Telehealth practice in surgery: Ethical and medico-legal considerations

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Abstract
There was rapid growth of telehealth practice during the COVID-19 outbreak in 2020. In surgery, there were beneficial effects in terms of saving time and avoiding physical contact between healthcare professionals and patients when using telehealth in the delivery of perioperative care. As telehealth is gaining momentum, the evolving ethical and medico-legal challenges arising from this alternative mode of doctor–patient interaction cannot be underestimated. With reference to the “Ethical Guidelines on Practice of Telemedicine” issued by the Medical Council of Hong Kong and some published court and disciplinary cases from other common law jurisdictions, this article discusses relevant ethical and medico-legal issues in telehealth practice with emphasis on the following areas: duty of care; communication and contingency; patient-centred care and informed consent; limitations and standard of care; keeping medical records, privacy, and confidentiality; and cross-territory practice. Whilst existing ethical and legal obligations of practicing medicine are not changed when telehealth is used as opposed to in-person care, telehealth practitioners are advised to familiarize themselves with the ethical guidelines, to keep abreast of the medico-legal developments in this area, and to observe the licensure requirements and regulatory regimes of both the jurisdiction where they practice and where their patients are located.

1 INTRODUCTION

Telehealth is succinctly defined as “the delivery and facilitation of health and health-related services including medical care, provider and patient education, health information services, and self-care via telecommunications and digital communication technologies”. 1 Although interchangeably used with telemedicine, telehealth encompasses a wider range of digital healthcare activities such as research and continuing education for healthcare professionals, according to the World Health Organisation.2 During the COVID-19 outbreak in 2020, there was an exponential growth in the demand of teleconsultation services worldwide to avoid physical contact between healthcare professionals and patients.3-4 As telehealth develops rapidly, the evolving ethical and medico-legal challenges arising from this alternative mode of doctor–patient interaction cannot be underestimated.5-6 Notwithstanding there is hitherto no standalone statutory legislation in Hong Kong governing the conduct and practice of telehealth, the Medical Council of Hong Kong has published in 2019 the “Ethical Guidelines on Practice of Telemedicine” (MCHK Guidelines),7 which provides board ethical principles to guide registered medical practitioners in Hong Kong. With reference to the MCHK Guidelines and some published court and disciplinary cases from other common law jurisdictions, this article aims to discuss the relevant ethical and medico-legal issues for surgeons and other healthcare professionals to take note of when practicing telehealth.

2 THE DEVELOPMENT OF TELEHEALTH SURGICAL PRACTICE

Telehealth is no stranger to our surgical community. By using advanced telecommunication network and robotic technology, the first telesurgery was successfully done in 2001, where a team of surgeons in New York, US performed a robotic-assisted laparoscopic cholecystectomy on a patient who was physically present in a hospital in Strasbourg, France.8...
Despite the feasibility and alleged benefit of avoiding long distance travel for remote patients, the development of telesurgery was hampered by the latency time and absence of tactile feedback during the surgery until recently. The introduction of 5G and haptic feedback technology have alleviated some of these technical challenges posed by the delivery of telesurgery. With the increased speed and improved quality of data transmission, real time telementored surgery is now possible to train surgeons’ procedural skills through mentors from remote locations. Further studies, however, are required to prove the efficacy of transferring technology advancements into clinical benefits.

Recently, there has been a great interest in applying telehealth in the delivery of peri-operative care to patients. In a systematic review of 24 studies using telecommunication technologies in the delivery of surgical care, Asiri et al concluded that there were beneficial effects of using telemedicine in preoperative assessment and diagnosis, evaluation after surgery, and follow-up visits. More importantly, patients expressed satisfaction of using telemedicine; and from their perspective, the potential benefits of avoiding unnecessary trips to hospitals, saving time and reducing the number of working days missed are appealing. It was particularly apposite to utilise teleconsultation to offer patients with postoperative care after low-risk elective procedures.

In Hong Kong, telehealth was introduced as early as the 1990s. In those early days with limited resource, teleradiology between a district general hospital and the highly specialised neurosurgical unit at the Chinese University of Hong Kong was shown to have improved the triage of severe head-injured patients that made appropriate on-site treatments and timely transfers possible. Besides clinical applications, a 24-hour teleconference, which linked Hong Kong and two hospitals in Beijing with 16 major medical centres in four continents, was successfully held in 1997 to mark Hong Kong’s return to Chinese sovereignty. These remarkable achievements had earned Hong Kong a reputation of being one of the world’s leaders in the field.

The COVID-19 outbreak has also sparked off the use of remote consultation locally. In the midst of the pandemic, the Hong Kong Hospital Authority launched teleconsultations to patients who had received recent ear, nose, and throat operations. In the news report, the attending doctor was able to answer the patient’s queries and examine the wound closely using the commercially available videoconference software. In the realm of surgical education, the University of Hong Kong has developed a new web-based surgical skills learning (WSSL) for basic surgical skill training with promising feedback from a group of final year medical students. In light of the aforesaid benefits, it is envisaged that telehealth will gain further momentum and become a new norm of interaction between healthcare professionals and patients.

3 | THE “NEW” MODE OF DOCTOR–PATIENT INTERACTION

3.1 | The duty of care

In telehealth practice, doctors and patients are in different places and care is delivered through telecommunication tools. It is worth noting that this new mode of interaction between the parties can add ambiguities as to when the legal duty of care exists. In the US, the Federation of State Medical Boards’ Model Policy for the Appropriate Use of Telemedicine Technologies in the Practice of Medicine stated that “the (doctor–patient) relationship is clearly established when the physician agrees to undertake diagnosis and treatment of the patient, and the patient agrees to be treated, whether or not there has been an encounter in person between the physician (or other appropriately supervised health care practitioner) and patient.” Whilst it is unlikely to regard a doctor–patient relationship be established if the telecommunication is used only to schedule for an appointment, medical advice delivered over phone consultation or via social media applications may not be that clear-cut. In deciding whether a doctor–patient relationship has been established or not in these circumstances, Kuszler summarized three factors for consideration: Did the doctor agree to see or counsel the patient? Did the content of interaction include some form of evaluation to the patient’s complaint? And, did the patient rely on the doctor’s advice? If the answers to all these questions are affirmative, it is likely that a doctor–patient relationship (with its legal duties and obligations) is established. Similarly, the English courts also held that a doctor owes his patient a legal duty of care at the moment when he undertakes the task for the care of the patient. Such a duty is considered a comprehensive one in the realm of diagnosis, treatment, and advice giving including risk disclosure.

The issue of sharing of duties and responsibilities is equally confusing in a situation where the attending doctor of a patient consults a surgeon for specialist advice via a telecommunication tool. In the scenario, although the surgeon may only provide some advice on the care of the patient without providing direct treatment or any physical interaction, the surgeon might still be considered to have established a doctor–patient relationship with the patient and hence owes the patient a duty of care. By way of illustration, in an Australian medical negligence claim, the claimant was admitted to hospital under the care of an orthopaedic surgeon for the treatment of spinal deformity. The orthopaedic surgeon sought a second opinion from a neurosurgeon. The neurosurgeon had not actually met up with or treated the claimant but only left a brief note in the medical record saying that he would assess the claimant later. The claimant sustained complications after a spinal traction procedure and sued the hospital and both surgeons. One of the issues for the court to adjudicate was whether the consulting neurosurgeon also owed the claimant a duty of care. The New South Wales Court of Appeal held that there was a duty imposed on the neurosurgeon because he ought to have been alerted about the claimant’s condition, and knew and accepted that the danger to the claimant’s spinal cord would depend on his advice. Similarly, in the US, the Court of Special Appeals of Maryland also held that a doctor may owe a duty of care towards a patient whom he or she has had no direct contact if the doctor “conveys a medical opinion or other directive that indicates an affirmative action in assuming whole or partial responsibility in the care and treatment of a patient.” Thus, it is possible in appropriate circumstances, that a surgeon who provides remote consultation or advice to another healthcare
professional’s patient owes the patient a duty of care, even though the surgeon does not provide direct care or treatment to the patient.

3.2 Communication and contingency

In the absence of direct physical interaction, it may be challenging for doctors, through telecommunication tools, to verify patients’ identities (especially new patients) and to establish a solid doctor–patient relationship with trust and respect. It is thus imperative for doctors to enhance their communication skills to avert miscommunication, especially when non-verbal bodily cues are absent (eg, over the telephone) or limited during the teleconsultation.29 By the same token, patients’ unrealistic expectations arising from the teleconsultation, for example, doctors would respond to their enquiries through the social media applications or emails round the clock, should be addressed and corrected upfront to avoid any unnecessary misunderstandings. Notwithstanding there is no explicit prohibition for doctors to see new patients through teleconsultation in the MCHK Guidelines,7 it seems prudent for surgeons to select only patients with whom they are familiar, such as postoperative patients, when they conduct teleconsultations.

Apart from the attending telehealth surgeon, it is not uncommon to have another healthcare professional (eg, local doctor, nurse, pharmacist, etc.) to act as an intermediary to deliver the actual treatment to the patient. It is essential to identify and check the necessary qualifications of all the intermediaries, and to get consent from the patient for releasing personal information to and accepting care from the intermediaries at the beginning of the telehealth service. Interprofessional communication posed another challenge. Information may be inadequately or mistakenly communicated in the cyber sphere. Disagreements on the diagnosis and treatment of a patient between a telehealth doctor and the patient’s general practitioner had evolved into a complaint to the General Medical Council (GMC) in the UK.30 Thus, telehealth practitioners must establish clear communication channels with other intermediary healthcare professionals when providing telehealth services in order to avoid conflicts on patient management and to minimise communication errors. Professional knowledge and skill aside, it is equally essential for telehealth practitioners to ensure the telecommunication networks and systems are in place and stable, to attain a competent level of information technology skill, and to formulate in advance any contingency plan and safety measures in case of technology failure.

4 TELEHEALTH OR NOT?

4.1 Patient-centred care and informed consent

As a general principle, surgeons are advised to use their clinical acumen to decide whether the use of telehealth, either totally or as an adjunct, is appropriate in a particular situation, and whether telehealth will enable surgeons to meet the necessary legal standard of care. In the era of patient-centred healthcare delivery, patients’ preference should be respected and taken into consideration. Although the MCHK Guidelines did not mandate a specific written consent for telemedicine, it laid down clearly all the necessary information regarding the telemedicine interaction be explained fully to the patient in a clear and understandable manner.7 In practice, it is advisable to obtain informed consent from prospective patients and have it documented in the record prior to the commencement of telehealth practice.5 Patients should be fully informed of the rationale behind, the limitations (including the possibility of privacy and confidentiality breaches and technology failure), and alternative options available when practicing telehealth in order to avert disputes and minimise legal risks. As an illustration, in California, USA, a prisoner claimed against a contract dermatologist for, amongst others, that the dermatologist should have seen him in person instead of by telemedicine, notwithstanding that the dermatologist had observed personally his skin conditions on four occasions over a year.31 The US District Court dismissed the case on procedural grounds; but nonetheless, this case illustrated the challenges faced by practitioners in real practice – the choice between telehealth and in-person consultations, and the need and the appropriate timing to switch from telemedicine back to conventional mode of consultation.6 At the other end of the spectrum, in a civil action where a patient developed respiratory distress and later died of multiple heart attacks whilst on a ship during the last day of a roundtrip cruise from New Orleans to the Caribbean, the patient’s son claimed against the organiser, amongst others, that its staff failed to have or utilise “face-to-face telemedicine” to consult onshore medical staff for proper medical treatments and evacuation despite the fact that there were medical personnel on board providing treatment at the relevant time.32

4.2 Limitations and standard of care

One of the intrinsic limitations of teleconsultation is that doctors are unable to perform in-depth physical examinations on patients. Whilst superficial wound inspection in a stable postoperative patient might be accomplished by digital devices, the assessment of other surgical conditions such as acute abdomen would be difficult if not impossible in the current setting and technology. Conceivably, if a condition requires the attending surgeon to perform a proper physical examination as an integral part of the assessment, failure to do so would be regarded legally as falling below the standard of care expected of a reasonable surgeon. It is thus essential for both patients and doctors to be aware of such limitations at the outset; and when such circumstances arise, patients must be referred directly to an in-person consultation as soon as practicable. In any event, the standard of care to patients delivered by telehealth practice should be the same as compared with conventional in-person consultation.7 Although it has lesser relevance to surgeons, telehealth practitioners may find it equally challenging on how to prescribe medications properly. The MCHK Guidelines explicitly advised doctors to prescribe medicines through electronic means only to patients whom they have consulted in person before; have adequate knowledge of
the patient's health condition; and have satisfied that the medicine serves the patient's needs. Further, the prescribing doctor should make sure the instructions on administration of the medications and monitoring of the patient's condition are understood by the patient and/or the caregiver. Detailed record of the information received and advice (and its basis) delivered should be kept in the patient's medical record. In the UK, a general practitioner (GP) who pioneered Internet consultation service in the early 2000s was found guilty of professional misconduct after he had prescribed medicines (including dangerous addictive drugs) to three patients and two investigative journalists through the Internet without proper in-person consultation, monitoring, and advice. The Panel of the GMC sentenced the GP to 9 months practice suspension for his inappropriate and irresponsible prescribing. Likewise, in Arizona, USA, it was considered that in the absence of in-person examinations to confirm patients' health, it was insufficient to prescribe medications to patients based only on reviewing patient questionnaires submitted over telephone or the Internet. A pharmacy was held to have violated the state law when it dispensed medications to patients according to those prescription orders.

5 KEEPING MEDICAL RECORDS, PRIVACY, AND CONFIDENTIALITY

The importance of protecting patients' data and confidentiality in medical practice cannot be overemphasized. Telehealth practice is of no exception. In order to maximise protection of data, some telehealth practitioners suggested to anonymize online data or to transmit only with encrypted language. In Hong Kong, personal data (including health data) collection and usage must be secured in accordance with the data protection principles encapsulated in the Personal Data (Privacy) Ordinance (Cap. 486, Laws of Hong Kong). Telehealth practitioners must exercise due diligence in protecting patients' data when using telecommunication devices, transmitting data to third parties (eg, other healthcare professionals), and storing data, especially when new technologies like cloud-based systems are used. By the same token, if telehealth practitioners need to access patients' health data stored in the Hospital Authority via the Electronic Health Record Sharing System (eHRSS), they must comply with the need-to-know principle and the eHRSS Ordinance (Cap. 625, Laws of Hong Kong) and the relevant code of practice. Further, the MCHK Guidelines emphasised that a doctor, when practicing telemedicine, owes the same professional responsibilities in respect of medical record keeping and patient confidentiality as for in-person consultation with patients. In practice, telehealth practitioners must be mindful, at times, that there may be other parties present around the patient but not apparent to the practitioner during the teleconsultation. It thus makes good sense to ask the patient to introduce the accompanying parties at the beginning of the teleconsultation, and to get consent again respectfully from the patient before disclosing any sensitive information. Of note, text messages in social media, phone conversations, audio, and video recordings could form part of the patient's health data and record, and be used as evidence in disciplinary or court proceedings. Lastly, any alteration of record, electronic or otherwise, must be accompanied with justifiable reasons, which should also be documented in the patient's contemporaneous record.

6 CROSS-TERRITORY PRACTICE - LICENSURE, REGULATION, AND INDEMNITY

Aside from cultural and practice variations, medico-legal risks arising from cross-territory practice have always been concerns amongst practitioners, be it between countries or jurisdictions within a country. Telehealth practitioners need to observe the licensure requirements and regulatory regime of both the jurisdiction where they practice and the jurisdiction where the patient is located. For example, the College of Physicians and Surgeons of Alberta, Canada, requires physicians who regularly practice telemedicine in Alberta from a location outside the province to hold a valid and active practice permit with it unless the consultation is for an emergency assessment or treatment of a patient in Alberta or the physician provides telemedicine events in Alberta less than five times per year. In addition, the legal liability is not always limited to telehealth practitioners only. In Mississippi, USA, a claim on telehealth practice raised issues not only regarding a Louisiana-licensed paediatric neurosurgeon's licensure in Mississippi but also the medical centre's (a third party) potential liability for accepting the prescription for home-health services from the out-of-state neurosurgeon. Licensure requirements aside, jurisdiction also refers to where and under which laws legal action would be taken. There are complicated claim issues when the two involved jurisdictions run different legal systems, for example, between Hong Kong (a common law jurisdiction) and Mainland China (a civil law system). In any event, telehealth practitioners are strongly encouraged to check with their professional indemnity organisations on the extent of coverage in the cross-territory telehealth practices.

7 CONCLUSION

Undoubtedly, the COVID-19 outbreak expedited the development of telehealth practice. It is anticipated that telehealth perioperative care of surgical patients will gain further popularity beyond the pandemic. As telehealth is growing in speed, practitioners need to acquire new skills in communication and technology in order to deliver remote care effectively. Although telehealth offers benefits for patients in terms of saving time and costs and avoiding physical contact, significant limitations such as the absence of physical examination, possibility of transmission failure, and potential privacy and confidentiality breaches should be made known to patients. To this end, it is good practice to get informed consent from patients before the commencement of telehealth. Whilst existing ethical and legal obligations of practicing medicine are not changed when telehealth is used as opposed to in-person care, the evolving ethical and medico-legal issues in telehealth, such as whether to consult and prescribe treatments for first-time
patients, can be challenging. As a starting point, practitioners should familiarize themselves with the MCHK Guidelines, which outlined the broad ethical principles and set out the necessary standards of care in telehealth practice. It cannot be overemphasized again that the standard of care shall be at all times comparable to conventional in-person consultations and treatments. Practitioners should also keep abreast of the medico-legal developments in this area. Last but not least, practitioners who practice cross-territory telehealth should observe the licensure requirements and regulatory regimes of both the jurisdiction where they practice and where their patients are located.

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