Africa/Middle East

Asia/Pacific

Americas

Europe
2022

Sunir J. Garg, MD, FACS, FASRS
42 societies accepted our invitation; 680 of their members answered the 2022 Global Trends in Retina Survey.
GLOBAL TRENDS in Retina

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GLOBAL TRENDS in Retina

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Arab African Society of Retina Specialists (AASRS)

Emirates Society of Ophthalmology

Gulf Retina Group

Iranian Vitreoretinal Society

Israel Vitreoretinal Society

The Jordan Vitreoretinal Society

Nigerian Vitreoretinal Society

Saudi Ophthalmological Society

Syrian Ophthalmological Society
Asia/Pacific

Association of Vitreo-Retina Specialists of Sri Lanka
Australian and New Zealand Society of Retina Specialists
Indonesia Vitreoretinal Society
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
Vitreo Retina Society of India
The Vitreo Retina Society of The Philippines
**Americas**

Argentine Retina and Vitreous Society

Brazilian Retina and Vitreous Society

Canadian Retina Society

Colombian Retina and Vitreous Association

Mexican Retina Association

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
Europe

Austrian Ophthalmological Society
British and Eire Association of Vitreoretinal Surgeons (BEAVRS)
Dutch Society of Vitreoretinal Surgery
Dutch Medical Retina Society
European Vitreoretinal Society
French Society of Retina Specialists
Greek Vitreo-Retinal Society (GVRS)
Italian Vitreoretinal Surgery Society
Rosengren Club—Swedish Vitreoretinal Society
Spanish Retina and Vitreous Society (SERV)
Turkish Ophthalmological Society
Ukrainian Alliance of Ophthalmologists
After a suboptimal response with Avastin for wet AMD, what is your next choice?

<table>
<thead>
<tr>
<th>Region</th>
<th>Choice</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>Eylea</td>
<td>77.4%</td>
</tr>
<tr>
<td>(n = 207)</td>
<td>Lucentis</td>
<td>13.1%</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>Eylea</td>
<td>65.3%</td>
</tr>
<tr>
<td>(n = 222)</td>
<td>Lucentis</td>
<td>24.2%</td>
</tr>
<tr>
<td>Americas</td>
<td>Eylea</td>
<td>87.2%</td>
</tr>
<tr>
<td>(n = 127)</td>
<td>Lucentis</td>
<td>6.4%</td>
</tr>
<tr>
<td>Europe</td>
<td>Eylea</td>
<td>81.7%</td>
</tr>
<tr>
<td>(n = 124)</td>
<td>Lucentis</td>
<td>16.7%</td>
</tr>
<tr>
<td>United States</td>
<td>Eylea</td>
<td>88.4%</td>
</tr>
<tr>
<td>(n = 742)</td>
<td>Lucentis</td>
<td>11.1%</td>
</tr>
</tbody>
</table>
What anti-VEGF treatment regimen would you choose for a high myope with a new CNVM?

- **Africa/Middle East** (n = 200)
  - Option A: 83.8%
  - Option B: 14.7%
  - A = Treat until quiescent, then initiate an as-needed approach
  - B = Treat until quiescent, then T&E with chronic maintenance dosing

- **Asia/Pacific** (n = 219)
  - Option A: 83.1%
  - Option B: 15.5%
  - CNVM = Choroidal neovascular membrane
  - T&E = Treat and extend

- **Americas** (n = 127)
  - Option A: 84.0%
  - Option B: 14.4%

- **Europe** (n = 124)
  - Option A: 84.2%
  - Option B: 14.2%

- **United States** (n = 742)
  - Option A: 78.2%
  - Option B: 19.7%
What is your usual approach to a chronic CSR (6 months), VA = 20/40, diffuse leak involving fovea?

- **Africa/Middle East** (n = 197)
  - B: 34.5%
  - C: 36.5%
  - D: 7.6%

- **Asia/Pacific** (n = 220)
  - A: 19.5%
  - C: 33.6%
  - D: 18.2%

- **Americas** (n = 125)
  - B: 44.0%
  - C: 16.0%
  - D: 18.4%

- **Europe** (n = 120)
  - A: 10.0%
  - B: 8.3%

- **United States** (n = 742)
  - B: 58.0%
  - E: 16.8%

**CSR** = Central serous retinopathy
**VA** = Visual acuity

- A = Focal (thermal) laser
- B = Micropulse laser
- C = Photodynamic therapy
- D = Intravitreal Avastin
- E = Oral therapy: eg, rifampin, eplerenone, spironolactone
How would you treat DME with an inadequate response to 3 monthly Lucentis or Eylea injections?

<table>
<thead>
<tr>
<th>Region</th>
<th>A (%): Continue with the current anti-VEGF agent</th>
<th>B (%): Switch to another anti-VEGF agent</th>
<th>C (%): Switch to an intravitreal steroid</th>
<th>D (%): Incorporate a steroid in combination with an anti-VEGF agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>17.2%</td>
<td>47.0%</td>
<td></td>
<td></td>
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<tr>
<td>(n = 198)</td>
<td></td>
<td>17.2%</td>
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<td></td>
<td></td>
<td>17.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>22.3%</td>
<td>24.1%</td>
<td>35.0%</td>
<td></td>
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<tr>
<td>(n = 220)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Americas</td>
<td>18.4%</td>
<td>39.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n = 125)</td>
<td></td>
<td>28.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>14.2%</td>
<td>31.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n = 120)</td>
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<td></td>
</tr>
<tr>
<td>United States</td>
<td>23.5%</td>
<td>23.0%</td>
<td>32.7%</td>
<td></td>
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<tr>
<td>(n = 740)</td>
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</table>

DME = Diabetic macular edema
What percentage of your patients with CSDME on anti-VEGF therapy receive focal/grid laser?

- **Africa/Middle East** (n = 198)
  - 29.3% A
  - 35.4% C

- **Asia/Pacific** (n = 219)
  - 43.4% A
  - 24.7% B

- **Americas** (n = 125)
  - 51.2% A
  - 17.6% B

- **Europe** (n = 120)
  - 46.7% A
  - 20.8% B

- **United States** (n = 740)
  - 59.2% A
  - 21.7% B

**CSDME** = Clinically significant diabetic macular edema

A = < 5%
B = 5%-10%
C = 11%-25%
How do you manage DR with massive peripheral nonperfusion on FA but no NV or DME?

**Africa/Middle East (n = 197)**
- 31.5% A
- 49.7% C

**Asia/Pacific (n = 220)**
- 16.4% B
- 60.0% C

**Americas (n = 125)**
- 16.8% D
- 59.2% C

**Europe (n = 120)**
- 20.8% B
- 55.8% C

**United States (n = 740)**
- 26.1% C
- 45.0% B

**Legend:**
- A = Monitor every 1-2 months
- B = Monitor every 3 months
- C = PRP
- D = Anti-VEGF injection + PRP

**Terms:**
- DR = Diabetic retinopathy
- FA = Fluorescein angiography
- NV = Neovascularization
- PRP = Panretinal photocoagulation
Have you seen any retinovascular pathology shortly after COVID-19 and/or its vaccine?

- **Africa/Middle East** (n = 197): 54.8% A, 33.5% B
- **Asia/Pacific** (n = 220): 41.4% A, 40.0% B
- **Americas** (n = 125): 53.6% A, 31.2% B
- **Europe** (n = 120): 40.0% A, 36.7% B
- **United States** (n = 738): 26.6% A, 51.2% B

A = Retinal vein occlusion
B = None
Considering all indications, what is your most commonly used first-line anti-VEGF agent?

- **Africa/Middle East** (n = 198)
  - A: 60.1%
  - B: 24.2%

- **Asia/Pacific** (n = 219)
  - A: 47.5%
  - C: 35.6%

- **Americas** (n = 125)
  - A: 54.4%
  - C: 32.0%

- **Europe** (n = 120)
  - A: 43.3%
  - C: 34.2%

- **United States** (n = 738)
  - A: 66.3%
  - C: 25.4%

A = Avastin
B = Lucentis
C = Eylea
What is the most important factor in making your initial anti-VEGF treatment choice?

- **Africa/Middle East** (n = 198)
  - A: Efficacy/safety (54.1%)
  - C: Drug cost (30.3%)

- **Asia/Pacific** (n = 219)
  - A: Efficacy/safety (57.5%)
  - C: Drug cost (25.6%)

- **Americas** (n = 125)
  - A: Efficacy/safety (64.8%)
  - C: Drug cost (24.8%)

- **Europe** (n = 120)
  - A: Efficacy/safety (64.2%)
  - B: Insurance mandates (18.4%)

- **United States** (n = 738)
  - A: Efficacy/safety (50.5%)
  - B: Insurance mandates (26.6%)

Legend:
- A = Efficacy/safety
- B = Insurance mandates
- C = Drug cost
What does your current COVID-adapted IVI procedure include, in addition to masks?

- Africa/Middle East (n = 198)
  - 52.5% A (Lid speculum)
  - 74.7% B (No-talking or minimal-talking policy)
  - 56.1% D (Gloves, non-sterile)

- Asia/Pacific (n = 218)
  - 61.9% B (No-talking or minimal-talking policy)
  - 71.1% A (Lid speculum)
  - 81.2% D (Gloves, sterile)

- Americas (n = 124)
  - 77.4% A (Lid speculum)
  - 75.8% B (No-talking or minimal-talking policy)
  - 75.8% D (Gloves, sterile)

- Europe (n = 119)
  - 58.0% B (No-talking or minimal-talking policy)
  - 68.9% A (Lid speculum)
  - 79.8% D (Gloves, sterile)

- United States (n = 732)
  - 51.4% C (Gloves, non-sterile)
  - 66.5% B (No-talking or minimal-talking policy)
  - 66.7% A (Lid speculum)
What is your usual approach for a *phakic, inferior*, macula-on RD plus PVD with tear at 6:00?

- **Africa/Middle East** (n = 161)
  - 49.1% A
  - 41.6% B

- **Asia/Pacific** (n = 194)
  - 54.1% A
  - 30.0% B

- **Americas** (n = 111)
  - 49.6% A
  - 34.2% C

- **Europe** (n = 93)
  - 52.7% A
  - 37.6% B

- **United States** (n = 668)
  - 48.2% A
  - 27.4% C

**Legend**
- A = Scleral buckle
- B = Vitrectomy without buckle
- C = Vitrectomy with buckle

**Abbreviations**
- PVD = Posterior vitreous detachment
- RD = Retinal detachment
Timing to operate on a symptomatic, ambulatory COVID-19 patient with < 1-day macula-off RD?

- Africa/Middle East (n = 160)
  - A: No delay; perform surgery within 24 hours (30.6%)
  - B: No delay; perform surgery on my next available OR day (within 1-2 weeks) (30.0%)
  - C: Delay surgery; wait at least 10 days from COVID diagnosis (24.9%)
  - D: Delay surgery; wait until COVID testing is negative (28.3%)

- Asia/Pacific (n = 193)
  - A: No delay; perform surgery within 24 hours (31.0%)
  - B: No delay; perform surgery on my next available OR day (within 1-2 weeks) (31.1%)
  - C: Delay surgery; wait at least 10 days from COVID diagnosis (28.3%)
  - D: Delay surgery; wait until COVID testing is negative (24.9%)

- Americas (n = 113)
  - A: No delay; perform surgery within 24 hours (36.6%)
  - B: No delay; perform surgery on my next available OR day (within 1-2 weeks) (33.3%)

- Europe (n = 93)
  - A: No delay; perform surgery within 24 hours (22.4%)
  - B: No delay; perform surgery on my next available OR day (within 1-2 weeks) (29.2%)

- United States (n = 664)
  - A: No delay; perform surgery within 24 hours (36.6%)
  - B: No delay; perform surgery on my next available OR day (within 1-2 weeks) (33.3%)
What is the typical size of your ILM peel when performing macular hole surgery?

<table>
<thead>
<tr>
<th>Region</th>
<th>Option A: &lt; 1 disc diameter</th>
<th>Option B: 1-2 disc diameters</th>
<th>Option C: &gt; 2 disc diameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East (n = 160)</td>
<td>30.0%</td>
<td>38.1%</td>
<td>31.9%</td>
</tr>
<tr>
<td>Asia/Pacific (n = 193)</td>
<td>43.0%</td>
<td>52.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Americas (n = 113)</td>
<td>49.6%</td>
<td>43.4%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Europe (n = 93)</td>
<td>36.6%</td>
<td>54.8%</td>
<td>8.6%</td>
</tr>
<tr>
<td>United States (n = 668)</td>
<td>52.9%</td>
<td>45.1%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

ILM = Internal limiting membrane
How has the COVID-19 pandemic affected the economics of your practice?

- **Africa/Middle East** (n = 200)
  - Initial dip in revenue (A): 22.0%
  - Fully recovered (B): 63.0%

- **Asia/Pacific** (n = 218)
  - Initial dip in revenue (A): 22.5%
  - Fully recovered (B): 65.1%

- **Americas** (n = 125)
  - Initial dip in revenue (A): 47.2%
  - Fully recovered (B): 40.0%

- **Europe** (n = 120)
  - Initial dip in revenue (A): 35.0%
  - Fully recovered (B): 28.3%

- **United States** (n = 740)
  - Initial dip in revenue (A): 24.2%
  - Fully recovered (B): 55.5%
Do you use social media platforms to market your practice, physicians, and/or services?

- Africa/Middle East: 45.5% (A), 34.3% (C), 15.2% (D)
- Asia/Pacific: 24.6% (A), 34.5% (C), 26.4% (D)
- Americas: 38.7% (A), 22.6% (B), 24.2% (D)
- Europe: 22.5% (A), 43.3% (C), 20.8% (D)
- United States: 26.7% (A), 17.5% (B), 39.4% (C)

Legend:
A = Yes, and we find them effective
B = Yes, but we don’t find them effective
C = No, and we are not considering this
D = No, but we are considering this