



## Summary of External Examiners' Reports for Academic Year 2019-20 General Overview

The AY2019-20 External Examiners' reviews for Years 1 to 5 of the Bachelor of Medicine, Bachelor of Surgery (MBBS) programme at LKCMedicine were positive. LKCMedicine and Imperial are both pleased that the teaching and assessment methods for the MBBS programme were considered by external experts to be appropriate, up-to-date and innovative. This report gives a summary of the key responses by the External Examiners on the examination processes, academic quality of the programme as well as curriculum content and delivery

## Summary of Key Positive Feedback

1. **Programme delivery** - The teaching modules/courses were well integrated, coherent and clearly cover learning outcomes in terms of content and difficulty level. The teaching and learning ethos and facilities are excellent. According to the External Examiners, the high performance standard of the students reflects the excellence of the teaching programme and appropriateness of the teaching methods. The team-based learning approach, feedback mechanism and provision of detailed psychometric feedback at examinations continued to be exemplar of the innovative educational programme.
2. **Assessment Standards** - The External Examiners confirmed that our assessment standards adequately met the national benchmarks and qualifications framework in Singapore, as well as the foreign standards in the countries the External Examiners are familiar with.
3. **Quality of assessments** - The programmes were well mapped out with a clear blueprint of required assessments over the years, including topics to be assessed in various domains. The methods of assessment are robust, well balanced and carried out appropriately.
4. **Students' performance** - Overall, students' achievement and performance were at the same—or even at a higher level than—their peers on comparable programmes in other institutions in Singapore and in other countries the External Examiners are familiar with. According to the examiners, the excellent performance of the students is the result of the school's innovative teaching philosophy and method, as well as the commitment of the faculty delivering it. Overall, the students were well prepared and the examination allowed them to demonstrate their proficiency.
5. **OSCE** - The External Examiners commended that the OSCE facilities, administration, scenarios, examiners and simulated patients were of the highest quality. The conduct of the examination was exemplary. The briefing of the examiners was well organised, with clear instructions given by the chief examiner. The External Examiners were impressed by the level of guidance and standardisation, which assured them that the students were given a uniform level of assessment. The marking schemes were well designed, standardised and calibrated with the examiners to ensure adequate validity and reliability. Examiners were dedicated, conscientious and assessed the students in a fair and consistent way. The use of technology for grading the examination and individualised feedback given to the students were excellent and useful for student learning. The use of moulage was perceived as highly realistic, which added authenticity to the OSCE. External Examiners were also supportive of the use of video-conferencing for remotely observing the OSCEs and participating in related meetings.
6. **Student Assistantship Programme** - The External Examiners supported the move of replicating the Student Assistantship Programme on-campus, using simulation, simulated patients and mannequins.
7. **Faculty and administration** - The External Examiners commended that the academic and administrative leadership is strong and the enthusiasm, dedication and hard-work from the faculty and administrative team are excellent. The academic team was open to discussion and are constantly reviewing and improving the quality of education and assessment. The examination logistics were highly organised and professional. Moreover, they stated that the student support is excellent. Overall, the education team was described as being highly professional, motivated and dedicated to their work and continue to innovate. The External Examiners were particularly impressed by the adaptability of the faculty and administrative team to adjust to the COVID-19 situation.

Summary of responses to key suggestions for improvement

Written Examination - None

OSCE:

Year	Area	Responses
2	Additional provision of clinical skills training for the students in Year 3	<p>For the cohort of students who did not undergo clinical examinations in Year 2 and progressed to Year 3 in AY2020-21, we have added the following into their Year 3 curriculum to provide feedback for their clinical performance and hone their clinical skills:</p> <ul style="list-style-type: none"> <li>(a) Additional tutorials before each clinical posting block conducted in an "OSCE-style format" that covers history taking and physical examination stations.</li> <li>(b) Simulated ward round where the students are required to clerk the simulated patient and present to the tutor (the "Consultant"), as they would do in a ward round.</li> </ul> <p>All students will be rostered to participate in these sessions and will be provided with feedback on their performance during the sessions.</p>
3	Compensatory workplace and related experiences in view of the missed OSCE and clinical postings	<p>Following the easing of some restrictions pertaining to the COVID-19 pandemic, the School has conducted/plan to conduct the following to help the affected students hone their clinical skills:</p> <ul style="list-style-type: none"> <li>(a) Virtual focused history-taking sessions with real patients in the wards via Zoom, guided by clinical tutors.</li> <li>(b) Round Robin Tutorial session – this is a campus-based formative 6-station OSCE (2 history-taking via Zoom and 4 physical examination stations with standardised patients) cum mini-tutorial session.</li> <li>(c) 4-station OSCE (2 history-taking and 2 physical examination stations, some involving real patients) with debrief after each station, led by the senior students.</li> <li>(d) Year 3 clinical skills component is incorporated in the Year 4 clinical posting teaching and formative OSCE.</li> </ul> <p>All students participating in the above learning activities are assessed using either the OSCE scoring rubric or WBA. Feedback on performance is provided to help the students learn and improve.</p> <p>All students also underwent the Clinical Enrichment Postings in the various healthcare institutions (2 weeks of Medicine and 2 weeks of Surgery) in place of the usual Scholarly Project at the beginning of the new academic year. During these postings, the students had clinical encounters with real patients in the wards, under the guidance and supervision of the clinicians.</p>

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4	Duration of 10 minutes too short for the more complicated stations (e.g., psychiatry)	<p>We have been using the 10-minute station to assess psychiatric conditions (e.g., depression and psychosis). Most of the scenarios are fairly straight forward and students should be able to reach a diagnosis within the time limit.</p> <p>We will be sure to pass on this observation to the psychiatry station writers to ensure that sufficient time is provided for students to reflect for future examinations.</p>
5	Predictability of OSCE stations	<p><u>For Physical Examination Stations</u> Although students may be able to guess what will be tested at the various stations of the OSCE, the physical examination stations are most at risk of students “guessing” correctly – a phenomenon that is unavoidable because there are limited categories of patients who have signs, are willing and stable enough to allow repeated examination by students and last the duration of the OSCE.</p> <p><u>Skill Stations</u> The skill station is somewhat at risk of students “guessing” it correctly because the list of skills in the Ministry of Health, Singapore (MOH)’s national outcomes document is limited.</p> <p><u>Other Stations</u> The history, communication and extended stations are hardly at risk of the students “guessing” them correctly given the wide range of topics that can be examined.</p>
5	Improvements to the OSCE marking scheme	<p>When designing the marking scheme:</p> <ul style="list-style-type: none"> <li>• We focus on the descriptors for the “Pass” grade to allow flexibility in the interpretation of the Good, Very Good and Poor grades.</li> <li>• In addition to sending to the item writer, the item is also sent to a 2<sup>nd</sup> content expert to review if the marking scheme is overly-structured / too prescriptive.</li> </ul> <p>On exam day:</p> <ul style="list-style-type: none"> <li>• During briefing, examiners are reminded that they can exercise judgment for high performing candidates who misses a single “bullet point” in a core domain but addresses the issue in the stretch question.</li> <li>• During calibration, we assign a scribe / facilitator to record adjustments made to the marking scheme and remind the Calibrator to reinforce the adjustments to all examiners before OSCE starts.</li> </ul> <p>However, standardisation in terms of sameness across all stations may not be possible because some stations / scenarios are inherently more difficult compared to others; e.g., a history station of chest pain in a middle age man is much easier compared to one of abdominal pain in an elderly patient. Therefore, the descriptors for “Pass” may not be the same.</p> <p>We will continue to improve the marking scheme by:</p>

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		<ul style="list-style-type: none"> <li>Standardising the number of domains for each type of station</li> <li>Standardising the focus of each domain for the same type of station</li> </ul>
5	Suitability to assess procedural skills in OSCEs	<p>The skills assessed in the AY2019-20 Year 5 OSCE was ECG.</p> <p>As a core skill in the Ministry of Health national outcomes document, there is value in featuring the ECG station in OSCE. The reality is that while performing an ECG is a mandatory DOPS in Years 3-5, reports from students and clinical tutors consistently state that 20-30% of students struggle to identify the correct anatomical landmarks on the patient's chest to place the leads but still pass the DOPS for a variety of reasons.</p> <p>By including the ECG station as a possible OSCE station, final year students set aside time to practice in the Skill Laboratory with SPs and thus become competent in placing the leads and completing the station smoothly.</p>
5	Knowledge gap in acute management/assessment of diabetes mellitus	This is a gap in students' knowledge that we will close with the teaching teams in Medicine/Endocrinology, Orthopaedic Surgery and Vascular Surgery.
5	Awareness of patient exposure and dignity	<p>We will reinforce to students to be mindful of the degree of exposure and patient's dignity during examination of sensitive areas.</p> <p>We were very taken aback by the student who did not wash hands or wear gloves and so was the station examiner. We believe it was an isolated incident peculiar to that student because almost all other students had either washed their hands before and after the examination or wore gloves.</p>
5	Disposal of used consumables after clinical examination	<p>The neurological examination was a difficult station and most of the candidates could barely finish the station on time and hence, might not have time to dispose the used consumables after their clinical examination.</p> <p>We will remind students the need to dispose of used consumables after completing their clinical examination.</p>
5	More discussion points for the extended station on volvulus	We will review the station and expand the appropriate sections.
5	Heterogeneity of clinical cases	<p>We are mindful of the inter-patient variability with respect to signs: a limitation that our school, examiners and students must accept if we value real patients and the authenticity that they bring to our OSCEs.</p> <p>We are actively working with our partners in the National Healthcare Group to increase the number of patients with suitable and similar signs.</p>

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		To mitigate, we appoint an experienced doctor as Calibrator for the physical examination stations, who will adjust the "Pass" grade for individual patients and calibrate fellow examiners accordingly.
5	Examiners' behaviour and quality assurance of examiners	<p>We will remind and emphasise to the examiners during training and during the OSCE briefing that they should not answer or look at text messages and teach or prompt students during the examination. Recalcitrant examiners will be counselled.</p> <p>We will explore the feasibility of auditing/observing the OSCE examiners for quality assurance in future OSCEs.</p>
5	Familiarisation process for new examiners	We will assign a senior examiner to buddy the new examiner for the first few candidates for future OSCEs.
5	End of day review with examiners	We will consider introducing an end-of-day review with the examiners.

Student Assistantship Programme (SAP) - None