OUR MBBS Experience IN THE PANDEMIC

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Introduction

The COVID-19 pandemic has posed significant challenges to medical education, in particular requiring changes to curricular planning for clinical clerkships[1] as well as the administration of clinical examinations.[2] As newly minted house officers who have recently graduated from our final year of medical education amid the pandemic, we hope to share our experiences sitting for the MBBS examinations at the NUS Yong Loo Lin School of Medicine (NUS Medicine) that took place between February and March 2021.

Safe management practices

To ensure that the examinations were conducted in line with COVID-19 safety regulations, the Faculty Assessment Committee organised them in strict adherence to the guidelines set by the Singapore Government, the Ministry of Health and the National University of Singapore. During pre-examination briefings, examinees were informed of two possible scenarios – an existing business-as-usual plan assuming the COVID-19 situation was unchanged, and a contingency plan in case of a spike in COVID-19 cases. The main differences between these two plans included clinical/theory examinations being on-site versus being home-based with online proctoring support, and the involvement of real patients versus simulated patients for clinical Objective Structured Clinical Examination (OSCE) stations.

All examinations adhered to strict infection control, contact tracing and safe-distancing practices. Prior to entry into the test venues, all candidates underwent temperature screening, made health declarations on an online portal, produced our TraceTogether tokens and registered our entries with SafeEntry. In addition, we had to wear surgical masks at all times, practise good hand hygiene (*marks awarded!*), adhere to physical and social distancing, as well as stay within our allocated groupings. We were grouped according to our examination circuit with unique holding venues and staggered reporting times, all in order to prevent intermingling between different groups. Numerous administrative staff from the Dean's Office were on-site to ensure things ran smoothly and that we were compliant to the stringent safety measures in place.

The arrangement for clinical/theory examinations was also adapted to further minimise physical and social contact. For example, we were required to set up our Exam ID on the ExamSoft portal beforehand, so that our identities could be verified virtually through the camera software. This helped to minimise the need for invigilators to come into close physical contact with us. In addition, examination groupings were now based on existing clinical groups rather than by alphabetical order. As clinical groupmates generally practise with each other before the clinical OSCEs and would already be in close physical contact, this minimised intermingling between students.

Psychosocial support

Given that the COVID-19 situation was extremely fluid and could have resulted in last-minute changes to examination format and schedule, our batchmates invariably had uncertainties, significant worries and anxiety. We were extremely appreciative of the school's efforts to provide regular updates through multiple online platforms, such as official email circulars and our cohort Telegram group. Our class representatives tirelessly liaised with the Deanery for timely updates and shared our concerns with them throughout the entire period, while also providing emotional support through encouraging messages in our batch groups. In addition, our clinical tutors held regular virtual townhalls to provide an avenue for students to voice their concerns and clarify any doubts about the assessment/educational plans. Mental health services such as informal

1

chats with the school's student affairs team, professional counselling services and emergency helplines were also made available to us.

Adjustments to examination format

The final MBBS examinations were split into medical and surgical tracks, and comprised theory papers and clinical examinations that took place over a duration of five weeks. Each track included two days of theory papers (consisting of modified essay questions [MEQ] and multiple choice questions [MCQ]) and three days of clinical examinations (consisting of long and short cases, and communication/ practical skills/focused task stations).

The format for theory papers was largely unchanged from previous years, including a comprehensive set of clinical/theoretical MCQs and scenario-based MEQs that are structured in a sequential release manner.[3]

There were a few main differences in our clinical examinations. Long cases in the clinical section were conducted with simulated patients using standardised cases instead of real patients, due to the difficulty in finding volunteers amid the pandemic. There was also the need to minimise risk exposure for real patients who have premorbid conditions. For our short cases, real patients with actual clinical signs were examined just like in previous years during non-pandemic times. However, patients with acute respiratory symptoms or those with weakened immune systems (eg, patients with haematological malignancies who may have abdominal signs, or transplant patients) were generally not listed due to health and safety concerns.

Interactions with real patients were also reduced as our medical and surgical long cases now involved a scripted clinical scenario with simulated patients. Surgical examinations were now centralised to the school campus, as opposed to being held in tertiary hospitals. Mask-wearing was mandatory and physical contact was minimised where possible (eg, omission of cranial nerve examinations to prevent contact with patients' mucosal surfaces and avoidance of handshaking).

Photo: Dr Chong Wei Zen

This new format had several advantages and disadvantages. On one hand, the range of clinical approaches tested for long cases is now broader as both acute and chronic clinical presentations are equally likely to be tested. Examinations with real patients tend to be skewed towards chronic history-taking from a patient with an old diagnosis, who has undergone subsequent treatment and follow-up. In addition, the clinical content tested is now more standardised, as all students are given the same clinical scenario and simulated patients who are trained to answer in a particular manner and in response to specific clinical prompts. On the other hand, the clinical interaction with these simulated patients is arguably more "artificial" and not entirely representative of real clinical history-taking. Actual patients are not primed to give the necessary clinical information on prompting, and may occasionally bring in less relevant details if the conversation is not steered in the correct direction. Furthermore, the mandatory wearing of surgical masks and minimising of physical contact added a significant barrier to the clinical interaction by reducing non-verbal communication in the form of facial expressions.

Nevertheless, the academic rigour of our final examinations was maintained through the testing of a broad range of clinical content that was considered expected knowledge of a junior doctor. In addition, our performance was subsequently reviewed by a board of clinical examiners, with the passing mark set using the established Borderline Regression Method. The eventual passing rate for our cohort was similar to previous years.

Moving forward

How can future batches of medical students prepare themselves to take the MBBS examination amid the current pandemic? In a recent accepted article in a local journal,[4] we shared four key learning strategies that we found helpful for preparation.

1. Learn to optimise virtual home-based learning;
2. Maximise every clinical encounter;
3. Engage in peer teaching; and
4. Prioritise mental and physical health.

In NUS Medicine, we are privileged to have access to comprehensive e-learning resources,[5] such as a detailed "Manual of Procedural Skills" that junior doctors need to know, as well as learning with simulated patients during virtual scenario-based clinical teaching.[6] Besides maximising our learning from dedicated clinical tutors through home-based virtual lessons and actual clinical rotations, we also found it particularly helpful to form small groups to conduct peer-based teaching and practice sessions to prepare for our clinical OSCEs. Interestingly, peer teaching also has an added benefit

of greater cognitive and social congruence between the learner and the teacher.[7]

Lastly, it is extremely important that students maintain their physical and mental well-being through taking regular breaks, engaging in physical exercises, catching up with friends, seeking mental respite through peer and family support, as well as seeking professional counselling and medical attention, if necessary. After all, the preparation for the MBBS examinations is a marathon that begins in the clinical years, and the process of clinical learning continues far beyond.

Conclusion

It was a surreal experience for us to take the MBBS examinations and graduate amid the COVID-19 pandemic. We had a mixed bag of feelings – from struggling with fear and anxiety from dealing with uncertainties in the pandemic, to finding great solace from supporting one another in conquering this significant milestone together. As we close this chapter of our schooling lives and begin our journeys as junior doctors, we would like to express our deepest appreciation to our clinical tutors who tirelessly taught us valuable clinical and life lessons all these years and supported us throughout our MBBS journey amid the pandemic.

We are also grateful to the examination committee and administrative staff from the school who have worked tirelessly behind the scenes to ensure that the examinations were run smoothly and safely amid the numerous restrictions. To our juniors in medical school, we wish you the best in the coming years ahead, as you strive to learn and become competent junior doctors in the near future. To our fellow batchmates, thank you for the great memories of learning together in medical school! May the passion for learning continue to burn bright in each and every one of us as we begin our medical career to serve our patients.

Legend

1. Awaiting the start of the clinical OSCE stations

2. Class of 2021 group photo

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