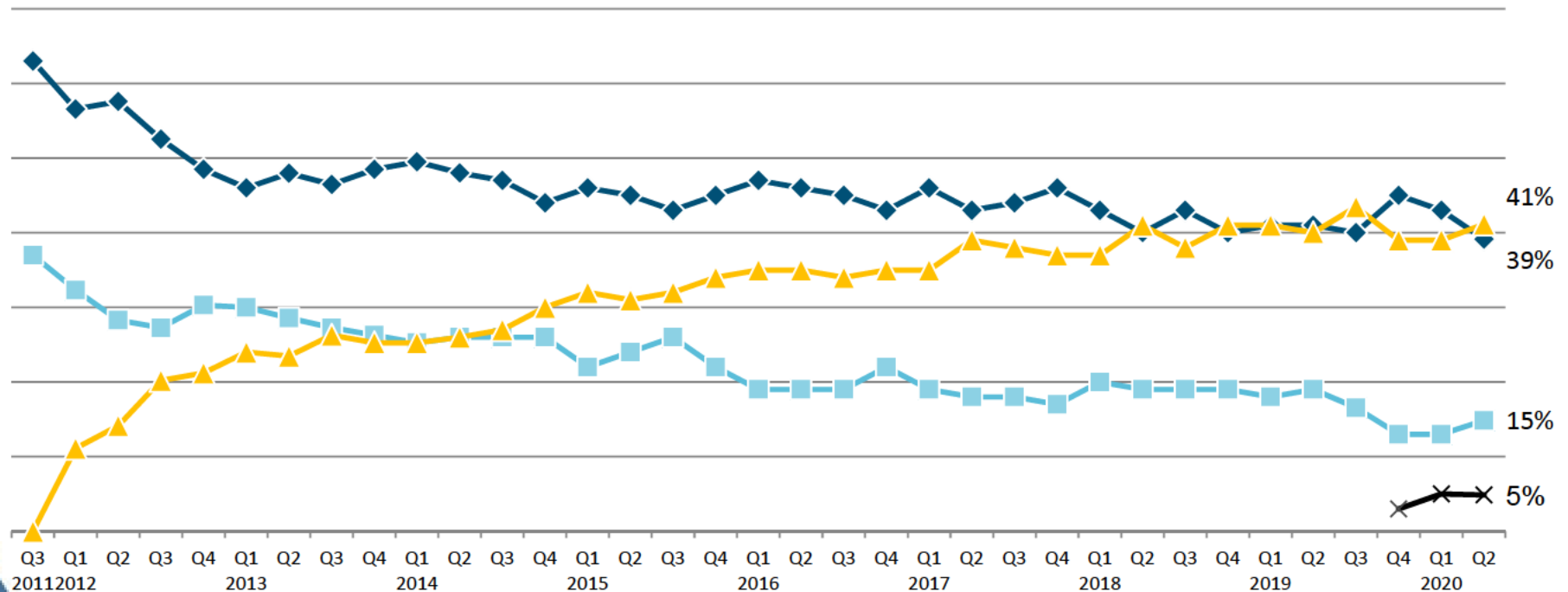
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD Stated Product Usage

Wet AMD Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=201 retina specialists; 86,950)

—◆— AVASTIN    —■— LUCENTIS    —▲— EYLEA    —X— Brolucizumab



Source: Q2 2020 ATU Study (n=201 retina specialists)



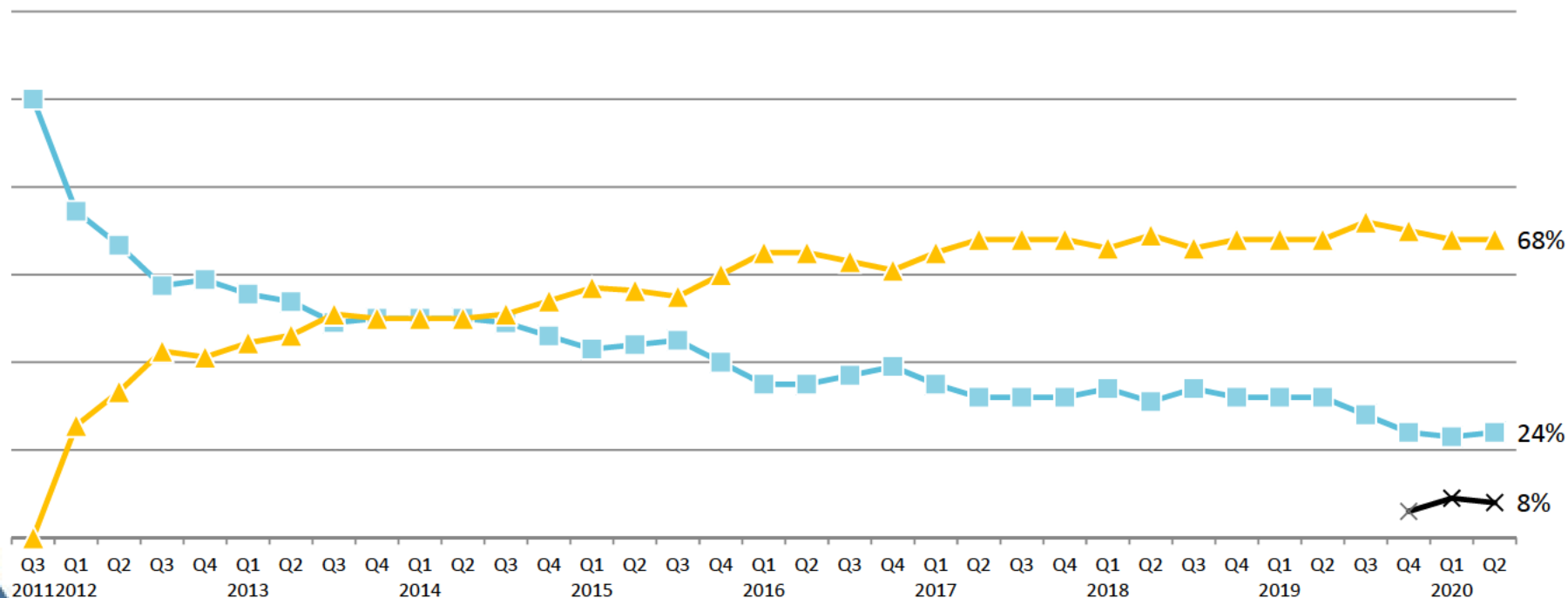
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD *Branded* Stated Product Usage

Wet AMD Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Branded Market  
 (Q2 wave n=196 retina specialists; 54,195 eyes)

—■— LUCENTIS      —▲— EYLEA      —X— Brolucizumab



Source: Q2 2020 ATU Study (n=201 retina specialists)



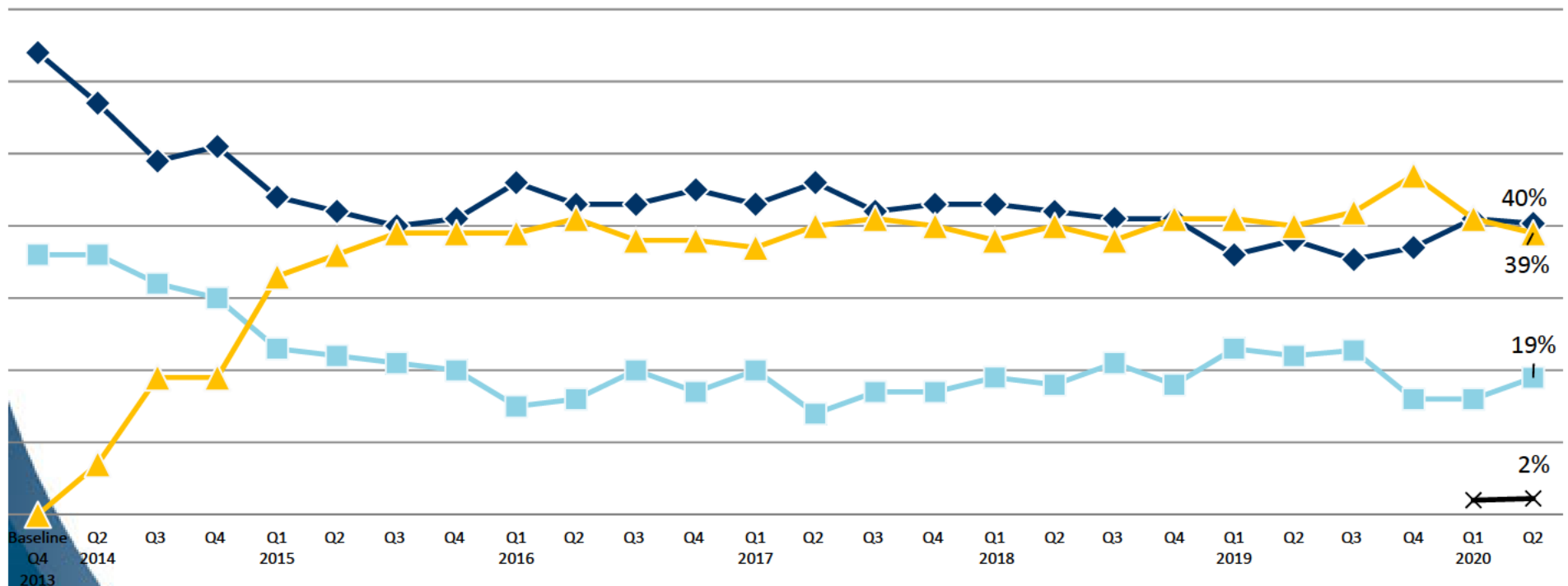
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# DME Stated Product Usage

**DME Centrally Involved** Diagnosed, Anti-VEGF Treated Eyes  
*Projected Market Share Allocation by Product – Total Market*  
 (Q2 2020 wave n=200 retina specialists; 25,455)

◆ AVASTIN    ■ LUCENTIS    ▲ EYLEA    ✕ Brolucizumab



Source: Q2 2020 ATU Study (n=200 retina specialists)



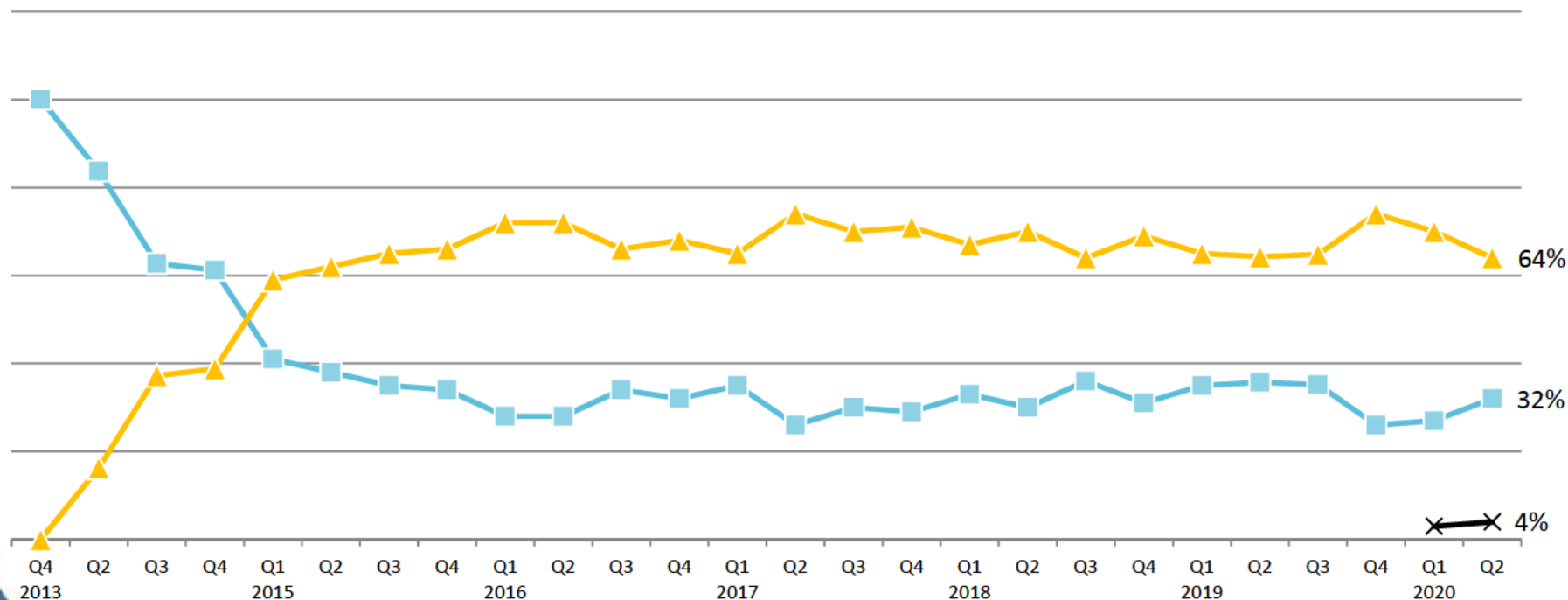
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# DME Branded Stated Product Usage

**DME Centrally Involved** Diagnosed, Anti-VEGF Treated Eyes  
*Projected Market Share Allocation by Product – Total Market*  
 (Q2 wave n=187 retina specialists; 15,489 eyes)

—■— LUCENTIS      —▲— EYLEA      —X— Brolucizumab



Source: Q2 2020 ATU Study (n=200 retina specialists)

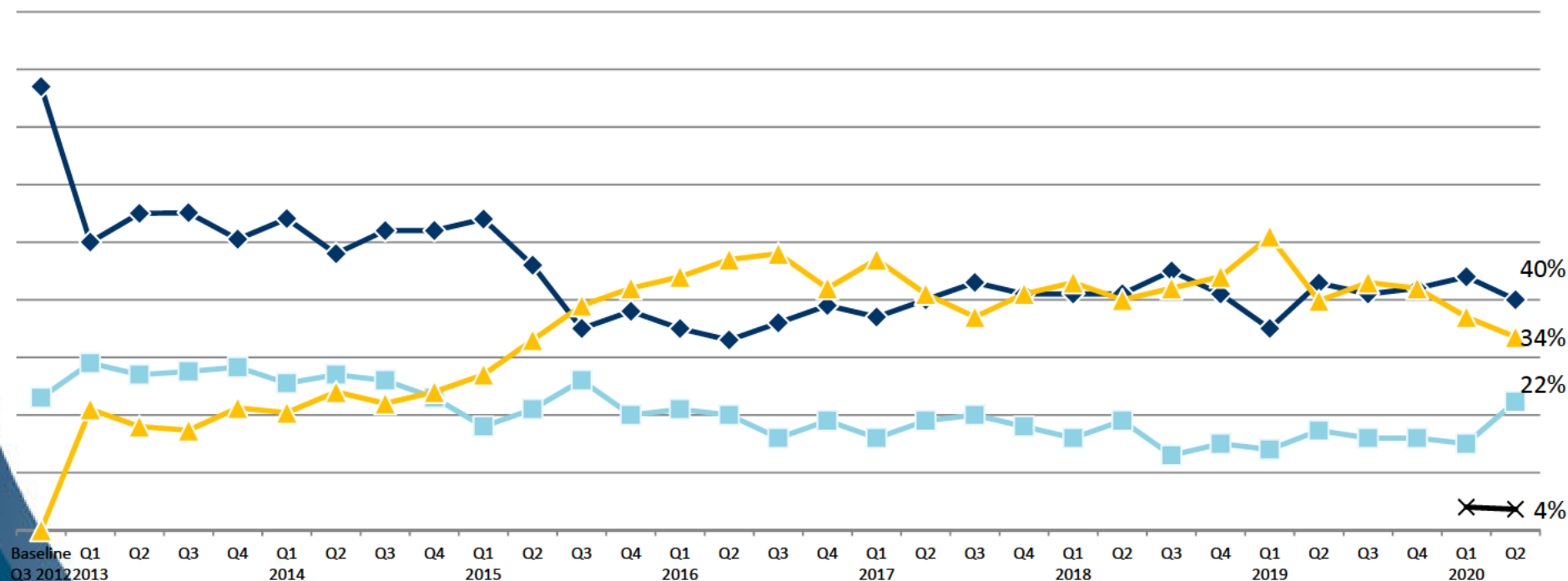
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



# MEfCRVO Stated Product Usage

Macular Edema following CRVO Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=100 retina specialists; 8,015)

—◆— AVASTIN —■— LUCENTIS —▲— EYLEA —X— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)



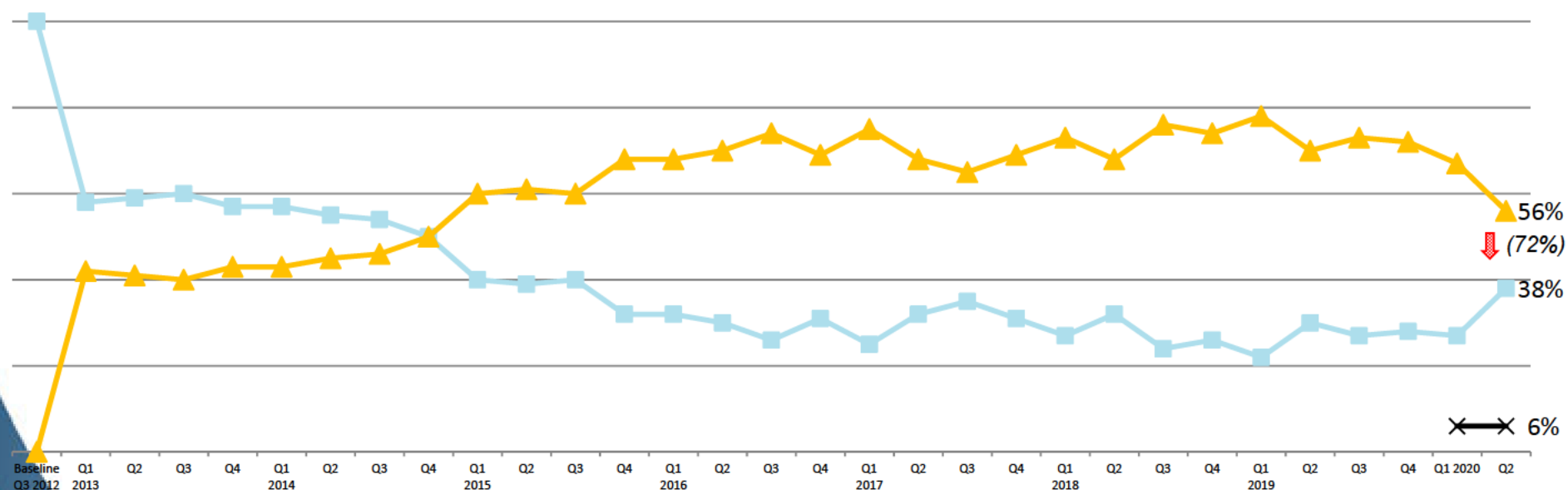
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfCRVO *Branded* Stated Product Usage

Macular Edema following **CRVO** Diagnosed, Anti-VEGF Treated Eyes  
*Projected Market Share Allocation by Product – Branded Market*  
 (Q2 wave=98 retina specialists; 4,836 eyes)

—■— LUCENTIS —▲— EYLEA —✕— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q4 2019

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

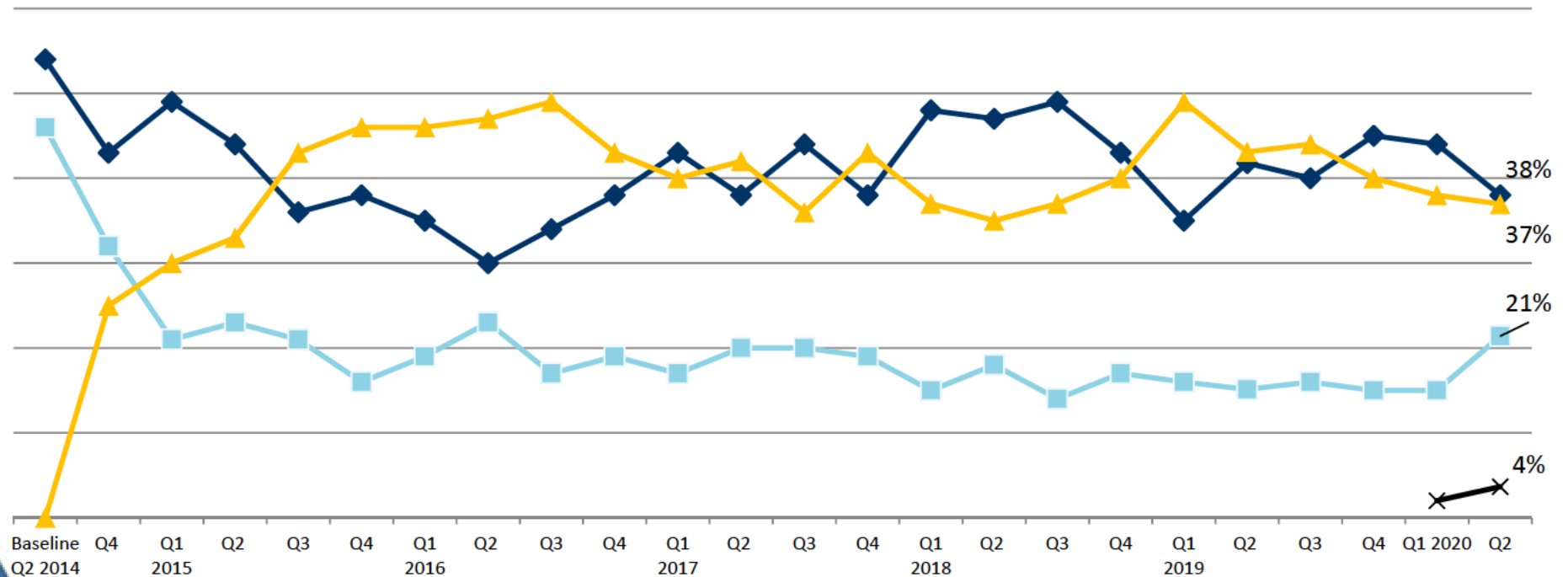


Maru/ - Confidential

# MEfBRVO Stated Product Usage

Macular Edema following BRVO Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=100 retina specialists; 9,663)

AVASTIN LUCENTIS EYLEA Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)



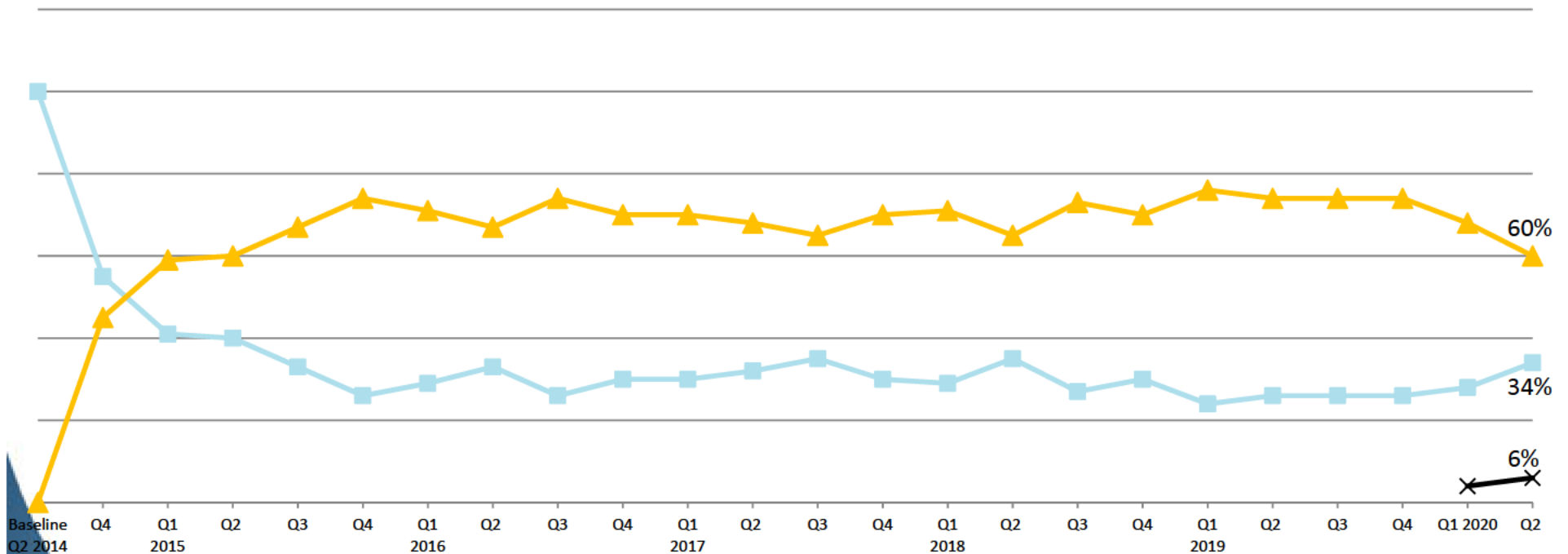
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfBRVO Branded Stated Product Usage

Macular Edema following BRVO Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Branded Market  
 (Q2 wave n=98 retina specialists; 6,144 eyes)

—■— LUCENTIS —▲— EYLEA —X— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

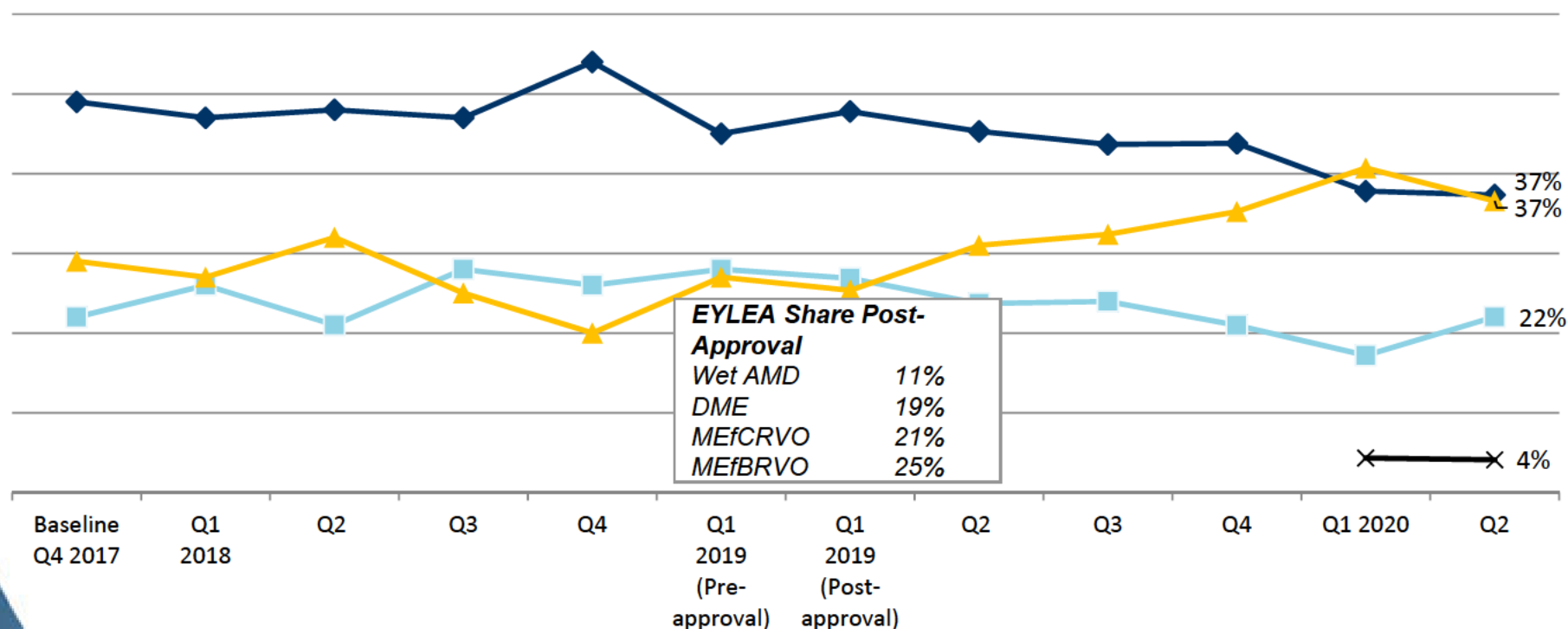
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



# DR w/out DME Stated Product Usage

DR w/out DME Diagnosed, Anti-VEGF Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (n=201 retina specialists; 36,091 eyes)

— AVASTIN — LUCENTIS — EYLEA — Brolucizumab

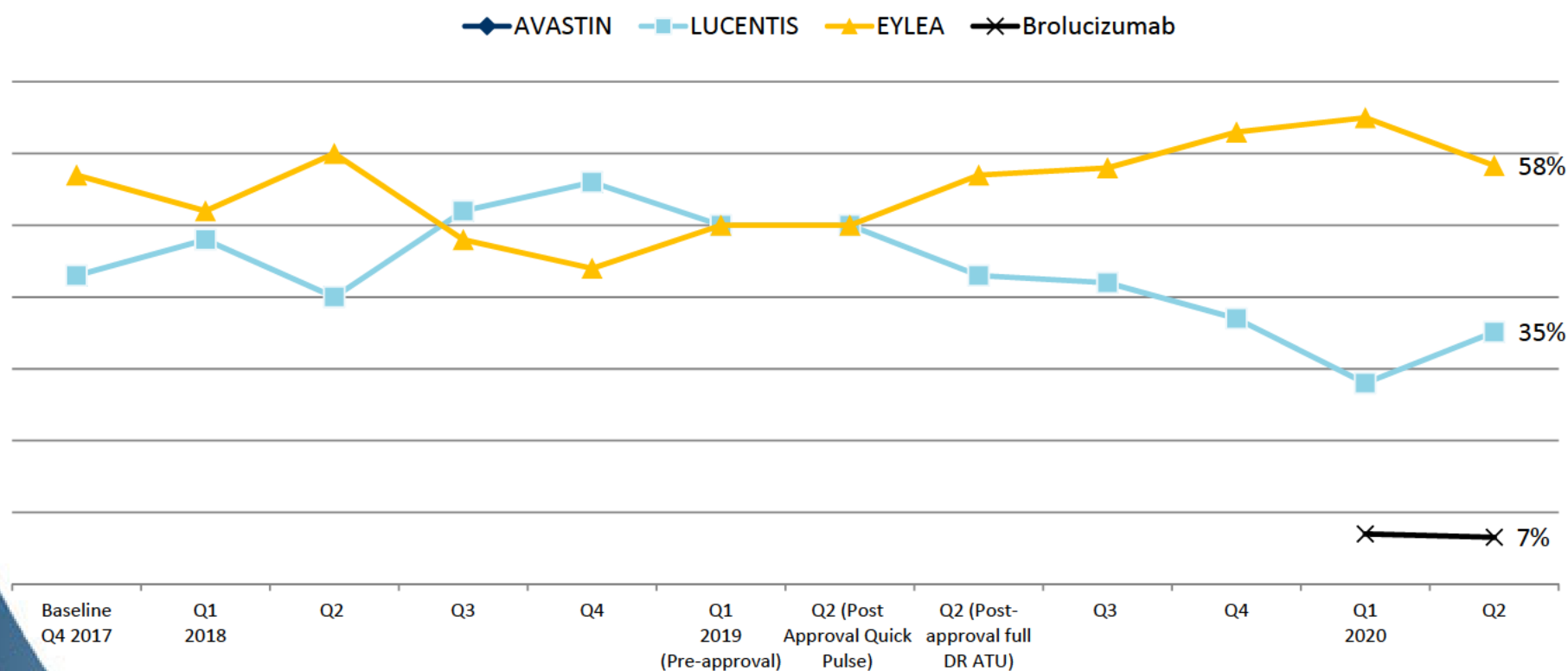


Source: Q2 2020 ATU Study (n=201 retina specialists)



# DR w/out DME *Branded* Stated Product Usage

DR w/out DME Diagnosed, Anti-VEGF Treated Eyes  
*Projected Market Share Allocation by Product – Total Market*  
 (n=201 retina specialists; 21,746 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential



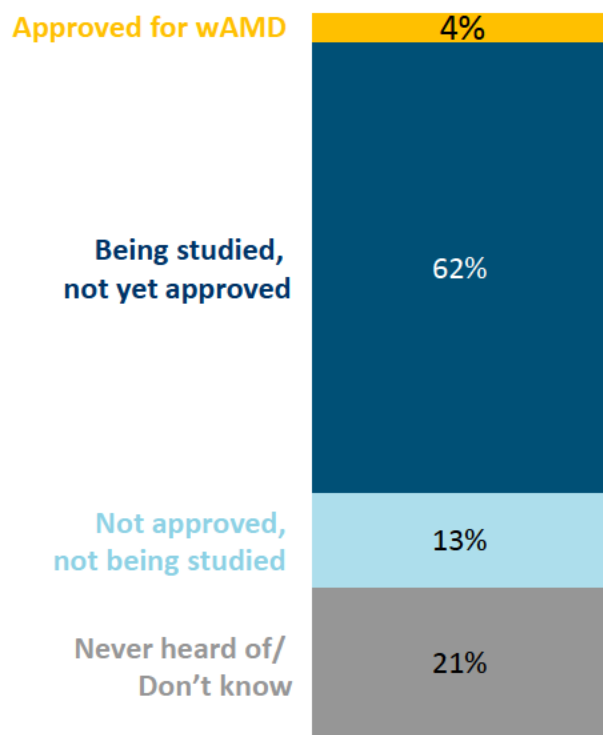
# New Treatments

---

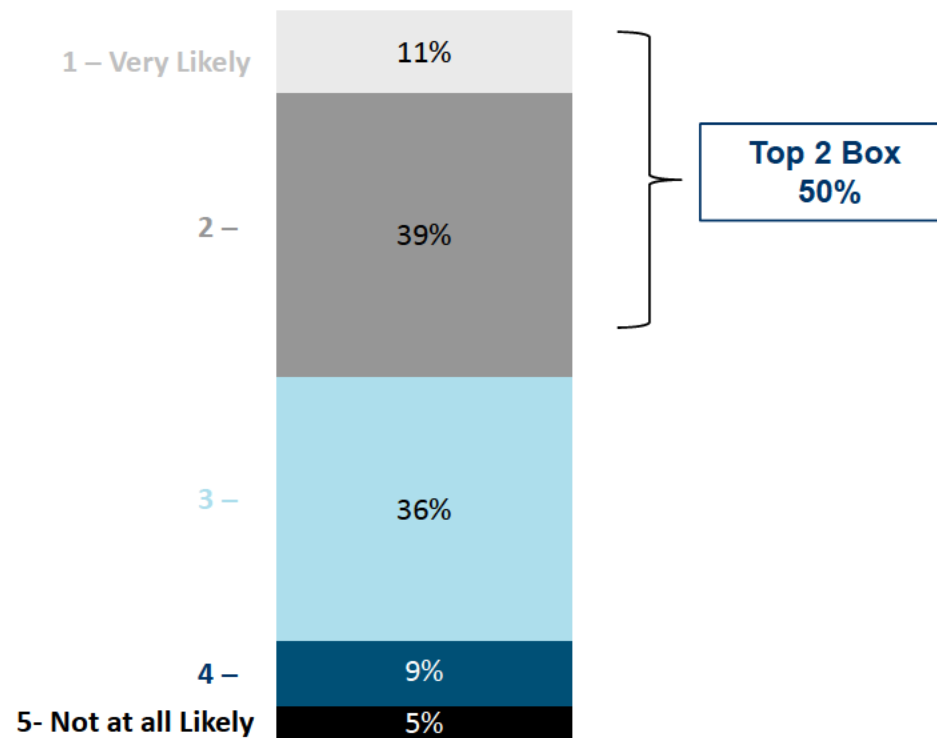


# Abicipar Pegol Awareness

% Aware of Abicipar Pegol



% Likely to use Abicipar Pegol



*\*New to Q2 2020, no stat testing available*

*Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=158 retina specialists heard about Abicipar pegol)*

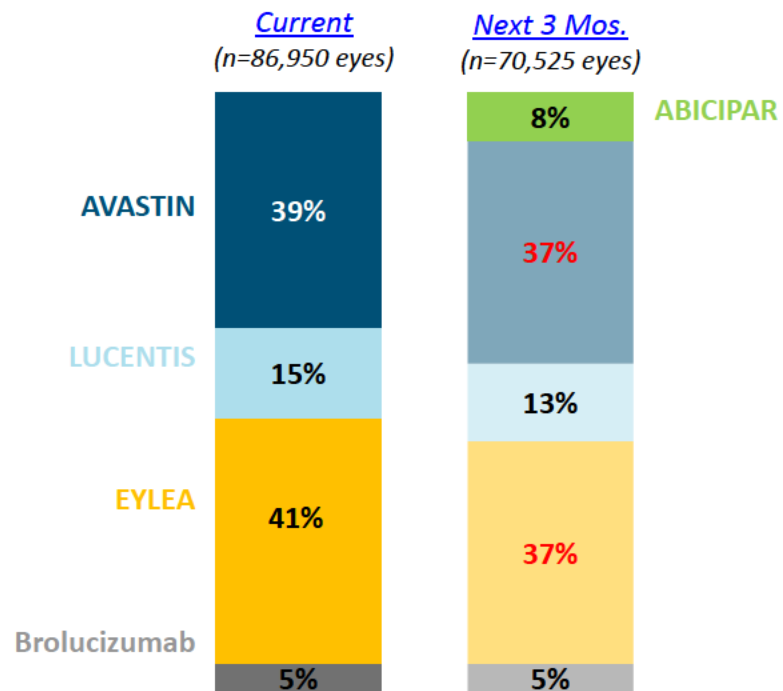
*When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves*



# Abicipar Pegol Awareness

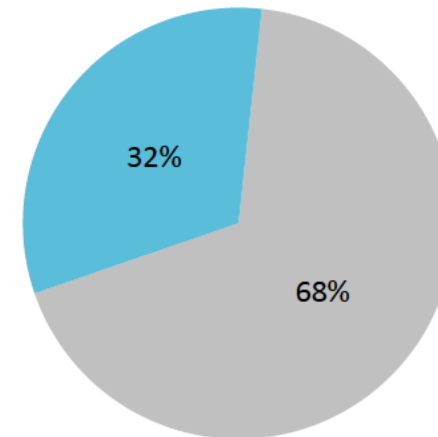
Wet AMD eyes Currently Tx/Intend to Treat with\*...

\*Next 3 months, assuming Abicipar pegol were approved



% Intend to Tx w/ Abicipar Pegol

Next 3 months  
(n=6,401 eyes)



■ Treatment Naïve Eyes

■ Eyes Switched

\*New to Q2 2020, no stat testing available

Source: Q2 2020 ATU Study (n=158 retina specialists heard about Abicipar pegol)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential



## SOURCE OF BUSINESS SUMMARY

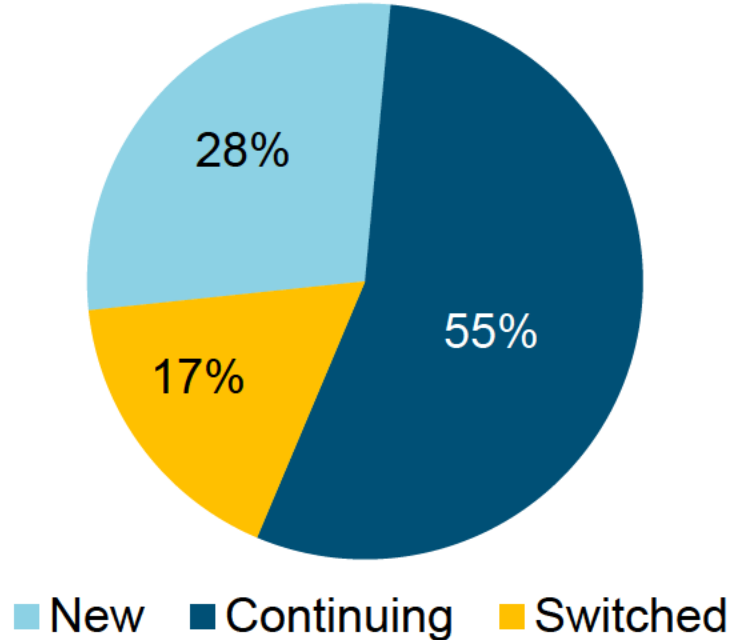
---



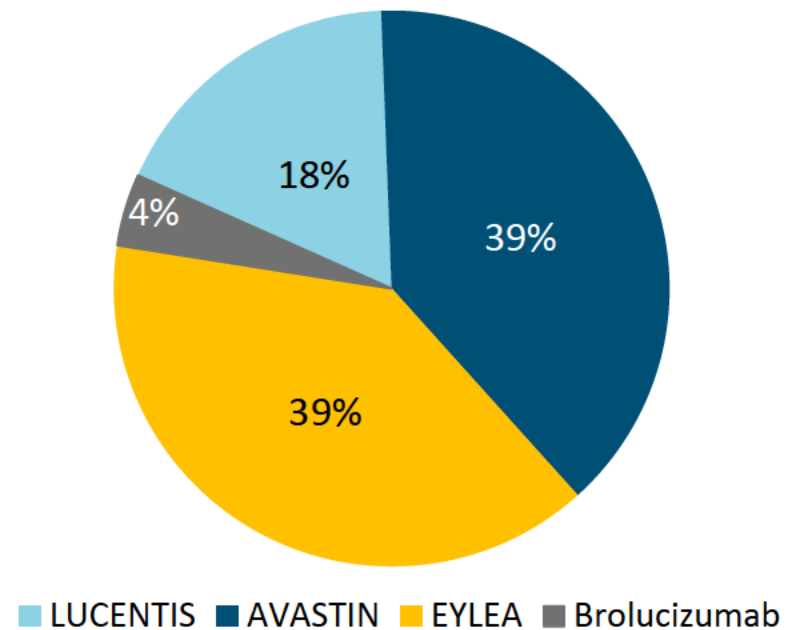
# Overall Source of Business

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes  
Projected Source of Business Across All Indications  
(Q2 wave n= 166,174 eyes)



Anti-VEGF Treated Eyes  
Projected Share Allocation Across All Indications  
(Q2 wave n= 166,174 eyes)



*\* Brolucizumab added to all indications in Q1 2020*

Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

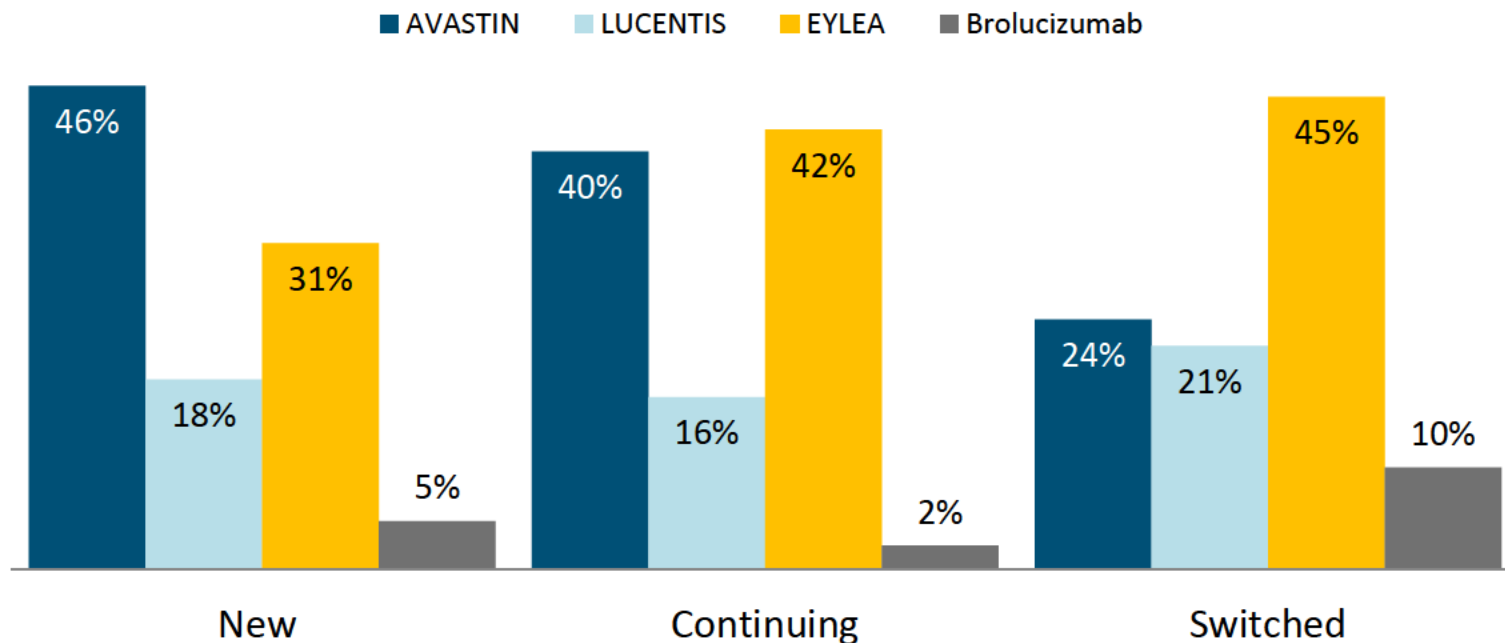


Maru/ - Confidential

# Anti-VEGF Market Source of Business

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes  
Projected Share Allocation by Segment by Product  
(Q2 wave n= 166,174 eyes)



*\*Brolucizumab eyes added to all indications Q1 2020*

Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total)

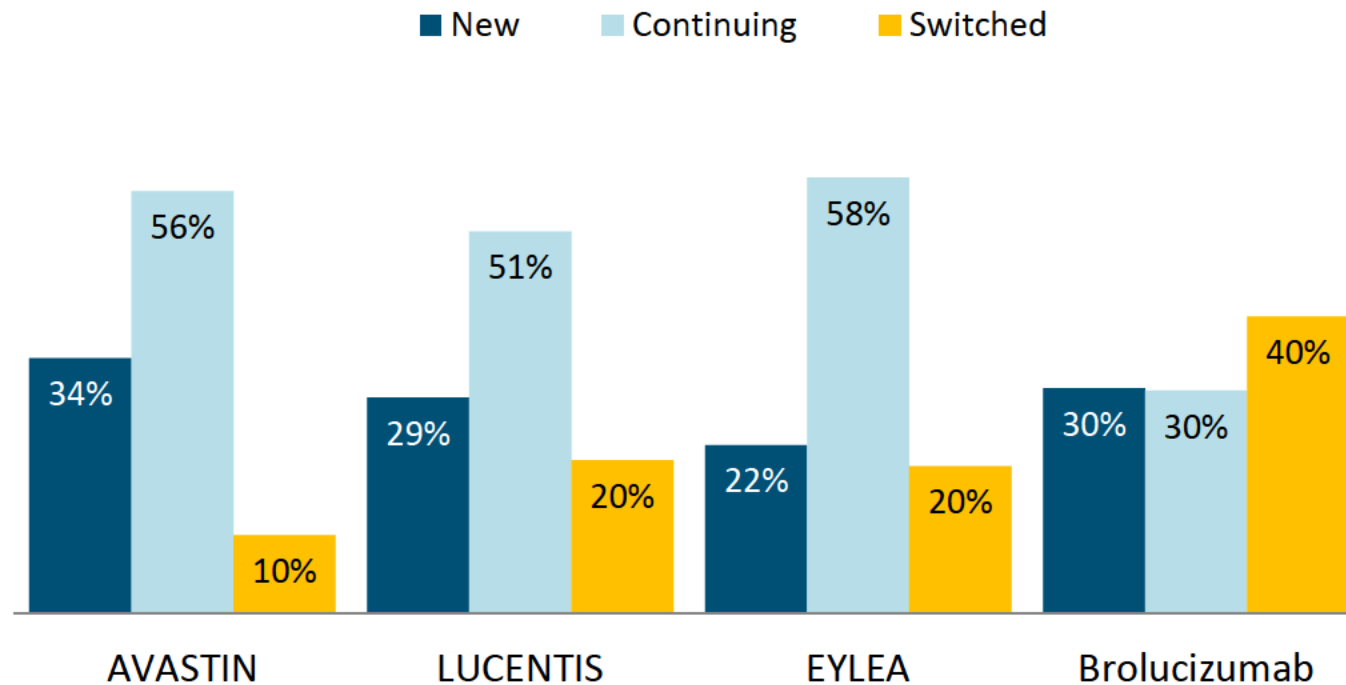
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



# Anti-VEGF Market Source of Business

(wAMD, DME, MEfRVO, DR w/out DME)

Anti-VEGF Treated Eyes  
Projected Share Allocation by Product by Segment  
(Q2 wave n= 166,174 eyes)



*\* Brolucizumab eyes added to all indications in Q1 2020*

Source: Q2 2020 ATU Study (n=201 retina specialists reporting wet AMD, n=200 retina specialists reporting DME, n=100 retina specialists reporting MEfRVO; n=201 retina specialists reporting DR w/out DME; 166,174 eyes total)

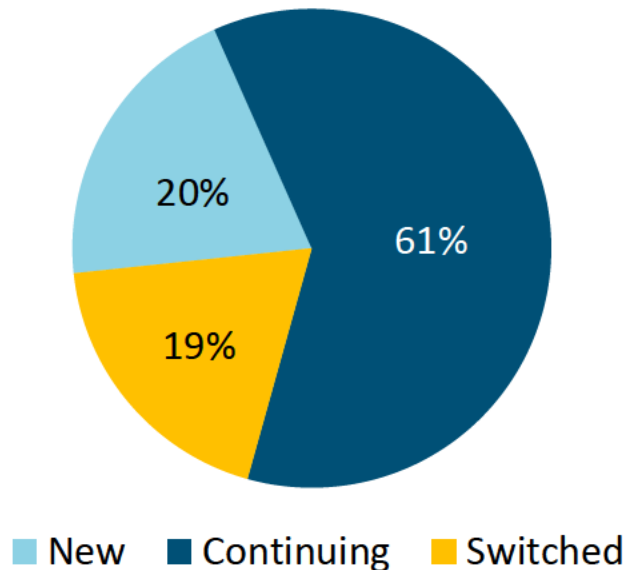
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



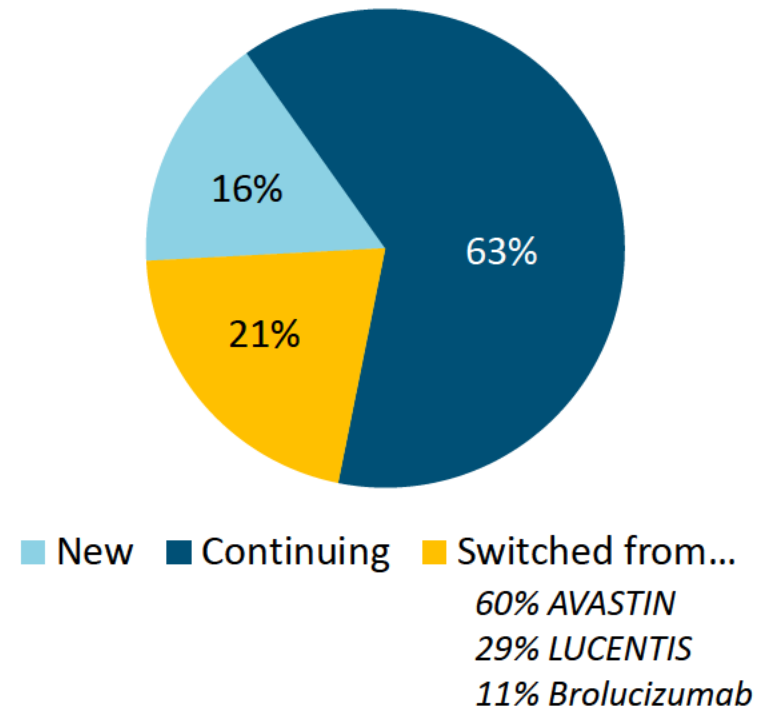
Maru/ - Confidential

# Wet AMD Source of Business

Wet AMD, **Anti-VEGF** Treated Eyes  
*Projected New, Continuing, & Switched*  
(Q2 wave n=201 retina specialists; 86,950 eyes)



Wet AMD, **EYLEA** Treated Eyes  
*Projected New, Continuing, & Switched to EYLEA*  
(Q2 wave n=193 retina specialists; 36,544 eyes)



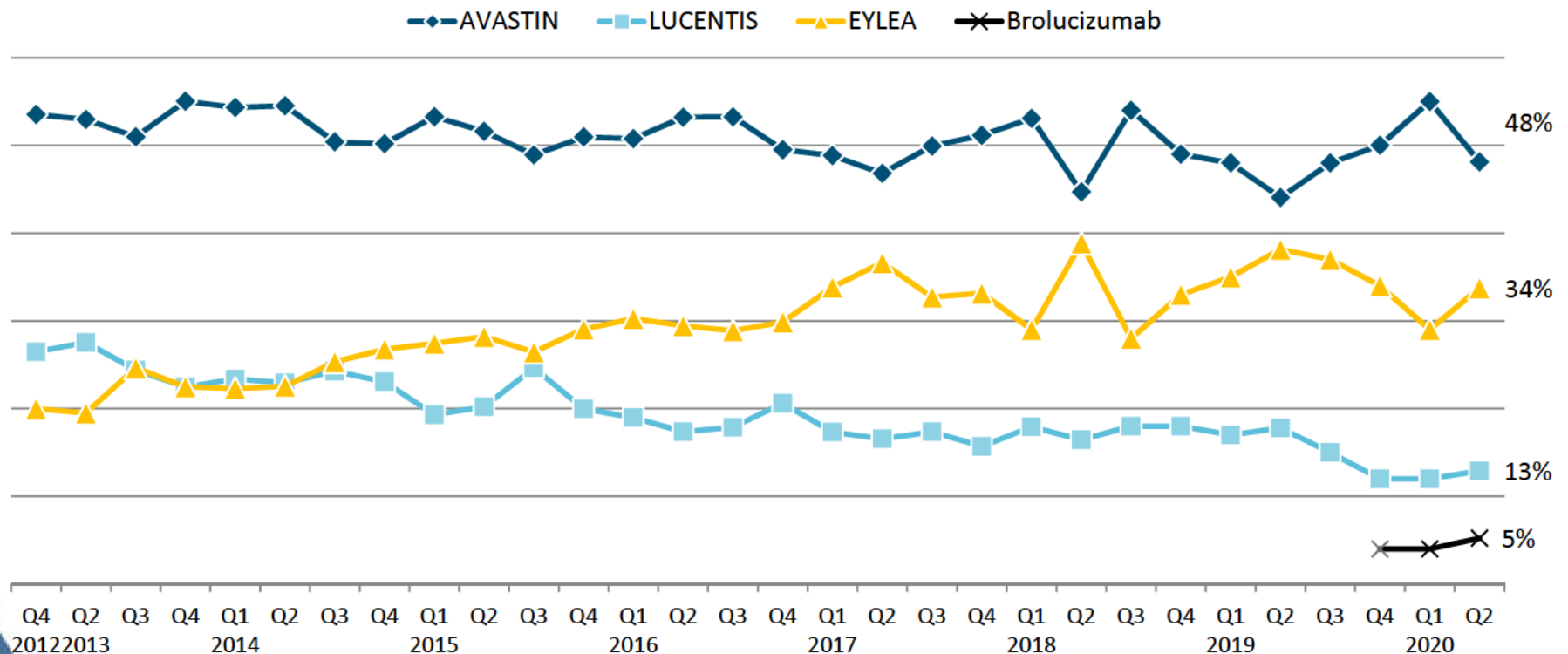
Source: Q2 2020 ATU Study (n=201 retina specialists)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



# Wet AMD Share Update – New Eyes

Wet AMD Diagnosed, Anti-VEGF **NEWLY** Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=201 retina specialists; 17,898 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

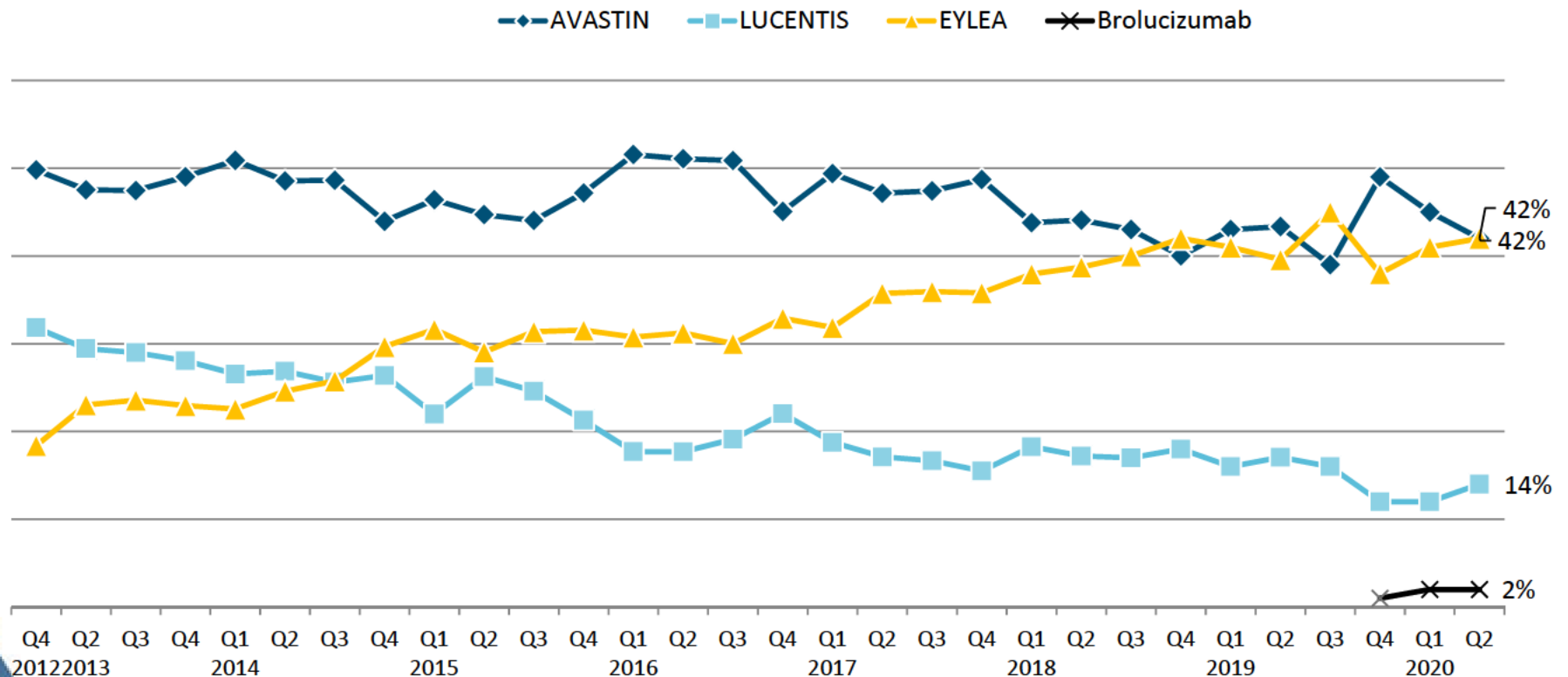


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD Share Update – Continuing Eyes

Wet AMD Diagnosed, Anti-VEGF CONTINUING Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=201 retina specialists; 51,548 continuing eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

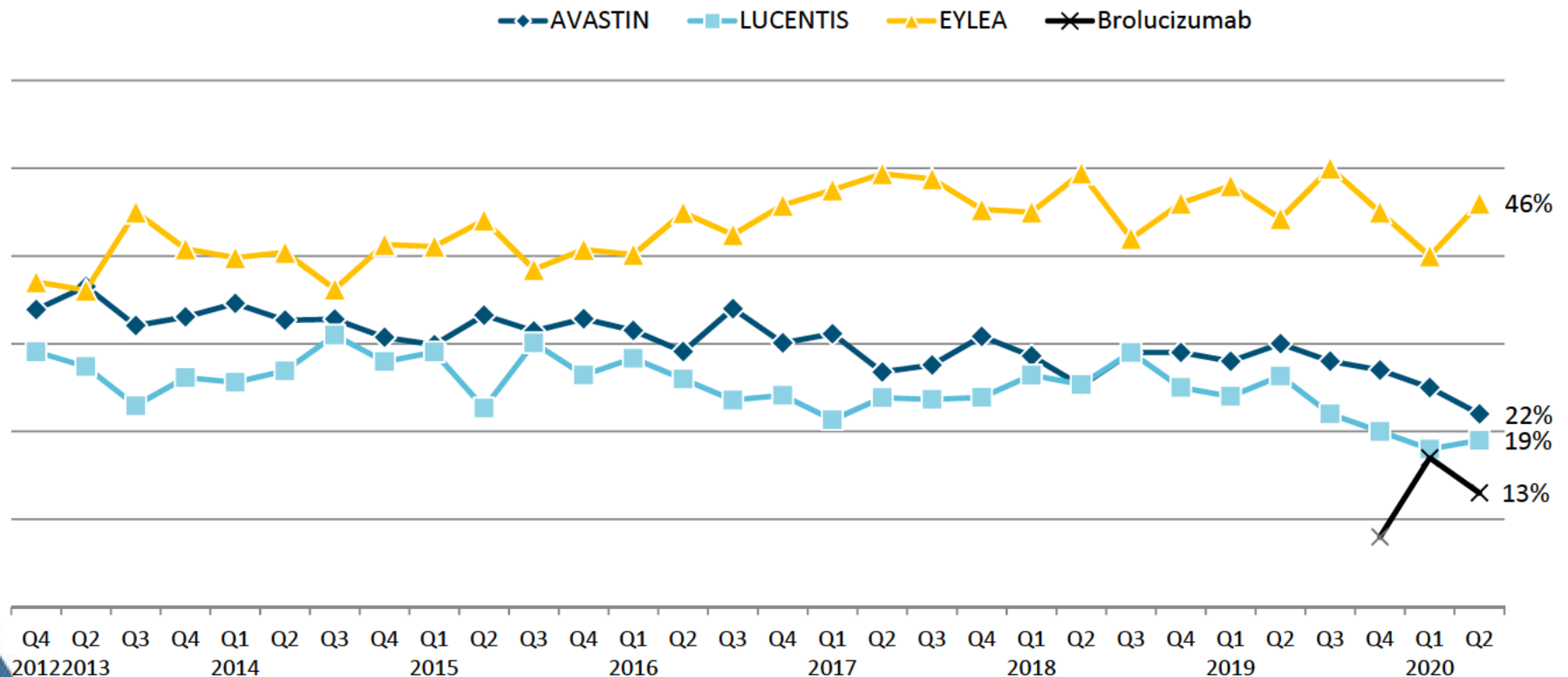
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential

# Wet AMD Share Update – Switched Eyes

Wet AMD Diagnosed, Anti-VEGF SWITCHED Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=201 retina specialists; 17,503 switched eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

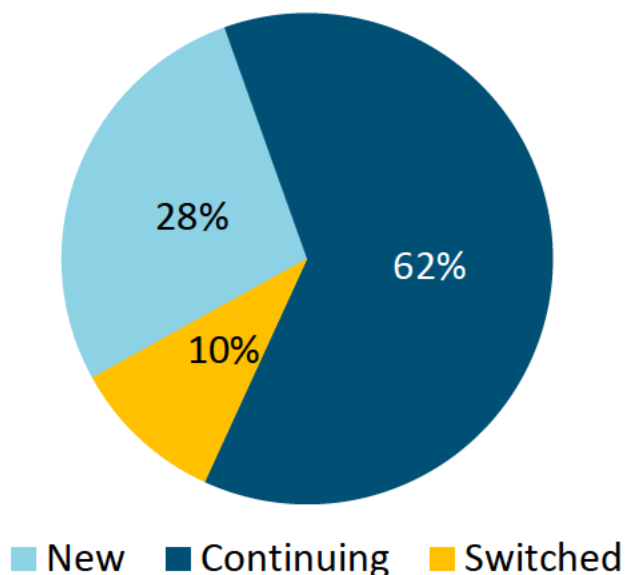
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



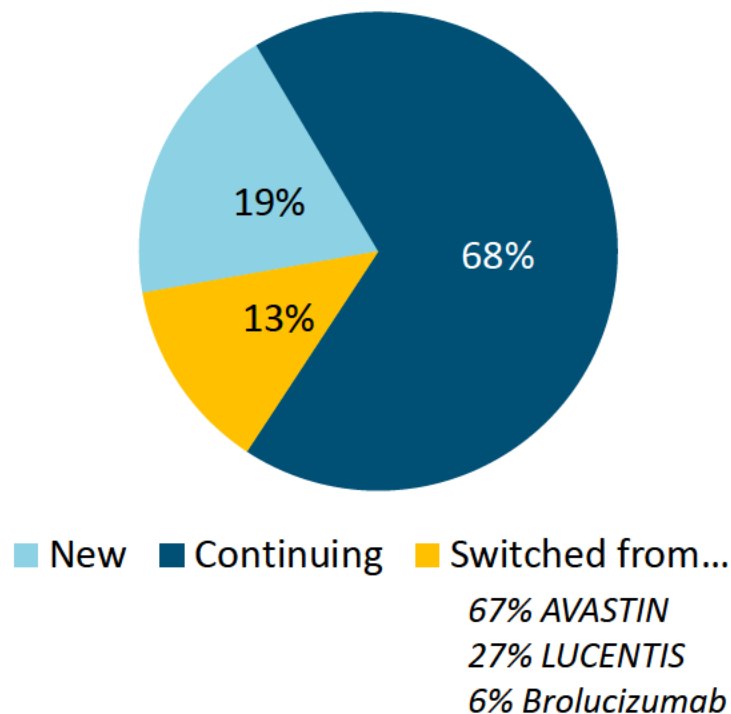
Maru/ - Confidential

# DME Source of Business

Centrally-involved DME, **Anti-VEGF** Treated Eyes  
*Projected New, Continuing, & Switched*  
(Q2 wave n=200 retina specialists; 25,455)



Centrally-involved DME, **EYLEA** Treated Eyes  
*Projected New, Continuing, & Switched to EYLEA*  
(Q2 wave n=189 retina specialists; 10,271 eyes)



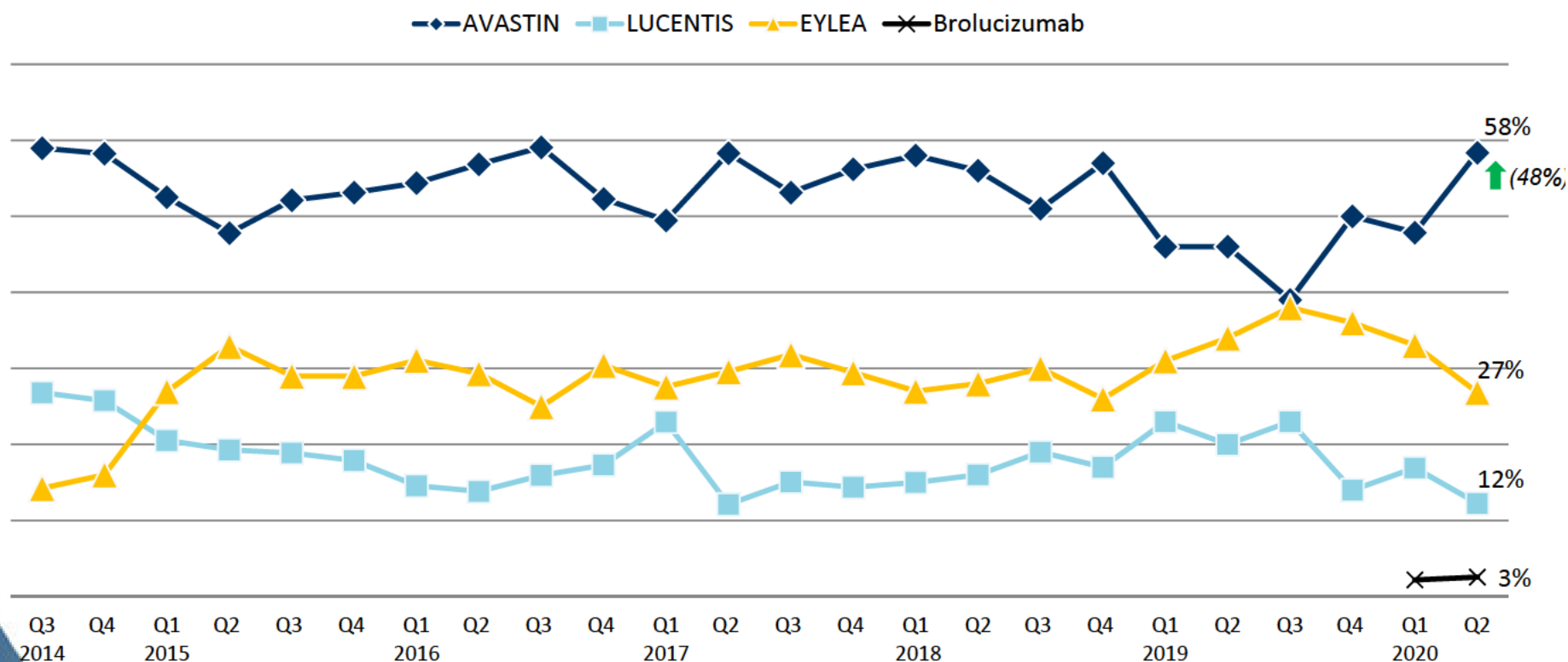
Source: Q2 2020 ATU Study (n=200 retina specialists)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential

# DME Share Update – New Eyes

DME Centrally Involved Diagnosed, Anti-VEGF **NEWLY** Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 7,232 eyes)

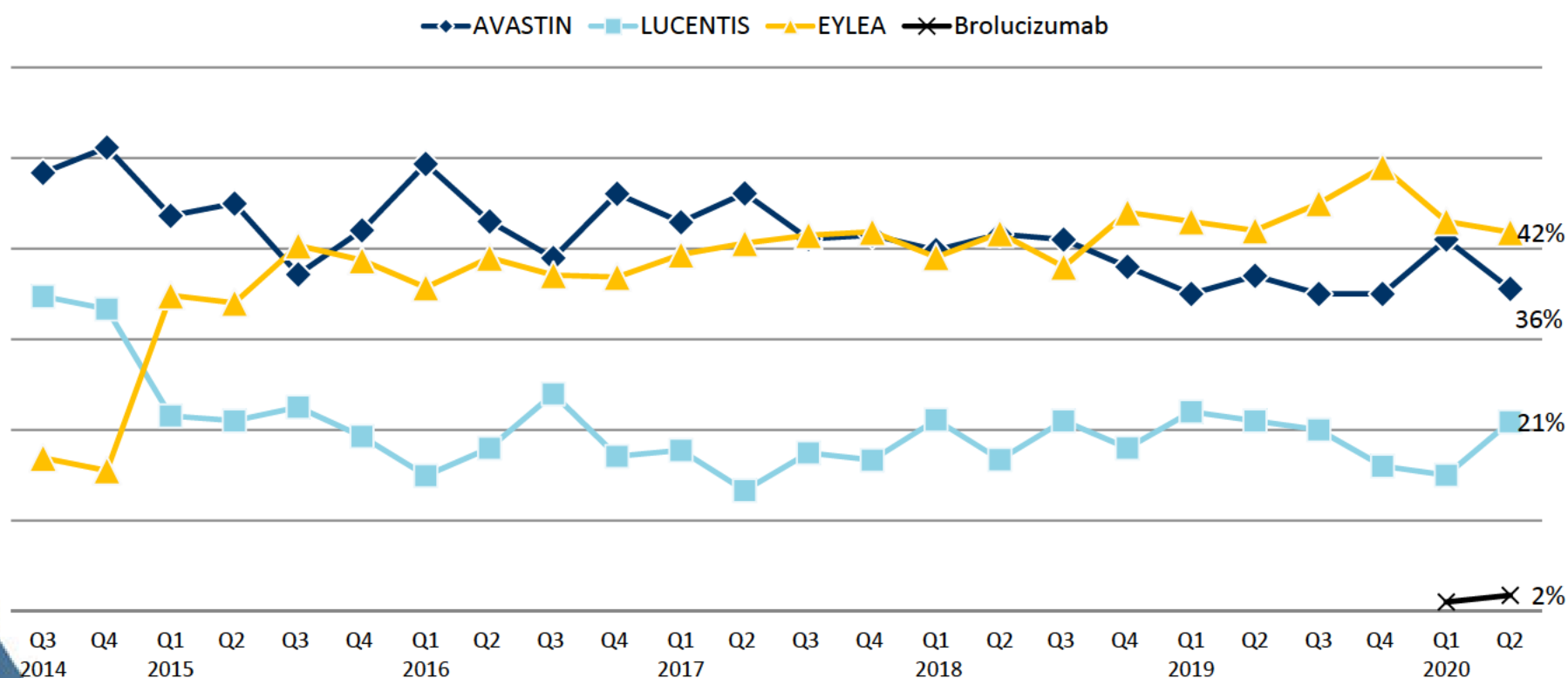


Source: Q2 2020 ATU Study (n=200 retina specialists)



# DME Share Update – Continuing Eyes

DME Centrally Involved Diagnosed, Anti-VEGF CONTINUING Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 15,636 eyes)

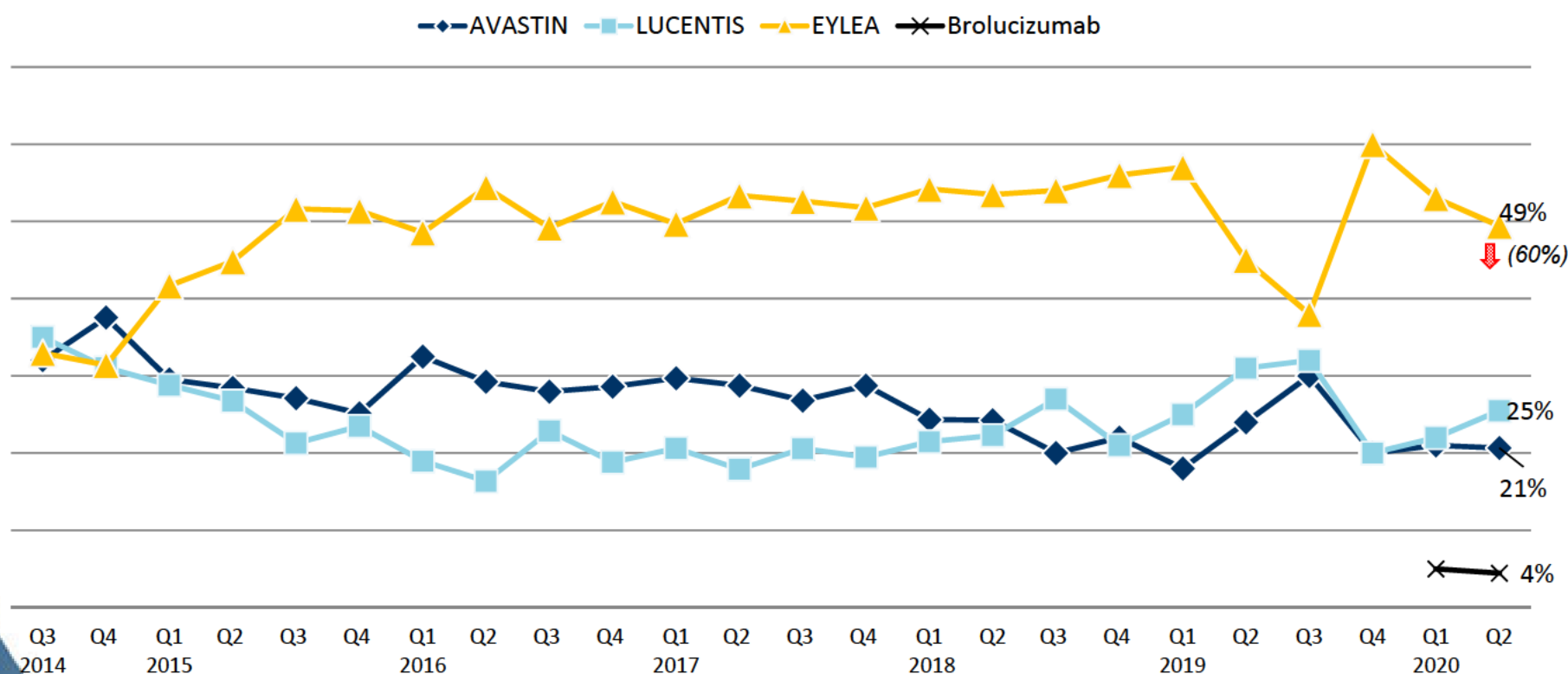


Source: Q2 2020 ATU Study (n=200 retina specialists)



# DME Share Update – Switched Eyes

DME Centrally Involved Diagnosed, Anti-VEGF SWITCHED Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 2,587 eyes)

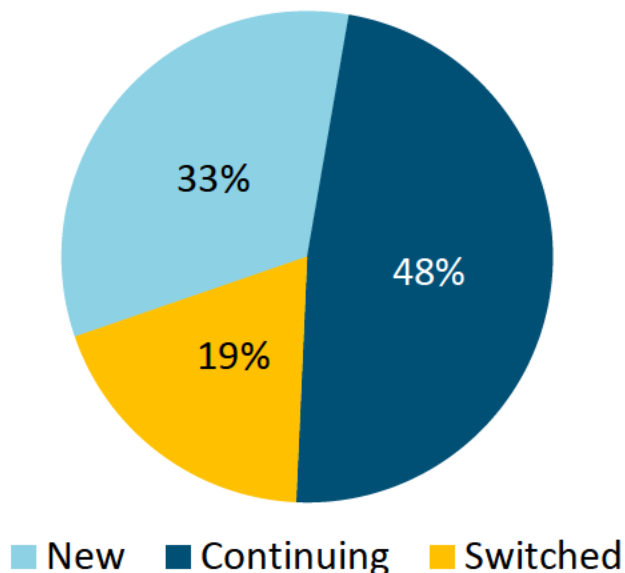


Source: Q2 2020 ATU Study (n=200 retina specialists)

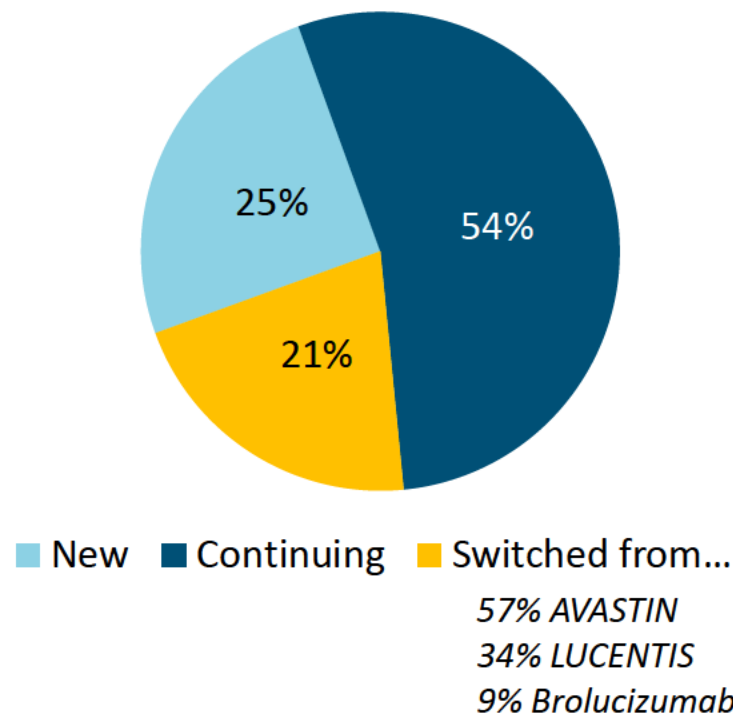


# MEfRVO Source of Business

Total MEfRVO, **Anti-VEGF** Treated Eyes  
Projected New, Continuing, & Switched  
(Q2 wave n=100 retina specialists; 17,679 eyes)



Total MEfRVO, **EYLEA** Treated Eyes  
Projected New, Continuing, & Switched to EYLEA  
(Q2 wave n=98 retina specialists; 6,418 eyes)



Source: Q2 2020 ATU Study (n=100 retina specialists)

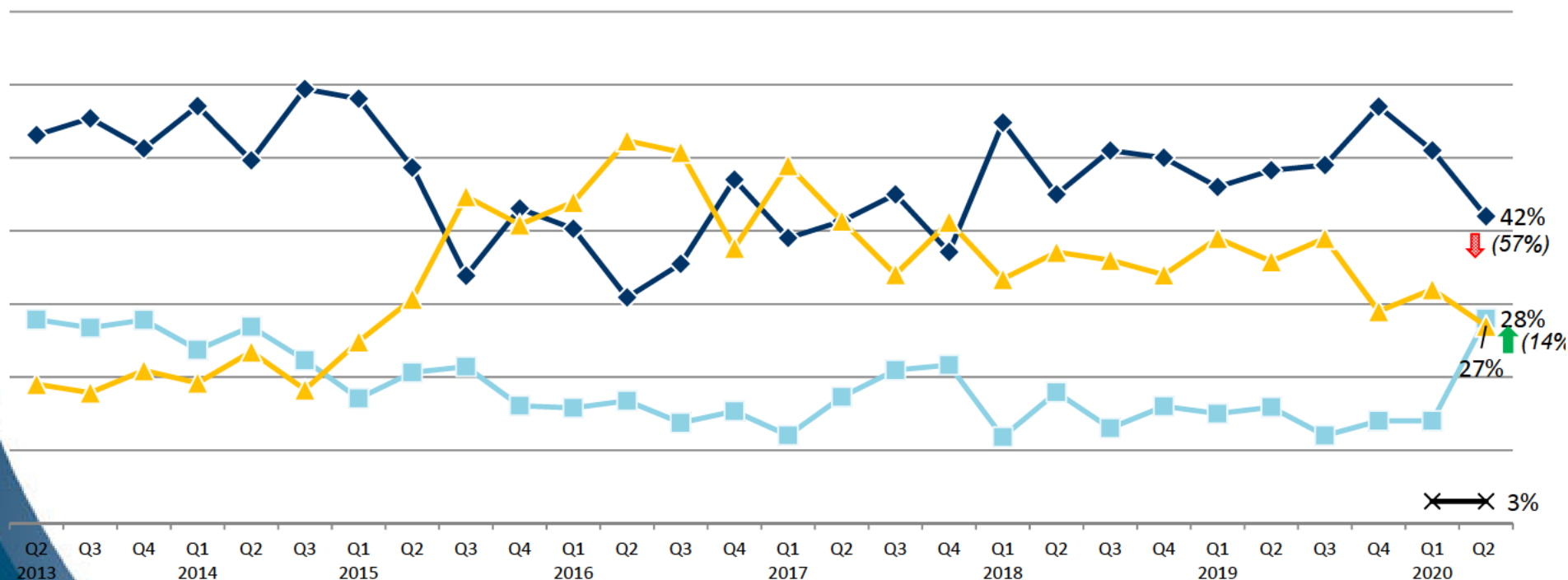
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential

# MEfRVO Share Update – New Eyes

Macular Edema following MEfRVO Diagnosed, Anti-VEGF NEWLY Treated Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 wave n= 100 retina specialists; 5,847 new eyes)

—◆— AVASTIN —■— LUCENTIS —▲— EYLEA —×— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

↑↓ Statistically significant at 95% confidence level vs. Q4 2019



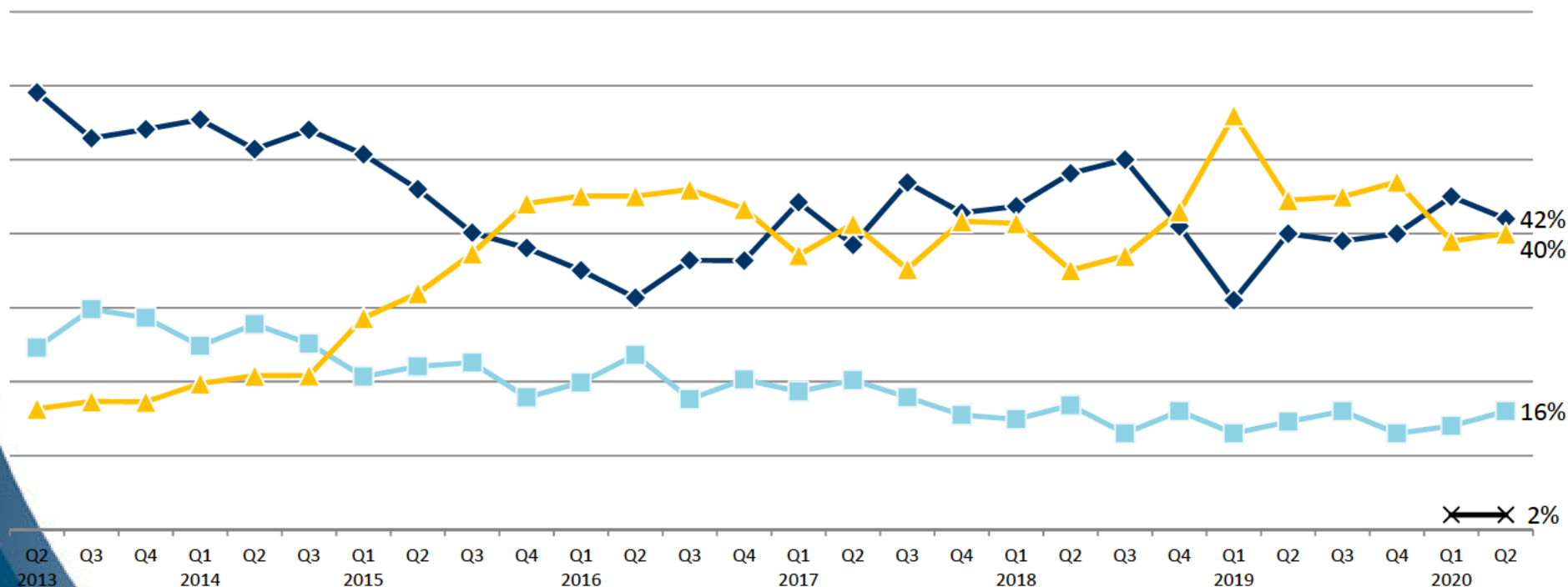
Maru - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfRVO Share Update – Continuing Eyes

Macular Edema following MEfRVO Diagnosed, Anti-VEGF CONTINUING Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 wave n= 100 retina specialists; 8,458 continuing eyes)

—◆— AVASTIN —■— LUCENTIS —▲— EYLEA —X— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)



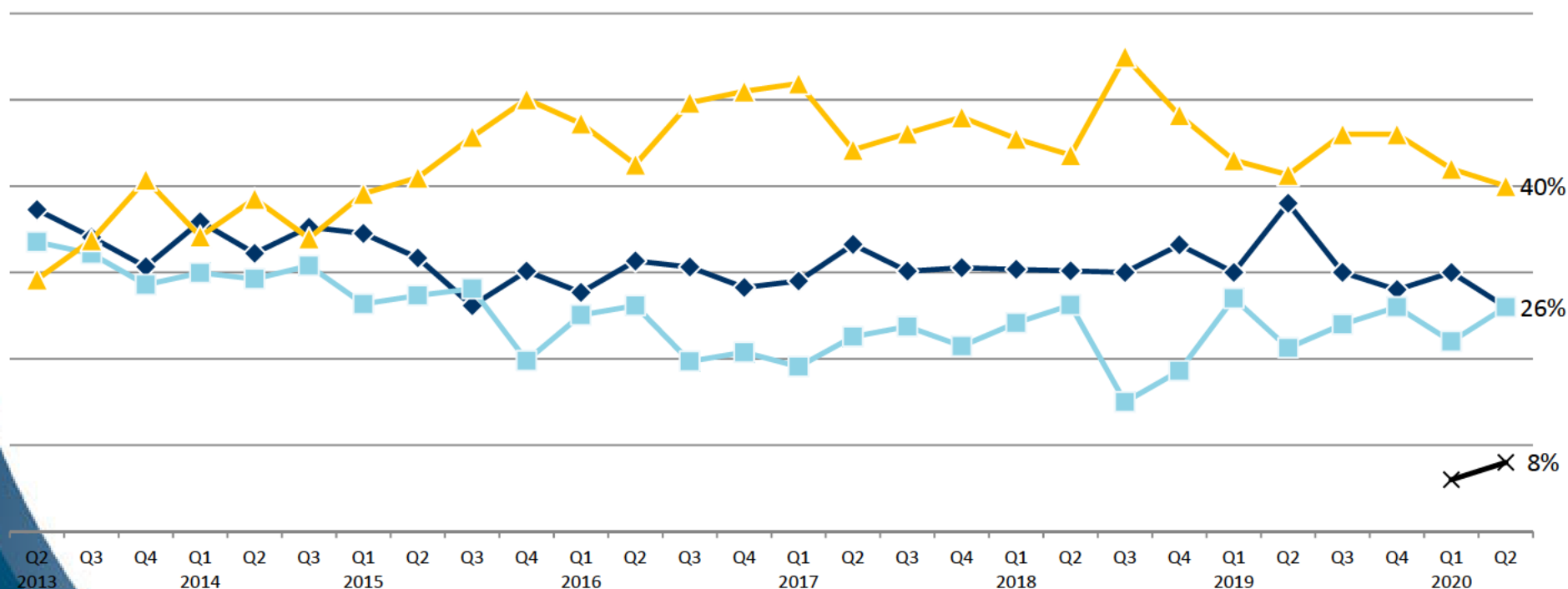
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfRVO Share Update – Switched Eyes

Macular Edema following MEfRVO Diagnosed, Anti-VEGF SWITCHED Eyes  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 wave n= 100 retina specialists; 3,374 switched eyes)

—◆— AVASTIN —■— LUCENTIS —▲— EYLEA —X— Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

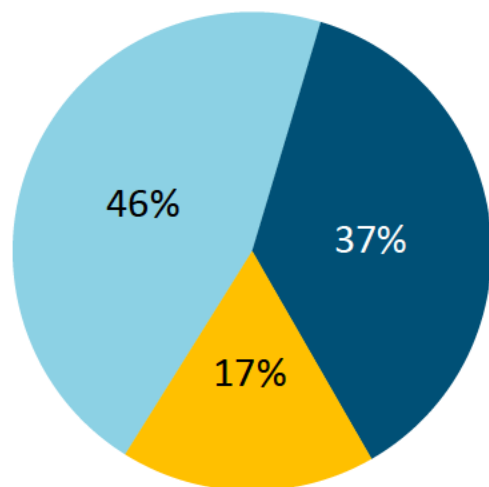


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

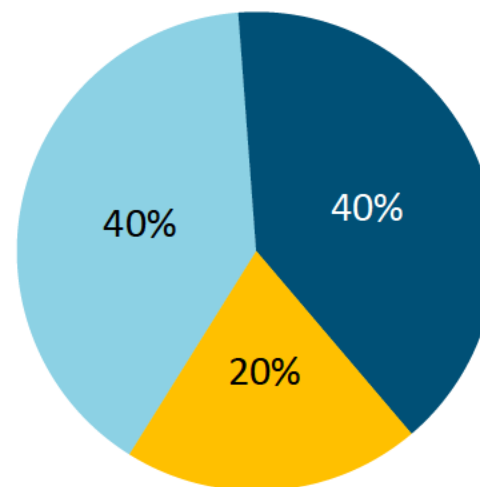
# DR w/out DME Source of Business

DR w/o DME, **Anti-VEGF** Treated Eyes  
Projected New, Continuing, & Switched  
(Q2 2020 n=36,091 eyes)



■ New ■ Continuing ■ Switched

DR w/o DME, **EYLEA** Treated Eyes  
Projected New, Continuing, & Switched to EYLEA  
(Q2 2020 n=12,762 eyes)



■ New ■ Continuing ■ Switched

Source: Q2 2020 ATU Study (n=201 retina specialists)

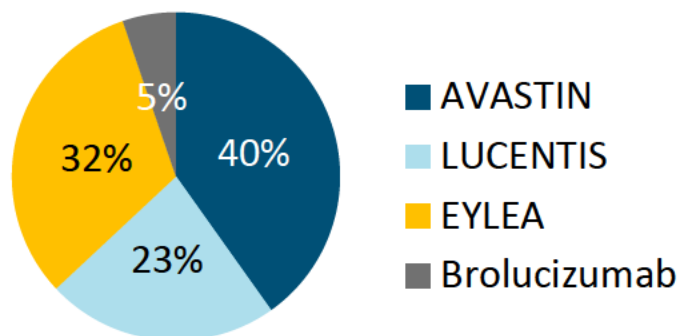
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



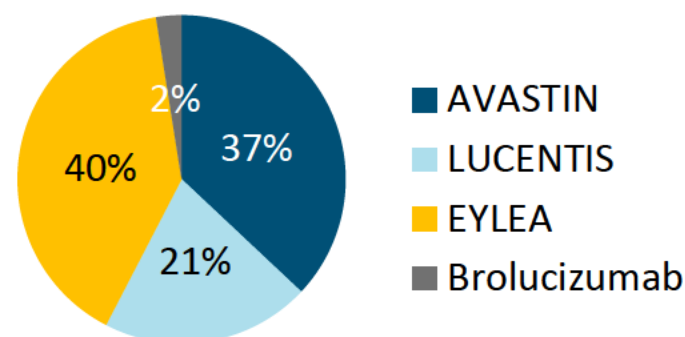
# DR w/out DME Share Update

## DR w/out DME, Anti-VEGF Treated Eyes Market Share Allocation

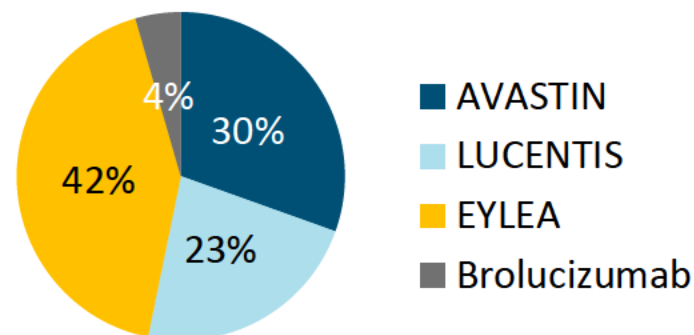
Share Allocation: *Newly Treated Eyes*  
(n=16,041 eyes)



Share Allocation: *Continuing Eyes (Same Tx)*  
(n=13,715 eyes)



Share Allocation: *Eyes Switched to...*  
(n=6,335 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

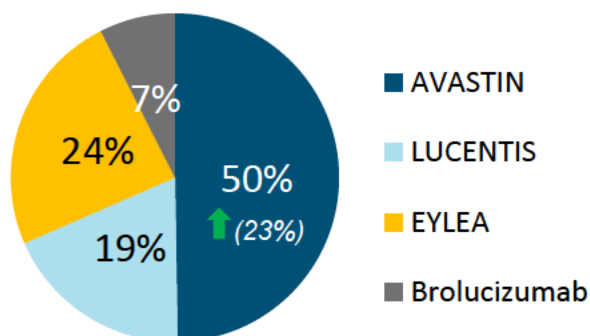
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



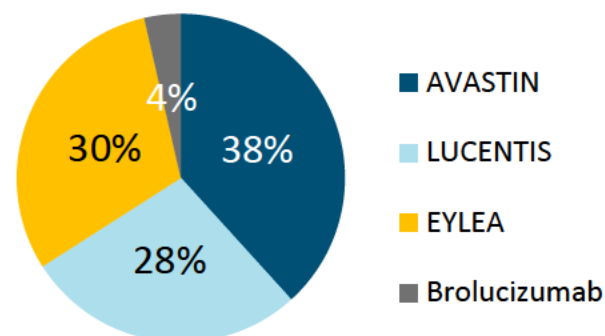
# DR w/out DME Share Update – Newly Treated Eyes

DR w/out DME, **NEW Anti-VEGF Treated** Eyes  
Market Share Allocation

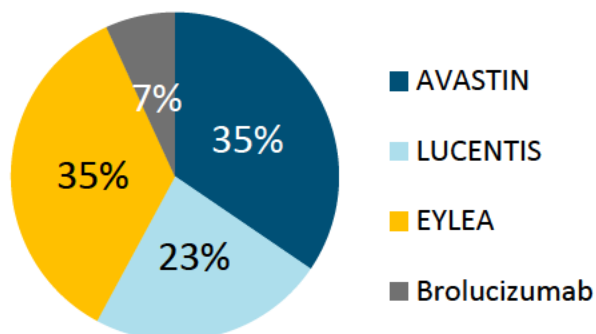
Share Allocation: **Mild Non-proliferative DR**  
(n=1,996 eyes)



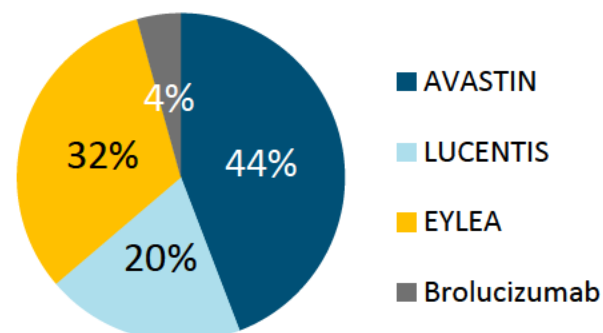
Share Allocation: **Moderate Non-proliferative DR**  
(n=4,290 eyes)



Share Allocation: **Severe Non-proliferative DR**  
(n=5,051 eyes)



Share Allocation: **Proliferative DR**  
(n=4,704 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

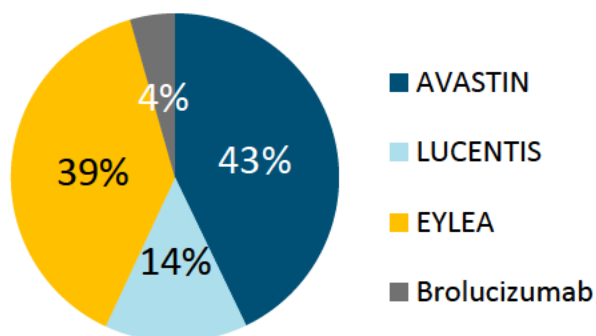
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential

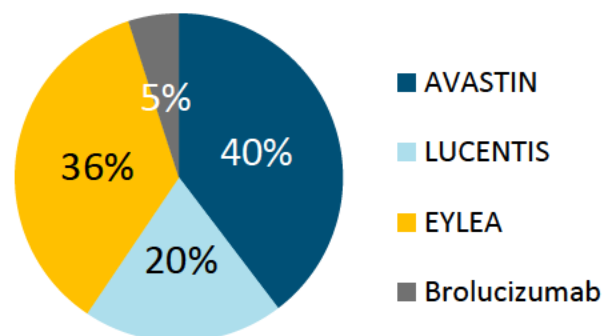
# DR w/out DME Share Update – Continuing Eyes

DR w/out DME, **CONTINUING Anti-VEGF Treated** Eyes  
Market Share Allocation

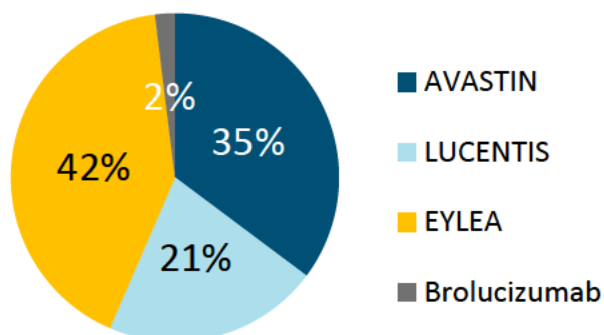
Share Allocation: **Mild Non-proliferative DR**  
(n=1,067 eyes)



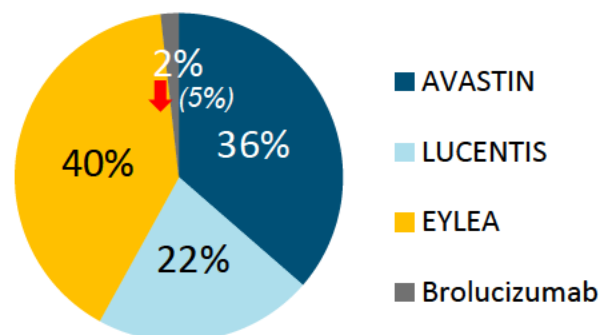
Share Allocation: **Moderate Non-proliferative DR**  
(n=1,970 eyes)



Share Allocation: **Severe Non-proliferative DR**  
(n=4,632 eyes)



Share Allocation: **Proliferative DR**  
(n=6,046 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

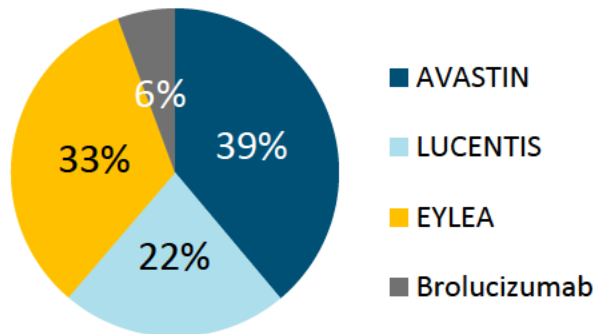
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential

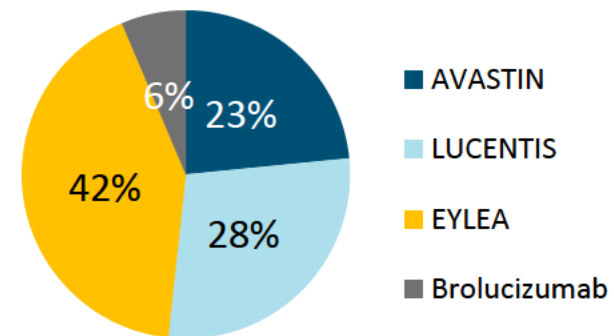
# DR w/out DME Share Update – Switched Eyes

DR w/out DME, **SWITCHED** Anti-VEGF Treated Eyes  
Market Share Allocation

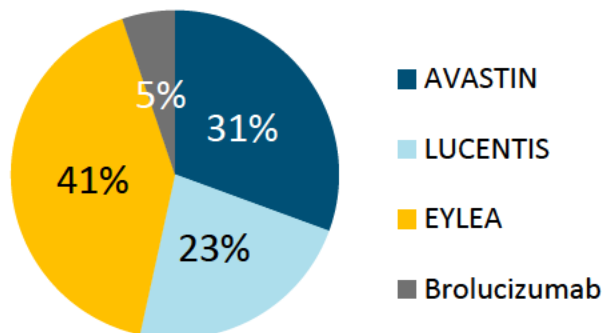
Share Allocation: **Mild Non-proliferative DR**  
(n=887 eyes)



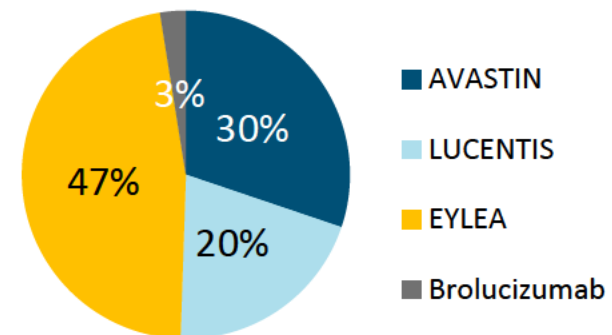
Share Allocation: **Moderate Non-proliferative DR**  
(n=1,139 eyes)



Share Allocation: **Severe Non-proliferative DR**  
(n=1,922 eyes)



Share Allocation: **Proliferative DR**  
(n=2,388 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential



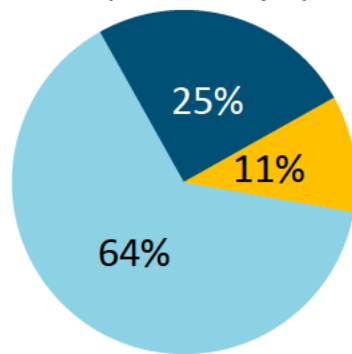
# Line of Therapy Market Share

---



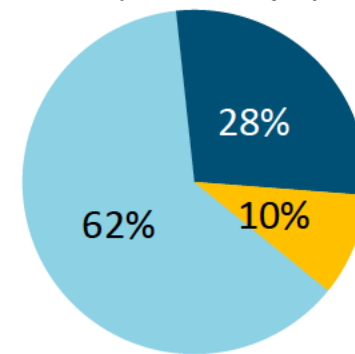
# Line of Therapy By Indication

**Wet AMD**, Anti-VEGF Treated Eyes  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>+ Line of Anti-VEGF Therapy  
(n=86,950 eyes)



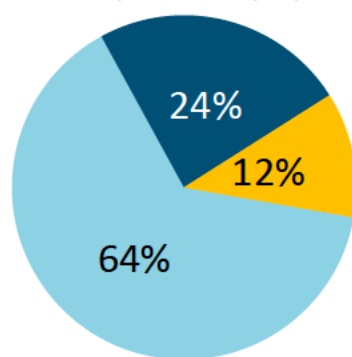
■ 1st Line Therapy ■ 2nd Line Therapy ■ 3rd+ Line Therapy

**DME**, Anti-VEGF Treated Eyes  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>+ Line of Anti-VEGF Therapy  
(n=25,455 eyes)

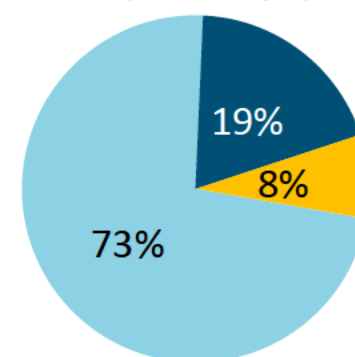


■ 1st Line Therapy ■ 2nd Line Therapy ■ 3rd+ Line Therapy

**MEfCRVO**, Anti-VEGF Treated Eyes  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>+ Line of Anti-VEGF Therapy  
(n=8,015 eyes)



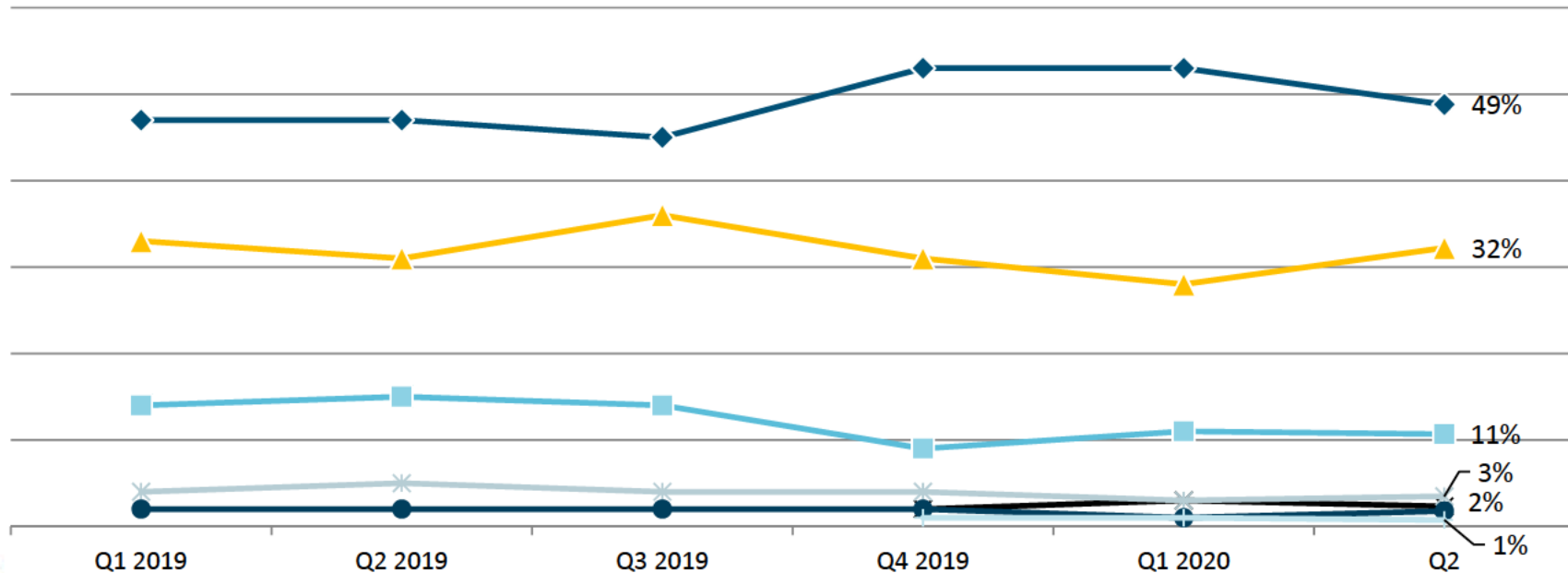
**MEfBRVO**, Anti-VEGF Treated Eyes  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>+ Line of Anti-VEGF Therapy  
(n=9,663 eyes)



# Wet AMD Tracking– First Line of Therapy Stated Product Usage

Wet AMD Diagnosed, Anti-VEGF 1<sup>st</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=201 retina specialists; 55,528 eyes)

◆ AVASTIN  
 ✕ Brolucizumab  
 ◆ LUCENTIS  
 ✱ Avastin as bridge for EYLEA  
 ▲ EYLEA  
 ● Avastin bridge for LUCENTIS  
 + Avastin bridge for Brolucizumab



Source: Q2 2020 ATU Study (n=201 retina specialists)

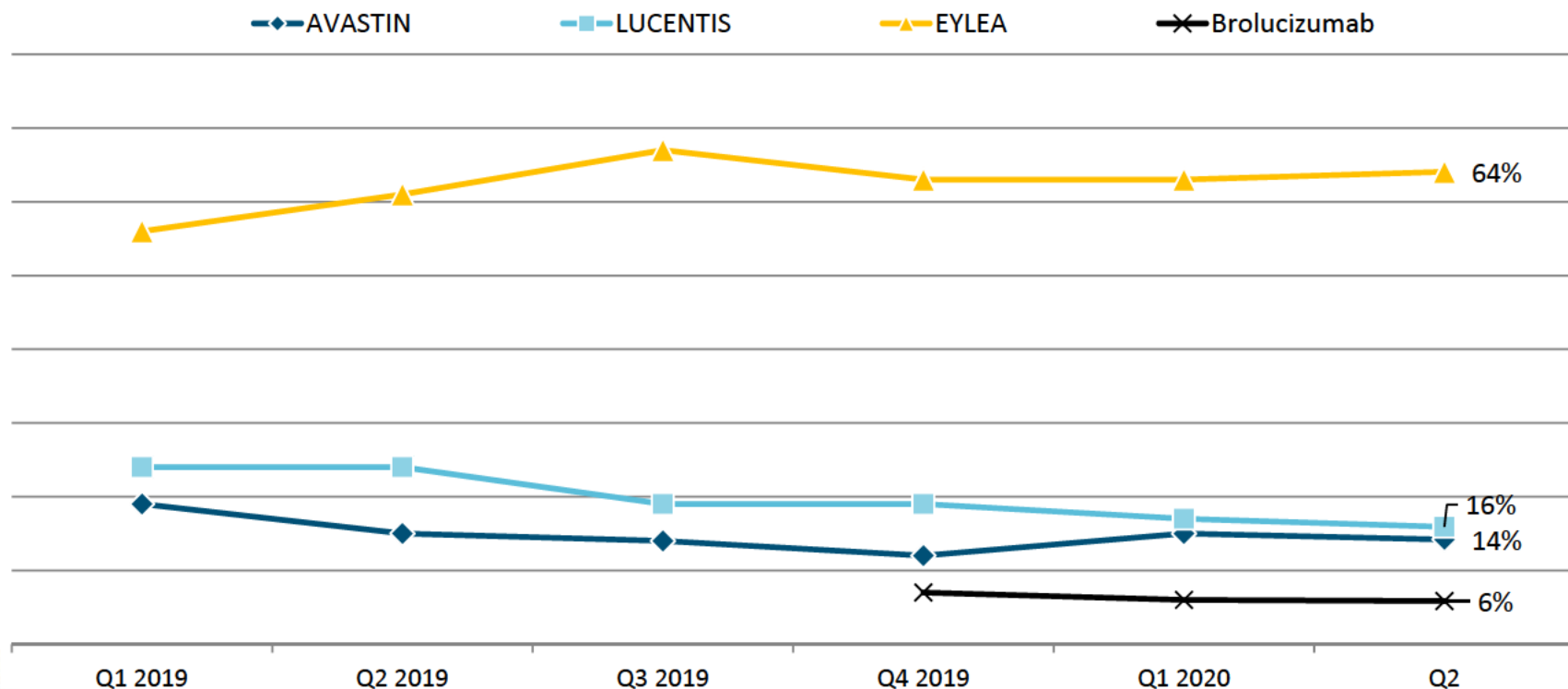


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD Tracking– Second Line of Therapy Stated Product Usage

Wet AMD Diagnosed, Anti-VEGF 2<sup>nd</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=201 retina specialists; 22,139 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

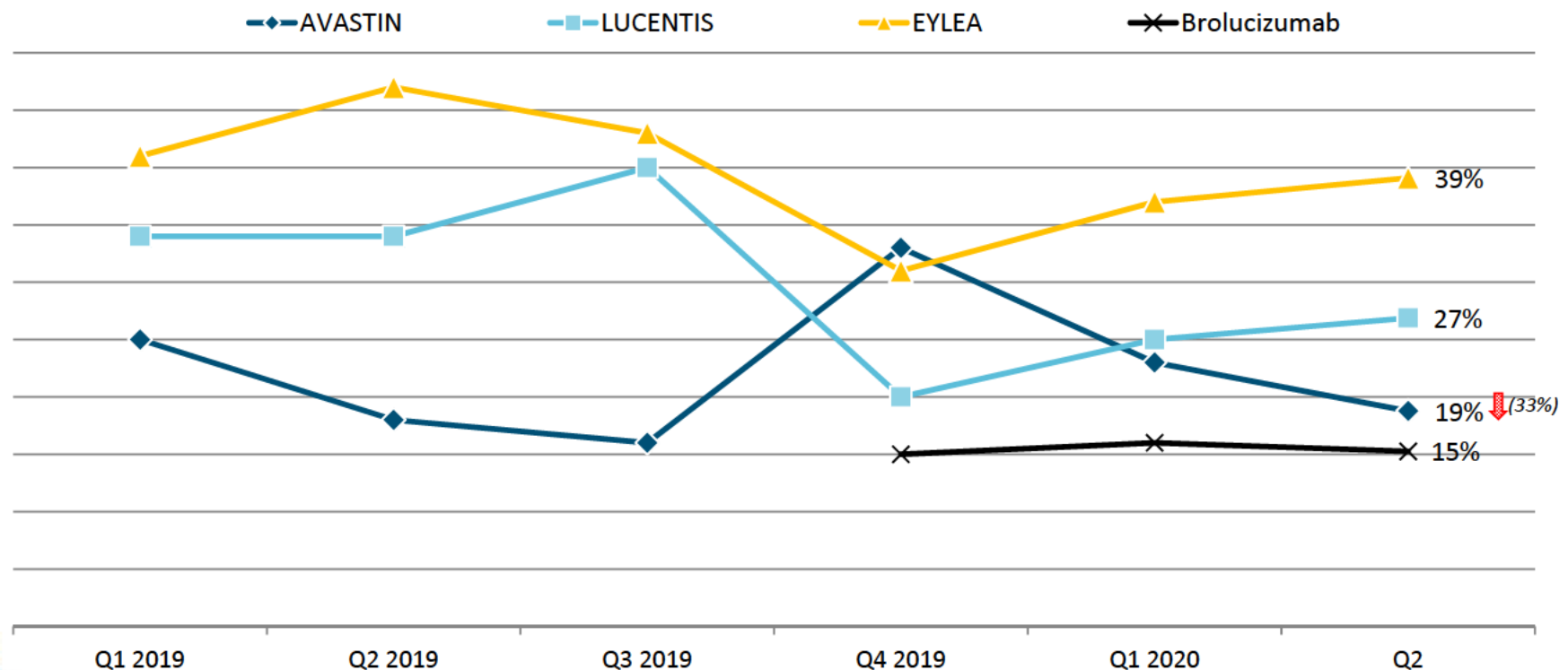


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Wet AMD Tracking– Third Line of Therapy Stated Product Usage

Wet AMD Diagnosed, Anti-VEGF 3rd Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=201 retina specialists; 9,283 eyes)



Source: Q2 2020 ATU Study (n=201 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q4 2019

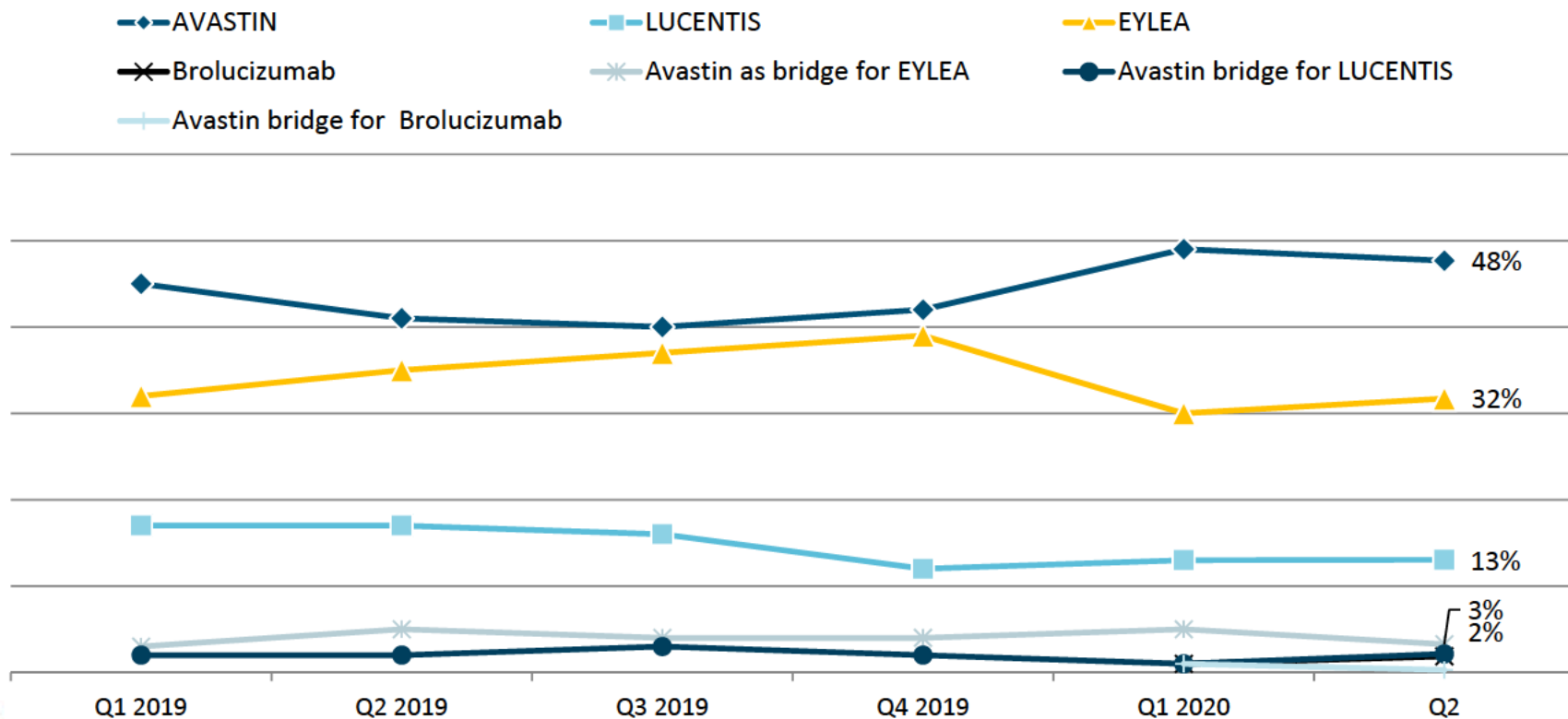
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves



Maru/ - Confidential

# DME Tracking– First Line of Therapy Stated Product Usage

DME Diagnosed, Anti-VEGF 1<sup>st</sup> Line of Therapy  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 16,354 eyes)



Source: Q2 2020 ATU Study (n=200 retina specialists)



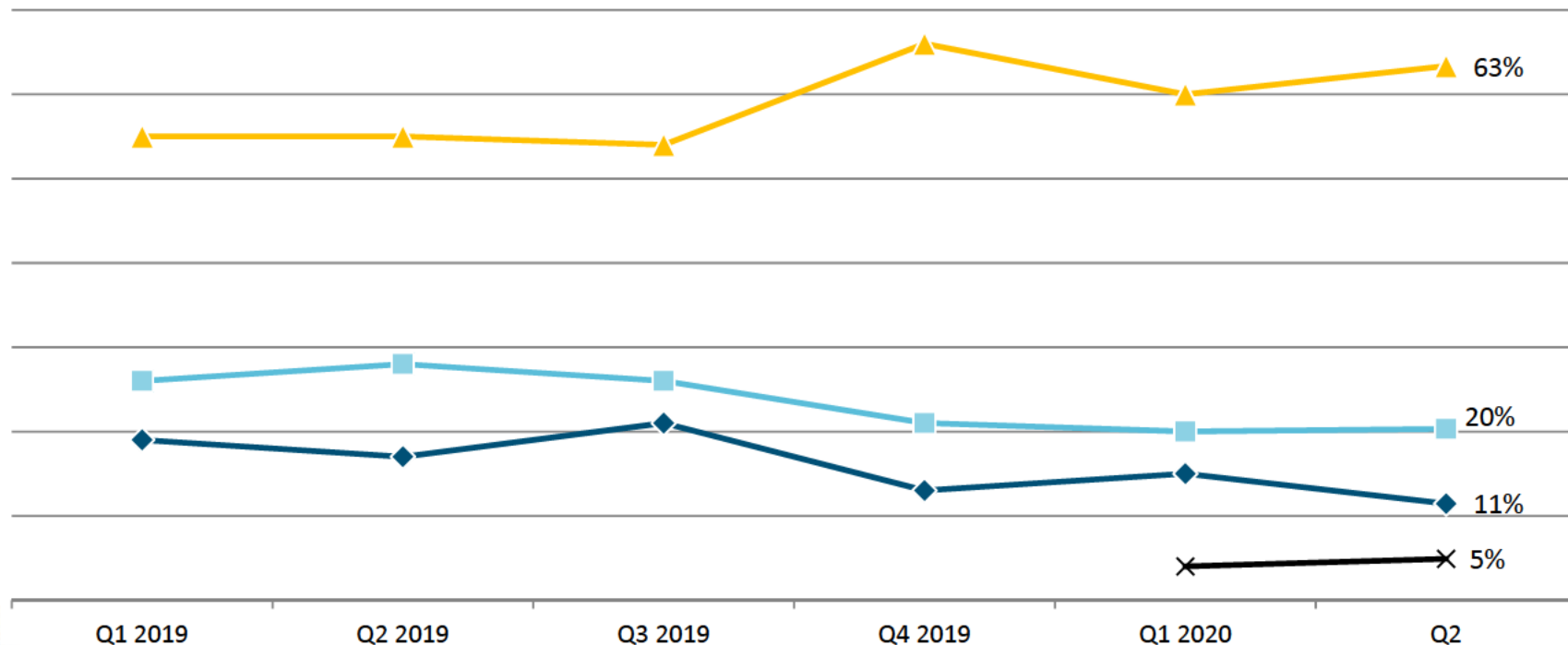
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# DME Tracking– Second Line of Therapy Stated Product Usage

DME Diagnosed, Anti-VEGF 2<sup>nd</sup> Line of Therapy  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 6,786 eyes)

—◆— AVASTIN      —■— LUCENTIS      —▲— EYLEA      —×— Brolucizumab



Source: Q2 2020 ATU Study (n=200 retina specialists)



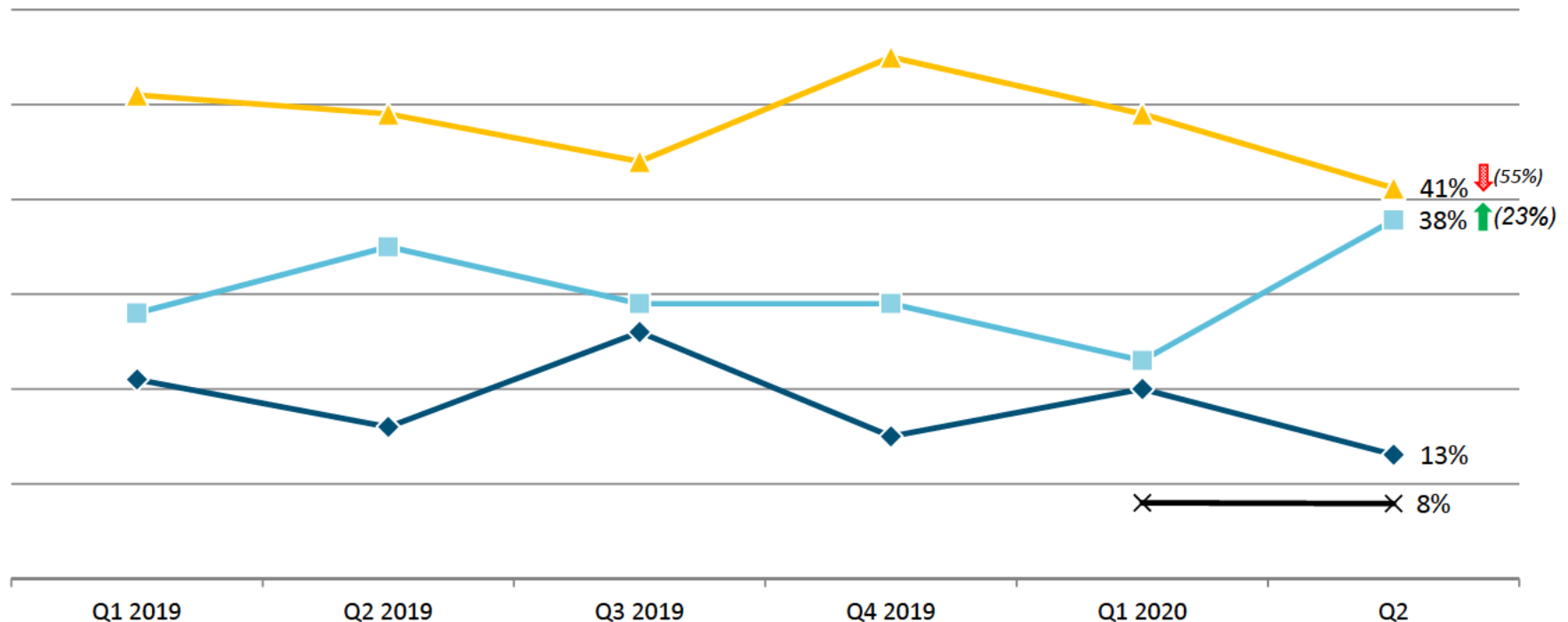
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# DME Tracking– Third Line of Therapy Stated Product Usage

DME Diagnosed, Anti-VEGF 3rd Line of Therapy  
 Projected Market Share Allocation by Product – Total Market  
 (Q2 2020 wave n=200 retina specialists; 2,315 eyes)

◆ AVASTIN    ■ LUCENTIS    ▲ EYLEA    ✕ Brolucizumab



Source: Q2 2020 ATU Study (n=200 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q1 2020

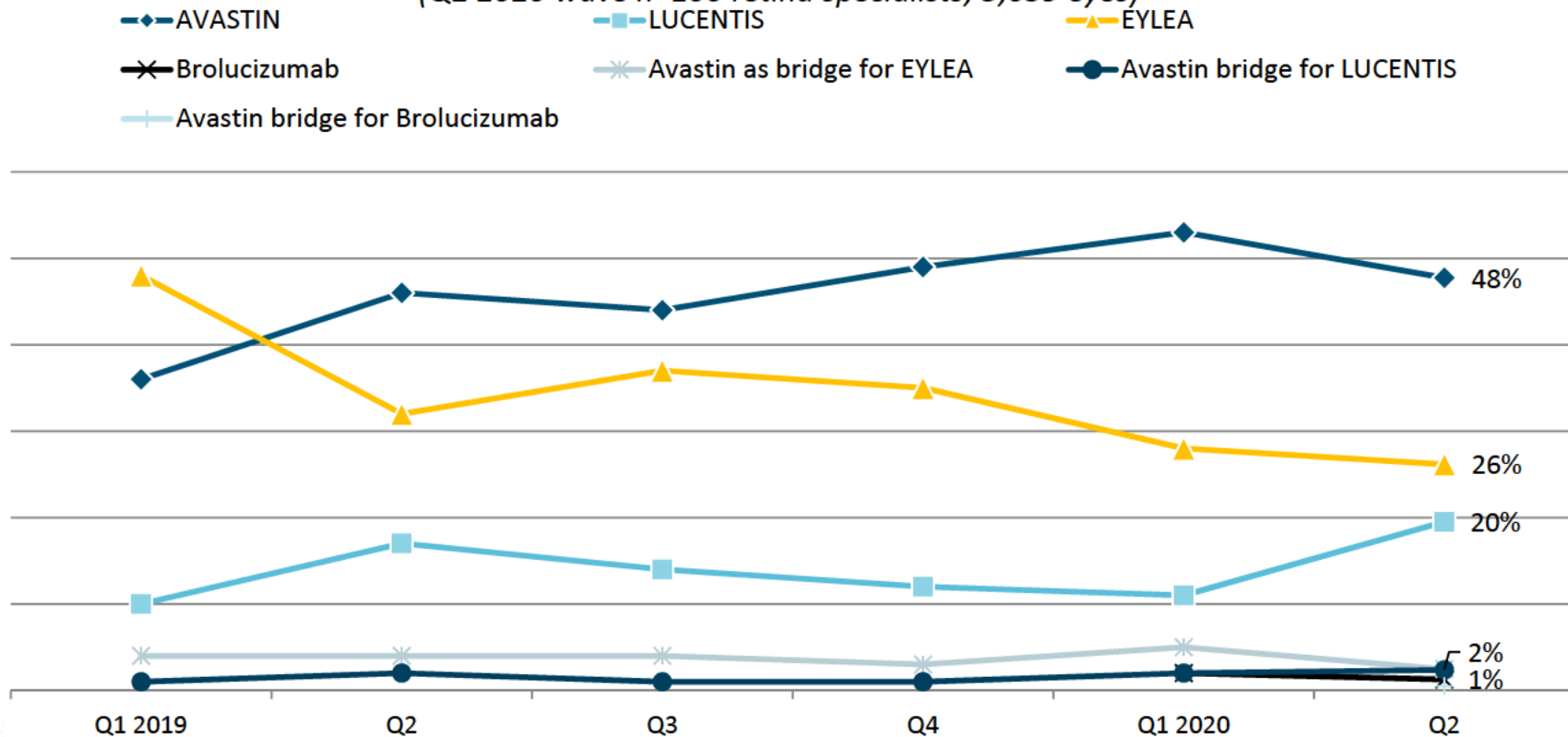


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfCRVO Tracking– First Line of Therapy Stated Product Usage

CRVO Diagnosed, Anti-VEGF 1<sup>st</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 5,059 eyes)



Source: Q2 2020 ATU Study (n=100 retina specialists)



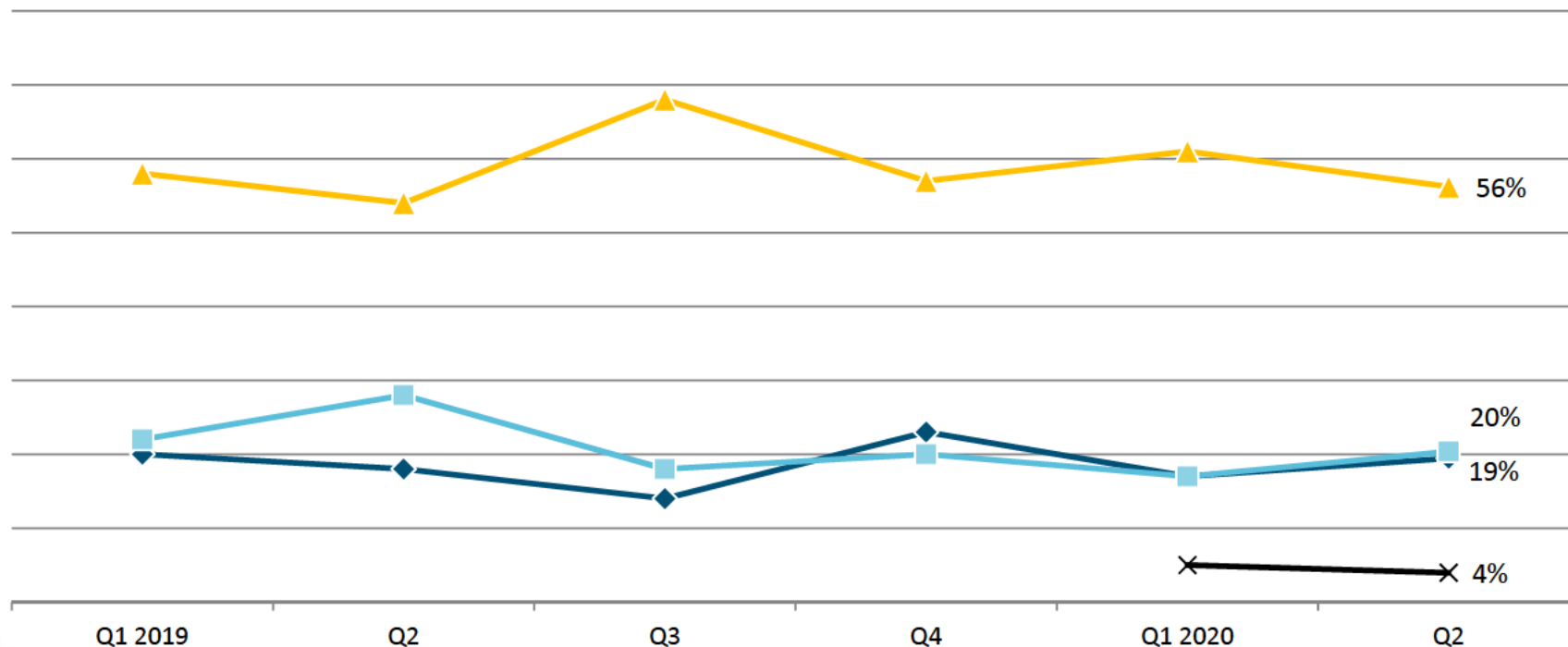
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfCRVO Tracking– Second Line of Therapy Stated Product Usage

CRVO Diagnosed, Anti-VEGF 2<sup>nd</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 1,957 eyes)

◆ AVASTIN    ■ LUCENTIS    ▲ EYLEA    ✕ Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

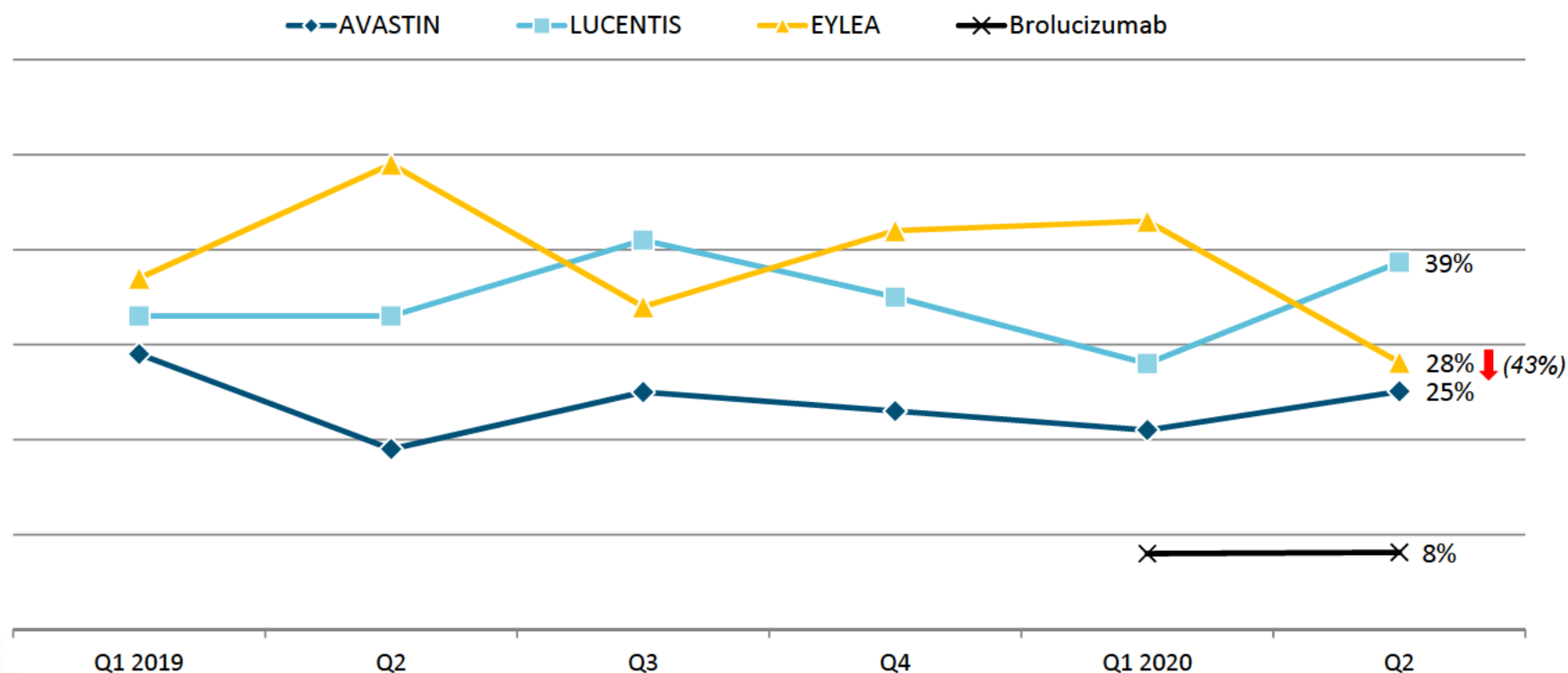


Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfCRVO Tracking– Third Line of Therapy Stated Product Usage

CRVO Diagnosed, Anti-VEGF 3<sup>rd</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 999 eyes)



Source: Q2 2020 ATU Study (n=100 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q1 2020



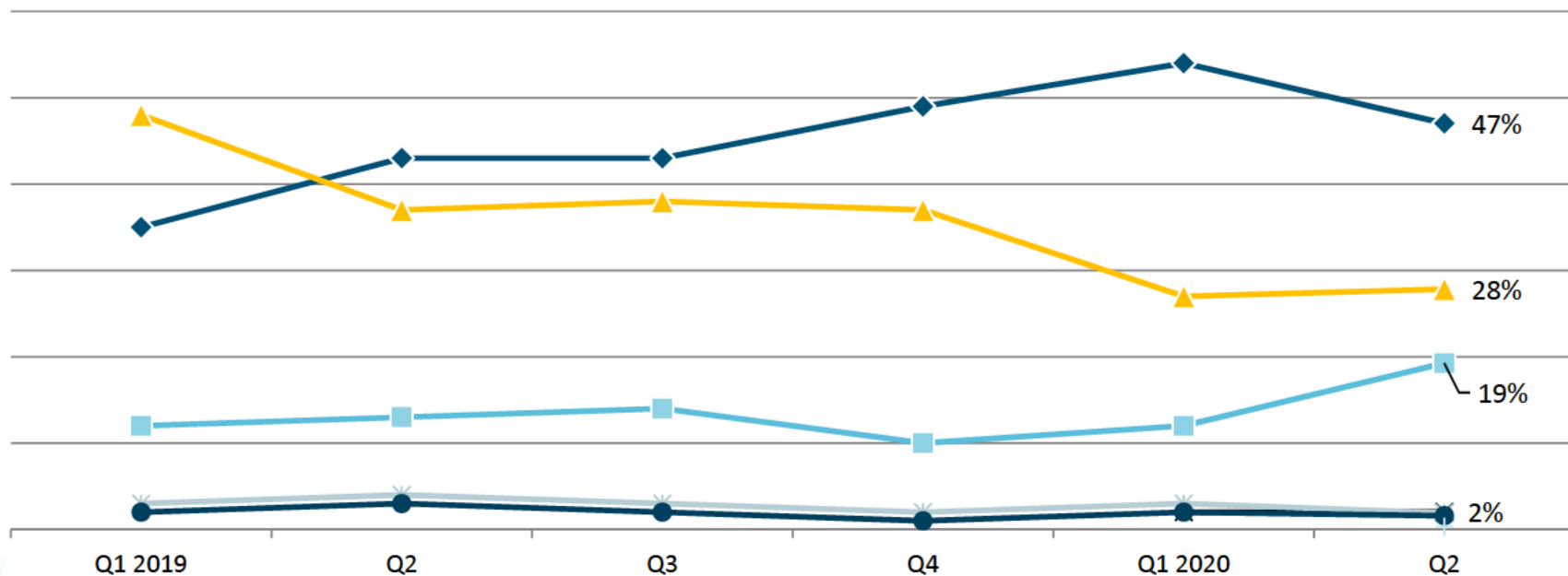
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfBRVO Tracking– First Line of Therapy Stated Product Usage

MEfBRVO Diagnosed, Anti-VEGF 1<sup>st</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 7,018 eyes)

◆ AVASTIN  
 ✕ Brolucizumab  
 ◆ LUCENTIS  
 ✱ Avastin as bridge for EYLEA  
 ◆ EYLEA  
 ● Avastin bridge for LUCENTIS  
 ◆ Avastin bridge for Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)



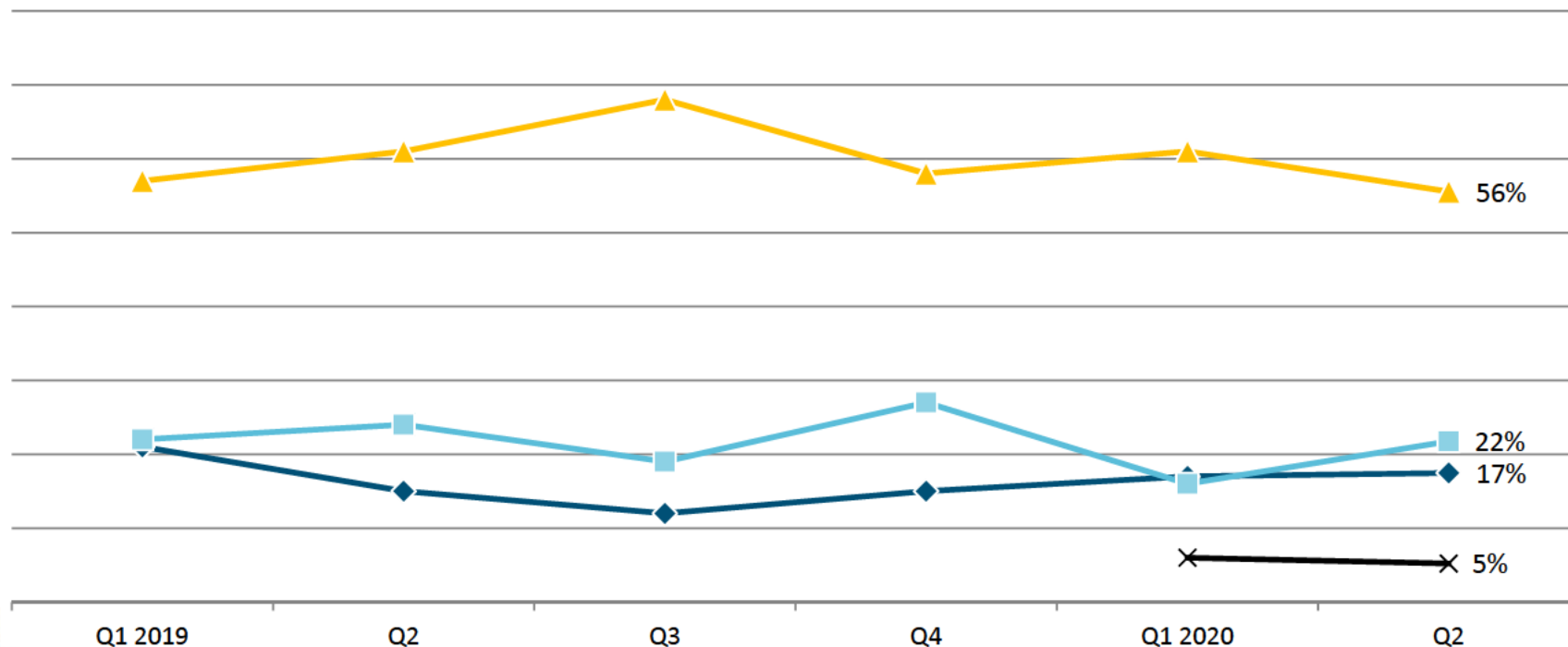
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfBRVO Tracking– Second Line of Therapy Stated Product Usage

MEfBRVO Diagnosed, Anti-VEGF 2<sup>nd</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 1,858 eyes)

◆ AVASTIN    ■ LUCENTIS    ▲ EYLEA    ✕ Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)



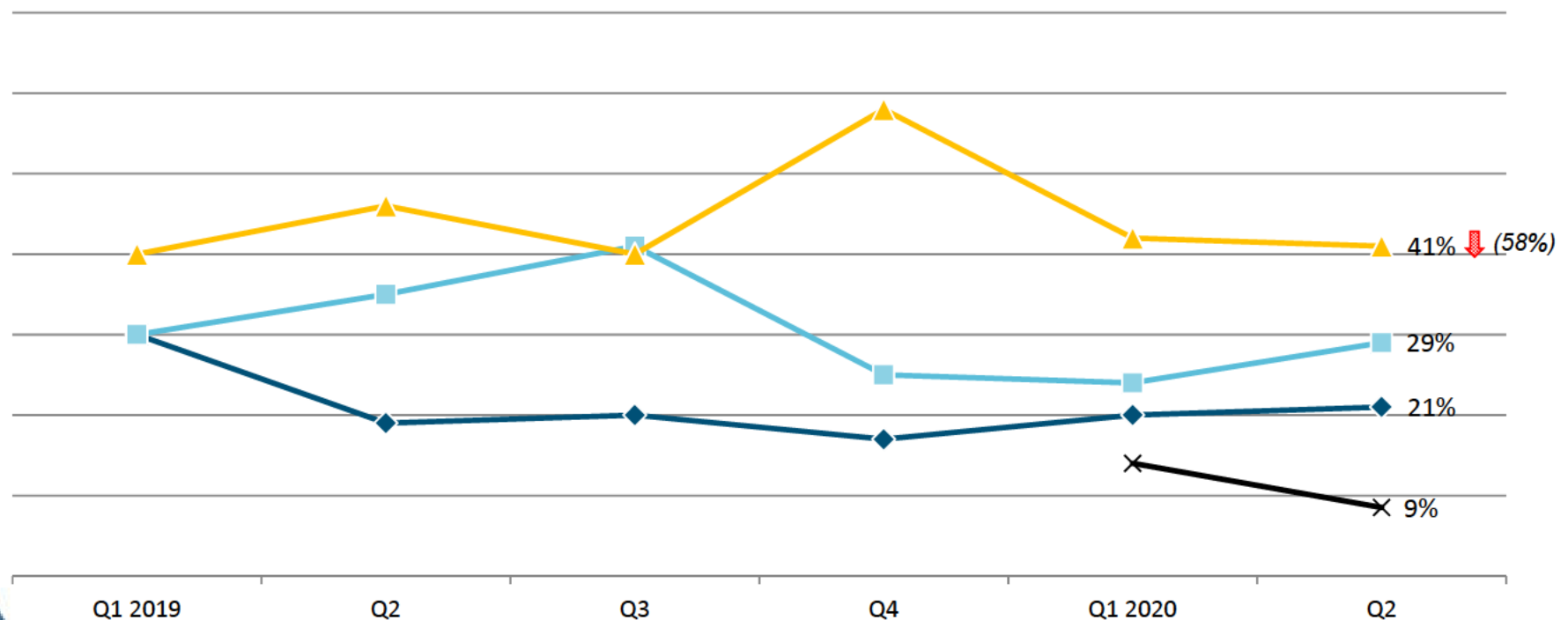
Maru/ - Confidential

When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# MEfBRVO Tracking– Third Line of Therapy Stated Product Usage

MEfBRVO Diagnosed, Anti-VEGF 3<sup>rd</sup> Line of Therapy  
Projected Market Share Allocation by Product – Total Market  
(Q2 2020 wave n=100 retina specialists; 787 eyes)

◆ AVASTIN    ■ LUCENTIS    ▲ EYLEA    ✕ Brolucizumab



Source: Q2 2020 ATU Study (n=100 retina specialists)

↑↓ Statistically significant at 95% confidence level vs. Q4 2019

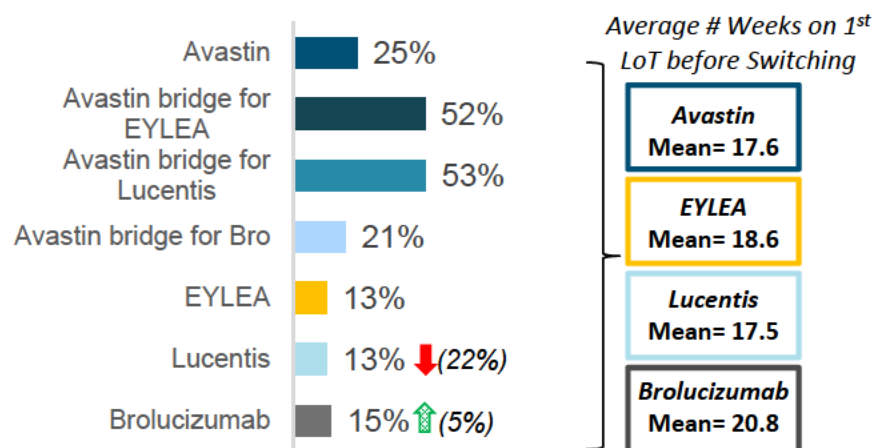


Maru/ - Confidential

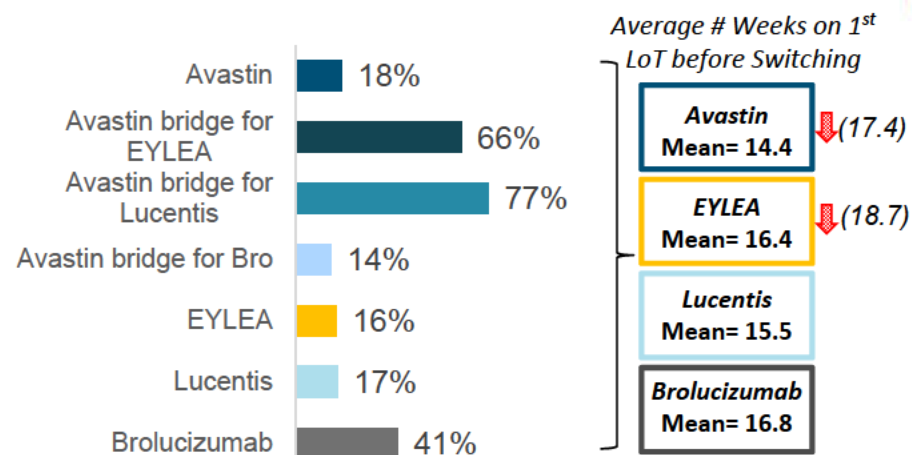
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

# Switching Behavior by Indication

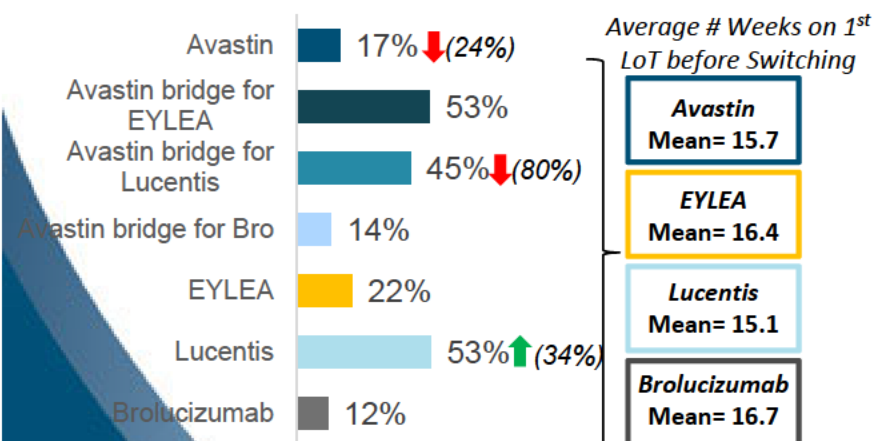
## % of 1<sup>st</sup> Line **Wet AMD** Eyes Considered for Switching



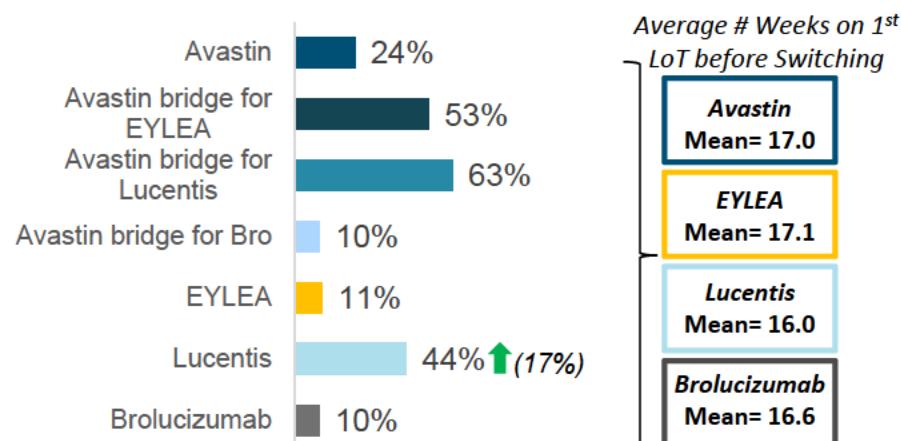
## % of 1<sup>st</sup> Line **DME** Eyes Considered for Switching



## % of 1<sup>st</sup> Line **MEfCRVO** Eyes Considered for Switching



## % of 1<sup>st</sup> Line **MEfBRVO** Eyes Considered for Switching



↑ Statistically significant at 95% confidence level vs. Q1 2020; ↓ Statistically significant at 95% confidence level vs. Q4 2019  
When arrows are not present, share trends are directional and not significant; sample not entirely stable across waves

Maru/ - Confidential