Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Medical education in the midst of the coronavirus (COVID-19) pandemic-one year later

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Dear editor,

One year into the COVID-19 pandemic, face-to-face clinical education remains of the utmost importance. Due to social distancing measures, medical education has shifted to online distance learning platforms, away from more traditional methods. Whilst adaptations to the current situation are undoubtedly necessary, it is crucial to assess and allay the extent to which this may affect the development of both current and future clinicians.

The shift in paradigm in medical education necessitated by COVID-19 has been described by Alsafi et al. [1]. Medical students were withdrawn from placements. Institutions cancelled practical examinations or modified assessments to reduce patient contact. Online, open book written assessments have become commonplace and there has been a strong push towards online virtual case-based teaching and small group tutorials. Even as students later returned to clinical rotations, teaching was primarily delivered online.

Despite being necessary precautions to reduce the risk of transmission, they have been met with some concern. Issues have been raised regarding students' confidence in clinical environments and patient interactions. The merits of face-to-face bedside and small group teaching is firmly established; the tangible association generated between patient and disease cements content in the learner's memory [2]. Furthermore, the opportunity to conduct consultations observed by one's seniors and receive feedback is crucial for professional development.

Despite recent increases in clinical exposure for students, we felt we could supplement their learning by providing a bedside teaching program, catering for the students in the midst of a pandemic. Medical students were paired and allocated to tutors either on their medical and surgical teams or on low-risk wards. Tutors would organise a variety of sessions based on students' curriculum, ranging from histories and examinations to data interpretation and procedural skills. Sessions were flexible and aimed to accommodate students' needs, weaknesses and learning styles. To factor in for the risk of coronavirus transmission, we set several rules:

1) Teaching can only be undertaken between the tutor and their allocated pair of students.
2) Teaching can only take place with patients who have a confirmed negative COVID-19 status via PCR swab.
3) Teaching can only take place on low-risk wards, and the ward to which the students have been allocated.
4) Teaching cannot take place in Accident and Emergency or areas where COVID-19 test results are not yet available.
5) The appropriate use of personal protective equipment is necessary. Masks are required throughout. Apron and gloves must be donned as a minimum in any patient contact.
6) Where possible, discussion should take place away from the bedside and should adhere to social distancing rules.
7) Hygiene standards must be maintained (E.g. handwashing and wiping down equipment between patients).

Despite present barriers raised by the current situation, we must ensure that our students have strong clinical foundations when entering the profession. It is our responsibility to ensure the next generation of doctors are provided with high quality experiences so they may provide high quality patient centred care. By using new technology or simply matching students with tutors who are keen to teach, now is the time to innovate the way we educate our students.

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Declaration of competing interest

No conflicts of interest to declare.

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