Medical education during COVID-19: Lessons from a pandemic

Key lessons learned during COVID-19 at the UBC Faculty of Medicine.

Roger Y. Wong, MD, FRCPC, FACP, FCAHS

The impact of COVID-19 on medical education is unprecedented, far reaching, and presents unique challenges to medical schools.[1-3] Mitigating strategies should be principle based, forward looking, and compassionate. Lessons learned from the medical education adaptations during the pandemic can potentially be extrapolated to other crisis situations. This article outlines key lessons learned during COVID-19 at the UBC Faculty of Medicine, which is home to a provincially distributed medical undergraduate program that is composed of three regional medical campuses in addition to the main campus.

For all educational adaptations during COVID-19, the foundational consideration is to embrace the safety and well-being of students in the context of providing patient-centred care. This cannot be overstated. We know that medical students report feelings of uncertainty and anxiety[3] about personal safety and continuity of learning experience. Many have questions on how the pandemic impacts their graduation timeline, financial liability, and housing insecurity. The latter stressors, albeit nonacademic, must be adequately addressed through enhanced student advising services.

To recommend and implement educational adaptations, we constructed two rapid-response teams at the outset. The first, the COVID-19 advisory working group, makes high-level steering recommendations to the dean's office on educational adaptations as part of the medical school's response. The second, the undergraduate medical education COVID-19 task force, implements these recommendations. This task force, co-chaired by the undergraduate associate dean and a regional associate dean, comprises student representatives from all years and campuses, as well as multidisciplinary faculty members and administrative staff. This approach helps to empower students and faculty, who can serve as champions for change.

Effective communication is especially critical during the pandemic. To ensure messaging is consistent, the task force develops key messages regularly to add clarity to what students, faculty, and staff can expect. A multimodal communication approach is helpful, using email, YouTube video messages, and website postings. Also, early engagement of internal (university administration) and external (health authorities) stakeholders is crucial.

During the pandemic, we are learning that medical curricular adaptations should be flexible in terms of delivery and administration, building on the existing pedagogical design. The governance structure of the curriculum should be maintained to ensure compliance with accreditation standards.

With physical distancing required, all in-person classes (e.g., case-based learning, lectures, discussion groups) transitioned to remote teaching via an online platform, literally within several days. Our approach has been to expand the video delivery platform that is already in place for our provincially distributed medical education program. Case-based

Dr Wong is the executive associate dean, education, and a clinical professor in the Department of Medicine at the UBC Faculty of Medicine.

This article has been peer reviewed.

learning is delivered via videoconferencing, and the medical program uses YouTube teaching videos, mobile apps, and previously recorded didactic sessions. We recognize that emergency remote teaching may not contain all the best practices in effective online instruction,[4] and we apply continuous quality improvement processes to enhance the learning experience.

In the meantime, in the interest of student and patient safety, early clinical experiences (years 1 and 2) and clinical clerkship (core and elective rotations, years 3 and 4) have been placed on hold for all medical students. This is a uniform adaptation across all 17 medical schools in Canada and helps manage the finite amount of personal protective equipment available. Close liaison with the Association of Faculties of Medicine of Canada is helpful. Adaptations made to replace in-person early clinical experiences (years 1 and 2) include online posting of clinical skills, development of new webinars, and videoconferencing delivery of family medicine teaching. For year 3 students, the module of clinical clerkship has been temporarily pulled out and replaced with flexible learning experience projects, which normally occur in year 4. The exact timing of clerkship reinstatement remains uncertain at this time and will depend on the rapidly evolving pandemic situation. We understand this can be a source of anxiety for students, and we are offering proactive academic advising and student counseling. Year 4 students have already completed the core curriculum, short of 2 weeks of electives, which have been now replaced by public health or research projects. These final-year students will graduate on time in May 2020, and will start residency training in July 2020, contributing to the physician workforce.

Concurrently, we are empowering all medical students to actively engage in a number of public health activities at the provincial level that do not involve physical patient contact, such as conducting COVID-19 contact tracing, staffing telephone hotlines and call centres in regional health authorities, and performing background literature searches for public health. The engagement of our students as part of the public health response demonstrates the social responsibility of the medical school, an approach that has been mirrored in other jurisdictions.[5]

Many adaptations, such as effective online instruction, are catalyzed by the urgency of the pandemic.

Similar to the curricular adaptations, we have made parallel modifications to the assessment framework, preserving the overall programmatic assessment approach while allowing flexibility by shifting the formative and summative components. Portfolio sessions have switched to online delivery, and workplace-based assessments have been deferred to after reinstatement of clinical clerkship. Multiple-choice examinations are now delivered online and made formative. We also delivered the first online objective structured clinical examination (OSCE) to the final year students and are deferring it for students in the remaining years.

We have made adaptations to faculty development in preparing and supporting teachers via online, open-access resources.[6] We have also launched a number of COVID-19-related webinars, free of charge, to support our teachers as part of the medical school's continuing professional development services.

While it is important to act quickly when making adaptations during COVID-19, it is equally important to anticipate the long-term shifts that may become the new normal. Many adaptations, such as effective online instruction, are catalyzed by the urgency of the pandemic. We should begin to plan to sustain the adaptations as we refresh medical education.[7] ■

Competing interests

None declared.

Acknowledgments

Dr Wong would like to express his heartfelt thanks to the countless faculty, clinical colleagues, staff, and students who contribute to the MD undergraduate education program at the University of British Columbia.

References

1. Rose S. Medical student education in the time of COVID-19. JAMA 2020. doi:10.1001/jama.2020.5227.
2. Ahmed H, Allaf M, Elghazaly H. COVID-19 and medical education. Lancet Infect Dis 2020. doi.org/10.1016/S1473-3099(20)30226-7.
3. Gallagher TH, Schleyer AM. "We signed up for this!" – Student and trainee responses to the Covid-19 pandemic. N Engl J Med 2020. doi:10.1056/NEJMp2005234.
4. Hodges C, Moore S, Lockee B, et al. EDUCAUSE Review. The difference between emergency remote teaching and online learning. Acessed 30 April 2020. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning.
5. Bauchner H, Sharfstein J. A bold response to the COVID-19 pandemic: Medical students, national service, and public health. JAMA 2020. doi:10.1001/jama.2020.6166.
6. Office of Faculty Development, University of British Columbia. COVID-19 and faculty development and support. Accessed 10 April 2020. https://facdev.med.ubc.ca/covid-and-faculty-development-support.
7. Emanuel EJ. The inevitable reimagining of medical education. JAMA 2020;323:1127-1128.