A plea for unification of surgical guidelines in the COVID-19 outbreak

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The world is at war against an invisible and insidious enemy. A virus that puts at risk the lives of our patients, our families and also us—surgeons and healthcare workers. Despite the human body and the virus being identical worldwide, recommendations on the use of precautionary measures vary amongst different surgical societies, sometimes within the same country. New research is published almost daily and the peer review process is sometimes sped up to allow for faster publication. The result is that recommendations published a week ago may not be valid today. This article is likely to be out of date by the time it gets published too. Nevertheless, we believe that there is an important message—the method of production of rapid guidelines for the protection of healthcare workers needs to be revised.

Several medical systems around the world are overwhelmed by the influx of COVID-19 patients. However, even in times like these other diagnoses exist and people need and seek surgical care. We have looked at recommendations from official surgical bodies in the USA, UK, Ireland, Spain, Czech Republic and Australia and found a

number of recommendations from a variety of surgical bodies, some with updates issued within days. Newer findings published will be part of the reason, but surgeon pressure, as well as availability of protective equipment seem to also have an influence on the guidance. Unfortunately, the recommendations are not unified between countries, or even within countries. We have observed that the recommendations are not always seeking consensus but “competing” with each other.

The Chinese recommendations were to cancel all elective non-urgent surgeries in February and even cancer patients were offered an alternative approach. In March, many of the American College of Surgeons [1], SAGES [2] and The Royal Colleges of Surgeons in the UK and Ireland [3] have adopted the same position on non-urgent non-oncological procedures. However, cancer surgery is still performed at many centres and the acceptance by individual organisations especially in the private sector still shows marked variance between cancel all patients and cancel almost no one.

The approach to urgent cases varies too, both in terms of the recommendations themselves and the detail or clarification of the recommendations as well. Not all remind surgeons to consider non-operative management options and some recommend this approach only to proven COVID-19 patients.

The definition of a COVID-19 positive patient used in these recommendations varies significantly. Not all define what COVID-19 positive means, but those that do often rely on 100% accuracy of the PCR testing although it can be of variable reliability for a number of reasons well documented elsewhere. Some consider COVID-19 positivity in patients with some clinical symptoms or findings on chest CT scan or even just plain X-ray! Patient questionnaires help identify the at-risk group of COVID-19 positivity, but the lack of symptoms in many, and the incubation period in all, make such an approach have low accuracy. In Australia, a travel history is still seen as the most important risk factor. Furthermore, none of the recommendations from the USA, UK and Ireland recommend a patient wearing any Personal Protective Equipment (PPE) like a simple surgical mask,

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while this became the norm in China and other countries weeks ago.

The type and need for PPE for different surgical interventions is also variable. Indeed, many recommendations do not mention what PPE is in any detail, or who and under what circumstances it should be worn. Some recommend PPE only in proven COVID-19 positive patients, or COVID-19 positive and suspected cases (with a large discrepancy in definition as to who these are). Some recommendations refer other recommendations (that not always include this chapter) and in some, this topic has not been addressed at all. At the time of writing, only the Spanish and Chinese guidelines offer an extensive description on what PPE is and how to use it properly. We accept that sometimes the need for brevity in a recommendation is also its enemy in removing important details or definitions.

There is a disagreement if laparoscopic procedures are as safe as open procedures during this COVID-19 outbreak. With evidence from history of other virus particles being present in the aerosol during surgery, laparoscopy has been labelled as one of the high-risk procedures on a similar risk level as endoscopy and intubation. The UK stance is to advise against laparoscopy if alternative approaches exist. In contrast, recommendations from the USA do not advise against laparoscopy but advise on using full PPE and special filters when desufflating the pneumoperitoneum. In China, there is an alternate view. Pneumoperitoneum is discouraged in fear of double cardiopulmonary damage due to the anaesthetic-related trauma from increased intraabdominal pressure in addition to COVID-19 disease. In Spain [4], laparoscopy is seen as a safer way to operate than open surgery in terms of both the patient and healthcare workers.

Recommendations from China include a detailed description of minimising patient contact and organisation of healthcare. This also features in the SAGES guidelines. Options of telemedicine are advised to be utilised by many of the recommendations. However, these are advised only for COVID-19 suspected or positive patients and as we mentioned already, the definition of these states varies and is likely to be underestimated, particularly as the number of patients testing positive in a region increases.

We acknowledge the difficulty in producing recommendations in times when information changes almost daily, when there is very rapid progression of the pandemic and success or failure of certain recommendations are hard to assess. But we believe that the current way of producing guidelines is too slow and often biased. There is conflict between government recommendations, surgical society recommendations with further delay of implementation at the regional or hospital management level all over the world. A good illustration of this is the endless debates on social media where various surgeons seek advice of experts despite having valid guidelines available. Another interesting facet is the social media debates

amongst robotic surgeons who are only now starting to accept that a robot-assisted operation is a form of laparoscopy.

In some countries to avoid competing recommendations being published, none were issued but an alternate approach was taken. This approach uses an online platform, where physicians of various specialties create a fluid and up-to-date database of evidence and guidance based not only on published data but also on the local situation and resources available with constant feedback and real time validation. This for example, is the case in the Czech Republic [5].

Time plays a crucial factor in the progression of this pandemic. In some countries, such as Australia the measures do not need to be so strict yet, while in other countries, health care systems are already under major pressure. This even more suggests the need to support a dynamic way of setting and disseminating recommendations in contrast to rigidly issued files with many confusing updates. The risk to healthcare workers and patients alike, and the spread within hospitals of COVID-19 is simply too great. Any measures should be undertaken to prevent such events. We believe that an online, dynamically changing forum style of recommendation to protect healthcare workers and give advice on patient care during a pandemic may help to save more lives.

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