# Embracing Telemedicine:
# The Journey from Challenge to Comfort

Text by Dr Sabrina Haroon

Telemedicine gained significant traction during the circuit breaker initiated at the onset of the pandemic, marking a pivotal shift in how healthcare services were delivered. Before this period, the use of telemedicine was relatively rare, limited primarily to a few specialised fields or specific patient populations. Many healthcare providers and patients were unfamiliar with remote consultations, which resulted in a steep learning curve.

The initial rollout of telemedicine services was somewhat chaotic, and there was widespread uncertainty regarding how best to implement these practices effectively. Healthcare professionals grappled with technological challenges, and patients faced difficulties navigating new platforms and systems. Additionally, there was a lack of established protocols, leading to inconsistencies in how virtual appointments were conducted. The urgency of the situation prompted many providers to improvise, leading to a variety of unstandardised practices. In many areas, non-urgent clinical care and routine appointments were postponed as a precautionary measure, with the hope that the pandemic would soon be brought under control. This postponement, while understandable, resulted in a backlog of patient care needs. As the situation continued to persist and the reality of a longer-term pandemic set in, healthcare institutions and providers had no choice but to fully embrace telemedicine.

## Challenges in the early days

Clinical sessions were at the forefront of adopting telemedicine, which was relatively straightforward but still had its hiccups as there was a lack of systems, particularly regarding the administrative details needed after consultations, such as forgetting to discuss patient payments and arranging follow-up appointments. Telemedicine presented challenges not only for us and the administrative staff, but also for patients and their families. Organising consultations from the patient's side could be especially difficult, particularly for elderly patients living alone, those without family support, and those facing poor connectivity and technical issues.

In my experience in the dialysis unit, conducting telemedicine was often a haphazard endeavour. The nursing team had to navigate computerised devices while managing our volume and video calls, while the dialysis unit struggled with using a laptop. We began by having nurses send bulk information to "pre-clerk" the notes, followed by video calls between patients and the nursing team. On the side, I was in the hospital typing notes on my laptop while simultaneously speaking to nurses and patients via video calls. Interestingly, many patients in the dialysis unit were excited about this new approach, and some eagerly looked forward to participating. A humorous moment occurred with one patient who, unfamiliar with video calls, kept waving at me and later asked if I was a "movie star". While some patients enjoyed the experience, switching between conversations with patients and nurses was challenging. This was compounded for patients with hearing impairments, as information often had to be repeated by nurses for them to understand.

Over time, however, things improved. We became more efficient in our processes, both in the clinics and dialysis units. In the clinics, teleconsultations via phone became more coordinated with administrative assistance, and with better microphones and videography setups. In the dialysis units, we modified our workflow. Instead of discussing matters with nurses and patients simultaneously, we held detailed meetings to review nursing concerns before speaking with patients. As the pandemic transitioned to an endemic phase, this once-forced model

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of care began to be considered a viable option for the future. However, for it to serve as a long-term model, infrastructure must be developed with a focus on patient safety and quality, along with patient clinical experiences and care-centred approaches. Ethical and legal issues must also be carefully integrated into this model.

Key elements impacting patient safety when planning for the conduct of telemedicine include patient factors (eg, co-morbidities), task suitability, staff training, communication pathways among team members, robust digital infrastructure, organisational design focused on human factors, and regular monitoring of care delivery. To maintain care quality, teleconsultation must allow sufficient time for each appointment, and all relevant information should be accessible. A reliable digital infrastructure is critical, utilising high-quality audiovisual devices and integrated software that connects with electronic health records.

In Singapore, a comprehensive legal framework has been established to regulate telemedicine. Central to this framework is the Healthcare Services Act 2020, which introduces regulations for telemedicine. Additionally, the National Telemedicine Guidelines provide best practice recommendations across various domains, emphasising that telemedicine must uphold a standard of care equivalent to in-person services. The Health Products Act 2007 governs telehealth products and related technologies, underscoring the importance of regulatory oversight. Physicians are also guided by the Singapore Medical Council's (SMC) Ethical Code and Ethical Guidelines, mandating high-quality care and strict confidentiality. Informed consent requires physicians to thoroughly inform patients about telemedicine services. In cases of errors, Singaporean courts evaluate the alignment of the physician's actions with established standards.

## Forging ahead

The rise of telemedicine has sparked important ethical discussions, especially in the context of public health challenges like the COVID-19 pandemic. In Singapore, SMC has established ethical guidelines for the conduct of telemedicine. However, these guidelines do not address the complexities of healthcare crises, highlighting a gap in understanding how to navigate these challenging times. The pandemic introduced uncertainties that complicated the evaluation of telemedicine's effectiveness in controlling the virus and alleviating pressures on the healthcare system. Key ethical considerations surfaced, including proportionality, beneficence, respect for persons, and a patient-centred approach.

As Singapore continues to explore the field of telemedicine, it is essential to build a strong infrastructure that addresses the changing needs of both healthcare providers and patients. This requires integrating advanced technologies while ensuring that they are user-friendly and accessible. Continuous monitoring of care quality and patient outcomes is vital to maintain the effectiveness and safety of telemedicine services. The ultimate goal is to create an innovative system that enhances patient flexibility and improves their overall experience. By focusing on thoughtful design, effective communication and ongoing quality improvement, Singapore can establish a new standard in healthcare delivery that benefits everyone involved. ◆

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