ASRS International Affairs

Preferences and Trends (PAT) Survey

Retina societies around the world accepted our invitation; 1127 of their members answered the 2016 Global Trends in Retina Survey
International Affairs Committee Staff Liaison
Caroline Bozell, MS

ASRS PAT Survey Editors
Thomas W. Stone, MD, Editor
Susan Raef, MSMC, Managing Editor

Research Consultant and Project Manager
Mindy Schneiderman, PhD
GLOBAL TRENDS in Retina Panelists

Africa/Middle East
Ehab N. El-Rayes, MD, PhD

Asia/Pacific
Makoto Inoue, MD

Europe
Praveen Patel, MBBChir, MA, FRCOphth, MD(Res)
Americas
J. Fernando Arevalo, MD, FACS

United States
Glenn J. Jaffe, MD
Thomas W. Stone, MD
Africa/Middle East

Arab African Society of Retina Specialists (AASRS)

Emirates Society of Ophthalmology

Iranian Vitreoretinal Society

Israel Vitreoretinal Society

The Jordan Vitreoretinal Society

Oman Ophthalmic Society

Saudi Ophthalmological Society

Vitreoretinal Society of Nigeria
GLOBAL TRENDS in Retina

Asia/Pacific

Australian and New Zealand Society of Retinal Specialists

Indonesia Ophthalmology Association, Vitreoretinal Interest Group

Japanese Retina and Vitreous Society

The Korean Retina Society

Singapore Society of Ophthalmology, Retina Section

Taiwan Retina Society

The Thai Retina Society

Vitreo Retina Society of India
Europe

Austrian Ophthalmological Society
British and Eire Association of Vitreoretinal Surgeons (BEAVRS)
Dutch Medical Retina Society
Dutch Society of Vitreoretinal Surgery
EURETINA
European Vitreoretinal Society
French Society of Retina Specialists
Greek Vitreo-Retinal Society (GVRS)
Italian Vitreoretinal Surgery Society
Kiev Society of Ophthalmology
Rosengren Club—Swedish Vitreoretinal Society
Spanish Retina and Vitreous Society
Turkish Ophthalmological Society
Central & South America

Argentine Retina and Vitreous Society
Brazilian Retina and Vitreous Society
Central American Retina and Vitreous Society
Colombian Retina and Vitreous Association
Costa Rican Association of Ophthalmology
Mexican Retina Association
Pan-American Retina & Vitreous Society (PRVS)
Peruvian Society of Ophthalmology
Salvadoran Retina and Vitreous Association
Uruguayan Association of Ophthalmology
Do you believe switching anti-VEGF agents makes an impact on the visual acuity (VA) of wet-AMD patients?

- **Africa/Middle East**
  - (n = 161)
  - 61.5%

- **Asia/Pacific**
  - (n = 376)
  - 66.0%

- **Central & South America**
  - (n = 223)
  - 77.6%

- **Europe**
  - (n = 359)
  - 57.4%

- **United States**
  - (n = 689)
  - 58.6%
What is your experience during chronic treatment for wet AMD (2 or more years) with anti-VEGF agents?

Africa/Middle East
(n = 163)
- 60.7% VA improves, then stabilizes
- 14.7% VA improves, then regresses to baseline

Asia/Pacific
(n = 375)
- 50.4% VA improves, then stabilizes
- 36.5% VA improves, then regresses to baseline

Central & South America
(n = 222)
- 68.5% VA improves, then stabilizes
- 17.1% VA improves, then regresses to baseline

Europe
(n = 360)
- 44.4% VA improves, then stabilizes
- 32.8% VA improves, then regresses to baseline

United States
(n = 688)
- 64.1% VA improves, then stabilizes
- 19.0% VA improves, then regresses to baseline
What is the most important factor indicating recurrent wet-AMD disease activity in the maintenance phase?

- **Africa/Middle East** (n = 162):
  - Fluid recurrence: 61.1%
  - Loss of vision: 23.5%

- **Asia/Pacific** (n = 375):
  - Fluid recurrence: 78.4%
  - Loss of vision: 10.1%

- **Central & South America** (n = 222):
  - Fluid recurrence: 69.0%
  - Loss of vision: 24.3%

- **Europe** (n = 359):
  - Fluid recurrence: 64.6%
  - Loss of vision: 17.0%

- **United States** (n = 689):
  - Fluid recurrence: 82.5%
  - Loss of vision: 3.9%
What is your first treatment choice for patients with decreased vision due to diabetic macular edema (DME)?

Africa/Middle East
(n = 159)
- 74.8% Avastin
- 15.7% Lucentis

Asia/Pacific
(n = 376)
- 31.3% Avastin
- 29.8% Eylea

Central & South America
(n = 223)
- 36.8% Avastin
- 27.4% Lucentis

Europe
(n = 358)
- 36.3% Avastin
- 26.8% Lucentis

United States
(n = 686)
- 62.2% Avastin
- 24.4% Eylea
Why do you believe discontinuous anti-VEGF treatment is retina specialists’ most common wet-AMD regimen?

<table>
<thead>
<tr>
<th>Region</th>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>Same visual outcome with continuous and discontinuous treatment</td>
<td>49.7%</td>
</tr>
<tr>
<td>(n = 159)</td>
<td>Physicians and patients prefer fewer injections</td>
<td>30.2%</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>Patients prefer fewer injections</td>
<td>26.8%</td>
</tr>
<tr>
<td>(n = 373)</td>
<td>Physicians and patients prefer fewer injections</td>
<td>44.2%</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>Same visual outcome with continuous and discontinuous treatment</td>
<td>20.9%</td>
</tr>
<tr>
<td>(n = 220)</td>
<td>Physicians and patients prefer fewer injections</td>
<td>58.6%</td>
</tr>
<tr>
<td>Europe</td>
<td>Same visual outcome with continuous and discontinuous treatment</td>
<td>36.0%</td>
</tr>
<tr>
<td>(n = 356)</td>
<td>Physicians and patients prefer fewer injections</td>
<td>34.6%</td>
</tr>
<tr>
<td>United States</td>
<td>Patients prefer fewer injections</td>
<td>23.8%</td>
</tr>
<tr>
<td>(n = 686)</td>
<td>Physicians and patients prefer fewer injections</td>
<td>48.0%</td>
</tr>
</tbody>
</table>
What do you think is most important for elderly patients with loss of vision?

Africa/Middle East (n = 160)
- Prevention of vision loss: 15.0%
- Maximum VA improvement: 13.8%
- Both: 67.5%

Asia/Pacific (n = 372)
- Prevention of vision loss: 31.2%
- Maximum VA improvement: 9.1%
- Both: 54.0%

Central & South America (n = 221)
- Prevention of vision loss: 14.0%
- Maximum VA improvement: 8.6%
- Both: 74.7%

Europe (n = 355)
- Prevention of vision loss: 31.5%
- Maximum VA improvement: 20.3%
- Both: 45.9%

United States (n = 686)
- Prevention of vision loss: 12.0%
- Maximum VA improvement: 17.2%
- Both: 67.0%
What percentage of the time do you use PFCL in vitrectomy for routine primary RRD without PVR?

<table>
<thead>
<tr>
<th>Region</th>
<th>Africa/Middle East (n = 126)</th>
<th>Asia/Pacific (n = 325)</th>
<th>Central &amp; South America (n = 197)</th>
<th>Europe (n = 241)</th>
<th>United States (n = 620)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3%</td>
<td>0%</td>
<td>20.6%</td>
<td>11.2%</td>
<td>22.4%</td>
<td>15.5%</td>
</tr>
<tr>
<td>12.7%</td>
<td>1%-50%</td>
<td>17.3%</td>
<td>23.9%</td>
<td>31.9%</td>
<td>51%-100%</td>
</tr>
<tr>
<td>73.0%</td>
<td>51%-100%</td>
<td>62.2%</td>
<td>65.0%</td>
<td>45.6%</td>
<td>50.8%</td>
</tr>
</tbody>
</table>

Asia/Pacific: 62.2% use 1%-50%, 17.3% use 51%-100%.

Central & South America: 65.0% use 51%-100%.

Europe: 45.6% use 1%-50%, 31.9% use 51%-100%.

United States: 50.8% use 0%, 33.6% use 1%-50%. 
How long do you recommend facedown positioning after macular hole repair?

Africa/Middle East
(n = 126)
- No positioning: 19.0%
- 1-4 days: 46.0%
- 5-7 days: 28.6%

Asia/Pacific
(n = 325)
- No positioning: 5.5%
- 1-4 days: 34.1%
- 5-7 days: 39.7%

Central & South America
(n = 197)
- No positioning: 8.1%
- 1-4 days: 33.5%
- 5-7 days: 42.6%

Europe
(n = 241)
- No positioning: 10.0%
- 1-4 days: 55.2%
- 5-7 days: 27.8%

United States
(n = 620)
- No positioning: 6.5%
- 1-4 days: 35.9%
- 5-7 days: 47.8%
How would you manage a patient with endophthalmitis post *intravitreal injection* with hand-motion (HM) vision?

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>28.3%</td>
<td>Tap/inject in the office</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>7.7%</td>
<td>Tap/inject in the office</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>11.7%</td>
<td>Tap/inject in the office</td>
</tr>
<tr>
<td>Europe</td>
<td>33.2%</td>
<td>Tap/inject in the office</td>
</tr>
<tr>
<td>United States</td>
<td>30.0%</td>
<td>PPV in the OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>67.9%</td>
<td>Tap/inject in the office</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PPV in the OR</td>
</tr>
<tr>
<td></td>
<td>61.8%</td>
<td>PPV in the OR</td>
</tr>
<tr>
<td></td>
<td>90.7%</td>
<td>PPV in the OR</td>
</tr>
<tr>
<td></td>
<td>69.9%</td>
<td>PPV in the OR</td>
</tr>
</tbody>
</table>

Notes: (n = number of respondents)
How would you manage a patient with endophthalmitis post vitrectomy surgery with HM vision?

- **Africa/Middle East** (n = 127)
  - 49.6% Tap/inject in the office
  - 44.1% PPV in the OR

- **Asia/Pacific** (n = 326)
  - 20.9% Tap/inject in the office
  - 77.0% PPV in the OR

- **Central & South America** (n = 197)
  - 16.8% Tap/inject in the office
  - 81.2% PPV in the OR

- **Europe** (n = 241)
  - 49.4% Tap/inject in the office
  - 47.3% PPV in the OR

- **United States** (n = 619)
  - 26.1% PPV in the OR
  - 72.6% Tap/inject in the office
Which DRCR.net Protocol S 2-year outcome would most lead you to choose PRP over Lucentis for PDR?

- **Africa/Middle East** (n = 159)
  - No impact: 36.5%
  - Patient reliability: 30.2%
  - Cost: 29.6%

- **Asia/Pacific** (n = 376)
  - No impact: 25.5%
  - Patient reliability: 41.8%
  - Cost: 25.0%

- **Central & South America** (n = 219)
  - No impact: 29.2%
  - Patient reliability: 46.1%
  - Cost: 19.2%

- **Europe** (n = 359)
  - No impact: 20.9%
  - Patient reliability: 47.1%
  - Cost: 25.1%

- **United States** (n = 687)
  - No impact: 21.1%
  - Patient reliability: 64.8%
  - Cost: 6.8%

**No impact** = Protocol S does not convince me Anti-VEGF is adequate for PDR

**Patient reliability** = Cannot rely on patient to return for further injections

**Cost** = Injections cost too much
Which DRCR.net Protocol T 2-year efficacy outcome will most affect your anti-VEGF choice for DME?

Africa/Middle East
(n = 157)
- Change in VA from baseline to 2 years: 38.2%
- Change in OCT central subfield thickness and retinal volume: 29.9%

Asia/Pacific
(n = 375)
- Change in VA from baseline to 2 years: 48.5%
- Proportion of eyes with 2- and 3-line VA gains or losses: 17.3%

Central & South America
(n = 222)
- Change in VA from baseline to 2 years: 29.7%
- Number of intravitreal injections given by protocol: 33.8%

Europe
(n = 355)
- Change in VA from baseline to 2 years: 45.4%
- Proportion of eyes with 2- and 3-line VA gains or losses: 21.1%

United States
(n = 686)
- Change in VA from baseline to 2 years: 50.1%
- Proportion of eyes with 2- and 3-line VA gains or losses: 26.1%
How would you initially treat a 72-year-old patient with BRVO, macular edema, VA = 20/60?

- **Africa/Middle East**
  - (n = 161)
  - 75.8% Avastin
  - 14.3% Lucentis

- **Asia/Pacific**
  - (n = 376)
  - 39.4% Avastin
  - 29.5% Lucentis

- **Central & South America**
  - (n = 223)
  - 39.9% Avastin
  - 41.8% Lucentis

- **Europe**
  - (n = 359)
  - 37.9% Avastin
  - 31.2% Lucentis

- **United States**
  - (n = 686)
  - 71.1% Avastin
  - 16.8% Eylea
How do you treat a symptomatic inner lamellar macular hole on SD-OCT without VMT and no ERM?

- **Africa/Middle East**
  - (n = 126)
  - 58.7% Observe
  - 20.6% PPV only

- **Asia/Pacific**
  - (n = 326)
  - 68.7% Observe
  - 15.6% PPV + ILM peel + air or gas

- **Central & South America**
  - (n = 197)
  - 42.6% Observe
  - 36.5% PPV + ILM peel + air or gas

- **Europe**
  - (n = 241)
  - 76.3% Observe
  - 14.9% PPV + ILM peel + air or gas

- **United States**
  - (n = 619)
  - 68.0% Observe
  - 22.6% PPV + ILM peel + air or gas
**What is your preferred surgical approach for managing optic disc pit-associated maculopathy?**

<table>
<thead>
<tr>
<th>Region</th>
<th>PPV + gas tamponade + endolaser around ONH temporal</th>
<th>PPV + ILM peel + gas tamponade</th>
<th>PPV + ILM peel + gas tamponade + endolaser around ONH temporal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa/Middle East</td>
<td>19.0%</td>
<td>13.5%</td>
<td>20.6%</td>
</tr>
<tr>
<td>(n = 126)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>20.3%</td>
<td>34.2%</td>
<td>13.2%</td>
</tr>
<tr>
<td>(n = 325)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>11.2%</td>
<td>43.7%</td>
<td>17.8%</td>
</tr>
<tr>
<td>(n = 197)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>16.2%</td>
<td>36.1%</td>
<td>18.7%</td>
</tr>
<tr>
<td>(n = 241)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>27.5%</td>
<td>21.7%</td>
<td>26.9%</td>
</tr>
<tr>
<td>(n = 618)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank You