

TRAINING DOCTORS FOR TOMORROW'S HEALTHCARE CHALLENGES



The Lee Kong Chian School of Medicine (LKC Medicine) was officially signed into existence on 29 October 2010. This is a unique partnership between Nanyang Technological University (NTU) Singapore and Imperial College London (Imperial). The collaboration is not just a “lift and shift” of Imperial’s curriculum, but provided the new School with an opportunity to build a curriculum that takes in high-quality content from Imperial, tailor it to Singapore’s needs and underpin it with the latest technology. The outcome? A five-year MBBS programme that uses technology-enhanced Team-Based Learning (TBL) and incorporates three themes that cut across the years – the scientific basis of medicine, clinical management and patient-centred care, and healthcare delivery and professional standards, delivered in bespoke state-of-the-art teaching facilities at NTU’s main and Novena campuses.

This is a significant milestone for medical education in Singapore. For many of us, there was only one choice

when it came to studying medicine locally. When the new medical school was announced, I signed up as I wanted the opportunity to experience something different and to implement novel ideas and programmes that would have been difficult to incorporate in an existing system.

Our vice dean for education, A/Prof Naomi Low-Ber, sums it up like this: “We developed a medical curriculum that is fit for purpose in the 21st century. By creating an active learning environment, we nurture a spirit of inquiry and a higher level of thinking. We prepare our students for the challenges of modern medical practice across the spectrum of medical careers, with an emphasis on patient-centred care, teamwork, scientific rigour and technological innovation.”

While the LKC Medicine curriculum retains the pedagogical approaches associated with medicine, such as being split into pre-clinical and clinical years (where the latter are spent at hospitals and healthcare sites across Singapore), we infuse our curriculum

with three key features to reflect the changing nature of how and where patients access care: early patient contact; exposure to the full spectrum of medical settings from the bedside to the home; and exposure to different healthcare professionals. We infuse these elements by sending our students to different clinical sites and by involving patients, scientists, nurses, medical social workers, pharmacists and other allied health professionals early on in their curriculum.

EARLY PATIENT INTERACTION

Through the early contact with patients, we encourage students to focus on understanding patients’ journeys through the healthcare system, which oftentimes do not follow a linear process. At the onset, it teaches them to build rapport and to understand the challenges individual patients face while seeking healthcare. We do this through the Hospital and Polyclinic Weeks, which are timetabled during the first two months after matriculation. During Polyclinic Week, our students engage with relatively well patients by talking to them as they wait to be seen.

This is reinforced through the Long-Term Patient Project, which is an adaptation of a course that Imperial offers. This project spans the first two years of the MBBS programme, during which students follow a patient in the community to observe how care is delivered, how the patient lives and the challenges he or she faces in accessing care. Students process these experiences through reflective writing on their interactions and learnings from the encounters. We hope that this appreciation for the patient’s perspective is something that they carry with them throughout the years and into their professional lives.

LEARNING WHERE HEALTHCARE IS DELIVERED

Throughout the first two years, students visit the polyclinic once a week to train their clinical and communication skills. They not only practise their skills with simulated or volunteer patients, they also practise

them in an environment that comes as close to a clinical setting as possible.

This gives us an opportunity to show students that the practice of medicine depends on the setting in which a doctor practises. Vice dean for clinical affairs, A/Prof Pang Weng Sun, explains: "The majority of patients with chronic illnesses are seen in primary care clinics – polyclinics and GP clinics. So it is important for our students to learn how to diagnose, investigate, treat and manage such patients in the community."

To achieve this, students are exposed to the fast-paced care of a hospital setting, as well as the care delivered in the polyclinic, at step-down care facilities and even at home.

There is one other key setting that we believe our students should be exposed to, namely the world of biomedical and clinical research. Working alongside world-renowned scientists in metabolic medicine, neurosciences, infection, dermatology, and health services outcomes research, we want to nurture a spirit of inquiry in our students. While many students seek out such opportunities on their own, we have also introduced a six-week Scholarly Project in Year 4, so that all students get this opportunity. Students can choose from a wide array of projects (eg, medical education, clinical research, basic research, translational research) through which they acquire an appreciation and understanding of scientific research.

INTER-PROFESSIONAL TEACHING

Throughout the curriculum, we involve other professionals in the teaching of our students. Having different professionals with different perspectives train our students can provide our students with a greater appreciation of the various roles we play and how all of us can work together in the future as effective and competent teams. Our research faculty teach basic medical science alongside clinical experts; clinicians, nurses and allied health professionals act as content experts and teachers for TBL sessions and clinical skills.

HIGH-TECH, HIGH TOUCH

Not only do we expose our students to a wide range of healthcare settings, healthcare professionals and, most importantly, different types of patients, we also expose them to a wide range of technologies that have been harnessed to enhance all aspects of their learning. Using iPads, all curriculum materials are just a swipe away; using our custom-built e-learning environment, faculty can track student performance in real time, adjusting the lesson to suit the class. Using the latest simulation technologies, including the Anatomage Table and plastinated specimens that are used in our anatomy teaching, we augment their learning experience. Through this exposure, we train our students to be comfortable with new technologies and incorporate them into their practice without these technologies replacing them. Complemented by our TBL pedagogy, which nurtures lifelong learning and teamwork, our students are already making a positive impression in their clinical years, distinguishing themselves with their inquisitiveness and situational awareness.

Our students will continue to hone these skills and attributes during their clinical years. To ensure that they are fully job-ready once they graduate, we are introducing the Student Assistantship Programme, where students will learn to interact and work alongside their future colleagues as part of the healthcare team.

LKCmedicine remains a work in progress. I look forward to 2018, when I can proudly work alongside my new colleagues – the first graduates of LKCmedicine. ♦

PROFILE



TEXT BY

A/PROF WONG TECK YEE

A/Prof Wong Teck Yee is assistant dean for Year 4 and Family Medicine at LKCmedicine. He is also a senior consultant family physician practising at Tan Tock Seng Hospital. Prior to that, he has held appointments with the National Healthcare Group Polyclinics and National University Health System. He has an MMed (Family Medicine), Masters in Public Health and Health Professions Education.

Legend

1. Vice dean for education A/Prof Naomi Low-Ber regularly meets students to hear their feedback on the curriculum and their experiences at LKCmedicine
2. LKCmedicine students are taught by some of the School's top-name research faculty

Photos by LKCmedicine

