COVID-19: BEYOND TOMORROW

Potential Implications of COVID-19 for the 2020-2021 Residency Application Cycle

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In the 2020-2021 academic year, more than 40 000 medical students and physicians will apply for residency positions in the United States. Yet due to the effects of the novel coronavirus disease 2019 (COVID-19) pandemic, the experience will be distinctly different for applicants and programs than in previous years. How will the residency application process be affected by COVID-19? While the pandemic will stress the residency selection process, it will also provide the opportunity for change and systemic improvements.

Even before COVID-19, calls to reform the residency selection process were becoming more frequent.[1,2] Many issues are related to the increasing number of programs to which applicants apply. In 2019-2020, applicants from US medical schools applied to an average of 65 programs, and international medical graduates (IMGs) applied to an average of 137 programs.[3] This number of applications likely does not improve match rates and imposes a substantial cost on applicants and a potentially unmanageable load on program directors.

It is possible that the disruptions caused by COVID-19 may result in an increase in the number of applications and further stress this already challenged system. Due to testing center closures, many applicants have been unable to take portions of the United States Medical Licensing Examination (USMLE). This is especially critical for IMGs, who must pass the Step 2 Clinical Skills Examination to obtain certification from the Educational Commission for Foreign Medical Graduates and apply to US residency programs. Additionally, medical schools have shortened clerkships, shifted to virtual rotations, and canceled away electives, all of which may reduce student opportunities to obtain meaningful faculty evaluations, letters of recommendation, and signal their interest to programs. Students will encounter significant uncertainty regarding how their applications will be evaluated and may respond by applying to even more programs.

Program directors may have difficulty identifying applicants to interview without use of traditional screening metrics. Yet, challenges will persist even after interviews are offered; if travel disruptions and social distancing persist into the interview season, programs may be unable to offer in-person interviews. Temporary solutions, such as conducting virtual interviews or waiving requirements for USMLE scores and letters of recommendation, will be necessary for the selection process to function. But these stop-gap solutions may exacerbate existing problems with residency selection and lead to undesirable consequences. For instance, the use of virtual interviews could result in applicants participating in more interviews. Currently, the number of interviews an applicant attends is limited by time and travel expense, but these constraints will be less relevant with virtual interviews. Yet because many programs rely on the same screening metrics, many programs already overinvite the same pool of highly-qualified applicants, with just 7% to 21% of the applicant pool filling half of all interview slots in some specialties.[4] The result of those applicants accepting more interview invitations could be an increase in both the number of unmatched applicants and unfilled programs.

Similarly, while pledges to not rely upon USMLE scores or evaluation of away rotations may be reassuring to students, such policies do not address the primary question of what criteria will programs use to evaluate applicants. Giving already overburdened program directors more applications to evaluate with potentially less information may result in reliance on even less valuable metrics such as school reputation.

Amidst these challenges, there are opportunities to improve this process. To both mitigate the immediate effects of COVID-19 on the residency selection process and improve this system more broadly, several potential measures may be helpful.

Adjust the residency application timeline
Delaying the release of student applications to residency programs by several weeks could allow students more time to complete clinical rotations, obtain letters of recommendation, and receive scores from standardized tests.

Modify application requirements
Programs could consider applications from students who have been unable to receive USMLE Step 2 scores, complete away or "audition" rotations, or obtain certain specialty-specific letters of recommendation. Given the disparate regional effects of COVID-19, insisting on traditional requirements will most likely disproportionately affect students from areas most affected by the pandemic.

Encourage holistic review
Because COVID-19 has affected myriad components of the student application process, program directors could rely less on screening metrics and instead embrace holistic reviews that consider an individual applicant's attributes, aptitudes, and experiences in the context of the unique focus and mission of the residency program. This could include applying more emphasis on narrative aspects of the application, including the personal statement and meaningful research, as well as educational or leadership experiences. Additionally, programs could incorporate principles from standard virtual interviews, a preinterview screening tool in which raters have completed implicit bias training to evaluate applicants on scoring rubrics created by faculty.[5] These interviews may provide information about applicants' noncognitive abilities to serve as a useful adjunct in the evaluation process.

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However, the feasibility of wide-scale implementation of this tool would need further consideration.

Limit the number of applications

Holistic review is difficult without a reduction in the number of applications. Achieving this will require, at minimum, collaborative counseling between deans, advisors, and residency programs. Advisors could counsel students to use resources such as National Residency Matching Program (NRMP) charting outcomes in the match[6]—focusing less on the number of applications submitted and more on the nature of programs to which the student should apply. Consideration also could be given to proposals that limit the number of applications students can submit, such as an optional early result acceptance program.[2]

Expand program information available to applicants

To enable students to submit fewer applications, residency programs could expand the information available to applicants, especially about the unique missions of the programs and the type of applicant they seek. For instance, programs could commit to presenting any strict screening criteria they use to offer interviews, such as a record of peer-reviewed publications or research expertise. In addition, programs could provide faculty and resident narratives regarding subspecialty and research opportunities, as well as specific values unique to the program. These narratives may come in the form of additional website information or perhaps from a preapplication virtual residency fair and could allow applicants to apply more thoughtfully, based on their individual attributes and future aspirations.

Improve the quality of information programs receive

When determining which applicants to interview, program directors highly prioritize information regarding an applicant's integrity, reliability and dependability, motivation, initiative, teamwork, and professionalism, yet they express relatively low satisfaction with currently available tools to assess these factors.[7] Previous recommendations to standardize the Medical School Performance Evaluation (MSPE) could be further modified to systematically address these domains and include thoughtful assessments of an applicant's strengths and areas for development. To provide an incentive for meaningful evaluation, program directors could deprioritize applications from institutions with MSPE letters that are not formatted according to consensus guidelines.

Temporarily make exceptions to the NRMP all-in policy

The all-in policy requires that residency programs participating in the match offer all of the program's residency spots through the NRMP match. To help programs manage the large number of applications and help certain applicants avoid overapplying, the NRMP could consider making exceptions for programs to accept some students outside of the match. Each year, many graduating students choose to remain at their home institution or affiliated hospitals. In some specialties, it has been reported that more than 20% of residents had attended the program affiliated with their medical school.[8] Allowing these applicants to contract outside the match could relieve some stress for students and programs. These exceptions could be limited to the average number of residents in the program from the institution or affiliated medical school. The potential benefits of such a change must be weighed against the risk that applicants will be pressured to accept offers outside of the match. Additionally, such a policy may be perceived as reducing opportunities for students from schools without affiliated residency programs.

Cap the number of interviews a student can accept

Data from the NRMP indicate that seniors at US medical schools who submit more than 4 to 12 contiguous ranks have a greater than 90% chance of successfully matching in almost every specialty, with diminishing returns thereafter.[6] Imposing caps on the number of interview offers a student can accept could potentially prevent well-qualified applicants from overinterviewing and limiting the number of interview spots available for others. The specific cap and how it would be implemented and monitored could be a student-driven process.

Implement preference-signaling mechanisms

Some of the inefficiency in the residency selection process occurs because programs and applicants cannot discern the true level of interest they may have in each other. Allowing applicants to designate preferred programs could improve the process. For instance, some job markets, such as for new PhD graduates in economics, allow applicants to send an expression of special interest to as many as 2 employers prior to interviews, which helps with securing interviews and facilitating matches.[9] Computer modeling suggests a similar approach could be useful in residency selection.[10]

Amidst the devastating effects of COVID-19 on the global health system and economy, health care leaders have pointed out the missed opportunities to prevent or attenuate some of the harms once the risk of the virus is known. Some potential consequences of COVID-19 that may affect the residency selection process could be anticipated. With leadership and thoughtful action, these harms could potentially be mitigated, and the residency application and selection process could be improved both for applicants and residency programs.

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