



BEST PRACTICES: ACADEMIC INTERNAL MEDICINE WEEK 2006

Selection Criteria for Fellowships: Are We All on the Same Page?

According to a survey conducted during the 2005 Internal Medicine In-Training Examination (IM-ITE), the number of internal medicine residents planning to apply for fellowship programs continues to grow (1). Nearly 60 percent of residents taking IM-ITE expressed an interest in pursuing subspecialty training, with cardiology and gastroenterology being the most sought after fellowships. In addition, 3,964 applicants participated in the 2006 Medical Specialty Matching Program (MSMP), with 61 percent matching to a fellowship program (2).

Despite the importance to fellowship applicants of placing into a program through MSMP, a very small number of studies have explored the criteria used by fellowship program directors (FPDs) in choosing from the large pool of eligible candidates (3, 4). A better understanding of fellowship selection criteria would benefit all parties involved in the fellowship application process. With little information about fellowship selection criteria, internal medicine residency program directors (IMPDs) rely on experience and intuition rather than concrete evidence while advising residents applying to fellowship programs. The situation is more difficult for residents, who are working through the process for the first time. Even medical students weigh preconceived notions of fellowship selection criteria when considering internal medicine residency choices.

To determine the selection criteria used by FPDs, an 18-item electronic survey was sent to allergy/immunology, cardiology, endocrinology, gastroenterology, geriatric medicine, hematology/oncology, infectious disease, nephrology, pulmonary/critical care, and rheumatology FPDs. In addition, surveys were also sent to IMPDs to determine what they believe FPDs look for in a candidate and to identify mismatched expectations between FPDs and IMPDs.

The response rate of FPDs was 52 percent (562/1,088). Of the FPDs who returned the survey, 457 (81.3 percent) were from university-based

programs and 105 (18.7 percent) were from community-based programs, representing the normal distribution of fellowship programs. The response rate of IMPDs was 60 percent. Of the IMPDs who returned the survey, 53.8 percent were from university-based programs and 46.2 percent were from community-based programs, representing the normal distribution of residency programs.

According to FPDs, the eight most important candidate selection criteria were the candidate interview, letters of recommendation from specialists known to the FPD, the IMPD letter of recommendation, residency in a university-based program, expressed interest in research, applicants not requiring an H-1B visa, performance during an elective at the fellowship site, and the applicant's United States Medical Licensing Examination scores (Table, page 10).

Since cardiology and gastroenterology are the most sought after—and perhaps most competitive—fellowships, a separate analysis was performed comparing these two fellowships to the remaining eight. The notable difference was that publications and research experience prior to fellowship were more highly regarded by cardiology and gastroenterology FPDs (Figure 1, page 10).

Several differences were noted in response between FPDs in university-based and community-based programs. Training in a university-based residency program, graduation from a US medical school, and applicants not requiring H-1B visas were more important selection criteria for university-based FPDs than for FPDs in community-based programs (Figure 2, page 11). However, performance during an elective at the fellowship site and a personal communication from the resident's IMPD were more important to community-based FPDs.

When the response from IMPDs and FPDs were compared, IMPDs overestimated the weight of several selection criteria: among the top eight selection criteria for FPDs, IMPDs incorrectly elevated the importance of four variables. The importance

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of publications prior to fellowship was greatly over-inflated by IMPDs, who ranked it second on their list while it appeared ninth on the FPD list. Research experience and selection for chief residency ranked five and six, respectively, for IMPDs, whereas FPDs ranked those items 12 and 13, respectively, on the list of selection criteria.

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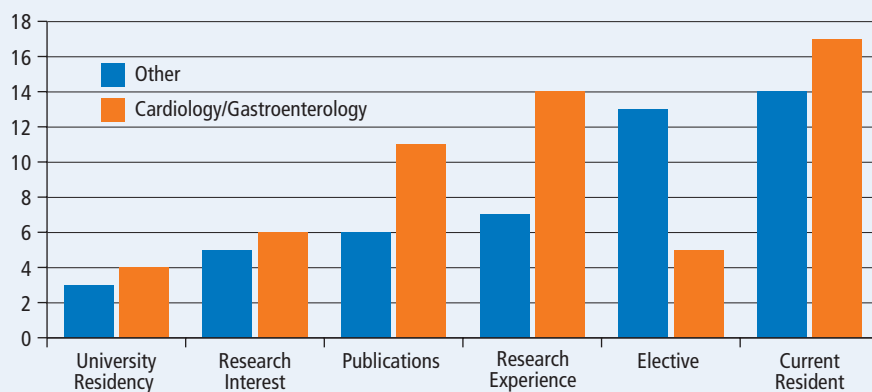
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Table: Rank of Selection Criteria by FPDs and IMPDs

Fellowship Program Directors (FPD)	Internal Medicine Program Directors (IMPD)
1. Fellowship interview	1. LOR* from known specialists
2. LOR* from known specialists	2. Publications
3. IMPD LOR*	3. Fellowship Interview
4. University-based residency	4. IMPD LOR*
5. Interest in research	5. Research experience
6. No H1-B visa	6. Chief residency
7. Elective at the fellowship site	7. Interest in research
8. USMLE scores	8. US medical school
9. Publications	9. University-based residency
10. US medical school	10. Elective at fellowship site
11. US citizen	11. US citizen
12. Research experience	12. No H1-B visa
13. Chief residency	13. USMLE scores
14. Phone call from IMPD	14. Phone call from IMPD
15. Well written personal statement	15. Applying during residency
16. LOR* from attendings not in fellowship field	16. Well written personal statement
17. Applying during residency	17. LOR* from attendings not in fellowship field
18. Extracurricular activities	18. Extracurricular activities

*LOR: Letters of Recommendation.

Figure 1: Comparison of Ranked Selection Criteria by Subspecialty—Cardiology and Gastroenterology versus Other Subspecialties



Rank of selection criteria. A rank value of one is most important.

Conversely, IMPDs were equally unable to predict the importance of several selection criteria FPDs highly valued (Table). Graduation from a university-based residency program ranked fourth among FPDs, while IMPDs ranked the criterion ninth on the selection list. Not requiring an H-1B visa ranked sixth for FPDs, but only 12th for IMPDs.

This study suggests that IMPD intuition and experience can reasonably predict what FPDs look for in an applicant. However, concordance is far from perfect. The importance of the fellowship interview and letters of recommendation from specialists known to the FPD remain paramount. FPDs apparently weigh their own conclusions the heaviest as well as opinions of individuals they know and trust.

Although chief residency is traditionally considered a marker for a resident who may be interested in an academic career, FPDs ranked this criterion a distant 13 compared to an expressed interest in research, which ranked fifth. FPDs may recognize that there are an equal number of excellent fellows who were not chief residents.

FPDs recognize the implausibility of performing top-quality research while attending to patients in clinical rotations. Instead, FPDs search for an applicant who is willing and motivated to pursue a career in research and academics. Apparently, IMPDs do not agree with this position. Perhaps the heightened emphasis on publications and research experience by cardiology and gastroenterology overshadows the sentiment of other fellowship programs, contributing to the difference in opinion between IMPDs and FPDs on the importance of research.

Of particular interest, survey results show that training in a university-based residency program was considered important, even for directors of community-based fellowship programs. This result may indicate an inherent bias against training at any non-university based setting.

Finally, results indicate that the personal statement and extracurricular activities were marginalized to the level of nearly no value, ranking at 15 and 18, respectively, among both IMPDs and FPDs. These rankings indicate that a resident's personal reflection is of little help for FPDs in sorting through potential applicants.

Based on these results, the authors offer several recommendations that may help IMPDs mentor residents applying to a fellowship program:

1. Recognize the importance of the fellowship interview and prepare residents accordingly.
2. Advise residents, whenever possible, to cultivate relationships with specialists and contacts in the field of their choice.
3. Encourage residents interested in cardiology and gastroenterology to pursue scholarly activity that might result in publications.

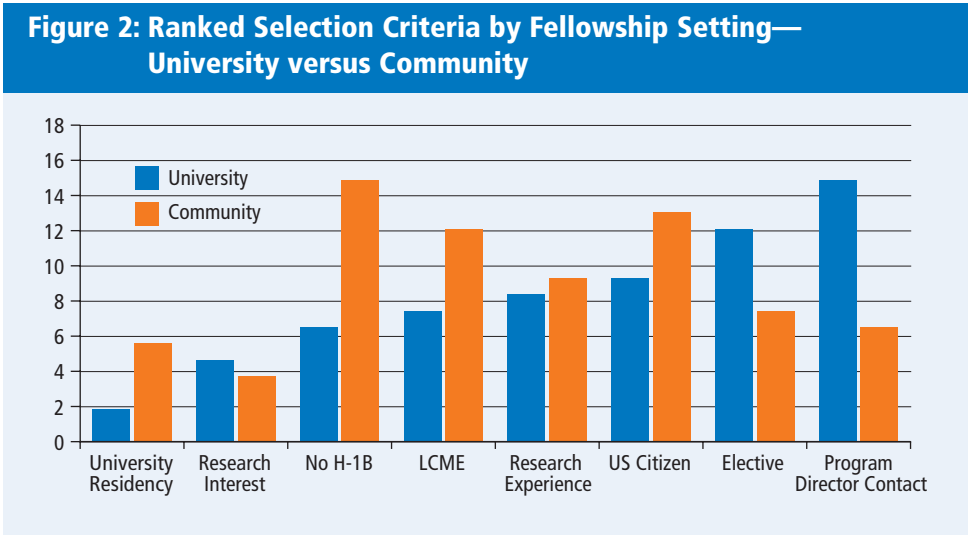
IMPDs recognize the importance of several of the selection criteria used by FPDs, while many others are either over- or underestimated. This study should aid IMPDs, fellowship applicants, and medical students in identifying the variables that FPDs seek and help them prepare applications accordingly. ✨

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