MALAYSIAN SOCIETY OF ANAESTHESIOLOGISTS
&
COLLEGE OF ANAESTHESIOLOGISTS, AMM

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GUIDELINES FOR THE MANAGEMENT OF PATIENTS PRESENTING FOR SURGERY DURING THE COVID-19 PANDEMIC

Greetings and well wishes from the Executive Committee of the Malaysian Society of Anaesthesiologists (MSA) and the Council of the College of Anaesthesiologists, Academy of Medicine of Malaysia (CoA, AMM). Since our last communication on the 16th March 2020 much has happened - our nation enforced movement control order as a result of increased number of cases to more than 3000 cases as of 5th of April 2020, established new quarantine facilities, and most importantly, rallying together as a single united force to overcome the threat of COVID-19.

The College of Surgeons, AMM has issued an advisory on 27th March 2020, the contents of which we are in full agreement with, in particular that we must assume all patients are potential contacts, thus, when feasible all patients should undergo COVID-19 testing before surgery, and to reschedule all elective operations.

While there are established practical recommendations for critical care and anaesthesiology for the COVID-19 patients, there are concerns in the management and the precautions that should be embarked upon especially for the **UNTESTED ASYMPTOMATIC** patient undergoing a surgical procedure during this pandemic. This area warrants considerable attention as the number of COVID-19 infected cases escalate daily in alarming rates. It is essential to maintain a rational and yet **SAFE** approach in providing anaesthesia to the asymptomatic patient who presents for a surgical procedure.

In the past few days, strong epidemiology data is emerging that a significant percentage of the community with no risk history may be pre-symptomatic or asymptomatic, and infectious. In addition, there were cases where patients had failed to disclose contact history or withheld the contact history intentionally.

As anaesthesiologists, we routinely perform aerosol generating procedures (AGP) and, therefore, highly exposes us to the risk of infection during the course of our work. Hence, it is of critical importance that we establish a practice that is of the utmost standard with regards to personal protection equipment (PPE) subject to the COVID-19 status of patients requiring anaesthesia care. AGPs include but are not limited to intubation, oropharyngeal/airway suctioning, bronchoscopy, extubation and disconnection of the breathing circuit.

The evidence on the management for the population of asymptomatic unscreened patients undergoing anaesthesia during the time of a pandemic is sparse. Hence, recommendations made in this document are based on expert opinions and recent publications available. The MSA and the CoA **STRONGLY ADVISES** members to follow safe practices in upholding protection of health care workers (HCW) and patients alike by adopting the following:

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RECOMMENDATIONS

1. **Testing for the novel COVID-19** should be performed on all patients admitted for surgical procedures requiring anaesthesia as an inpatient prior to surgery.
    a. A single test for COVID-19 is sufficient in an asymptomatic patient.
    b. A repeat test for COVID-19 should be done, together with a referral to an Infectious Disease Physician/Physician as appropriate, when a patient presents with suspicions of being possibly positive for COVID-19.

2. We recommend following the **classification of surgical patients** undergoing anaesthesia to further guide in the management:

    I. **Category 1 - Elective Cases**
    - These are purely elective cases in which surgery can be safely deferred.
    - To defer the surgical procedure until such time that the threat of COVID-19 infection subsides nationwide.

    II. **Category 2 - Semi-Emergency Cases**
    - Semi-emergency cases are surgical cases that need not be performed immediately but will need to be performed in a stipulated time.
    - Screening test for COVID-19 is **STRONGLY ADVISED.**
    - Cases shall be posted for surgery only once results are made available.

    III. **Category 3 - Emergency Cases**
    - These are emergent cases where patients are hemodynamically stable, but the procedure must be done to prevent progression of the disease process and to preserve organ function, otherwise life is threatened and/or morbidity is increased.
    - Deferment is not an option. Testing for COVID-19 may be impossible due to the dire urgency of the case.
    - If COVID-19 testing is performed, the urgent nature of the surgery precludes waiting for its results

3. Preoperative evaluation:
    a. In addition to the usual preoperative assessment, risk assessment of COVID-19 infection must be done for all cases, preferably using a structured questionnaire format. The risk assessment considers the following:
        i. epidemiological risks
        ii. signs/symptoms of acute respiratory illness
        iii. laboratory findings
        iv. chest x-ray findings

    b. In addition to the informed anaesthesia consent, the patient or next of kin/guardian must sign a declaration

screening/assessment form for COVID-19 infection prior to surgery.

4. Appropriate PPEs are to be used at all times when managing any patient for surgery.

a) If COVID-19 screening results are negative, we **STRONGLY RECOMMEND** all anaesthesiologists and assistants performing the AGPs to use full PPE as follow:
- N95 Filtering Respirator Face Mask
- Head and neck cover
- Eye protection glasses/Face shield
- Long sleeve water repellent gown
- Water repellent plastic apron
- Double Gloves
- Shoe/boot covers

Usage of powered air-purifying respirator (PAPR) are **RECOMMENDED** if available.

The rationale behind the decision for the advisory on the usage of PPEs, in spite of a negative screening test for COVID-19, is due to the possible of false negative results especially at the onset of the illness.

b) If COVID-19 screening results are positive or in Category 3 Emergency Cases, our recommendations for all anaesthesiologists and assistants performing the AGPs to use full PPE as follow:
- N95 Filtering Respirator Face Mask
- Head and neck cover
- Eye protection glasses/Face shield
- Long sleeve water repellent gown
- Water repellent plastic apron
- Double gloves
- Shoe/Boot covers

Usage of PAPR are **STRONGLY RECOMMENDED** if available. Medical coveralls/Tyvek® suits are acceptable alternatives.

The rationale behind the driving decision for the advisory on the usage of PPE for Category 3 cases is to assume all patients are COVID-19 positive until a negative test for COVID-19 is obtained.

5. Surgical cases are to be done in a **designated COVID-19 operating theatre** (OT). If available, ideally in a negative pressure operating room (OR).

6. The anaesthesia and surgical teams must receive supervised training on donning and doffing of PPEs, preferably core team be trained at the initial stage.

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7. The anaesthetic core team will consist of a specialist and/or an experienced medical officer/experienced anaesthesia nurse.

8. The **choice of anaesthetic** technique:
   a) Regional anaesthesia such as spinal/epidural anaesthesia or peripheral nerve blocks are the anaesthesia technique of choice where it is appropriate for the type of surgery and there are no contraindications.
   b) For surgeries done under regional anaesthesia, as these are not considered aerosol generating procedures, surgical gown and masks, eye protection, and double gloves may be sufficient PPE. The use of **N95 masks are recommended**. PAPR may not be needed but may be considered especially if it's a Covid-19 positive patient or prolonged close contact is expected with a suspected case or where the Covid-19 results are not available.
   c) All patients are to wear a surgical mask to restrict droplet spread.
   d) Anaesthesiologist must also anticipate conversion of any regional anaesthesia techniques to general anaesthesia, as such they must be prepared and donned in the appropriate PPE before performing any AGP.
   e) When general anaesthesia is required, the use of video laryngoscopy and/or aerosol box if available is highly recommended for ALL cases.

9. Anaesthesiologists are encouraged to **practise** the anaesthesia processes **via simulations**. The anaesthesia induction and emergence techniques planned should minimise aerosol generation and dispersion considering the risk to patient and HCW safety. Emergence is as crucial as induction of anaesthesia; hence, vigilance is paramount.

10. Post-operatively, **recovery** of the patient should be done in the **same designated COVID-19 OR in full PPE** until transferring the care to the designated ward team.

11. The patient should then be nursed in an isolation room till the COVID-19 test results are available and deemed not a threat to HCW by the surgeon/physician in charge of the patient.

12. All Anaesthesiology Departments in hospitals managing COVID-19 patients must have in place standard operating procedures/ guidelines in perioperative management of COVID-19 patients and have a COVID-19 OR management plan.

13. All Anaesthesiology Departments must have in place standard operating procedures
   a) in the event of inadvertent exposure of HCW to COVID-19 positive patients
   b) to prevent contamination of anaesthesia machine, equipment and OR environment in ALL cases
   c) to support HCW's mental health pre-emptively

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The aim of this advisory is to herald the importance of **safety of ALL HCW** in dealing with asymptomatic patients during a pandemic. This is taking into consideration of the high-risk exposure of the anesthesiologists in AGPs. The above measures are advised until further evidence is available.

REFERENCES:

1. Guidelines for COVID-19 MANAGEMENT IN MALAYSIA NO 05/2020 (EDISI KELIMA)
2. Spinal anaesthesia for patients with coronavirus disease 2019 and possible transmission rates in anaesthetists: retrospective, single-centre, observational cohort study, Qi Zhong et al, BJA Advance Access Publication
3. Centers for Disease Control and Prevention Coronavirus Disease 2019 (COVID-19) Infection Control Guidance
4. Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19), an interim guidance by the World Health Organization dated 19 March 2020
5. ANZCA statement on personal protection equipment during the COVID-19 pandemic dated 30th March 2020
6. Perioperative Management of Patients Infected with the Novel Coronavirus. Recommendation from the Joint Task Force of the Chinese Society of Anesthesiology and the Chinese Association of Anesthesiologists. Xiangdong Chen et al, Anesthesiology 2020, Special Section: COVID-19
7. Barrier Enclosure during Endotracheal Intubation, Correspondence by Robert Canelli et al in the New England Journal of Medicine dated 3rd April 2020.
8. Practice Recommendations on Neuraxial Anaesthesia and Peripheral Nerve Blocks during the COVID-19 Pandemic: A Joint Statement by the American Society of Regional Anesthesia and Pain Medicine (ASRA) and European Society of Regional Anesthesia and Pain Therapy (ESRA)
9. Handbook of COVID-19 Prevention and Treatment, The First Affiliated Hospital, Zhejiang University School of Medicine, Compiled According to Clinical Experience.