



PAHPBS RECOMMENDATIONS IN TIME OF COVID-19 PANDEMIC

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Dear PAHPBS family,

The Philippine Association of HPB Surgeons commits to serve and look after the needs of our patients with liver, biliary, and pancreatic diseases, including cancer. During this time, hospitals and staff are operating beyond capacity, the alarming number of doctors, nurses and other health care workers are either affected with COVID-19 or on quarantine, the community has been put on enhanced quarantine as cases of COVID-19 continue to escalate. However, the more significant population of NON-COVID-19 patients equally need medical and surgical attention.

Flattening the curve in an attempt to avoid the health system operating beyond capacity is conceptually sound in theory based on what China has shown us¹. Yet we need to plan and be prepared for the rest of the more significant population needing equal attention. Once the health system becomes overwhelmed, we may also see an increase in mortality due to bleeding, obstruction, sepsis, trauma, MI, and organ failures that are not addressed and treated adequately due to various confounding factors such as physician burn out, limited resources & facilities, lack of clear directions and guidelines, and the like.

Management of COVID-19 evolves from compounded experiences gathered across nations burdened by this grave illness, while the authorities are organizing the logistics in this fight against COVID-19. At this moment, we recommend the following temporizing solutions until we find better strategies to be able to deliver timely surgical treatment at the same time maintaining the safety of everyone. We will closely monitor the

situation and update our recommendation as the needs arise, please do consider your hospital's resources and capacity. HPB diseases may present with diverse and overlapping symptoms, which may require surgical, endoscopic, or percutaneous approaches. Thus, a multidisciplinary approach taking advantage of technology will help arrive at decision making maintaining social distance, minimize risk to patients and health care workers, conserve surgical and hospital resources.

1. Postpone elective and non-urgent surgical and endoscopic cases.
2. Postpone all non urgent in person clinic / office visits.
3. Take advantage of technology*, do online meetings and consultations as much as possible.
4. It is a given that emergency cases will have to be addressed.
5. The **greater majority of electives and non-urgent cases need to be defined**. We encourage you to make clinical judgement and discernment based on patient's underlying medical conditions and their exposure to risks in your respective hospitals during this time of COVID-19, against progression of disease especially cancer, to determine level of urgency.
6. Categorize levels of necessity for surgical procedures (Fig 1. proposing a risk urgency decision matrix²) in relation to threat to life and patient needs, taking into consideration your hospital's resources and capacity. HPB diseases may present with diverse and overlapping symptoms which may require surgical, endoscopic or percutaneous approaches. Thus, a multidisciplinary approach taking advantage of technology* will help arrive at decision making maintaining social distance, minimize risk to patients and health care workers, conserve surgical and hospital resources.
7. Furthermore, for procedures that are urgent and necessary, consideration is to be made regarding the use of energy devices such

	Urgent	Non- Urgent
Life Threatening	<p>Urgent and Life Threatening</p> <p>Operate / Treat NOW</p> <p>Examples: Cholangitis, Sepsis, Biliary Obstruction, Massive Bleeding, Organ Failure, Trauma</p>	<p>Non Urgent but Potentially Life Threatening</p> <p>Reassure patient and decide for later</p> <p>Examples: Choledochal cyst, ampullary adenoma, Benign cysts, IPMN</p>
Non- Life Threatening	<p>Urgent and not Life Threatening</p> <p>Wait for at least 2 weeks and schedule</p> <p>Examples: Liver Ca, metastatic colorectal mets post neoadjuvant tx, Cholangiocarcinoma, pancreatic ca, cirrhosis, hepatolithiasis, Biliary Strictures, GB Ca,</p>	<p>Non Urgent & Non Life Threatening</p> <p>Cancel or Postpone</p> <p>Examples: Benign Neoplasms of Liver, Benign pancreatic cysts, PKLD</p>

Fig 1. Risk Urgency Decision Matrix

as electrosurgery devices, ultrasonic scalpels, and lasers in both open and laparoscopic procedures. Surgical smokes produced contain bio-aerosols with viable and non-viable cells posing a risk of infection. Although uncertain whether the coronavirus can be released during laparoscopy with CO2, it is widely established for other viruses and pathogens. Alp et al. recommended that “Use of standard surgical masks alone does not provide adequate protection from surgical smoke. While higher quality filter masks and double masking may increase the filtration capability, a smoke evacuation device offers additional safety for operating personnel and patients.”³ For the safety of the OR team and patients, adequate personal protective equipment should be available for the OR staff, especially when the COVID-19 status of the patient is not available or uncertain yet. We recommend that each PUI be treated like a COVID-19 positive patient whenever the situation arises to an urgent necessity to undergo any procedure with the risk of contamination or aerosol transmission.^{3, 4, 5, 6}

8. Information gathered from China, Japan, Taiwan, Singapore and previous experience with SARS, risk of exposures to endoscopy and those related to airway remains to be high. In such cases, enhanced PPEs is highly recommended.^{5,7,8}

9. Much consideration should be given to logistics and conservation of human, medical, surgical and hospital resources especially for intensive care and emergency needs at the moment. Measures to monitor and assure adequate supply of blood products for possible emergency surgical use must be prioritized. With a rising number of communities quarantined, the possibility of decreasing number of blood donors due to the fear of going to a hospital has been observed in other affected countries. ⁹
10. Many of us may have been or may be deployed as front liners in the event that this crisis will be prolonged. We may also be called upon to operate on patients with COVID-19 in an emergency. A separate guide will be made available to help us in the operating room logistics and management.

Let us remain steadfast, resilient, and, most importantly, stay safe !
Protect your patients, family, and loved ones by protecting yourself first.

For the Philippine Association of HPB Surgeons



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References:

1. Medscape. 2020. Flattening The Curve: Graphic Shows COVID-19 Containment Needs. [online] Available at: <<https://www.medscape.com/viewarticle/926806>> [Accessed 19 March 2020].
2. Apps E., Tasks, M., Matrix, A., et al, Statement, V., Board, V., Productivity, M., Management, T., Policy, P. and Use, T., 2020. The Eisenhower Matrix: Introduction & 3-Minute Video Tutorial. [online] Eisenhower. Available at: <<https://www.eisenhower.me/eisenhower-matrix/>> [Accessed 18 March 2020].

3. Alp, E., Bijl, D., Bleichrodt, R., Hansson, B. and Voss, A., 2006. Surgical smoke and infection control. *Journal of Hospital Infection*, 62(1), pp.1-5..
4. Kwak HD, Kim SH, Seo YS, Song KJ. Detecting hepatitis B virus in surgical smoke emitted during laparoscopic surgery. *Occup Environ Med*. 2016 Dec;73(12):857-863. doi: 10.1136/oemed2016-103724. Epub 2016 Aug 2.
5. Miller, J., 2020. SAGES Recommendations Regarding Surgical Response To COVID-19 Crisis - SAGES. [online] SAGES. Available at: <<https://www.sages.org/recommendations-surgical-response-covid-19/>> [Accessed 19 March 2020].
6. Karjalainen, M., Kontunen, A., Saari, S., Rönkkö, T., Leikkala, J., Roine, A. and Oksala, N., 2018. The characterization of surgical smoke from various tissues and its implications for occupational safety. *PLOS ONE*, 13(4), p.e0195274.
7. Repici A, Maselli R, Colombo M, et al, Coronavirus (COVID-19) outbreak: what the department of endoscopy should know. *Gastrointest Endosc*. 2020 Mar 13. pii: S0016-5107(20)30245-5. doi: 10.1016/j.gie.2020.03.019. [Epub ahead of print]
8. Liana Zucco, Nadav Levy, Desire Ketchandji, Mike Aziz, Satya Krishna Ramachandran, Perioperative Considerations for the 2019 Novel Coronavirus (COVID-19). Anesthesia Patient Safety Foundation, <https://www.apsf.org/news-updates/perioperative-considerations-for-the-2019-novel-coronavirus-covid-19/>, 2020 Feb 12
9. "Coping with COVID-19 in Asia" a Teleconference Transcript with Kyushu University, National Taiwan University, Ng Teng Fong Medical Center & San Lazzaro Medical Center hosted by Telemedicine Network of the Philippines and TEMDEC last 18 March 2020