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Avoiding a Medical Education Quarantine During the Pandemic



Gina A. Suh, MD; Aditya S. Shah, MBBS; Mary J. Kasten, MD; Abinash Virk, MD; Cynthia L. Domonoske; and Raymund R. Razonable, MD

The coronavirus disease 2019 (COVID-19) pandemic has disrupted the traditional medical training of residents and fellows. Suspension of large-group, face-to-face interactions is certainly needed to flatten the curve of COVID-19 transmission. Therefore, in-person conferences have been suspended to keep learners safe and clinical medicine is increasingly being practiced virtually, with the human touch to care restricted. However, these changes substantially challenged our ability, as faculty, to supervise learners and ensure that our programs delivered high-quality education during the pandemic. Herein, we discuss creative ways to deliver educational conferences and provide Web-side interactions that foster the growth of trainees.

To protect everyone involved from potential exposure to COVID-19, we implemented various strategies to provide educational conferences, including technology-based solutions such as Zoom (Zoom Video Communications, Inc, San Jose, CA), Skype for Business (Microsoft, Redmond, WA), Webex (Cisco Systems, San Jose, CA), and Slido (Slido, New York, NY). These platforms allow for educational interactions between faculty and learners while ensuring physical-distancing directives. In some conferences, we have used a hybrid approach of live streaming combined with a small group of in-person attendees representing various aspects of clinical care and research, who comprise an expert panel. One to four trainees present clinical cases to conference attendees, who include other fellows, faculty, and members of the division. A faculty moderator facilitates an interactive discussion based on questions submitted online by attendees.

Another key component of medical education for trainees is hands-on patient care supplemented by teaching rounds. Traditionally, this education is best accomplished through in-person interaction; however, the pandemic has challenged this approach, requiring rapid adaptation of teaching techniques.¹ Mayo Clinic implemented a moratorium on bedside group-teaching rounds to limit provider exposures to potentially infected patients, as well as to adhere to an institutional mandate to preserve personal protective equipment. Therefore, we had to find innovative ways to achieve our mission of clinical education and faculty supervision. For patient care and inpatient consultations, we used all available technology, including in-room tablet computers with video interface capability, when available, and in-room telephones for direct patient interviews.²

The various teams, especially consulting and primary care services, worked to improve all forms of communication. Before Web-side teaching rounds, trainees and members of the primary care service would discuss overnight events, pertinent physical examination findings, and questions from the consulting teams. After these discussions, the trainees conducted patient interviews using the computer-assisted video or in-room telephone. The teaching rounds by faculty supervisors followed (via Zoom, Webex, Skype [Palo Alto, CA], or teleconferences) and included case discussions as well as daily didactic teaching on selected topics from faculty and fellows.

A similar approach was implemented in the clinics where virtual visits using telemedicine resources, including video

From the Division of Infectious Diseases, Mayo Clinic, Rochester, MN.

conferencing, and telephone visits were promoted for health care delivery. Clinical education with faculty supervision continued via Web-based resources, including multidisciplinary team rounds with faculty, nursing, pharmacists, and social workers. During this pandemic, the Accreditation Council for Graduate Medical Education and academic institutions have allowed trainees to provide this innovative method of health care delivery. As the clinical practice resumes face-to-face patient visits, the educational experience of virtual health care delivery should remain an integral part of trainee education.

Adopting this innovative, nontraditional method of teaching warranted real-time feedback from faculty supervisors and trainees. Trainees and faculty continued to give feedback on performance, with the aim of maintaining the set curriculum and milestones for every trainee. Prepandemic clinical rotations were maintained, and some fellows volunteered their elective or research time to rotate on a newly formed, dedicated COVID-19 clinical service or supported COVID-19–related activities in other ways, such as by working at a test collection site. A faculty member was always available to provide direct supervision for all trainee activities.

Besides providing continued training, it was imperative for the institution and individual training programs to provide trainees with additional support for mental and physical health during the emotionally and psychologically taxing pandemic. At Mayo Clinic, support is given through employee assistance programs, the ombudsman program, and a direct communication path to program leadership and mentors. In addition, we have defined and developed active processes to seek feedback and troubleshoot problems that might arise during medical training. These processes include direct communication via chief medical trainees (residency and fellowship) or an ombudsman serving as a liaison between program leadership and trainees. Other committees, such

as the diversity and inclusion committee, have also been actively involved in helping trainees with specific challenges, including supporting international trainees concerned about family members living abroad. The medical education committee has sought active feedback from trainees about how to improve their medical training during the pandemic and how to provide for a balance between the trainees remaining actively involved in care of COVID-19 patients and continuing to enrich their non–COVID-19 education.

In conclusion, our programs have proven that medical education does not have to be quarantined during the COVID-19 pandemic. The pandemic has certainly challenged our educators to find innovative approaches to continue the mission of teaching, and we believe our approaches have been highly successful for several reasons. We learned that online technologies can effectively facilitate meaningful interactions and discussions of topics in real time without compromising outstanding patient care. Key clinical faculty participated in all aspects of the changes made, which was essential to our success, as was real-time feedback from faculty and trainees. Likewise, the resilience and engagement of fellows and trainees in adapting to innovative and new methods of learning and health care delivery was admirable. Collectively, our graduate education program adapted to the crisis with agility and took a more holistic approach to implementing new learning strategies, which was essential not only for the care of our patients and colleagues but also for continuing to provide exemplary education to our trainees.

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Correspondence: Address to Raymund R. Razonable, MD, Division of Infectious Diseases, Mayo Clinic, 200 First Street SW, Rochester, MN 55905 (Razonable.Raymund@mayo.edu; Twitter: @RazonableMD; @MayoClinicNFD).

ORCID

Aditya S. Shah:  <https://orcid.org/0000-0002-2023-394X>;
Mary J. Kasten:  <https://orcid.org/0000-0001-6229-4807>;

Raymund R. Razonable:  <https://orcid.org/0000-0001-5248-0227>

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