The Residency Application Process: Current and Future Landscape

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PRACTICE **POINTS**

- Dermatology has implemented several reforms to the residency application process, including coordinated interview invitation release, mechanisms for enhanced transparency between programs and applicants, and a new common supplemental application.
- Across specialties, additional innovations to the residency application process have been implemented and proposed, including preference signaling, an early result acceptance process, and interview and application limits.
- Current efforts to improve the residency application process are ongoing with cross-specialty collaboration.

The residency application process has been the subject of increased scrutiny, accelerated by pandemic-associated effects on undergraduate and graduate medical education. Within dermatology, several reforms have been implemented since the 2020-2021 application cycle, with ongoing work to improve the process for both programs and applicants. Multiple other specialties also have implemented changes, and there is ongoing collaboration across specialties to reform the residency application and selection process to ultimately create a more equitable and sustainable system.

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Amid increasing numbers of applications, decreasing match rates, and ongoing lack of diversity in the dermatology trainee workforce, the COVID-19 pandemic introduced additional challenges to the dermatology residency application process and laid bare systemic inequities and inherent problems that must be addressed. Historically, dermatology applicants have excelled in academic metrics, such as US Medical Licensing Examination (USMLE) scores and nomination to the Alpha Omega Alpha honor society. As biases associated with these academic metrics are being elucidated, they have in turn become less available. With the upcoming change in USMLE Step 1 reporting to pass/fail only, as well as the elimination of Alpha Omega Alpha nomination for students, clinical grades, and/or class ranks at many medical schools, other elements of the application, such as volunteer experiences and research publications, may be weighed more heavily in the selection process. This may serve to exacerbate the application arms race, characterized by a steady rise in volunteer experiences, research publications, and research gap years that has already begun and likely will continue, particularly among dermatology applicants.

These issues are not unique to dermatology and are occurring across all medical specialties to varying degrees. The monetary and opportunity costs of the application process have become astronomical for both applicants and faculty. Faculty are overburdened with administrative duties related to resident recruitment and advising, and students are experiencing heightened match-related anxiety earlier and more acutely. These factors may contribute to burnout among trainees and faculty and may have deleterious effects on medical education. It is clear that transformative work must be pursued to ensure an equitable and sustainable residency application process moving forward. In this column, we review the notable work being done within dermatology and across specialties to reform the residency application process.

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Coalition Recommendations

In August 2021, the Coalition for Physician Accountability (CoPA) released recommendations for comprehensive improvement of the undergraduate medical education (UME) to graduate medical education transition, which includes residency application. Of the 9 principal themes addressed, 2 focus on the residency application process: (1) equitable mission-driven application review, and (2) optimization of the application, interview, and selection processes, which relates to application volume as well as interview offers and formats.[1]

In the area of application review, CoPA recommends replacing all letters of recommendation with structured evaluative letters as a universal tool in the application process.[1] These letters would include specialty-specific questions based on core competencies and would be completed by an evaluator who directly observed the student. Additionally, the group recommends revising the content and structure of the medical student performance evaluation to improve access to longitudinal assessment data about students. Ideally, developing UME competency outcomes to apply across learners would decrease reliance on traditional but potentially problematic application elements, such as licensing examination scores, clinical grades, and narrative evaluations.[1]

To optimize residency application processes, CoPA recommends exploring innovative approaches to reduce application volume and maximize applicants interviewing and matching at programs where mutual interest is high.[1] Suggestions to address these issues include preference signaling, application caps, and/or additional rounds of application or matching. Standardization of the interview process also is recommended to improve equity, minimize educational disruption, and improve applicant well-being. Suggestions include the use of common interview offer and scheduling platforms, policies to govern interview offers and scheduling timelines, interview caps, and ongoing study of the impact of virtual interviews.[1]

Residency Application Innovations Implemented by Other Specialties

A number of specialties have developed innovations in the residency application process to improve equity and fairness as well as optimize applicant-program fit. Emergency medicine created a now widely adopted, specialty-specific standardized letter of evaluation (SLOE).[2] It compares applicants across a number of measures that include personal qualities, clinical skills, and a global assessment. The SLOE is designed to assess and compare applicants across institutions rather than provide recommendations. The emergency medicine SLOE also provides useful information about the letter writer, including duration and depth of interaction with the applicant and distribution of rankings of prior applicants.[2]

In 2019, obstetrics and gynecology launched a standardized application and interview process, which set a specialty-wide application deadline, limited interview invitations to the number of interview positions available, encouraged coordinated release of interview offers, and allowed applicants 72 hours to respond to invitations.[3] These measures were implemented to improve fairness, transparency, and applicant well-being, as well as to promote equitable distribution of interviews. Data following this launch suggested that universal offer dates reduced excessive interviewing among competitive applicants.[3]

Last year, otolaryngology implemented a process known as preference signaling in which applicants were able to signal up to 5 preferred programs at the time of application. A signal allowed applicants to demonstrate interest in specific programs and could be used by programs during their application review process. Most applicants opted to submit signals, and programs received 0 to 71 signals (mean, 22).[4] Almost all programs received at least 1 signal. The rate of receiving an interview was significantly higher for signaled programs (58%) compared to nonsignaled programs (14%)($P<.001$), indicating that preference signaling may be beneficial for both programs and applicants for interview selection.[4]

Residency Application Innovations Implemented by Dermatology

Over the last 2 application cycles, dermatology has implemented several innovations to the residency application process. Initial work included release of guidelines for residency programs to conduct holistic application review,[5] recommendations for website updates to share program-specific information with prospective trainees,[6] and informational webinars and statements to update dermatology applicants about changes to the process and to answer application-related questions.[7-9]

In 2020, dermatology initiated a coordinated interview invitation release in which interview offers were released on prespecified dates and applicants were given 48 hours prior to scheduling. Approximately 50% of residency programs participated in the first year, yet nearly all programs released on 1 of 2 universal dates in the current cycle. In a recent survey of dermatology applicants, nearly 90% supported coordinated release.[10] Several other specialties also have incorporated universal release dates into their processes.

For the 2021-2022 application cycle, dermatology—along with internal medicine and general surgery—participated in the Association of American Medical Colleges' pilot supplemental Electronic Residency Application Service (ERAS) application.[11] The pilot was designed as a first step to updating the ERAS content by allowing students to share more information about their extracurricular, research, and clinical activities, as well as geographic and program preferences to optimize applicant-program fit. Preference signaling, similar to the otolaryngology process, was included in the supplemental application, with dermatology applicants choosing up

to 3 preferred programs to signal, excluding their home programs and any programs where they completed in-person away rotations. Preliminary data suggest that the vast majority of dermatology programs and applicants participated in the supplemental application.[12] Ongoing analysis of survey data from applicants, advisors, and program directors will help inform future directions. Dermatology has been an integral partner in the development, implementation, and evaluation of this pilot.

Proposed Innovations to the Application Process

Given the challenges of the current application process, there has been a long list of proposed innovations to ameliorate applicant, advisor, and program concerns.[13] Many of these approaches are intended to respond to increasing costs to programs and applicants as well as the lack of equity in the process. Application caps and an early result acceptance program have both been proposed to address the ever-increasing volume of applications.[14,15] Neither of these proposals has been adopted by a specialty yet, but obstetrics and gynecology stakeholders have shown broad support for an early result acceptance program, signaling a possible future pilot.[16]

Interview caps also have been proposed to promote more equitable distribution of interview positions.[17] Ophthalmology implemented this approach in the 2021-2022 application cycle, with applicants limited to a maximum of 18 interviews.[18] Data from this pilot will help determine the effect of interview caps as well as the optimal limit, which will vary by specialty.

Changes to the application content itself could better facilitate holistic review and optimize applicant-program fit. This is the principle driving the pilot supplemental ERAS application, but it also has been addressed in other specialties. Ophthalmology replaced the traditional personal statement with a shorter autobiographical statement as well as 2 short personal essay questions. Plastic surgery designed a common supplemental application, currently in its second iteration, that highlights specialty-specific information from applicants to promote holistic review and eventually reduce application costs.[19]

Final Thoughts

The reforms introduced and proposed by dermatology and other specialties represent initial steps to address the issues inherent to the current residency application process. Providing faculty with better tools to holistically assess applicants during the review process and increasing transparency between programs and applicants should help optimize applicant-program fit and increase diversity in the dermatology workforce. Streamlining the application process to allow students to highlight their unique qualities in a user-friendly format as well as addressing potential inequities in interview distribution and access to the application process hopefully will contribute to better outcomes for both programs and applicants. However, many of these steps are likely to create additional administrative burdens on program faculty and are unlikely to allay student fears about matching.

The underlying issue for many specialties, and particularly for dermatology, is that demand far outstrips supply. With stable numbers of residency positions and an ever-increasing number of applicants, the match rate will continue to decrease, leading to increased anxiety among those interested in pursuing dermatology. Although USMLE Step 1 scores have been shown to have racial bias[20] and there are no data correlating scores with clinical performance, the elimination of a scoring system may affect the number of applicants entering dermatology with downstream effects on match rates. Heightened anxiety places increased pressure on students to choose a specialty earlier in their training and impacts the activities they pursue during medical school. Overemphasis on specialty choice and the match process can lead to higher rates of burnout among students and trainees, as students may focus on activities designed to increase their chances of matching at the expense of pursuing activities that could lead to greater engagement and passion in their careers—a key protective factor against burnout.

The goal of the residency application process is to optimize fit between candidates and programs by aligning goals, values, and learning environment. Students and programs working together as honest brokers can lead to transformative change in the process, freeing both parties to highlight their unique qualities and contributions. Programs benefit from optimal fit by being able to hone their particular mission and recruit and retain residents and faculty engaged in that mission. Residents will thrive in programs that support their learning and career goals and will ultimately be better positioned to meaningfully contribute to their chosen field in whatever capacity they choose.

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