GLOBAL TRENDS in Retina

Africa/Middle East

Asia/Pacific

Europe

Latin America

ASRS
GLOBAL TRENDS
IN RETINA

ASRS
American Society of Retina Specialists
36 societies accepted our invitation; 1059 of their members answered the 2015 Global Trends in Retina Survey
GLOBAL TRENDS in Retina

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Michel Eid Farah, MD, PhD
Guillermo Iribarren, MD

United States
Jay S. Duker, MD
Peter K. Kaiser, MD
Baruch D. Kuppermann, MD, PhD
Africa/Middle East

Arab African Society of Retina Specialists

Iranian Vitreoretina Society

Israel Vitreoretinal Society

Jordanian Ophthalmological Society

Lebanese Ophthalmological Society

Oman Ophthalmic Society

Saudi Ophthalmological Society

Vitreo Retinal Society of Nigeria
Asia/Pacific

Association of Vitreo-Retina Specialists of Sri Lanka

Australian and New Zealand Society of Retina Specialists

Chinese Ocular Fundus Society

Indonesia Ophthalmology Association Vitreoretinal Interest Group

Japanese Retina and Vitreous Society

Singapore Society of Ophthalmology, Retina Section

Taiwan Retina Society

The Thai Retina Society

Vitreo-Retinal Society of India
Europe

Austrian Ophthalmological Society
British and Eire Association of Vitreoretinal Surgeons
Dutch Society of Vitreoretinal Surgery
European Society of Retina Specialists
European VitreoRetinal Society
French Society of Retina Specialists
Greek Vitreo-Retinal Society
Italian Vitreoretinal Surgery Group
Spanish Retina and Vitreous Society
Turkish Ophthalmological Society
Latin America

Argentine Retina and Vitreous Society

Brazilian Retina and Vitreous Society

Colombian Retina and Vitreous Association

Costa Rican Association of Ophthalmology

Mexican Retina Association

Pan-American Retina and Vitreous Society

Peruvian Society of Ophthalmology

Salvadoran Retina and Vitreous Association

Uruguayan Association of Ophthalmology
In general, how do you treat wet-AMD patients with active CNV?

**Africa/Middle East** (n = 155)
- PRN 49.0%
- Treat and extend 20.6%
- Combination 22.6%

**Asia/Pacific** (n = 208)
- PRN 36.1%
- Treat and extend 36.5%
- Combination 21.6%

**Europe** (n = 424)
- PRN 40.6%
- Treat and extend 30.4%
- Combination 22.2%

**Latin America** (n = 257)
- PRN 42.0%
- Treat and extend 31.5%
- Combination 23.0%

**United States** (n = 586)
- PRN 11.8%
- Combination 18.8%

_Treat and extend:_ Treat until dry on OCT, then extend treatment interval.
After how many injections do you consider switching anti-VEGF agents due to inadequate response?

- **Africa/Middle East** (n = 132)
  - 3-6 injections: 84.1%
  - 7-12 injections: 10.6%

- **Asia/Pacific** (n = 188)
  - 3-6 injections: 77.7%
  - 7-12 injections: 11.2%

- **Europe** (n = 403)
  - 3-6 injections: 85.6%
  - 7-12 injections: 10.4%

- **Latin America** (n = 238)
  - 3-6 injections: 84.9%
  - 7-12 injections: 8.4%

- **United States** (n = 587)
  - < 3 injections: 13.1%
  - 3-6 injections: 75.1%
How would you treat a recent CRVO with vision-affecting macular edema?

Africa/Middle East (n = 154)
- Avastin 82.4%
- Lucentis 13.0%
- Eylea 0.6%

Asia/Pacific (n = 208)
- Avastin 51.9%
- Lucentis 26.9%
- Eylea 13.9%

Europe (n = 423)
- Avastin 31.0%
- Lucentis 30.0%
- Eylea 17.3%
- Ozurdex 17.3%

Latin America (n = 256)
- Avastin 47.7%
- Lucentis 23.8%
- Eylea 14.8%
- Ozurdex 8.2%

United States (n = 584)
- Avastin 61.0%
- Lucentis 16.3%
- Eylea 19.7%

Avastin: bevacizumab, Genentech, Inc
Lucentis: ranibizumab, Genentech, Inc
Eylea: afiblercept, Regeneron Pharmaceuticals, Inc
Ozurdex: dexamethasone intravitreal implant, Allergan, Inc
What is your initial treatment choice for a 72-year-old patient with BRVO, macular edema, and VA = 20/60 (decreased vision)?

<table>
<thead>
<tr>
<th>Region</th>
<th>pharmacological choice</th>
<th>Africa/Middle East (n = 155)</th>
<th>Asia/Pacific (n = 208)</th>
<th>Europe (n = 423)</th>
<th>Latin America (n = 257)</th>
<th>United States (n = 586)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avastin</td>
<td>76.1%</td>
<td>44.7%</td>
<td>29.5%</td>
<td>45.1%</td>
<td>61.9%</td>
</tr>
<tr>
<td></td>
<td>Lucentis</td>
<td>13.5%</td>
<td>35.1%</td>
<td>35.9%</td>
<td>23.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>Observation</td>
<td>7.1%</td>
<td>7.7%</td>
<td>5.2%</td>
<td>7.4%</td>
<td>Eylea 17.0%</td>
</tr>
<tr>
<td></td>
<td>Eylea</td>
<td>9.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ozurdex</td>
<td>16.3%</td>
<td></td>
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</tr>
</tbody>
</table>

How do you generally treat patients with vein occlusion and macular edema associated with decreased vision?

- **Africa/Middle East** (n = 156): Treat until dry on OCT, then extend (treat and extend) 16.0%. Treat until dry on OCT, monitor monthly, retreat PRN 71.1%.
- **Asia/Pacific** (n = 208): Treat and extend 25.2%. PRN 68.6%.
- **Europe** (n = 423): Treat and extend 22.7%. PRN 62.4%.
- **Latin America** (n = 257): Treat and extend 19.5%. PRN 58.1%.
- **United States** (n = 586): Treat and extend 58.0%. PRN 38.4%.
After how many injections do you consider an alternative anti-VEGF therapy for DME in a non-responder?

- **Africa/Middle East** (n = 153)
  - 2-3 injections: 51.6%
  - 4-5 injections: 28.1%

- **Asia/Pacific** (n = 209)
  - 2-3 injections: 55.5%
  - 4-5 injections: 18.7%

- **Europe** (n = 424)
  - 2-3 injections: 40.8%
  - 4-5 injections: 40.6%

- **Latin America** (n = 255)
  - 2-3 injections: 50.6%
  - 4-5 injections: 32.2%

- **United States** (n = 587)
  - 2-3 injections: 41.4%
  - 4-5 injections: 39.9%
How would you initially treat a young diabetic patient with both severe DME and advanced PDR?

- **Anti-VEGF, with focal laser + PRP later**
  - Africa/Middle East (n = 151)
    - 54.3%
  - Asia/Pacific (n = 208)
    - 48.6%
  - Europe (n = 421)
    - 50.9%
  - Latin America (n = 254)
    - 54.3%
  - United States (n = 584)
    - 67.0%
How long do you wait before considering surgery in a diabetic patient with nonclearing vitreous hemorrhage?

- **Africa/Middle East (n = 153)**
  - 1 month: 43.8%
  - 2 months: 24.8%
  - 3 months: 22.9%

- **Asia/Pacific (n = 209)**
  - 1 month: 48.8%
  - 2 months: 20.6%
  - 3 months: 19.1%

- **Europe (n = 422)**
  - 1 month: 42.2%
  - 2 months: 25.1%
  - 3 months: 18.4%

- **Latin America (n = 253)**
  - 1 month: 52.2%
  - 2 months: 19.8%
  - 3 months: 18.6%

- **United States (n = 587)**
  - 1 month: 43.1%
  - 2 months: 32.0%
  - 3 months: 18.9%
Which vitrectomy machine do you prefer?

Africa/Middle East (n = 136)
- Alcon Accurus 22.1%
- Alcon Constellation 48.5%
- Dutch Ophthalmic (DORC) EVA 14.7%

Asia/Pacific (n = 183)
- Accurus 13.1%
- Constellation 71.6%
- Bausch + Lomb Stellaris PC 7.7%

Europe (n = 397)
- Stellaris PC 12.3%
- Other 10.2%
- Constellation 64.5%

Latin America (n = 243)
- Accurus 11.5%
- Constellation 64.5%
- Stellaris PC 7.8%

United States (n = 533)
- Accurus 8.4%
- Stellaris PC 8.8%
- Constellation 76.4%
In what percentage of your retinal detachment cases do you place a scleral buckle?

- **Africa/Middle East** (n = 135):
  - 21%-60% 28.2%
  - > 60% 8.9%
  - ≤ 20% 63.0%

- **Asia/Pacific** (n = 183):
  - 21%-60% 20.3%
  - > 60% 10.4%
  - ≤ 20% 69.3%

- **Europe** (n = 399):
  - 21%-60% 22.1%
  - > 60% 5.5%
  - ≤ 20% 72.4%

- **Latin America** (n = 242):
  - 21%-60% 31.4%
  - > 60% 18.6%
  - ≤ 20% 50.0%

- **United States** (n = 533):
  - 21%-60% 29.6%
  - > 60% 14.4%
  - ≤ 20% 56.0%
In what percentage of *ERM* cases do you peel ILM?

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage Ranges</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>26%-75% 24.3%</td>
<td>132</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>≤ 25% 24.2%</td>
<td>182</td>
</tr>
<tr>
<td>Europe</td>
<td>≤ 25% 18.6%</td>
<td>392</td>
</tr>
<tr>
<td>Latin America</td>
<td>≤ 25% 25.6%</td>
<td>242</td>
</tr>
<tr>
<td>United States</td>
<td>26%-75% 21.5%</td>
<td>533</td>
</tr>
</tbody>
</table>
How long do you recommend facedown positioning after macular hole repair?

- **Africa/Middle East** (n = 133):
  - No positioning: 2.3%
  - ≤ 7 days: 88.0%
  - > 7 days: 9.6%

- **Asia/Pacific** (n = 183):
  - No positioning: 7.1%
  - ≤ 7 days: 71.0%
  - > 7 days: 21.8%

- **Europe** (n = 392):
  - No positioning: 9.7%
  - ≤ 7 days: 80.4%
  - > 7 days: 10.0%

- **Latin America** (n = 242):
  - No positioning: 6.2%
  - ≤ 7 days: 82.6%
  - > 7 days: 11.1%

- **United States** (n = 533):
  - No positioning: 6.0%
  - ≤ 7 days: 81.2%
  - > 7 days: 12.8%
What is your general vitrectomy treatment plan for patients with a dislocated IOL and no capsular bag?

**Africa/Middle East**
- Leave them aphakic and refer them for a future lens implant: 14.5%
- Implant an anterior-chamber IOL (ACIOL): 42.8%
- Suture a new implant to the sclera: 14.5%

**Asia/Pacific**
- Aphakic, future lens implant: 11.1%
- Implant an ACIOL: 20.0%
- Sutured implant: 50.0%

**Europe**
- Aphakic, future lens implant: 9.9%
- Implant an ACIOL: 32.9%
- Sutured implant: 24.7%

**Latin America**
- Aphakic, future lens implant: 21.3%
- Implant ACIOL: 18.3%
- Sutured implant: 36.6%

**United States**
- Aphakic, future lens implant: 15.4%
- Implant an ACIOL: 51.9%
- Sutured implant: 12.0%
How would you treat acute endophthalmitis after intravitreal injection in a pseudophake with HM vision?

<table>
<thead>
<tr>
<th>Region</th>
<th>Treatment Recommendations</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>Prompt vitrectomy with cultures + intravitreal antibiotics, with or without oral antibiotics</td>
<td>58.6%</td>
</tr>
<tr>
<td></td>
<td>Intravitreal antibiotics + vitreous or aqueous cultures, with or without oral antibiotics</td>
<td>39.9%</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>Prompt vitrectomy with cultures + intravitreal antibiotics, with or without oral antibiotics</td>
<td>67.7%</td>
</tr>
<tr>
<td></td>
<td>Intravitreal antibiotics + vitreous or aqueous cultures, with or without oral antibiotics</td>
<td>27.8%</td>
</tr>
<tr>
<td>Europe</td>
<td>Prompt vitrectomy with cultures + intravitreal antibiotics, with or without oral antibiotics</td>
<td>55.6%</td>
</tr>
<tr>
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<td>Intravitreal antibiotics + vitreous or aqueous cultures, with or without oral antibiotics</td>
<td>40.7%</td>
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<td>Latin America</td>
<td>Prompt vitrectomy with cultures + intravitreal antibiotics, with or without oral antibiotics</td>
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<td>Intravitreal antibiotics + vitreous or aqueous cultures, with or without oral antibiotics</td>
<td>24.3%</td>
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<tr>
<td>United States</td>
<td>Prompt vitrectomy with cultures + intravitreal antibiotics, with or without oral antibiotics</td>
<td>23.8%</td>
</tr>
<tr>
<td></td>
<td>Intravitreal antibiotics + vitreous or aqueous cultures, with or without oral antibiotics</td>
<td>69.6%</td>
</tr>
</tbody>
</table>
How often do you perform a fluid-air exchange just to reduce sclerotomy leakage?

<table>
<thead>
<tr>
<th>Region</th>
<th>Action Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>Routinely: complete or partial fluid-air exchange</td>
<td>24.2%</td>
</tr>
<tr>
<td></td>
<td>If leakage concerns, complete or partial fluid-air exchange</td>
<td>24.3%</td>
</tr>
<tr>
<td></td>
<td>No fluid-air exchange: suture when any leakage concern</td>
<td>37.1%</td>
</tr>
<tr>
<td>(n = 132)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>Routinely: complete or partial fluid-air exchange</td>
<td>36.5%</td>
</tr>
<tr>
<td>(n = 181)</td>
<td>If leakage concerns, complete or partial fluid-air exchange</td>
<td>14.4%</td>
</tr>
<tr>
<td></td>
<td>No fluid-air exchange: suture when any leakage concern</td>
<td>35.4%</td>
</tr>
<tr>
<td>Europe</td>
<td>Routinely: complete or partial fluid-air exchange</td>
<td>32.6%</td>
</tr>
<tr>
<td>(n = 389)</td>
<td>If leakage concerns, complete or partial fluid-air exchange</td>
<td>14.1%</td>
</tr>
<tr>
<td></td>
<td>No fluid-air exchange: suture when any leakage concern</td>
<td>31.9%</td>
</tr>
<tr>
<td>Latin America</td>
<td>Routinely: complete or partial fluid-air exchange</td>
<td>52.3%</td>
</tr>
<tr>
<td>(n = 241)</td>
<td>Almost never</td>
<td>14.1%</td>
</tr>
<tr>
<td></td>
<td>No fluid-air exchange: suture when any leakage concern</td>
<td>22.4%</td>
</tr>
<tr>
<td>United States</td>
<td>Routinely: complete or partial fluid-air exchange</td>
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<tr>
<td>(n = 532)</td>
<td>Almost never</td>
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</tr>
<tr>
<td></td>
<td>No fluid-air exchange: suture when any leakage concern</td>
<td>31.0%</td>
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</table>
Thank You