

Posting Date: 2020-04-02

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Title: PERI – Operating Room (OR) Protocol for the management of the Suspected or Confirmed COVID-19 Patient Coming to the Operating Room, for a Procedure Receiving a General Anesthetic

Applies to: All Hamilton Health Sciences (HHS) Employees working in the Operating Rooms at HHS

1.0 Purpose

1.1 This is a working document that will change as the COVID-19 pandemic evolves. This document is meant to help practitioners with intraoperative management of **suspected or confirmed COVID-19 patients**. This document will not address every process in the OR and is meant to provide guidance to fundamental OR procedures and practices.

2.0 Equipment/Supplies

- N95 respirator
- Eye protection
- Gown
- Gloves
- Hat
- Neck coverage if deemed necessary
- Shoe covers
- Use disposable equipment where appropriate

3.0 Policy

3.1 General Statements

3.1.1 A suspected or confirmed COVID-19 patient must be identified as such when the patient is booked for the OR. At this time, the booking physician should add this information to the OR green booking slip, communicate directly with the OR charge nurse and the on-call anesthesiologist. The transport team will also need to be alerted to the suspected or confirmed COVID patient. See the HHS policy [IC - Transportation of Patients Within or Between Healthcare Facilities of Who are Suspected or Confirmed COVID -19](#) Suspect and confirmed COVID-19 patients are always handled with droplet and contact precautions and enhanced Personal Protective Equipment is donned when there are **aerosol generating medical procedures** impacting the airway.

3.1.2 The choice of anesthetic technique could be local with sedation, a neuraxial technique or a general anesthetic. This document is in reference to General Anesthesia. Other documents will outline other anesthetic techniques for the suspected of confirmed COVID patient.

4.0 Pre-Procedure

4.1 Health Care Workers Risk Assessment

4.1.1 Health care workers should perform a risk assessment before each interaction with a patient or their environment in order to determine which interventions are required to prevent infection transmission during the planned interaction. Intubation and extubation is rated as a brief risk of aerosolization according to the March 27 2020 HHS directive. There is no evidence that it is not safe to enter the room immediately after completion of a non-surgical AGMP. During an AGMP, however, N95 must be worn by all health care workers in the room. As per the Chief Medical Officer of Health directive issued March 30, all health care workers in a room with an intubated patient who is (suspected) positive for COVID-19 must wear a N95 respirator. Gowns are worn within 2 meters of the patient and health care workers should assess the need for fluid resistant or impermeable gowns.

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4.2 Room Preparation

- 4.2.1 Identification of appropriate operating room(s). One or two rooms per OR per site. This should be a room located away from the standard traffic pattern. A negative pressure room may be ideal, however we have only one negative pressure room at HHS and it will not meet with this proposed protocol. (Room 14 has immovable equipment).
- 4.2.2 A portable HEPA filtration Unit (if available) is to be placed in the room if the surgical procedure is an AGMP. A HEPA filter is not necessary for other procedures or for intubation or extubation.
- 4.2.3 All extra equipment present in the room should be removed. The anesthesia machine is clean of extra equipment, metal stools only and Unicells and other storage equipment should be removed. Plastic is an option to cover equipment.
- 4.2.4 Removal of anesthetic drug cart from room. Anesthesiologist will be taking in only essential medications, airway and other equipment for case. Leave cart outside room. A COVID-19 specific cart may be put together and will be designed specific to the needs of each OR site.
- 4.2.5 Enhanced droplet/contact precautions signage should be placed outside room to indicate COVID-19 Patient.
- 4.2.6 Designate only one door for entry into the room, minimize opening and closing of that door.
- 4.2.7 The Anesthesia machine is prepared with a HME filter at the "Y" connection and a filter is also placed on the inspiratory and expiratory limbs of the circuit.

4.3 Team Preparation

- 4.3.1 Team meeting with Anesthesiologist, Surgeon, and RN's/RPN's and any other staff involved in care to walk through process. This must be done prior to sending for patient in order to be ready in room for patient arrival.
- 4.3.2 Limit the number of people involved. Anesthesia resident or Anesthesia Assistants may be present for intubation.
- 4.3.3 Appropriate PPE for members in the operating room to be available. This may change with resource availability. PPE for the anesthesiologist and assistant doing intubation and extubation include an N95 respirator, eye shield, fluid resistant gown, gloves, hat, neck coverage if deemed necessary, shoe covers.
- 4.3.4 Work in pairs to pay close attention to donning and doffing of PPE, especially respirators as that is the highest risk for Infection Prevention and Control (IPAC) breaches.
- 4.3.5 For all intubated suspected or positive COVID-19 patients, all health care workers in the OR wear a N95 respirator, eye protection, gown and gloves.

4.4 Transportation to and from the OR

- 4.4.1 Transportation will be managed according to the [IC - Transportation of Patients Within or Between Healthcare Facilities of Who are Suspected or Confirmed COVID -19](#)

5.0 Operative Management

- 5.1.1 Airway management keeping with principles of COVID-19 patients. Please see [PERI - Anesthesia Recommendations for Airway Management of Patients with Suspected or Confirmed COVID - 19](#)

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- 5.1.2 A two person anesthesia team is in the planning and cannot be detailed here at this time.
- 5.1.3 Doffing of PPE should be done in the corner of the operating room, greater than 6 feet away from patient following the PPE protocol currently in place.
- 5.1.4 For all intubated suspected or positive COVID-19 patients, all health care workers in the OR to wear a N95 respirator, eye protection, gown and gloves. Use disposable equipment where appropriate.
- 5.1.5 During surgery use smoke evacuation technology with all cautery/energy sources. If laparoscopic approach, use lowest insufflation pressure to maintain view, use smoke evacuation technology continuously, check ports for integrity/seal at start of (and during)case and replace if necessary, deflate pneumoperitoneum using smoke evacuation system, do not remove specimen or ports until pneumoperitoneum fully deflated.
- 5.1.6 Have a person designated outside the room capable of being the runner for equipment not brought into the room during the initial team preparation.
- 5.1.7 The patient is recovered in the OR by the PACU RN. Contact/Droplet precautions are followed by the PACU nurse. Surgical or procedural mask, eye protection, gown and gloves.
- 5.1.8 The Anesthetist will remain with patient in the operating room until PACU RN has safely assumed care for recovery, as would normally occur in the PACU Anesthetists will remain immediately available to the RN, by in-OR overhead page, in the event of unforeseen emergencies. When then patient meets the routine criteria for readiness to transfer to the receiving unit, transport may be initiated according to the [IC - Transportation of Patients Within or Between Healthcare Facilities of Who are Suspected or Confirmed COVID -19](#).

6.0 Post Procedure

6.1 Cleaning Room

- 6.1.1 The OR can be cleaned by an environmental aide wearing surgical mask, eye protection, gloves and gown. The procedure for the terminal clean should be followed. [CSS - Droplet/Contact Precaution COVID -19 Environmental Cleaning Protocol](#)

6.2 Cleaning of the Anesthetic Machine

- 6.2.1 Dispose of anesthetic machine circuit and filter bag.
- 6.2.2 Change the sampling line.
- 6.2.3 Should the anesthesia ventilator become contaminated, it can be autoclaved and will be brought to MDRD and reprocessed according to the manufacturer's information for use cleaning protocol. With three filters in place routine autoclaving of the ventilator is not necessary.

6.3 Stretchers and non-disposable Transfer Equipment

- 6.3.1 This type of equipment will be cleaned according to the hospital environmental cleaning standard. [CSS - Droplet/Contact Precaution COVID -19 Environmental Cleaning Protocol](#)
- 6.3.2 Disposable items used in transport are to be discarded

7.0 Management of patients not suspected or confirmed COVID-19 positive

Health care workers should perform a risk assessment before each interaction with a patient or their environment in order to determine which interventions are required to prevent infection transmission during the planned interaction.

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For AGMPs such as intubation/extubation the principles of reducing risks of during AGMPs of the airway apply:

- Limit the number of individuals in the room during intubation/extubation, surgical team to wait outside of the room if possible
- The anaesthesia team is following an extended use of N95 respirator policy and will be wearing N95 respirators for any intubation/extubation regardless of COVID-19 status of the patient
- Surgical team to use PPE as per standard practice, usually consisting of a surgical mask, fluid resistant or impermeable gown, head cover, surgical (sterile) gloves, and shoe covers unless surgical procedure is considered an AGMP of relevance to COVID-19 when N95 respirators and eye protection should be used.

8.0 Cross References

[IC - Transportation of Patients Within or Between Healthcare Facilities of Who are Suspected or Confirmed COVID -19.](#)

[CSS - Droplet/Contact Precaution COVID -19 Environmental Cleaning Protocol](#)

[PERI - Anesthesia Recommendations for Airway Management of Patients with Suspected or Confirmed COVID – 19](#)

9.0 Other HHS References

<https://www.hamiltonhealthsciences.ca/covid19/staff-physician/personal-protective-equipment/>

10.0 Developed By

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11.0 In Consultation With

Infection Prevention and Control
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12.0 Approved By

HHS COVIDI-19 Corporate Command Centre

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