The EDITOR'S MUSINGS

Jimmy Teo

Guest Editor

Dr Teo is an associate professor in the Department of Medicine, NUS Yong Loo Lin School of Medicine, and senior consultant in the Division of Nephrology at National University Hospital. He is the Division of Nephrology Research Director and an active member of the Singapore Society of Nephrology.

Medical practice has changed significantly over the last 20 years with increasing digitalisation and computerisation, among other technological advances. The work habits of doctors have also changed with the adoption of these technologies. When I started as a medical student, Kodak and Fujifilm reigned supreme and radiographs were actual films; there was the "leisurely" pace of ordering X-rays or scans and ending the afternoon in the "bowels" of the hospital to review them (for some reason, almost all radiology departments are located at the basement level). By the time I started as a house officer in the National University Hospital, the first computers for viewing radiology reports were being installed. The sound of dot-matrix printers ripping out lab results at a furious pace was soon replaced by laser printers and electronic medical records.

Rather than with a big bang, small incremental steps were taken to change the way we did things. When I started internal medicine residency at Case Western Reserve Medical Center in Cleveland, Ohio, US, I had to get used to computerised ordering of laboratory tests and viewing discharge summaries on a computer. When I crossed over to the Wade Park Veterans Affairs (VA) Hospital in 2000, the hospital was already 100% computerised for all inpatient and outpatient electronic medical records nationwide – all 50 states! I remember this with awe because I was seeing a patient who was recalling his medical history, which I could not find in the system. He then advised me that he had just moved to Ohio from Hawaii. So I called the information technology department of the hospital where I got connected to an actual live person who was seated two floors down from me. His exact words were: "Doc, no problem, we will download it and you should get it by 2 pm. No consent for release of information is needed, as the VA is one system." More importantly, the VA hospital had a well-honed down-time requisition process, and you could do everything you'd do electronically in a manual fashion if it had to go stone-age for a while.

By the time I got to fellowship at the Cleveland Clinic, I was involved in the adoption of Epic in outpatient and inpatient electronic medical records. There were doctors who were power users, constructing their clinic work habits around them, and some doctors who retired the day the password mailer came in. Nonetheless, my experience has shown that change is the only constant – we have to continually reconstruct our professional services to work with newer tools. Overall, electronic medical records have increased our efficiency and productivity while reducing the cost of storing and retrieving paper medical records.

Similarly, we have to develop new work protocols and structures to fit newer technologies into clinical practice. One problem that people encounter when they attempt to adopt newer technologies in a doctor's work is the failure to recognise that the model of practice is a professional one. Assuming professional responsibility necessitates developing deep protocols and structures, including adequate reimbursement, or else any new proposed model will fail.

Instead, the technology proponents, designers and end users must first understand the professional model and adjust the offerings to strengthen the primary doctor-patient relationship in the first instance. If any attempt is made to undercut or weaken the professional relationship, doctors will not be able to support that platform as it would be a violation of the professional code of conduct or ethics. Thus, although new technologies appear to cost more, they may save money for patients and families in the long run, or improve timely access to care. These costs must be added onto facility charges and are part and parcel of long-term improvements in the way care is delivered.

Many of us are now grappling with the development of telemedicine. In this issue of the *SMA News*, we hear from doctors in a variety of settings facing new trials and tribulations in developing telemedicine. Let us learn from them and prepare ourselves for a brave new world.