Compendium of Resources for the Implementation of Recommendations in the
Final Report and Recommendations for Medical Education Institutions of LCME-Accredited,
U.S. Osteopathic, and Non-U.S. Medical School Applicants

The COVID-19 pandemic necessitates changes for the 2020-2021 residency application cycle that are disruptive for all stakeholders: medical schools, applicants, residency programs, and the associated sponsoring institutions. The Coalition's Current Practices of Student Movement Across Institutions for the Class of 2021 Work Group (WG) believes the medical education community, working together, can minimize these disruptions and mitigate the losses. This document provides additional information to support the implementation of the recommendations contained in the *Final Report and Recommendations for Medical Education Institutions of LCME-Accredited, U.S. Osteopathic, and Non-U.S. Medical School Applicants* and can serve as a foundation for continued work across the UME-GME continuum to address the impact of recommended changes on:

- Away and audition rotations.
- Virtual interviews and program visits.
- The shortened ERAS® timeline and holistic review.

The WG gathered information on the perceived benefits of the traditional approach of each of these domains for students, applicants, and programs. The WG then brainstormed how, with the new recommendations, benefits might be reimagined and recreated and how losses might be mitigated.

The WG hopes this compendium is the beginning of dialogue and concerted work across associations, schools, programs, program director associations, and student groups to develop solutions and share resources.

Away Rotations Resources

The Work Group on Student Movement's Subgroup on Away and Audition Rotations considered the importance of away rotations to U.S. (DO and MD) and international applicants for residency and noted the differences between the two groups of medical students in access to school-affiliated resources and to residency-based rotations in both the third and fourth year. (Away and audition rotations are short-term learning opportunities in locations away from students' home institutions. These opportunities, contrasted with core or required clerkships, are sometimes called "away" rotations, "audition" electives, "clinical" rotations, or sub-Is. Available in teaching hospitals, community clinics, and urban or rural sites, they are generally open to preclinical, clinical, and final-year students, as determined by the host institution.)

The group also discussed differences between those returning to the match after a period of formal or informal training, or even already in medical practice, and those in a more traditional time frame for residency placement.

Recommendation 1 — Away Rotations: The WG recommends that for the 2020-2021 academic year, away rotations be discouraged, except under the following circumstances:

•   Learners who have a specialty interest and do not have access to a clinical experience with a residency program in that specialty in their school's system.
•   Learners for whom an away rotation is required for graduation or accreditation requirements.

Individuals meeting these exceptions should limit the number of away rotations as much as possible. Students should consider geographically proximate programs, when appropriate, to meet learning needs.

Questions have arisen about how schools and programs might best implement this recommendation and how to communicate with students. Based on conversations with multiple stakeholders, the WG offers the following approaches as a starting point for further discussions.

Each school should review the away-rotation recommendation in the context of their individual elective offerings and graduation requirements and develop a policy and plan for communicating the school-specific implementation of this recommendation to their students and faculty, including substantiating exceptions for away rotations.

- Both the medical school and the program should consider playing a role in confirming the student's eligibility for an away rotation.
- Schools should include processes to validate the reason for an away rotation in institutional documents before the documents are released (e.g., transcripts, insurance).
- The program should validate approval from the medical school that the applicant meets at least one of the established exceptions and decline scheduling of an away rotation for any unsubstantiated applications.
- Recognizing that some students will have a need for an away rotation for the reasons identified as exceptions, programs that have the capacity should consider accepting the students who meet the exceptions, particularly if the students are local.

- Requests for approval of students' eligibility should be responded to as quickly as possible to facilitate scheduling for both parties.

Approval of requests for time off for virtual experiences should not require that the student participate in both an in-person clinical experience at the home institution and a virtual external "audition" experience.

The WG considered the perceived value of away rotations from the perspective of both students and program directors to help with developing recommendations and to consider alternate ways to achieve the goals. The collective thinking of the community was included. While not exhaustive, this Table A is meant to serve as foundational thinking for planning for the upcoming residency application cycle.

Table A. Value of Away Rotations and Suggestions for Achieving Goals in a COVID-19 Environment

Value to Students	Value to Program Directors	Potential Substitutes for Away Rotations
Allows applicants to display a breadth of competencies (e.g., teamwork, effort, work ethic) that may be difficult to assess from application materials*	Provides insights into applicants' clinical capabilities, personality, and professionalism that may not be readily assessed from application materials*	• Provide more holistic elements in school reporting that programs can use to evaluate students • Provide longitudinal online group experiences hosted by programs (e.g., journal clubs, case discussions, group projects) • Relax number of LORs, allow nonspecialty LORs, and standardize LORs to provide critical appraisal in key dimensions
Enables applicants to secure feedback, LORs, and SLOEs from residency program faculty in a chosen specialty*	LORs and SLOEs from colleagues in the specialty are helpful in evaluating applicants	Standardize specialty-based local LORs to provide critical appraisal in key dimensions
Allows students to assess the specialty, program features, and culture of the learning environment in ways that inform personal and career fit with the program*	Allows the program director to assess a given candidate's fit with the culture of the program*	• Offer online specialty-based mentoring programs • Provide longitudinal online group experiences hosted by programs (e.g., journal clubs, case discussions, group projects)
Allows applicants to experience clinical environments different from their home institutions	Allows programs to fully demonstrate the capabilities of the local training environment*	• Offer virtual tours of clinical learning environments associated with the program, including distinguishing clinical services and outcomes metrics • Provide longitudinal online group experiences hosted by programs, as above
Gives students access to specialties they are considering but are not available at home institutions	Allows program directors to assess applicants from lesser-known schools	Offer online specialty-based mentoring programs, as above
Establishes connections in a desired geographic area	Allows program directors to preview potential applicants and gauge applicants' interest in their program	Provide longitudinal online group experiences hosted by programs, as above

*The top three benefits mentioned by constituents for each party.
Note: LOR = letter of recommendation; SLOE = Standard Letter of Evaluation.

Both applicants and programs shoulder the financial and educational costs of away rotations (Table B).

Table B. Costs of Away Rotations

Costs or Limitations to Applicants	Costs or Limitations to Programs	Impact of Limitations
Financial costs of travel	Financial costs of orientation and hosting	These costs decrease as the number of away rotations decrease; there could be added investment in technology platforms.
Educational opportunity cost (Is learning taking place during the away rotation? What learning experiences at the home institution are lost?)	• Investment in external learners • Too many visiting students to make a meaningful assessment or connection (Time spent developing learners who will not ultimately be part of the program; potential distraction from providing training and feedback to internal residents and students)	These costs potentially remain for both sides but will decrease overall with fewer rotations.

Encouraging Innovation

Innovative approaches are being developed and implemented by specialties and programs to provide alternatives for students to showcase their knowledge, skills, and attitudes and for programs to ensure applicants receive the curricular content that exposes them to and teaches them about the specialty. The Work Group recommends continued innovation by specialties, institutions, and programs, including developing ways to identify best practices and communicate and share them broadly.

Resources

- [American College of Surgeons Fundamentals of Surgery Curriculum](#) (Freely available through May 15, 2020)
- [Family Medicine Virtual Clerkship](#)
- [Online Diagnostic Radiology Elective](#)
- [Virtual Simulation Experiences in an Emergency Medicine Clerkship](#)
- [Virtual OB-GYN Clerkship Curriculum](#)

Virtual Interview Resources

Since it is expected that some programs will need additional support, the Work Group on Student Movement's Subgroup on Virtual Interviews met to consider how residency programs might plan for and adjust to residency interviews in a virtual environment and to provide resources to support this effort.

Recommendation 2 — Virtual Interviews: The WG recommends that all programs commit to online interviews and virtual visits for all applicants, including local students, rather than in-person interviews for the entire cycle and that the medical education community commit to creating a robust digital environment and set of tools to create yield the best experiences for programs and applicants.

The in-person interview has been a critical piece of the residency selection process from its inception. The Work Group sought broad input about the importance of in-person interviews from the perspective of both applicants and program directors to determine strategies to recommend that could optimize the virtual interview for the desired goals of each party (Table C).

Table C. The Value of In-Person Interviews to Applicants and Program Directors

Value to Applicants	Value to Program Directors
• To gain a realistic introduction and experience of the residency program, including program culture • To provide a direct face-to-face encounter with the program team to market oneself • To assess program and institution attributes that may affect the applicant's choice of training site • To gather information about the community surrounding the hospital as a potential place to live • To interact with residents in the program in an informal setting to learn about the program and those currently training in it • To observe clinical settings and teaching (e.g., inpatient rounds, morning report, noon conference) to assess the quality of the program and suitability to their role as a learner	• To observe and assess applicants' capabilities and fit in the program environment • To use different methods to gauge applicants' abilities, such as observed behavior, teamwork, and other characteristics best observed in situ • To have the applicant observed in different settings by different people (residents, GME administrative staff, faculty) over a day • To promote the sponsoring institution's and program's educational offerings by demonstrating the capabilities of the training program • To highlight the clinical education experiences at the clinical sites used by the program • To gauge the applicant's interest in the program • To consider applicants from broad geographic areas and schools about which the program has less knowledge and experience

As programs prepare for the 2021 recruitment season, it is expected that the medical education community will prioritize the needs of patients, their care providers, and the safety of applicants and the program personnel considering those applicants. Program staff should consider how best to develop processes that meet program needs while creating an equitable, transparent, and successful residency selection cycle for applicants (Tables D and E).

Table D. Mitigation Strategies for Programs Moving to Virtual Interviews

Impacts for Programs	Possible Mitigation
Resources (e.g., planning, time, deliverable costs) will be required of already financially and time-strapped hospitals and training programs that do not already have virtual touring.	Work collaboratively within the institution to share resources across specialties to highlight the benefits of the institution and the community to applicants; limit programs' investment to highlighting the benefits specific to each program.
Ramp-up time for hospitals and residency programs will be needed to prepare for virtual interviews.	• Begin planning for virtual interviews, incorporating best practices from the literature and other guidance. • Begin preparing or adapting materials for applicants and interviewees that highlight strengths of the program, institution, and clinical training sites. • Acquire appropriate teleconferencing equipment, software, and technology to ensure the program and its interviewers can conduct high-fidelity interactions with applicants.
The programs will need to be able to collect the information they need via virtual interviews to fully evaluate applicants.	• Develop a protocol for interviews that may include group interviews or more structured interviews that have an evidence base of predictive value for identifying applicants who will succeed in the program. • Conduct all interviews (even those of local applicants) in the same manner.
Programs may have a better understanding of the capabilities of applicants from their own medical school than of applicants they can only interact with virtually.	Commit to one standardized process for all applicants for the entire recruitment and use that process consistently.
Costs of technology to ensure high-fidelity interactions for interviews and other virtual interactions with the applicants will need to be accounted for.	Budget for costs of providing meals, transportation, and housing for interviewees

Table E. Mitigation Strategies for Applicants Engaging in Virtual Interviews

Impacts for Applicants	Potential Mitigation
Gaining a realistic introduction to program culture and the community surrounding the hospital is especially difficult to do virtually.	Create virtual tours and record informal interviews with residents; allow virtual attendance at department conferences and teaching rounds.
Opportunity for the applicants to gain valuable insight into the program and its culture while interacting with the program's residents during the time normally allotted for dinners and less formal interactions throughout the day is reduced.	Create informal, private, virtual opportunities to speak directly with residents (individually or in groups).
Interaction with current residents is critical and difficult to replicate in a virtual environment; residents and applicants gain a lot of insight during pre-interview happy hours and dinners.	In addition to the interviews, consider having sessions that include other people from the program who will interact with the applicant, such as an informal Q&A with residents and groups of interviewees or discussions with midlevel providers and research and scholarly activity personnel who support the program.
It is difficult to assess the culture and "fit" of a program virtually without having a secure space to ask difficult questions.	Create informal, private, virtual opportunities to speak directly with residents (individually or in groups). Consider using social media platforms.
Providing applicants with a sense or feel of the environment of the program site and properly introducing the program and the local surrounding community to the candidate are significant challenges.	Ensure applicants can interact with the program team and learn about the program through multiple virtual opportunities and settings.
Applicants may be judged unfairly from virtual encounters; most are not trained in virtual-interview etiquette or have much experience with virtual interviewing.	Develop or disseminate a standard etiquette guide for applicants about how to professionally interact in virtual interviews in various formats, including individual, group, formal, and informal settings.
Applicants from local programs or institutions may be unfairly advantaged because virtual interviews may not replace face-to-face interaction and familiarity.	Implement one interview process for all applicants, regardless of location, and adhere to a standardized interview to mitigate any bias.
Applicants with technical issues or in areas with low bandwidth may be disadvantaged.	Be as flexible as possible with applicants who have challenging technical situations; technical issues can occur for any reason.

Resources

Background research and resources are available at [this site](#).

Other Resources:

- [The AAMC Best Practices for Conducting Residency Interviews](#)
- [The AAMC Guide for Applicants Preparing for Virtual Interviews](#)
- [The AAMC Virtual Interviews: Tips for Program Directors](#)
- [University of Utah Health's Virtual Interview Primer](#)
- Jones RE, Abdelfattah KR**.** Virtual interviews in the era of COVID-19: a primer for applicants. *Journal of Surgical Education*. April 2020. doi:https://doi.org/10.1016/j.jsurg.2020.03.020.

Impact of a COVID-19 and a Shortened ERAS Timeline on Programs' Implementation of Holistic Review Resources

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Recommendation 3 — ERAS Timeline: The WG recommends a delayed opening of ERAS for residency programs and a delayed release of the MSPEs and that the opening and release happen on the same day.

Because of COVID-19-related disruptions to the implementation of third-year curricula, Board exam schedules, visa processing, and travel, applicants are experiencing challenges completing the requirements that would normally prepare them for the residency recruitment cycle. This is of concern to all engaged in the residency selection process. As programs consider historical eligibility requirements that may not be readily attainable for every applicant in the COVID-19 environment, they will be faced with individuals who have limited or no clinical experience in the specialty, limited letters of recommendation, and/or incomplete USMLE or COMLEX examinations. Employing the traditional evaluation approach may result in applicants being automatically screen out.

In the pandemic environment, program directors can expect even more challenges to the recruitment cycle as program staff are required to screen applicants with even fewer letters of recommendation, fewer rotation evaluations (away and at home), and fewer test scores. Programs with severe financial burdens may face challenges with availability of program personnel funds. Furthermore, once the acute phase of the pandemic has passed, the clinical workload of program faculty will have increased, which may further affect the faculty's availability for recruiting.

Even as ERAS considers a delayed opening to allow additional time for applicants to complete their applications, it is unclear how long COVID-19-related disruptions may last, how much information programs will have available to make decisions, or how the compressed recruitment cycle will affect programs that wish to conduct holistic review of their applications. This lack of clarity may trigger other behaviors in applicants (e.g., increasing the number of programs they apply to) and programs (e.g., extending more interview invitations) that could exacerbate an already difficult situation.

To ensure a consistent, fair process for all applicants, and to make the most of the recruitment cycle, residency programs should conduct a holistic review of all applicants. They should:

1. Review specialty guidance from their program director organizations, ACGME, and other authoritative organizations.
2. Consider letters of recommendation outside the program's discipline.
3. Consider alternative validated methods of assessment, such as COMAT and NBME shelf examinations, while awaiting completion or availability of USMLE and COMLEX examinations.
4. Consider adapting the virtual interview processes that provide multiple opportunities for maximum information exchange between applicants and programs:
    a. Best practices for applicant assessment may include collating input from official interviewers and current trainees and staff who are encountering the applicants, behaviorally based interview questions, and recording select interview segments.

     b.   Best practices for promoting the program may include live or recorded videos of a program overview, community information, informal interaction with current trainees in large and small groups that facilitates frank discussion, and virtual tours of facilities that portray conditions honestly.

5. Be consistent with interview methods throughout the recruitment season, recognizing that the timing of interviews for individual programs and applicants may be affected by the evolving local impact of the pandemic.
6. Clearly inform potential applicants of the eligibility criteria for the program and the program's curriculum and training.
7. Partner with sponsoring institutions and local resources that promote the community.
8. Be aware of variations in the medical student performance evaluations (MSPEs) compared with previous years due to limitations in clinical experiences and other disruptions to medical education due to COVID-19.

Resource

[AAMC Holistic Review Resources and Tools for Program Directors](#)