

## The COVID-19 pandemic and undergraduate medical student teaching-learning and assessment

### La pandémie de la COVID-19 et l'enseignement, l'apprentissage et l'évaluation des étudiants en médecine de premier cycle

P Ravi Shankar,<sup>1</sup> Ian Geoffrey Wilson<sup>1</sup>

<sup>1</sup>IMU Centre for Education, International Medical University, Kuala Lumpur, Malaysia

Correspondence to: P Ravi Shankar; email: ravi.dr.shankar@gmail.com

Published ahead of issue: November 10, 2020; published: February 26, 2021. CMEJ 2021, 12(1) Available at <http://www.cmej.ca>

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## Introduction

The coronavirus disease-19 (COVID-19) pandemic is causing massive economic and social disruption globally. There are still no effective treatments and a vaccine is under development. Physical distancing has been emphasized to control the spread of the virus and institutions of higher education including medical colleges have closed in most countries. Online and remote teaching-learning and assessment methods are being used. Many different approaches have been introduced and described in the literature. Many aspects ranging from organizational preparation, community support, newer methods of session delivery, assessment, early graduation, volunteering, participation in the COVID-19 workforce and student and faculty opinions about the rapid changes have been studied. The authors plan to analyze and synthesize the published literature to answer three important questions.

*What changes to teaching-learning have happened in undergraduate medical education during the period from January to August 2020?*

*What modifications to student assessment in undergraduate medical education have taken place during the corresponding period?*

*What are undergraduate student perceptions regarding these changes?*

## Methods

As this is a review of published literature ethical approval is not required. The authors have begun collecting the data and writing the review article. External informal peer review was conducted by two FAIMER Fellows in Health Professions Education and the protocol modified according to their suggestions.

Published articles will be searched using the terms, 'pandemic,' 'coronavirus disease,' 'COVID-19,' 'undergraduate medical education,' 'medical student assessment,' and 'medical schools.' PubMed and Google Scholar databases will be used for the search. The online EBSCOHost Discovery service database of the university will also be used as in addition to journal articles it also provides access to newspaper articles, magazines and reports in all languages. The authors have obtained the services of the reference librarian at the university to help with the search. The online journal AMEE MedEdPublish with a large collection of articles in this area will also be separately searched using the above terms.

Majority of the articles are freely available online and the full text of the articles are being carefully read by the authors. Articles dealing with the three questions to be addressed will be included in the review. Challenges to online teaching-learning and assessment will be included. Studies about faculty perceptions regarding online teaching-learning and assessment will also be included.

Articles dealing predominantly with postgraduate education, continuing medical education, institutional preparedness, early graduation and joining the workforce will be excluded. We will also exclude articles dealing mainly with faculty development activities for moving teaching-learning online. At present we are not actively seeking collaborators for the review but will remain open to the idea for future studies on this topic. We invite peer feedback and discussion about the issues raised.

## Summary

The COVID-19 pandemic has shifted teaching-learning and assessment in educational institutions online. Many articles have been published on this topic. The authors plan to analyze and synthesize the published literature to answer questions related to changes in teaching-learning in undergraduate medical education, and changes in

assessment during the six-month study period as a result of the pandemic. They will also analyze student perception regarding these changes. As the pandemic continues questions about the future direction of medical education come to the forefront. The emergency shift to online, remote learning raises many challenges. Teaching and assessment of clinical skills and professionalism is especially difficult. The direction of education post pandemic and the role of blended learning in the curriculum also require careful thought. Student perception regarding these changes have been mixed. The impact of the extremely rapid change in teaching-learning and assessment in response to an emergency will require careful study and consideration.