

**EDITORIAL****COVID-19 and surgical practice**

Hong Kong has received a lot of praises in our responses to the COVID-19 pandemic and one of the significant moves would be the adoption of “universal masking” by the community. Although many of my friends overseas commented that we have not been practicing evidence-based medicine at the early phase of the pandemic, we were proven to be right this time. Recently, local researchers also provided experimental evidence that wearing surgical masks in public could help slow the spread of the COVID-19 pandemic.<sup>1</sup> Perhaps related to severe acute respiratory syndrome (SARS) in 2003, Hong Kong people's willingness in wearing surgical masks in public areas was in sharp contrast with citizens and government officials in North America and European countries.

**1 | IMPACT ON SURGICAL PRACTICE**

From PubMed,<sup>2</sup> if you try to search “COVID-19 and surgery” as keywords, you will find 3219 publications published in the past few months. The most significant impact worldwide is the suspension of elective operations as surgical patients were deprived of access to operation theatres and intensive care units. Such kneejerk reaction was considered appropriate by many when hospitals were overwhelmed by COVID-19 patients. The number of surgical operations being cancelled or deferred was unprecedented. Although the knock-on effects on surgery waiting time are yet to be seen, it is almost certain that there will be collateral damage to surgical patients in terms of loss of function or risk of adverse prognosis.<sup>3</sup>

An interesting phenomenon was the proliferation of guidelines and expert recommendations by various professional organizations around the world during the crisis. Issues like what kind of personal protective equipment (PPE) is required for different surgical procedures or whether laparoscopic surgery would increase the risk of infection of the OT personnel<sup>4</sup> were questions being asked by frontline surgeons. Looking back, we might have been confused by all these guidelines and recommendations, particularly as we can see new versions coming up every now and then. Having said that, this is perhaps something to be expected when the international surgical community is facing a crisis of this scale.

In the coming months, we have to adopt a systematic approach to resumption of operating theatre lists and surgical services. Sorting out the backlog and at the same time getting prepared for a second hit require strategic planning, reorganization of surgical workforce, leadership and governance. It is certain that surgical services, particularly in the public sector, would require a contingency

plan for rebuilding surgical capacity and maintaining surgical care in the post-pandemic phase.

**2 | UPRISING OF TELEMEDICINE**

To respond effectively to the pandemic, the practice of telemedicine has surged during the COVID-19 pandemic. The popularity of teleconferencing using Zoom or other platforms is a testimony of the usefulness of these technological advancements. In some countries and to a smaller extent in Hong Kong, telemedicine and tele-consultation have been used for direct patient care with some success. However, colleagues should also be aware of the limitations and even legal traps in the practice of telemedicine. Colleagues are encouraged to look into the guidelines published by the Medical Council of Hong Kong (the MCHK had foresight in publishing these guidelines in December 2019 before the pandemic!).<sup>5</sup> Although the quality of teleconsultations could be limited by network stability or speed on both the patient's side and the doctor's side, the introduction of the 5G network would probably ease off certain technical problems.

Telesurgery and telementoring are of course further steps of development being enabled by the new 5G network. With the increased speed and quality of data transmission and decreased latency time, it has been shown that telementoring using 5G technology, where there is real time communication between the mentors and surgeons, is possible.<sup>6</sup> Such technology could possibly enhance procedural skill training through the availability of mentors from a remote location. Further research and development into the area would be required to address the costs of specific hardware and set-up and more importantly the safety concerns.

**3 | SURGICAL TRAINING AND EDUCATION**

By making use of the online platform, surgical training and surgical education could be delivered to medical students as well as specialists, as part of their continuous medical education. We should explore novel ways to allow learning of clinical skills without going through the conventional face-to-face models. In preparing better the surgical workforce to face future pandemic challenges, we may have to consider how we can equip frontline surgeons with the necessary skills and credentials to manage and care for patients suffering from COVID-19 or other infectious diseases if the demand surges.

Take intubation and mechanical ventilation for example, surgeons having such skills have been hugely contributory in other countries that were badly hit by COVID-19 pandemic in recent months.

One area deserves some special attention - the psychological wellbeing of healthcare professionals amid this crisis. Tremendous amounts of courage have been shown by our colleagues worldwide who were involved directly or indirectly in the fight against the pandemic. But behind this demonstration of stern professionalism, there were anxieties and stresses. A lot of self-compassion and mutual support would be needed to prevent burnout from affecting us.

Please stay well and healthy!

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