Ad Hoc Committee on Recruitment of Surgical Residents and Students
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Goal 1

- Provide a comprehensive update of ERAS/NRMP data at each annual meeting of the APDVS.
  - This will include periodic (annual, every other year?) drill down of ERAS data to identify which schools/programs are sending students/residents into vascular surgery.
Obtain ERAS data through 2016 matches

- Residency programs
- Medical schools
- AOA
## Results

### 2007-2013 NRMP Applicants

<table>
<thead>
<tr>
<th>Year</th>
<th># of Programs</th>
<th># of Positions</th>
<th>Positions Filled</th>
<th>Total Applicant</th>
<th>USG Applicant</th>
<th>IMG Applicant</th>
<th>Positions per</th>
<th>US appl per</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>N/a</td>
<td>N/a</td>
<td>N/a</td>
<td>N/a</td>
<td>N/a</td>
</tr>
<tr>
<td>2008</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>31</td>
<td>21</td>
<td>10</td>
<td>3.4</td>
<td>2.3</td>
</tr>
<tr>
<td>2009</td>
<td>17</td>
<td>19</td>
<td>19</td>
<td>66</td>
<td>32</td>
<td>34</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>2010</td>
<td>20</td>
<td>22</td>
<td>21</td>
<td>72</td>
<td>39</td>
<td>33</td>
<td>3.3</td>
<td>1.8</td>
</tr>
<tr>
<td>2011</td>
<td>27</td>
<td>30</td>
<td>29</td>
<td>80</td>
<td>47</td>
<td>33</td>
<td>2.7</td>
<td>1.6</td>
</tr>
<tr>
<td>2012</td>
<td>35</td>
<td>41</td>
<td>41</td>
<td>82</td>
<td>55</td>
<td>27</td>
<td>2.0</td>
<td>1.3</td>
</tr>
<tr>
<td>2013</td>
<td>39</td>
<td>46</td>
<td>45</td>
<td>84</td>
<td>49</td>
<td>35</td>
<td>1.8</td>
<td>1.1</td>
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</table>
NRMP
- Apply to 0+5 program
- Interview with 0+5 program
- Rank a 0+5 program

ERAS
- Click 0+5 on ERAS application
# of applicants for 0-5 programs is growing at a slower rate than positions available
Certain med schools are sending more applicants

We sought to find:
- Which characteristics of medical schools make their students more likely to apply
Methods

Data was collected from

- ACGME and AAMC
- ERAS
- NRMP
- Directly calling general surgery departments/websites
Variables regarding medical school and clerkship structure:

- 3rd year clerkship rotation
  - Required vs. Elective vs. No Rotation
- Presence of vascular fellowship or 0-5 program
- Vascular Clerkship Director
- Vascular Department Chair
- Number of vascular staff
1476 applicants
- 512 (35%) U.S seniors
- 902 (61%) international
- 62 previous US graduates
- 4% osteopathic
Results

- 138 Medical Schools
  - 118 (85%) had at least one 0+5 applicant
  - 20 no applicants
20 US medical schools have never produced a 0+5 applicant
10 schools have produced 21% of the total
<table>
<thead>
<tr>
<th>Rank</th>
<th>Medical School</th>
<th>Total # of App. From 2009-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The University of Toledo College of Medicine</td>
<td>14</td>
</tr>
<tr>
<td>t2</td>
<td>Case Western Reserve University School of Medicine</td>
<td>13</td>
</tr>
<tr>
<td>t2</td>
<td>Louisiana State University School of Medicine in New Orleans</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Ponce School of Medicine and Health Sciences</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Stony Brook University School of Medicine</td>
<td>10</td>
</tr>
<tr>
<td>t6</td>
<td>Drexel University College of Medicine</td>
<td>9</td>
</tr>
<tr>
<td>t6</td>
<td>Howard University College of Medicine</td>
<td>9</td>
</tr>
<tr>
<td>t6</td>
<td>Michigan State University College of Human Medicine</td>
<td>9</td>
</tr>
<tr>
<td>t6</td>
<td>University of Illinois College of Medicine</td>
<td>9</td>
</tr>
<tr>
<td>t6</td>
<td>University of Medicine and Dentistry of New Jersey</td>
<td>9</td>
</tr>
</tbody>
</table>

**Table 1:** Ranking of U.S. medical schools based on number of U.S. graduating seniors who applied to 0-5 vascular programs via ERAS between 2009-2013.
Results

- U.S. graduates from the top 10 schools provided 21% (107/512)
- Of the Top 10, only four had 0+5 program
Dependent variable = ERAS applicant 2009-2013
N= 133 medical school included

<table>
<thead>
<tr>
<th>Variables</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation vs no rotation</td>
<td>P=.04</td>
</tr>
<tr>
<td>Required vs not required</td>
<td>P=1.00</td>
</tr>
<tr>
<td>Elective vs no elective</td>
<td>P=.31</td>
</tr>
<tr>
<td>Vasc Fellowship</td>
<td>P=.44</td>
</tr>
<tr>
<td>Vasc Integrated</td>
<td>P=.005</td>
</tr>
<tr>
<td>ClerkshipDirector</td>
<td>P=.69</td>
</tr>
<tr>
<td>Dept Head</td>
<td>P=.03</td>
</tr>
<tr>
<td>Vascular Staff &gt;5</td>
<td>P=.45</td>
</tr>
</tbody>
</table>
Univariant Analysis

- Rotation vs no rotation was significant (P= .04)
  - 22% med schools with no applicants had no rotation
  - 6% med schools with an applicant had no rotation
- Vascular Department Head (P=.03)
  - Negative correlation
## Ordered Logistic Regression

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Odds Ratio</th>
<th>Lower</th>
<th>Upper</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation vs no rotation</td>
<td>1.74</td>
<td>5.69</td>
<td>1.11</td>
<td>29.21</td>
<td>0.04</td>
</tr>
<tr>
<td>Required vs not</td>
<td>0.26</td>
<td>1.29</td>
<td>0.13</td>
<td>12.61</td>
<td>0.83</td>
</tr>
<tr>
<td>Vasc fellowship</td>
<td>-0.39</td>
<td>1.47</td>
<td>0.17</td>
<td>2.75</td>
<td>0.59</td>
</tr>
<tr>
<td>Vasc integrated</td>
<td>0.82</td>
<td>2.26</td>
<td>0.49</td>
<td>10.26</td>
<td>0.29</td>
</tr>
<tr>
<td>Clerkship director</td>
<td>0.94</td>
<td>2.57</td>
<td>0.25</td>
<td>26.02</td>
<td>0.43</td>
</tr>
<tr>
<td>Dept chair</td>
<td>-1.87</td>
<td>0.35</td>
<td>0.04</td>
<td>0.57</td>
<td>0.005</td>
</tr>
<tr>
<td># of vascular staff</td>
<td>0.08</td>
<td>1.08</td>
<td>0.88</td>
<td>1.34</td>
<td>0.46</td>
</tr>
</tbody>
</table>
Conclusions

- Ratio of US applicants involved in match and positions available is reaching 1:1
- Exposure to Vascular Surgery is predictive of the propensity for students to apply to 0+5 programs
- The presence of a vascular department chair showed a negative correlation
Goal 2

- Coordinate recruitment activities with the SVS Resident and Student Outreach Committees.
  - The Chair of our ad hoc committee will serve as an ex officio member on both SVS committees.
  - We hope to use our ERAS data to guide student/resident scholarship offerings to “underserved” residencies and medical schools.
Use ERAS data to:
- Target 2017 VAM scholarships
- Attempt VSIG formation

Student/Resident Survey
- IAVS
- VAM
- 0+5, 5+2 residents
VAM activities

- Scholarship selections
- Simulation training
- Skills competition
- Student/resident breakfast sessions
- Mock interviews
- Residency fair
ELIGIBILITY

All Scholarship Recipients

37% Matched into a Vascular Surgery Program

40% Still eligible to match into a Vascular Surgery Program

22% Matched into a different specialty program
Advocate for and coordinate the development of resident and student outreach groups within local vascular societies.
Action Plan

- Annual $30,000 industry grant to APDVS

- $10,000 each to:
  - New England
  - Southern
  - Mid-Western
Scholarships offered to:
  • Medical students
  • General surgery residents

Ten for $1000, 20 for $500

Program Directors pick recipients

Breakfast/Lunch session
The presence of a third year medical school rotation in vascular surgery greatly influences applications to integrated programs. We are attempting to identify methods to advocate for better and more uniform integration of vascular surgery into medical school curricula. This is obviously our most ambitious goal but also one we feel is critical to the future of our profession.
Establish vascular surgeons as the experts in the medical management of:

- DVT
- PVD
- Carotid disease
- AAA
- Arteritis
AAMC
Council of Deans
LCME
Provide an annual report of the 0+5 and 5+2 match results for the annual business meeting of the APDVS.
2015 0+5 Match

84% filled with US seniors
2 unmatched positions
10% of positions unmatched
63% filled with US grads