Summary of IP&C and SSCN CoVID-19 (April 2, 2020)
Department of Anesthesiology, Pain and Perioperative Medicine
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1. IP&C PPE SCN summary
    a. Major recommendation is to have a PPE lead at each site for specific disciplines.
    b. Personal protective equipment (PPE) guidelines updated for the perioperative management of a CoVID-19/suspected CoVID-19 patient. This is a fluid document with changes incorporated with ongoing developments.
    c. All team members working in the COVID-19 OR should wear the following regardless of whether the case includes a known AGMP or not, due to the risk of an unanticipated AGMP occurring:
        - Gloves, surgical gown, N95 mask, eye/face protection, head covering (as per routine OR practices)
        - When doffing PPE, the surgical head covering should be doffed as well as it often comes off when doffing the mask.
          The surgical team should use the opportunity during the Safe Surgical Checklist steps to review the particular risks associated with the patient and procedure including any known or potential AGMPs.

    Major highlights of the revised document include:
        i. Positive pressure room is preferred
        ii. Each hospital to have at least one CoVID designated OR
            1. Will have a bin outside for personal equipment (pagers etc...).
            2. Minimal equipment in the room
            3. Paired down anesthetic cart
        iii. A pre-operative 'huddle' should occur prior to the patient arriving in the operating room. This event should highlight potential difficulties, airway management plan, special surgical instrumentation, and patient disposition
        iv. The patient should proceed from their room directly to the operating room. If the patient is **not** intubated they should be wearing a surgical mask for transport. This mask should stay on until the pre-oxygenation begins by the anesthesia team. If the patient is intubated – the anesthesia team will don PPE and transport the patient to the operating room.
        v. **All members of the surgical team can consider an N95 and face shield** during the operation. The rational is for wearing an N95 during the case is that there is always a possibility of either an anesthesia circuit disconnect and emergency resuscitation (which is an AGMP).
        vi. Minimal personnel should be in the OR for intubation (AGMP) donned in appropriate PPE for an AGMP – anesthesiologist, RT, and/or OR nurse. Helpful to have one individual stand 6ft back from patient (nurse). Once the AGMP the rest of the OR team can enter (minimal personnel). CoVID OR set up as outlined in guidelines.
        vii. For extubation, only personnel required should remain in the room in their appropriate PPE. The patient should be extubated directly to an oxygen face mask with a new filter attached (attached to AGM circuit). Once patient is settled a surgical mask should be placed on the patient and the PACU nurse

can enter the room in PPE (N95 due to the possibility of an AGMP) to recover the patient. The anesthesiologist can leave the room and doff their PPE. Once recovered the patient will return directly to their room with a face mask on (they will not go to PACU).

viii. If the patient is to remain intubated and transferred to the ICU there are three options, (1) the OR team (anesthesiologist, RT, nurse) will transfer the patient to the ICU with their existing PPE on. However, it essential that there is a clean spotter present who can clear the path, open doors/elevators for the team. Care must be taken for the team in direct contact with the patient to not contaminate the surroundings. (2) The transport team can doff their dirty PPE and re-don if they feel they can safely leave the patient's bedside. (3) Have the receiving ICU team come and retrieve the patient from the OR.

ix. The importance of proper DOFFING cannot be emphasized more. Errors in doffing are a large contributor to staff contamination. Further, doffing of additional protection such as neck protection and booties is challenging to perform without contamination.

x. Recognize that these guidelines are subject to change.

2. Intubating boxes/Tents: At this time, the evidence suggests tents may not be safe as they may increase the viral load to which workers are exposed and, if not cleaned properly, would be a vector for spread to other patients or personnel. We do not want to reject innovation, but urge innovations to be assessed and evaluated before advocating widespread use.
3. Bair huggers can be safely used in the OR as they do not create aerosols from the respiratory tract.
4. How long does an N95 last: Your N95 should be put on at the start of the case and not adjusted or removed until either you or the patient have left the OR. There is currently no set time limit for the effectiveness of a mask. If the mask is touched or becomes wet or soiled, completely doff all PPE and re-don with clean PPE.
5. Paper charting: It is recommended that only the most essential paperwork be brought into the COVID19-OR. The laminated checklist should remain in the OR and be cleaned between cases. Further guidance on this question will be shared as it is available.
6. **Is there specific guidance for PPE use when a C-section is being performed on a patient who is suspected or confirmed COVID-19 positive?** All members of the OR team should wear PPE including an N95 mask due to the possibility of an unanticipated AGMP occurring during the case, even for elective C-sections under spinal anesthetic. For a STAT GA C-section the entire OR team should be in PPE with N95 masks prior to RSI as the patient is prepped and draped prior to induction. For the laboring patient requesting an epidural, contact/droplet precautions should be donned.
7. The usual environmental cleaning processes between cases should be followed by Environmental Services or OR service workers, and extra time is not required between cases (see question 2). Computer touch screens & keyboards in the OR theatre should be cleaned between cases. This is currently the responsibility of the end user (i.e., not Environmental Services or OR service workers).

8. Blood products in the OR:
    a. Do not bring the blood product coolers into Covid theatres. Runner hands in only the products to be infused. As per standard blood product management, blood products should be checked against patient identifiers when they arrive to OR area/ante-room.
    b. If, for any reason, a cooler is brought into the theater, the cooler and coolant rings may be wiped with the standard Accel/Cavi wipes.
    c. Return unused blood product to the Blood Bank.
    d. **DO NOT** wipe products (due to gas permeability) – the lab would have to discard products that had been wiped with cleaning products.
    e. **DO NOT** discard any unused blood product (transmission is considered low risk; do not want to waste valuable blood product).
9. NEJM audio was briefly discussed (being reviewed by ECC) – but difference between asymptomatic 'shedding' vs 'transmission' was highlighted.
10. Calgary Zone Operating Room CoVID-19 Educational groups
    a. Each operating room has delegated a CoVID lead from anesthesia, surgery, nursing and RT to operationalize site specific CoVID plans.
        i. Each site has either finalized or is working on a perioperative guideline for the management of a CoVID patient or a suspected CoVID patient.
        ii. The documents are in line with the AHS PPE guidelines but recognize that there may be site specific variation due to patient flow logistics.
11. Department of Anesthesia Education
    a. Department of anesthesia PPE site leads met on Friday march 27th, to review PPE protocol and optimize patient flow, and intubation/extubation practices in the operating room via simulation. Consensus has been arrived for the best practices in our operating rooms. These practices are in line with AHS policy (recognizing that this is fluid). Each PPE site lead is aware of these best practices. They are highlighted in a video (March 30, 2020).
    b. A video has been made outlining the appropriate donning and doffing procedures. This video has been shared locally and with the provincial IP and C.
    c. Multiple site-specific simulations on airway management with a focus PPE have been held. From these outcome measures have been accounted for and implemented into practice guidelines.
    d. The department has been contacted by other specialties for assistance in the proper donning and doffing of PPE. However, the recommendation is for each discipline to have a PPE point lead.
    e. Moving toward standardization of process of airway management in the CoVID positive patient.
12. CoVID status on surgical patients with a fever presumed to be from another source.
    a. For example – healthy patient for a lap appy with a fever. No resp symptoms, normal CXR
        i. Currently, IP and C suggests to use clinical judgment. If the MRP feels that it is not CoVID then you can proceed with OUT CoVID precautions.
13. Washing gloves: It is not recommended to wash gloves for two reasons (1) alcohol hand sanitizer destroys the integrity of the gloves and (2) alcohol hand sanitizer formulation is designed to effective on hands