ALLIANCE for ACADEMIC INTERNAL MEDICINE

AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

Optimizing the Internal Medicine Residency Recruitment Process: A National Survey of Program Directors and Next Steps

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INTRODUCTION

One consequence of the COVID-19 pandemic on the undergraduate-to-graduate medical education (UME-GME) transition was the elimination of in-person interviews during the recruitment season. Although public safety concerns were the initial drivers, other benefits quickly became evident, including applicant and program resource savings, reduced disruption to concurrent educational activities, fewer environmental effects from travel, and fewer barriers to faculty interviewer engagement. Much has been written about the effect of this change in interview season format.[1–5] With the public health emergency having passed, the merits, challenges, and utility of virtual interviews and in-person contact—as well as steps to address the increasing trend of "application inflation"—remain relevant and undetermined.

To understand the perspectives of internal medicine residency program directors about residency recruitment controversies, the Alliance for Academic Internal Medicine (AAIM) developed a 5-item survey in collaboration with the American College of Physicians (ACP) Department of Assessment and Education Programs. The survey was distributed to program directors as part of the 2022 Internal Medicine In-Training Examination (IM-ITE). Topics included:

- Satisfaction with information gained from virtual residency interview processes.
- Preferences regarding in-person components of the residency recruitment process.
- Preference regarding a number of Electronic Residency Application Service (ERAS) program signals afforded to applicants.
- Preference for and optimal timing of initial release of interview offers.

This study was deemed as exempt by the Ohio State University College of Medicine institutional review board. The web survey was fielded from October 7, 2022, to January 6, 2023.

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This perspective summarizes the survey results and proposes future directions for each domain addressed. The Alliance acknowledges the challenge in summarizing the diverse perspectives of the internal medicine program director community and notes that "next steps" must consider implications for training programs as well as implications for the diverse pool of applicants, including those from osteopathic schools and international medical graduates (IMGs).

Survey responses were analyzed by intervals of program size based on the number of residents (<25, 25-50, 51-100, and >100). Pearson's Chi-Square Test of Independence was used to analyze group comparisons (p = .05 was used to indicate statistical significance for all tests). Data were analyzed in Q Professional (5.16.2.0).

Of the 596 residency programs in the United States, including Puerto Rico, that participated in the IM-ITE, 319 PDs responded to the survey for a response rate of 54%. Due to a web survey programming error, 76 respondents were omitted from the final 2 survey questions representing those who reported "no in-person visits of any kind" to the third survey question.

PERSPECTIVES VIEWPOINTS

- Residency programs which utilize virtual interviews should optimize assessment of communication skills and professionalism and ensure that applicants are given sufficient information about the program.
- Programs which implement in-person events should take measures to ensure the equitable treatment of applicants.
- IM specialty leaders should seek PD and applicant perspectives to determine the optimal number of preference signals in IM.
- Residency programs should consider pilots of standardized offer release days and times.

Do virtual interviews provide sufficient information to inform rank order list decisions?

A primary purpose of residency interviews is to inform rank order list (ROL) decisions by applicants and residency programs. Whereas previous publications suggested that in-person interview visits enhance mutual understanding of programs and applicants,[1–9] this study explored whether program directors considered contact through virtual interviews sufficient in providing information to create ROLs. Nearly two-thirds (62%) agreed or strongly agreed that an all-virtual interview process provided programs with sufficient information whereas 20% disagreed or strongly disagreed (Figure 1). Program directors from the largest programs (>100 trainees, [n = 45, 14.1%]) were more likely to strongly agree than those from smaller programs (42.2% vs 16.1% of program < = 100 trainees [n = 274, 85.9%], p < .001). Other factors associated with program size may account for some of this difference—factors such as program type (university v. community) and composition (ie, percentage of US, allopathic, osteopathic, and IMGs). Conversely, less than 40% of program directors agreed that applicants receive sufficient information through virtual recruitment.

In a national survey of internal medicine program directors after the first all-virtual interview season in 2020-2021, over 80% of respondents reported high satisfaction with the outcome; however, challenges included being able to adequately communicate the culture of their program or city as well as being able to determine an applicant's genuine interest in their program.[1] Less than 6% of respondents preferred a purely virtual process. A cross-specialty survey found that program directors had reduced confidence in evaluating a student's professionalism (60%), interpersonal skills (61%), and program "fit" (44%) using a virtual platform, compared

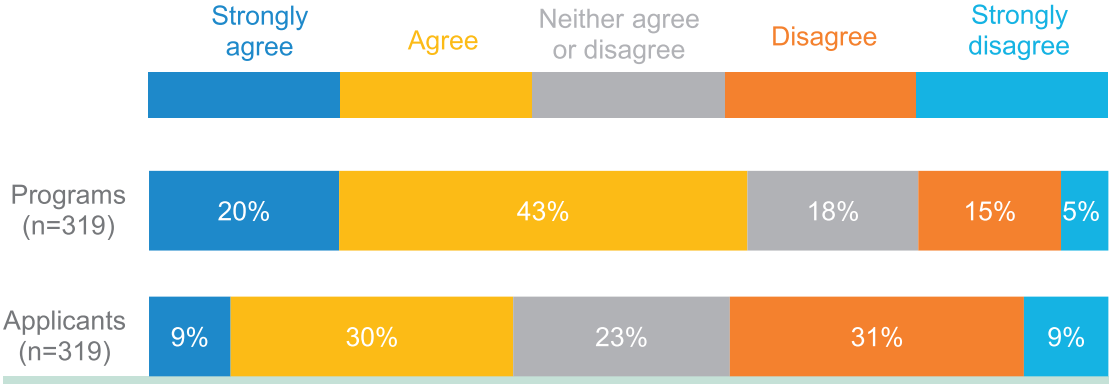

Figure 1 A virtual residency interview process with no structured in-person visits provides programs/applicants with the necessary (even if not optimal) information to guide the creation of their rank order list. *Percentages may not equal 100% due to rounding.

Table 1 Program Directors' Preferred Guideline Regarding In-Person Visits With Applicants

What guideline regarding in-person visits with residency applicants would you prefer?

	Program size				
	<25 residents (N = 58) N (%)	25-50 residents (N = 130) N (%)	51-100 residents (N = 86) N (%)	>100 residents (N = 45) N (%)	All programs (N = 319) N (%)
No in-person visits of any kind (ie, remain all-virtual)	8 (13.8)	26 (20.0)	27 (31.4)	15 (33.3)	76 (23.8)
No limits on in-person contact before, during, or after interview days (ie, permitting return to in-person interviews)	11 (19%)	43 (33.1)	17 (19.8)	3 (6.7)	74 (23.2)
Allow in-person second-look program visits after virtual-only interview days (with a mechanism in place to mitigate bias)	36 (67.2)	61 (46.9)	42 (48.8)	27 (60.0)	169 (53.0)

to an in-person format.[2] Over half of program directors found ranking more challenging compared to entirely in-person recruitment cycles. After the 2020-2021 season, internal medicine faculty interviewers indicated that their assessment ability in nearly all competencies, including communication and professionalism, was lower with virtual compared to in-person interviews.[9]

The survey results suggest various opinions among internal medicine program directors about the virtual interview process. Similar to survey responses of US senior medical students, program directors were divided in their views about whether virtual interviews provided sufficient information to students to guide their ROL creation.[10] Although there is a base of support for a virtual residency interview process, this study suggests that concerns remain regarding assessing applicants and programs with an all-virtual interview process.

Next steps. Despite the lack of consensus about virtual interviews, they are now an established component of the recruitment process in many internal medicine programs. Programs that utilize virtual interviews should implement strategies for optimal assessment of key competencies (eg, communication skills and professionalism). They must also ensure that applicants are given sufficient information about the program to make informed ROL decisions.

Are program directors interested in resuming in-person elements of the recruitment process?

Recent guidelines from AAIM for the interview season continue to recommend avoidance of all in-person interviews, emphasizing the importance of maintaining equitable processes and reducing financial and educational costs.[3,4] In contrast, the Association of American Medical Colleges (AAMC) approached in-person interactions in terms of weighing pros and cons.[5]

Respondents to the survey indicated their preferred interview processes (Table 1), with approximately half (53%) of program directors preferring "in-person second-look visits after virtual-only interview days with a mechanism in place to mitigate bias." The remainder were evenly divided between "no in-person visits" and "no limits on in-person visits or interviews." Directors from programs with 50 or fewer trainees were more likely than directors from larger programs to prefer no limits on in-person visits (28.7% v. 15.3%, $p = .005$), whereas respondents from programs with more than 50 trainees were more likely to favor no in-person visits of any kind (32.1% vs 18.1%, $p = .004$). It is possible that variables related to program size, type, and composition may account for these differences.

Although the debate about whether all-virtual interview formats suffice in program assessment of applicants and vice versa is ongoing, general agreement exists that in-person contact can enhance the program ability to showcase their strengths and help applicants in prioritizing programs on their ROLs.[5]

Applicants have noted challenges with an all-virtual process, particularly in their ability to determine their compatibility with programs.[10] In a study of over 350 fourth-year medical students at US medical schools, the majority (71.7%) felt confident that the virtual format allowed them to represent themselves accurately to programs. However, less than half (46%) were optimistic they could assess their compatibility with a program, and 40% shared concerns regarding inequities due to an all-virtual process. Despite those concerns, almost 70% of students felt confident in preparing their ROL after interviews. However, this study is limited in that it did not survey the perspectives of IMG applicants.

During the 2022-2023 recruitment season, several programs offered in-person interviews and second-look visits. One radiology residency program provided in-person second-look visits after communicating their commitment to finalizing their ROL before the trips.[11]

The program attempted to contain applicant costs by covering the hotel stays of participants. Of the 20% who accepted a second-look visit after virtual interviews, all found it informative, and 88% reported it influenced their final rankings.

In 2023, the National Residency Match Program (NRMP) solicited feedback through a call for public comment about proposed voluntary ROL lock functionality for programs.[12] With this functionality, programs opting to lock their entered lists would be unable to alter their ROL regardless of applicant participation in second-look activities. Nearly half (49.6%) of respondents viewed the voluntary program ROL lock as potentially beneficial, whereas the remainder were divided between believing the new functionality could possibly be harmful (26.0%) or that they did not know whether the functionality would be beneficial or harmful (24.4%).[13] The NRMP Board of Directors reviewed the public feedback and survey results and decided to convene a Match Innovations Summit with key stakeholder groups to examine the proposal further and engage in more discussion of other Match innovations, including a two-phase Match.

Next steps. Given the lack of consensus among program directors about including in-person elements during recruitment, residency programs which implement in-person events (eg, second-look visits) should be transparent about their processes, take measures to ensure the equitable treatment of applicants, and communicate these measures clearly to all applicants.

What number of program preference signals is preferred by program directors?

Residency applicant participation in program preference signaling processes was added to ERAS for internal medicine in 2021. Signaling was introduced as a way for applicants to communicate their preferences for specific programs and geographic regions. This intervention may improve program recognition of more seriously interested applicants and allow applicants to make a more convincing declaration of interest. The number of signals permitted per internal medicine applicant increased from 5 to 7 for the 2022-2023 academic year.

This survey was conducted before the 2022-2023 Match. Only 14% of internal medicine program directors favored increasing the allowable number of signals above 7 and 63% did not support an increase in signals (Figure 2). Directors from programs with greater than 50 residents were more likely to oppose increasing signal numbers above 7 than those from smaller programs (77.5% vs 54.5%, $p < .001$), whereas a higher percentage of directors from smaller programs had no opinion (28.6% vs 12.4%, $p = .004$).

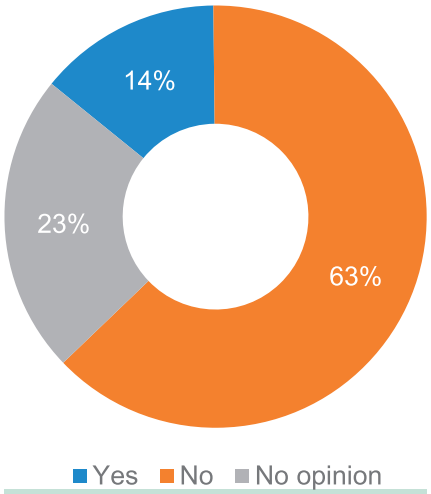

Figure 2 Do you favor increasing the numbrer of ERAS signals from applicants to internal medicine programs to a higher number than the 7 currently allowed? (Percentages shown, n = 243 with 76 missing.)

The number of signals that specialties have chosen varies widely, from 2 in internal medicine-psychiatry to 30 in orthopedic surgery. Obstetrics-gynecology was the first specialty to implement tiered signaling, in which applicants can send "gold" signals to their top 3 most preferred programs and up to 15 "silver" signals to other programs in which they are highly interested. Theoretically, preference signaling could shift some interview invitations from less interested, highly qualified applicants to those who are interested and still meet program standards/expectations, potentially leading to a more equitable process.[14] Initial data on signaling outcomes has been favorable for applicants. Applicants who signaled programs were more likely to receive interview offers based on data from urology[15] and otolaryngology.[16,17] Importantly, applicants with lower scores, research output, and volunteer/leadership experiences received more interview offers from signaled programs.[18] Preliminary data suggest that some specialties with higher numbers of preference signals noticed a decrease in the number of applications.[19]

Despite enthusiasm for signals, limitations exist. Data is lacking on how signaling may differentially impact US allopathic students compared to osteopathic students or IMG applicants. Students who are couples-matching also experience unique challenges and may see negative effects. According to survey results, most directors in large programs oppose increasing the number of signals, while program directors from small programs either favor an increase or are neutral. However, the vast heterogeneity in size, location, and types of internal medicine programs makes it challenging to identify an ideal number for all programs.

Table 2 What Would Be the Optimal Timing for the First Wave of Interview Offers, If AAIM Recommended a Uniform Release Date?

	Program size				
	<25 residents (N = 50) N (%)	25-50 residents (N = 104) N (%)	51-100 residents (N = 59) N (%)	>100 residents (N = 30) N (%)	All programs (N = 243*) N (%)
≤2 wk after ERAS opens	9 (18.0)	25 (24.0)	9 (15.3)	2(6.7)	45 (18.5)
3 wk after ERAS opens	16 (32.0)	19 (18.3)	17 (28.8)	10 (33.3)	62 (25.5)
4 wk after ERAS opens	12 (24.0)	21 (20.2)	11 (18.6)	7 (23.3)	51 (21.0)
≥5 wk after ERAS opens	0 (0.0)	2 (1.9)	1 (1.7)	2 (6.7)	5 (2.1)
None of the above. I do not think there should be a uniform release date for initial interview offers for internal medicine.	13 (26.0)	37 (35.6)	21 (35.6)	9 (30.0)	80 (32.9)

*Base of all programs and program size categories adjusted to account for n = 76 that are missing.

Next steps. Internal medicine leaders should utilize data obtained from the last 2 Match cycles and seek additional data on program director and applicant perspectives to determine the optimal number of preference signals in internal medicine. The experiences of different types of programs (eg, community-based vs university-based) and the impact on US allopathic, osteopathic, IMG, and couples-match applicants must be studied and carefully weighed.

Is there interest in setting a uniform date for the initial release of initial interview offers, and if so, when?

Unlike some specialties,[20–27] internal medicine has not implemented a uniform interview offer timeframe. This survey assessed the interest level among program directors in setting a uniform release date for the first wave of interview offers, and, if receptive, their preferred timing of the offer date. Two-thirds of program directors were open to implementing a uniform offer date, almost all of whom agreed that the date should be within the first 4 weeks after ERAS opens (Table 2).

The process of scheduling residency interviews can contribute to significant applicant stress and anxiety. In a survey of fourth-year students in 2020, 18.4% of respondents who applied to non-surgical specialties reported missing an opportunity to interview at a program because they did not respond to the invitation in time and most reported scheduling interviews knowing they would likely cancel.[19] The most commonly cited reason was concern they would not receive invitations from other programs. Standardization of the interview offer process, including uniform interview offer dates, has been undertaken by several specialties seeking to curb student anxiety and over-acceptance of interviews.[20–27] Student responses to interview date standardization efforts have been mainly positive. Recent surveys of otolaryngology, orthopedic surgery, and dermatology applicants suggest a reduction in student stress, an increase in student abilities to engage in fourth-year educational activities, and student preference to continue with standardized offer dates.[21–23] Program director acceptance of uniform interview offer dates has been less consistent. In the first year of implementation, the specialties noted had a participation rate of over 70%.[22–24] For those who chose not to participate, the most reported reason was that the dates were too early or too late.[22,23]

The effect of uniform offer dates on applicant acceptance and program workflow has been varied and limited. Participating program directors ranged in perceived workflow improvement during the interview season from 58% to 75%,[21,24] with 1 study noting only 38% of program directors experienced less stress in scheduling interviews.[23] A few studies suggest that standardized offer dates lessen excessive interviewing and interview cancellations by applicants.[21,25,26]

A uniform interview offer date for internal medicine could help reduce applicant stress, lessen disruption of clinical rotations, and mitigate excess interview acceptance by applicants. There are significant challenges in identifying the optimal number and timing of interview offer date(s) given the competing need for sufficient time to conduct holistic reviews versus an adequate length of interview season. The diversity of internal medicine programs will likely make agreement on one best date difficult. However, variations on a uniform interview offer date, such as standardized weekly offer release days and times, in conjunction with clear program communication of anticipated offer timing as currently recommended by AAIM, may help mitigate applicant stress.[3,4]

Next steps. Residency programs should communicate their interview offer timing to applicants while also engaging in pilot studies to assess the impact of standardized offer release days and times.

CONCLUSION

The internal medicine residency recruitment process is rapidly evolving with innovations to optimize the UME-GME transition for both applicants and programs. This national survey of internal medicine program director perspectives on recruitment controversies suggests areas for further innovation and study. The absence of a clear consensus on recruitment controversies might stem from the variability within internal medicine programs. A deeper analysis of program director preferences, considering distinctions between university-based versus community-based programs as well as programs recruiting osteopathic and IMG applicants, could elucidate the varied needs specific to internal medicine. Residency programs should incorporate current AAIM best practices to mitigate these recruitment process challenges. Concurrently, AAIM should evaluate the distinct needs and requirements of the osteopathic, IMG, and couples-matching applicant communities as well as those of the diverse group of program directors training them.

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