Disclosures

- None
Selection Process - Questions

- Review of candidate applications:
  - Is this done in a standardized manner?
  - Are “USMLE cut-off” numbers used?
  - Who reviews applications and who has input into generation of the rank list?

- The interview day
  - Which individuals participate in this process?
  - How is the day structured?
  - How important is the interview process in selecting residents?
General Surgery PD Interview Survey

How much weight is given to the interview in the final ranking process?

- <25%: 8 responses
- 25 - 50%: 57 responses
- >50%: 40 responses
- None of the above: 3 responses

Cost of the Urology Match Interview

- Survey of applicants offered interviews at 18 participating institutions - 2014
- Total 173 respondents spent median of $7,000 on the urology match
- Mean 14 interviews, $500 per interview
- 95% at least 1 away rotation, 79% asked to return for second interview
- 20% limited number of interviews due to financial situation

# OHSU Interview Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30-8:30 AM</td>
<td>Overview of program by Program Director, Chair and Chief Residents</td>
</tr>
<tr>
<td>8:30-12:00 AM</td>
<td>(1) Interviews with 8 faculty total including Chair and PD (15 minutes)</td>
</tr>
<tr>
<td></td>
<td>(2) Tour of OHSU hospital and OR, Children’s Hospital and VA</td>
</tr>
<tr>
<td>12:00-1:00 PM</td>
<td>Lunch with residents</td>
</tr>
<tr>
<td>1:00-3:30 PM</td>
<td>(1) Interviews with faculty</td>
</tr>
<tr>
<td></td>
<td>(2) Tour of OHSU hospital and OR, Children’s Hospital and VA</td>
</tr>
<tr>
<td>5:30-6:30 PM</td>
<td>Urology Grand Rounds (optional)</td>
</tr>
</tbody>
</table>
How are Applicants Selected for Interview?
Qualities Valued by Program Directors
SUU Urology PD Survey 2010

Lowest rated qualities:
- Dean’s letter
- Community service
- Athletic prowess
Urology PD Survey 2014
n=76 (58% response rate)

Selection Criteria

- Several studies find that perceived prestige of medical school does not predict resident performance
- Predictive value of Deans letter called into question in numerous studies, unless negative comments included
- USMLE score - positive correlation with in-service performance but may have negative correlation with future clinical performance and professionalism
Correlation of Core Competency Evaluations with Applicant Selection Process

<table>
<thead>
<tr>
<th></th>
<th>Patient Care (r)</th>
<th>Knowledge (r)</th>
<th>Professionalism (r)</th>
<th>Communication (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal characteristics</td>
<td>0.43</td>
<td>0.35</td>
<td>0.21</td>
<td>0.36</td>
</tr>
<tr>
<td>Reference letters</td>
<td>0.35</td>
<td>0.30</td>
<td>0.15</td>
<td>0.26</td>
</tr>
<tr>
<td>GPA</td>
<td>-0.19</td>
<td>-0.05</td>
<td>-0.19</td>
<td>-0.26</td>
</tr>
<tr>
<td>USMLE 1</td>
<td>-0.37</td>
<td>-0.32</td>
<td>-0.13</td>
<td>-0.35</td>
</tr>
<tr>
<td>Research experience</td>
<td>-0.08</td>
<td>-0.10</td>
<td>-0.21</td>
<td>-0.14</td>
</tr>
<tr>
<td>Publications</td>
<td>-0.13</td>
<td>-0.10</td>
<td>-0.31</td>
<td>-0.24</td>
</tr>
<tr>
<td>Final rank list</td>
<td>-0.22</td>
<td>-0.24</td>
<td>-0.31</td>
<td>-0.44</td>
</tr>
</tbody>
</table>

Predictors of Success in a Urology Residency Program

- Washington University – 29 urology residents graduating 2000-2009, retrospective review
- Medical student applications and interview evaluation compared with future performance as intern and urology resident (clinical evaluations over 4 years of residency)
- On review, 12 categorized as “excellent”, 17 “average and needing improvement”
- Also assessed correlates with in-service scores

Predictors of Success in a Urology Residency Program

- "Excellent" residents had:
  - Higher rank at time of match
  - Better LORs
  - Better evaluations as an intern

- "Good" urology in-service examination takers compared with "below average" test takers had:
  - Higher rank on match list
  - Higher USMLE scores

- Residents with better clinical evaluations more likely to go into fellowship

What are Applicants Looking For in a Residency Program?
The Millennial Applicant

- Likely to be inventive and creative
- Born into high utilization of technology
- Require relevance/rationale for complying (work that matters is essential to them performing the job well)
- Healthier/active lifestyles
- Prefer active learning over lectures
- Prefer less formal learning environment with ample contact with their educators
- Value personal connections made during the interview
# Surgical Residency Market Research – What are Applicants Looking for?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Satisfaction</td>
<td>8.69</td>
</tr>
<tr>
<td>Record of the Finishing Chiefs</td>
<td>7.98</td>
</tr>
<tr>
<td>Resident Case Volume</td>
<td>7.78</td>
</tr>
<tr>
<td>Academic Reputation</td>
<td>7.63</td>
</tr>
<tr>
<td>Geography</td>
<td>7.40</td>
</tr>
<tr>
<td>Research Opportunities</td>
<td>7.26</td>
</tr>
<tr>
<td>Laparoscopic Skills Lab</td>
<td>6.21</td>
</tr>
<tr>
<td>Elective Time</td>
<td>5.44</td>
</tr>
<tr>
<td>Night Float</td>
<td>5.19</td>
</tr>
<tr>
<td>International Opportunities</td>
<td>5.08</td>
</tr>
<tr>
<td>Benefits</td>
<td>4.79</td>
</tr>
<tr>
<td>Vacation</td>
<td>4.72</td>
</tr>
</tbody>
</table>

Relative Importance of Training Program Criteria for Urology Applicants When Determining Rank Order

<table>
<thead>
<tr>
<th>Training Program Criteria</th>
<th>Importance (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident satisfaction</td>
<td>9.6 (0.8)</td>
</tr>
<tr>
<td>Resident operative experience</td>
<td>9.3 (0.9)</td>
</tr>
<tr>
<td>Perceived strength of faculty</td>
<td>8.9 (1.0)</td>
</tr>
<tr>
<td>Location</td>
<td>7.6 (1.7)</td>
</tr>
<tr>
<td>Interview day experience</td>
<td>7.6 (1.7)</td>
</tr>
<tr>
<td>Rotation at a Veterans Affairs Hospital</td>
<td>7.6 (1.8)</td>
</tr>
<tr>
<td>Rotation at a children’s hospital</td>
<td>7.3 (1.8)</td>
</tr>
<tr>
<td>Reputation</td>
<td>6.7 (1.8)</td>
</tr>
<tr>
<td>Residency duration</td>
<td>6.6 (2.2)</td>
</tr>
<tr>
<td>Dedicated research time</td>
<td>5.5 (1.9)</td>
</tr>
</tbody>
</table>

Scale: 0 (less important)-10 (most important)

Is Dedicated Research Time in Urology Residency Valued?

- AUA survey of urology residents
  - 263 of 956 (27.5%) responded

- Research during residency:
  - 70% valued the opportunity to be involved with research, and will enhance training
  - Only 15% thought dedicated research time was important or very important
  - 63% thought an extra year of research was an unappealing feature of program

Peyton C and Badlani G, Urology 2014; 83:719-725.
What is the Ideal Interview Day?
“We Wear Suits and Lie to Each Other”

- Selection interview has been criticized for its “dubious value” and low interrater reliability
- Strong potential for “halo effect”.
- Applicants feel the need, in some instances, to engage in impression management tactics.

Applicants Opinions on the Ideal Urology Interview Day

- Medical College of Wisconsin
- Anonymous questionnaire to all urology applicants interviewing 2007-2013
- Questionnaire based on surveys used in previously published studies
- Completed by 221 senior medical students applying for urology position

Applicants Opinions on the Ideal Urology Interview Day – What percent of faculty would you like to interview with?

Applicants' Opinions on the Ideal Urology Interview Day – What is appropriate number of faculty interviews?

15% would be intimidated by interviewing with 2 faculty members at the same time.

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Applicants' Opinions on the Ideal Urology Interview Day – How long should the interview day last?

- 107 respondents preferred a 1/2 day interview.
- 103 respondents preferred a 3/4 day interview.
- 11 respondents preferred a full day interview.
- 0 respondents preferred a day longer than one.

# Urology Applicants - Importance of Individual Interview Day Activities

<table>
<thead>
<tr>
<th>Interview Day Activity</th>
<th>Importance (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time with residents</td>
<td>9.4 (0.8)</td>
</tr>
<tr>
<td>Welcome/introductory session</td>
<td>8.3 (1.6)</td>
</tr>
<tr>
<td>Tour of the city</td>
<td>7.8 (1.8)</td>
</tr>
<tr>
<td>Tour of the hospital/clinics</td>
<td>5.2 (2.1)</td>
</tr>
</tbody>
</table>

Scale: 0 (less important)-10 (most important).

It Was the Night Before the Interview: Perceptions about the Pre-interview Reception

- 90% of programs hosted an event
  - 95% attended by residents only
  - 97% didn’t pay, 69% felt that if paid, would leave negative impression of program
- Applicants believe that failing to attend would negatively affect their application
- Prefer informal setting with residents

Randomized Evaluation of Web-Based Interview Process for Urology Resident Selection

- University of New Mexico: 2010-11 cycle
- Skype versus traditional on-site interviews
- Both included interviews with faculty, tour of facilities and opportunity to ask current residents questions.
- To maintain fairness, applicants were re-interviewed via the opposite process several weeks later.

Randomized Evaluation of Web-Based Interview Process for Urology Resident Selection

- N=39, 95% completed questionnaire
  - Web-based interview less costly and required less time away from school
  - Web-based interview rated less effective than traditional on-site interview:
    - Thought had good understanding of program, but “less able to accurately represent myself”, tours less sufficient and lower scores on “felt comfortable ranking UNM based on my interview”.
- May have merit as an initial screening tool

Interview Day – Change to an Informal Interview Dress Code

- EM residency program 2012 and 2013 (2 interview cycles), n=308
- Sent letter to applicants stating:
  - “We don’t want you to wear suits to the interview day, unless you absolutely love wearing suits. We will all be dressed in some version of jeans, scrubs, and at the most, business casual”

Interview Day – Change to an Informal Interview Dress Code

Change to “informal” attire:

- 85% appreciated the change
- 67% stated change made them worry more about what to wear
- Males more uncomfortable than females due to lack of uniformity
- 28% agreed that costs were less overall
- Caused 22% to rank program higher, only one ranked the program lower

Assessing Surgical Skills on Interview Day – Urology Residents

- UCI - 25 resident interviewees performed 4 tasks: open knot tying, lap peg transfer, robotic suturing and skill task 8 on LAP mentor™
- Faculty experts and crowd workers (C-SATS) assessed recorded performance
- Overall, 3938 crowd assessments for 4 tasks in less than 3.5 hours
- 150 expert assessments took average of 22 days

Assessing Surgical Skills on Interview Day – Urology Residents

- Inter-rater agreement between expert and crowd assessment good for open knot tying (0.62), laparoscopic peg transfer (0.92) and robotic suturing (0.86)

- Agreement weak (0.32) for skill task 8 on the LAP Mentor™

- Crowd rank did not compare well with final faculty match list (0.46), but faculty not blinded to skills rating

Interview Day – A Candidate-Centered, Working Approach

- Integrating applicant interviews into the daily work schedule – General Surgery
- Assigned to a host team where 4-8 hours spent observing operative team, rounds and sharing lunch
- Intended to allow “full disclosure” and more realistic view of the program
- Single standard interview with PD or APD

## Applicant Working-Interview Daily Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30-6:45 AM</td>
<td>Check in (change into scrubs)</td>
</tr>
<tr>
<td>6:45-7:30 AM</td>
<td>Attend Morning Conference</td>
</tr>
<tr>
<td>7:30-7:45 AM</td>
<td>Overview of program with Chief Resident</td>
</tr>
<tr>
<td>7:45-12:00 PM</td>
<td>OR time with host team</td>
</tr>
<tr>
<td>12:00-1:00 PM</td>
<td>Lunch with interns</td>
</tr>
<tr>
<td>1:00-4:00 PM</td>
<td>(1) Rejoin host team (either in OR/ward)</td>
</tr>
<tr>
<td></td>
<td>(2) 20-minute sit-down interview with PD or APD</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>Wrap-up with resident host</td>
</tr>
</tbody>
</table>

Interview Day – A Candidate-Centered, Working Approach

- Faculty rate highly because it allowed them to maintain operative schedule
- Faculty and residents believe cooperating in a real world manner aids their assessment of the applicant
- Applicants thought approach informative, transparent, and should be “standard”. Believe it gave them realistic view of program.

What is the Best Structure for the Personal Interview?
The Interview

- Personal interview may be most important part of selection process
- Verification of application information
- Assess communication and interpersonal skills
- Means to evaluate professionalism
- Identify candidates having “best fit” for program or “team players”
- Used as a recruitment tool
Flaws of the Standard One-on-One Interview

- Interviewers tend to:
  - make up their mind early in the interview (often in first few minutes)
  - be influenced more by unfavorable information
  - develop a stereotype of the ideal applicant and match interviewees with their stereotype (halo effect)

- Content covered in standard interviews varies widely from applicant to applicant

- Unstructured interviews have poor inter-rater reliability

Gordon and Lincoln, J Fam Practice 3:175-7, 1976
Other Interview Practices

- **Blinded interviews**
  - Interviews independent of paperwork-derived information about the applicant

- **Standardized or structured interviews**
  - All interviewers ask the same questions

- **Interview format**
  - Panel
  - Small group
  - Multiple mini-interview (MMI)

General Surgery PD Interview Survey – Best Practices?

Is an effort made to conduct blinded interviews by withholding some information from the interviewers about the applicants to be interviewed?

- Yes: 22 responses
- No: 86 responses

Is there a standard set of questions used by all interviewers during the interview process?

- Yes: 5 responses
- No: 91 responses
- No response: 12 responses

Blinded Interviews

- Allows interview to make a unique contribution to impression of applicant
- Program’s philosophical approach to residency selection may determine whether a blinded interview would be useful.
  - Academic credentials and medical knowledge
  - Noncognitive personal qualities
- Knowledge of USMILE correlated with interview scores 1st year; no correlation when blinded to USMILE scores 2nd year.\(^1\)

Blinded Interviews

- OB-Gyn program, n=234 interviewed over a 3 year period (2005-2007)
- Blinded (personal statement only) versus non-blinded interview (access to entire application)
- Candidates ranked as top 10, upper third, middle third, lower third, or do not rank (DNR)
- Interview score compared to final rankings

Candidate Ranking Comparing Blinded and Nonblinded Interviews

Standardized Interviews

- Structured interviews have a stronger association with job performance
  - Takes 3-4 traditional interviews to equal the accuracy of 1 structured interview

- Minimizes:
  - Questions that do not contribute to assessment of capability and potential of the applicant
  - Risk of interviewers asking potentially illegal questions (ethnicity, gender, marital status, family planning, etc.)

- Predicted future clinical performance among dental students¹

Structured Interviews

- **Behavior-specific questions** ask about past behaviors or experiences:
  - “Describe a leadership experience and how it helped you grow as a person”
  - “Describe a time when you had to resolve a conflict”
  - “Describe an ethical conflict of interest that you have encountered”

- **Situational questions**
  - Asks applicant what they would do in various hypothetical situations
Summary and Conclusions

- USMLE score still strongest initial factor considered in selecting students for interview, but predictive value low/negative.

- Millennial applicants:
  - Value resident satisfaction the most
  - Prefer less formal learning environment (active learning rather than lectures) with ample contact with their educators
  - Not as interested in dedicated research time, and certainly not an extra year for research
  - Value operative experience and strong faculty
Suggestions for Improvement

- Focus less on USMLE and more on the interview itself
- Structured or blinded interviews
- Consider a working interview, or less time devoted to formal interviews
- Optimize time with residents: day of interview and pre-interview reception
- Highlight program’s opportunities for active learning, not didactic conferences
  - What is level of contact with faculty?
  - Is there an environment of active teaching?
“No one has ever drowned in sweat”

Lou Holtz

- Are millennial residents as dedicated as generations past?
- They do focus more on personal satisfaction and work-life balance than urologists of the past, but....
- Worry that future urologists will not be hard working or dedicated is potentially damaging to our reputation, and is likely untrue

Questions for the Panel
What parts of the application and/or interview day are most important to you in selection of the successful resident?
Over the last 5 years, have you in any way modified your interview day/experience to be more in tune with the millennial generation?
Should surgical skills be assessed? Have you integrated surgical skills testing in your interview process?
What do you believe is the best interview method: one-on-one, panel or small group? Do you employ blinded or standardized/structured interviews?
Why do we focus so much on the USMLE score? How important is research experience/productivity to you in resident selection?