41 societies accepted our invitation; 1010 of their members answered the 2019 Global Trends in Retina Survey
GLOBAL TRENDS in Retina

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Asia/Pacific

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Chinese Ocular Fundus Diseases Society
Indonesia Ophthalmology Association, Vitreoretinal Interest Group
Japanese Retina and Vitreous Society
The Korean Retina Society
Malaysian Society of Ophthalmology
Singapore Society of Ophthalmology, Retina Section
Taiwan Retina Society
The Thai Retina Society
Vitreoretina Society of the Philippines
Vitreo Retina Society of India
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Pan-American Retina & Vitreous Society (PRVS)
Peruvian Society of Ophthalmology
Salvadoran Retina and Vitreous Association
Central American Retina and Vitreous Society (SCRV)
Uruguayan Association of Ophthalmology
For treatment-naive wet AMD, do you initiate therapy with a loading schedule of ≥ 3 monthly injections?

<table>
<thead>
<tr>
<th>Region</th>
<th>Response</th>
<th>Option A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>33.3%</td>
<td>49.0%</td>
</tr>
<tr>
<td>(n=147)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>37.7%</td>
<td>45.3%</td>
</tr>
<tr>
<td>(n=265)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>56.3%</td>
<td></td>
</tr>
<tr>
<td>(n=213)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>60.4%</td>
<td></td>
</tr>
<tr>
<td>(n=273)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>63.1%</td>
<td></td>
</tr>
<tr>
<td>(n=670)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A = Yes: ≥ 3 monthly injections before T&E
B = Yes: ≥ 3 monthly injections before PRN
C = No: T&E as soon as the retina is dry/stable

T&E = Treat-and-extend algorithm
PRN = Pro re nata or as-needed algorithm
Which features on OCT drive your retreatment choice when treating wet AMD? (Check all that apply.)

Africa/Middle East (n=147)
- IRF: 50.3%
- SRF: 67.3%

Asia/Pacific (n=266)
- IRF: 76.7%
- SRF: 88.3%

Central & South America (n=213)
- IRF: 79.8%
- SRF: 84.5%

Europe (n=274)
- IRF: 86.5%
- SRF: 88.0%

United States (n=670)
- IRF: 93.0%
- SRF: 92.4%
How would you manage a 30-year-old type 1 diabetic patient with high-risk PDR, VA = 20/20, and no DME?

- **Africa/Middle East** (n=147):
  - A (Complete PRP in ≥ 2 sessions): 61.9%
  - B (Anti-VEGF + complete PRP in ≥ 2 sessions): 23.8%

- **Asia/Pacific** (n=264):
  - A (Complete PRP in ≥ 2 sessions): 47.0%
  - B (Anti-VEGF + complete PRP in ≥ 2 sessions): 31.8%

- **Central & South America** (n=213):
  - A (Complete PRP in ≥ 2 sessions): 40.4%
  - B (Anti-VEGF + complete PRP in ≥ 2 sessions): 42.7%

- **Europe** (n=274):
  - A (Complete PRP in ≥ 2 sessions): 54.4%
  - B (Anti-VEGF + complete PRP in ≥ 2 sessions): 31.8%

- **United States** (n=669):
  - A (Complete PRP in ≥ 2 sessions): 29.3%
  - B (Anti-VEGF + complete PRP in ≥ 2 sessions): 37.7%
What is your initial treatment for a phakic DME patient based on the DRCR.net Protocol T 2-year results?

<table>
<thead>
<tr>
<th>Region</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>74.1%</td>
<td>6.8%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>33.7%</td>
<td>23.1%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>30.3%</td>
<td>19.0%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Europe</td>
<td>28.5%</td>
<td>19.3%</td>
<td>39.8%</td>
</tr>
<tr>
<td>United States</td>
<td>65.8%</td>
<td>8.8%</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

A = I still use Avastin first line
B = I still use Lucentis first line
C = I still use Eylea first line
When do you consider a steroid in treating DME?

- **Africa/Middle East** (n=147)
  - After suboptimal response to 3 anti-VEGF injections: 23.8%
  - After suboptimal response to 6 anti-VEGF injections: 47.6%

- **Asia/Pacific** (n=263)
  - After suboptimal response to 3 anti-VEGF injections: 41.8%
  - After suboptimal response to 6 anti-VEGF injections: 24.7%

- **Central & South America** (n=212)
  - After suboptimal response to 3 anti-VEGF injections: 44.3%
  - After suboptimal response to 6 anti-VEGF injections: 29.7%

- **Europe** (n=273)
  - After suboptimal response to 3 anti-VEGF injections: 31.5%
  - After suboptimal response to 6 anti-VEGF injections: 34.8%

- **United States** (n=668)
  - After suboptimal response to 3 anti-VEGF injections: 27.5%
  - After suboptimal response to 6 anti-VEGF injections: 48.4%
How quickly and where do you refer a patient with an acute, symptomatic CRAO with a visible embolus at the ONH?

Africa/Middle East (n=147)
- A: 63.9%
- B: 21.1%
- C: 9.5%

Asia/Pacific (n=263)
- A: 49.4%
- B: 26.6%
- C: 13.7%

Central & South America (n=213)
- A: 42.7%
- B: 28.2%
- C: 17.4%

Europe (n=270)
- A: 57.8%
- B: 22.2%
- C: 10.4%

United States (n=668)
- A: 58.2%
- B: 12.3%
- C: 19.0%

A = Emergency department with an associated stroke center immediately
B = Any emergency department immediately
C = Primary doctor within 1-2 days

CRAO = Central retinal artery occlusion
ONH = Optic nerve head
What type of anesthesia do you normally use for intravitreal injections?

- **Africa/Middle East (n=147)**
  - 46.9% A
  - 40.8% B

- **Asia/Pacific (n=264)**
  - 83.7% A

- **Central & South America (n=213)**
  - 79.8% A

- **Europe (n=274)**
  - 91.6% A

- **United States (n=666)**
  - 22.8% A
  - 23.9% C
  - 33.6% D

A = Anesthetic eyedrops
B = Topical anesthetic applied with a pledget
C = Topical anesthetic gel
D = An injected agent
What treatment do you choose in the absence of an adequate response to first-line anti-VEGF?

- **Africa/Middle East (n=147)**
  - 72.7% A: Switch anti-VEGF agents
  - 17.7% B: Switch to a steroid alone
  - 10% C: Use a steroid in combination with an anti-VEGF agent

- **Asia/Pacific (n=263)**
  - 68.4% A: Switch anti-VEGF agents
  - 18.6% C: Use a steroid in combination with an anti-VEGF agent

- **Central & South America (n=213)**
  - 61.5% A: Switch anti-VEGF agents
  - 19.2% B: Switch to a steroid alone

- **Europe (n=274)**
  - 64.6% A: Switch anti-VEGF agents
  - 17.2% B: Switch to a steroid alone

- **United States (n=667)**
  - 89.5% A: Switch anti-VEGF agents
  - 6.1% C: Use a steroid in combination with an anti-VEGF agent
Do you have access to OCT angiography?

- Africa/Middle East (n=147)
  - A = 47.6% (Yes, and find it useful in clinical practice)
  - B = 23.8% (Yes, but do not find it useful)
  - C = 27.9% (No, I do not have access)

- Asia/Pacific (n=264)
  - A = 58.0% (Yes, and find it useful in clinical practice)
  - B = 16.7% (Yes, but do not find it useful)
  - C = 25.0% (No, I do not have access)

- Central & South America (n=212)
  - A = 54.7% (Yes, and find it useful in clinical practice)
  - B = 16.5% (Yes, but do not find it useful)
  - C = 27.4% (No, I do not have access)

- Europe (n=273)
  - A = 58.8% (Yes, and find it useful in clinical practice)
  - B = 13.1% (Yes, but do not find it useful)
  - C = 25.9% (No, I do not have access)

- United States (n=668)
  - A = 53.0% (Yes, and find it useful in clinical practice)
  - B = 18.9% (Yes, but do not find it useful)
  - C = 27.1% (No, I do not have access)
Do you have access to swept-source OCT?

- Africa/Middle East (n=147)
  - A: Yes, and find it useful in clinical practice (59.2%)
  - B: No, but plan to have access soon (26.5%)
  - C: No, and do not plan to have access soon (9.5%)

- Asia/Pacific (n=264)
  - A: Yes, and find it useful in clinical practice (45.8%)
  - B: No, but plan to have access soon (34.1%)
  - C: No, and do not plan to have access soon (14.0%)

- Central & South America (n=212)
  - A: Yes, and find it useful in clinical practice (46.7%)
  - B: No, but plan to have access soon (28.3%)
  - C: No, and do not plan to have access soon (19.3%)

- Europe (n=272)
  - A: Yes, and find it useful in clinical practice (48.2%)
  - B: No, but plan to have access soon (25.0%)
  - C: No, and do not plan to have access soon (21.0%)

- United States (n=666)
  - A: Yes, and find it useful in clinical practice (58.3%)
  - B: No, but plan to have access soon (21.3%)
  - C: No, and do not plan to have access soon (15.2%)

A = Yes, and find it useful in clinical practice
B = No, but plan to have access soon
C = No, and do not plan to have access soon
How would you treat a pseudophakic patient with an inferior macula-on RD with a single tear at 8:00?

- Africa/Middle East (n=123)
  - A: 39.8%
  - B: 52.8%

- Asia/Pacific (n=244)
  - A: 22.1%
  - B: 61.1%

- Central & South America (n=191)
  - B: 44.5%
  - C: 41.4%

- Europe (n=230)
  - A: 21.2%
  - B: 66.3%

- United States (n=596)
  - C: 22.8%
  - B: 69.6%
If you needed a secondary IOL without capsular support, what treatment would you prefer?

- **Africa/Middle East (n=121)**
  - A: 8.3% (An anterior-chamber IOL)
  - B: 20.6% (IOL sutured to the sclera)
  - C: 60.3% (Sutureless IOL fixation to the sclera)
- **Asia/Pacific (n=244)**
  - A: 13.9% (Anterior-chamber IOL)
  - B: 49.6% (IOL sutured to the sclera)
  - C: 47.9% (Sutureless IOL fixation to the sclera)
  - D: 23.0% (IOL sutured to the iris)
- **Central & South America (n=190)**
  - A: 9.4% (Anterior-chamber IOL)
  - B: 30.0% (Sutureless IOL fixation to the sclera)
  - C: 47.9% (Sutureless IOL fixation to the sclera)
  - D: 17.3% (IOL sutured to the iris)
  - E: 17.3% (Other)
- **Europe (n=226)**
  - D: 17.3% (IOL sutured to the iris)
  - C: 32.3% (Sutureless IOL fixation to the sclera)
  - E: 17.3% (Other)
- **United States (n=597)**
  - A: 34.7% (Anterior-chamber IOL)
  - B: 27.1% (IOL sutured to the sclera)
  - C: 27.5% (Sutureless IOL fixation to the sclera)

$IOL = $Intraocular lens$
How long do you wait before considering surgery in a diabetic patient with nonclearing vitreous hemorrhage?

- **Africa/Middle East** (n=123)
  - 54.5% 1 month
  - 32.5% 2 months
  - 11.4% 3 months

- **Asia/Pacific** (n=243)
  - 59.3% 1 month
  - 17.7% 2 months
  - 17.3% 3 months

- **Central & South America** (n=191)
  - 60.7% 1 month
  - 18.3% 2 months
  - 14.7% 3 months

- **Europe** (n=228)
  - 52.2% 1 month
  - 22.4% 2 months
  - 13.6% 3 months

- **United States** (n=597)
  - 48.6% 1 month
  - 27.5% 2 months
  - 17.4% 3 months
What is your experience with, and assessment of, 3-D heads-up visualization systems?

<table>
<thead>
<tr>
<th>Region</th>
<th>A (%)</th>
<th>B (%)</th>
<th>C (%)</th>
<th>D (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>35.2%</td>
<td>26.2%</td>
<td>25.4%</td>
<td></td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>27.5%</td>
<td>42.6%</td>
<td></td>
<td>15.6%</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>18.7%</td>
<td>41.5%</td>
<td></td>
<td>24.4%</td>
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<tr>
<td>Europe</td>
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<td></td>
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</tr>
<tr>
<td>United States</td>
<td>35.7%</td>
<td>35.0%</td>
<td></td>
<td>17.2%</td>
</tr>
</tbody>
</table>

A = Have not used 3-D in the OR, do not think it is helpful
B = Have not used 3-D in the OR, but plan to
C = Have used 3-D in the OR and do not think it is helpful
D = Have used 3-D in the OR and it has been helpful
What is your opinion of intraoperative OCT?

- **Africa/Middle East (n=122)**: 67.2%
- **Asia/Pacific (n=244)**: 75.8%
- **Central & South America (n=192)**: 90.1%
- **Europe (n=228)**: 69.3%
- **United States (n=596)**: 77.2%