



INNOVATIVE CURRICULUM

BUILT THROUGH AN ENDURING PARTNERSHIP

When I was approached in December 2010 to head a team of medical educators at Imperial College London (Imperial) for a new medical school “project” in Singapore, I was curious to know what the expectations of the new curriculum would be. Would we deliver a replica of the highly successful Imperial curriculum? Doing that would surely be a missed opportunity. However, by the time of my first visit to Singapore in early 2011, it was clear that all stakeholders were committed to a school that would approach medical education in a very different way. This would be a bespoke curriculum for Singapore.

Many medical schools worldwide are collaborations between universities, but the Lee Kong Chian School of Medicine (LKCmedicine) is – dare I say it – unique. From the start, teams in London and Singapore set about developing collaboratively all parts of the MBBS programme – from admissions to curriculum, assessment and student welfare – combining the very best from Imperial with innovative educational approaches. Our mission then, as now: to train the very best doctors for Singapore; doctors who advance the science and practice of medicine for the good of humanity.

BUILDING TEAMS

At that time, based in London as the curriculum development lead, a position that I combined with my role as consultant gynaecologist, I was responsible for a talented team of

medical educators based at the London office of LKCmedicine, working closely with more than 90 faculty and staff across Imperial. I regularly updated Prof Jenny Higham, then director of education at Imperial, who led the project from the start, and was in daily contact with Prof Martyn Partridge, our then senior vice dean in Singapore. Prof Partridge, a highly regarded respiratory medicine physician from Imperial, worked tirelessly to gain deep insights into Singapore’s evolving healthcare landscape. He was instrumental in establishing and communicating the vision and mission of the School through broad engagement with the Singapore medical and university communities. A highly committed team in Singapore was established, including very experienced clinician educators from the National Healthcare Group, who are renowned for their medical expertise and teaching excellence.

MEETING SINGAPORE’S HEALTHCARE NEEDS

We recognised that the new curriculum must prepare graduates for the future and for Singapore’s healthcare context. Singapore’s changing demographics, with a population ageing faster than anywhere else in the world and growing numbers living with complex chronic conditions, were driving changes in healthcare delivery; a shift in the balance between hospital and community practice and a greater emphasis on teamwork and integrated care. Furthermore, patient

expectations were changing, with calls for more holistic care. These changes, coupled with the veritable explosion in medical and scientific knowledge and innovative technology, posed challenges and exciting opportunities for the medical educator teams designing the curriculum.

Our graduate outcomes started to take shape. Being caring, knowledgeable and competent doctors was a given, but what would be distinctive about LKCmedicine graduates? Firstly, they would be “pluripotent” – able to excel in all medical careers, from primary care to surgery to medical research. Secondly, they would be team players with excellent communication skills, a patient-centric approach and the highest standards of professionalism. Finally, they would have the scientific rigour, lifelong learning skills and resilience to remain competent and up to date, responding to and shaping the future practice of medicine.

DESIGNING THE NEW CURRICULUM

With our planned graduate outcomes established, we took stock of the latest international practices and innovations in medical education. In London, the curriculum team embarked on a thorough review of the Imperial curriculum to identify its most successful elements. Meanwhile, in Singapore, with the core clinician educator team established, there was a commitment to leverage on the

strengths of Nanyang Technological University (NTU) Singapore, with broad engagement of faculty across the campus. This was a true international partnership at work.

So what did the Imperial curriculum bring to LKCMedicine? From the outset, we identified early patient contact courses that were subsequently enhanced and contextualised, and have become popular and innovative courses in Singapore. These include the Integrated Clinical Practice course and the Long-Term Patient Project, both of which emphasise patient-centric care early in medical training. We identified many high-quality Imperial lectures, delivered by some of the world's finest scientists. A decision had to be made about how to deliver this content. In keeping with modern educational practice, we recognised the need for an active learning pedagogy that embraced critical thinking, teamwork and integration of scientific knowledge with clinical experience.

TECHNOLOGY MEETS TEAM-BASED LEARNING

The experience of Duke-NUS Medical School, which had already implemented Team-Based Learning (TBL) in Singapore with great success, was an important influence. But would TBL work for undergraduates in larger classes across multiple years of curriculum? Extensive consultation, including with Prof Larry Michaelsen, the "founding father" of TBL, a visit to Sharjah (home to one of only a few undergraduate medical schools in the world with experience of TBL), and a review of the medical education literature all convinced us that it would.

Our approach to TBL is unique in being implemented across five years of curriculum, most intensively in Years 1 and

2, where it has completely replaced lectures. Furthermore, the seamless integration of our e-learning ecosystem into all aspects of student learning – including the TBL classes – is highly innovative. This enables our educators in the classroom to monitor student progress more efficiently and get a sense in real-time whether they are on track.

AN ENVIRONMENT TO FLOURISH

With LKCMedicine's TBL pedagogy planned and ready, and our faculty training programme in place, we also needed the right systems, spaces and people to create an environment in which our students would flourish. Our House System was going to be at the heart of this endeavour, with a dedicated team of house tutors on hand to nurture and support our students. The House System would also foster an ethos of community service and professionalism, while at the same time ensuring the students had a lot of fun!

A MATURING MEDICAL SCHOOL

Since opening our doors to our inaugural cohort in August 2013, LKCMedicine has matured into a thriving community of talented students and committed faculty with a curriculum fully mapped over five years. Having relocated to Singapore in December 2014 to take up my full-time position as vice dean of education, I see the School growing in size and stature as key elements of our pedagogy are established, new bespoke facilities are in place and our students have transitioned to the wards and clinics, where they have impressed many with their energy, enquiring minds and professionalism.

AN ENDURING PARTNERSHIP

How will the partnership with Imperial evolve? LKCMedicine is an

autonomous school of NTU, jointly managed by NTU and Imperial, with its own leadership team. We often refer to LKCMedicine as having two proud parents with high expectations. With our high-calibre medical educators, these expectations are being met every step of the way and our students are in the very best hands. Imperial continues to play an important role in assuring the quality of the curriculum and supporting its delivery. Exciting new initiatives to make the Imperial partnership more meaningful to our students are underway. These include exchanges, elective placements and student collaborations. The partnership with Imperial remains an enduring one and like LKCMedicine itself, it is going from strength to strength. ♦

PROFILE



TEXT BY

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A/Prof Naomi Low-Ber is vice dean for education at LKCMedicine, responsible for the development and delivery of the School's innovative MBBS programme. Having previously combined a medical leadership role at Imperial with clinical practice as consultant gynaecologist, she relocated to Singapore in December 2014 in order to focus full-time on LKCMedicine.

Legend

1. Students learn in teams and benefit from a fully integrated e-learning ecosystem that ensures all materials and resources are just a swipe away

Photo by LKCMedicine

