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ELECTROPHYSIOLOGY (EP) LAB PROTOCOL FOR COVID-19 SUSPECTED AND CONFIRMED CASES

Introduction:

This is a working document that will change as the Covid-19 pandemic evolves. This document is designed to assist those working within the Electrophysiology Lab with the management of suspected or confirmed Covid-19 patients. This document reflects recommendations as of April 20, 2020.

Pre-Procedural Preparation:

Physical Layout

1. Lab 2 is designated as the procedure room for suspected and confirmed Covid-19 cases.
2. Suspected Covid-19 is defined, as a patient with respiratory symptoms but not yet tested.
3. If an inpatient is suspected or confirmed Covid-19, the inpatient is to arrive directly into Lab 2 bypassing Reception.
4. If the patient requires prep/recovery in the EP Lab, Reception Bay 4 is the designated prep/recovery area for the Covid-19 suspected or confirmed case, as it provides immediate access to Lab 2 and can be isolated from the remainder of the unit. Bay 3 will be left vacant except for supplies and PPE required to care for the patient; these will be placed greater than 6 feet away from the patient stretcher. HHS IPAC Guidelines to be followed.
5. If multiple patients are suspected or confirmed with Covid-19, the patients will be cared for in every second Reception Bay beginning with Bay 2. The odd number bays to be left vacant; except for supplies and PPE required for the patient, which will be placed greater than 6 feet away from the patient stretcher.
6. The control room door for Lab 2 will be designated as the only entrance for staff members participating in the case.
7. The double doors for Lab 2 will be the entrance for the patient. It will also serve as the only exit for the patient and staff leaving the procedural lab. This is to prevent contamination of the control rooms for Labs 1 and 2.

Identification of Status

8. Prior to scheduling of the procedure, the EP on-call team and EP Triage Clinician to confirm the Covid-19 status of inpatients from Hamilton Health Sciences and referring hospitals. Information is to be shared with the EP Charge Nurse.
9. Urgent outpatients identified as answering “yes” to the screening tool at the time of booking, pre-op clinic visit, or reminder call, or through a test confirmed as Covid-19 positive, are to be referred to the Medical Director of the EP Lab for review and decision regarding treatment plan. It is anticipated that suspected or confirmed Covid-19 patients will have their procedure postponed. If a decision is made to proceed, the EP Charge Nurse is informed and arrangements made with Admitting.
10. Morning huddle is to review the plan for the day; including the patient schedule, protocol(s) to be followed, role of each staff member and plan for the suspected or confirmed Covid-19 patient. Discussion to involve the procedural physician and anesthetist.

Assignment of Roles

11. Participation in the case will be limited to the procedural physician, anesthetist, scrub nurse, circulating nurse, medical radiation technologist and device clinician.
12. One nurse is to be assigned to the suspected or confirmed Covid-19 patient for purposes of procedural preparation and recovery until the patient is transferred back to their home hospital or inpatient unit. If an extended stay is anticipated, a nurse who participated in the patient's procedure will be the reception nurse's back up and break relief and will be identified in advance of the patient's arrival on the unit. Documentation to occur outside of the bay's curtains.
13. A separate staff member will be assigned to the case for purposes of reviewing donning and doffing of all individuals participating in the case (EP Lab safety coach), running for supplies, and for ensuring that the Airway Management and Code Blue Team has appropriate personal protective equipment (PPE). This person will be located in the control room for Lab 2 during the case.

Preparation of the Space

14. All equipment not required will be removed from Lab 2 and the Reception Bay(s), including storage containers, tables and stools. Equipment required in the procedure or cannot be relocated is be protected with plastic.
15. Signage to be placed outside of Lab 2 and Bay 4 indicating droplet precautions/Covid-19 patient.
16. A physical barrier is to be placed in front of Bay 3 to prevent hospital staff from using the route as a means of accessing the clean core, control rooms or procedural labs.
17. After discussion with the anesthetist, a Covid-19 cart may be put together with the essential medications and airway management supplies for the procedure. If the anesthesia cart is required, it will be relocated to Lab 2. In the latter instance, the patient with suspected or confirmed Covid-19 will be the last case of the day.

Personal Protective Equipment (PPE) during Procedure

18. PPE for droplet/contact isolation precautions is indicated for the prep/recovery nurse and staff participating in the procedure. If an aerosol generating medical procedure (AGMPs) is planned, or resuscitation with airway management is required, the staff in PPE for droplet/contact isolation are to be absent from Lab 2 during the AGMP.
19. The circulating nurse, the procedural physician and the anesthesist (if required for the procedure) are the exception and will don a N95 respirator instead of a surgical mask if the patient requires a planned or anticipated AGMP or resuscitation with airway management.
20. Effective March 2020, practices within the department were revised to reduce the potential for planned or anticipated AGMPs, with CPAP excluded from use and a reduction in planned intubation by anesthesia.
21. Outpatients requiring a device implant, cardioversion or ablation deemed an elective procedure were deferred until elective procedures resume, based on updated guidelines from the Canadian Cardiology Society.
22. With the change in practice, the percentage of patients who are deemed to be a planned or anticipated AGMP are as follows:
    a. Device implants – 5 to 20% of cases (approximately 5-20 cases/month).
    b. Ablations and cardioversions – 90 to 95% of cases (approximately 2 cases/month).

23. Radiation Safety Guidelines will continue to be adhered to; with lead aprons to be worn under PPE.
24. Upon completion of the case, a location in Lab 2 will be identified as the area where doffing will occur for suspect and confirmed Covid-19 cases. The doffing will occur after the patient exits the Lab and will be monitored by the EP Lab safety coach to prevent any break in practice.; the exception being those who are transferring the patient to Reception Bay 4. The latter are to doff in Bay 3, a minimum of 6 feet from the patient.

Airway Management

25. A plan for airway management is to be discussed/confirmed prior to the start of the procedure. AGMPs are to be minimized. If intubation is required, only the anesthetist and supporting (circulating) nurse are to be present in Lab 2 during intubation and will don N95 respirators. The remainder of the team can enter Lab 2 after intubation completed.
26. Following extubation, an oxygen mask is to be applied to the patient. Anesthesia Recommendations for Airway Management of Patients with Suspected or Confirmed Covid-19 to provide guidance.
27. Once the patient is extubated in Lab 2 and the patient is able to maintain their airway, the anesthetist and circulating nurse will provide transfer of accountability to the recovery nurse.
28. The anesthetist is to remain available post-procedure for emergencies.

Resuscitation

29. If the patient requires resuscitation during the procedure for a respiratory arrest, and was not intubated prior to the start of the case, all staff will evacuate Lab 2; the exception being the anesthetist, procedural physician, and circulating nurse who will begin resuscitation. The Airway Management and Protected Code Blue Team to be called when decompensation is identified.
30. The procedural physician will be the designated Code Captain, thus limiting the number of people in the room unless they require the assistance of the Code Blue Team Captain.
31. The Code Captain will determine who enters Lab 2 and the supplies/equipment required.
32. The Code Blue team will enter Lab 2 through the Control Room where they will don PPE (eg. N95, level 4 gown, face shield and gloves) supplied by the EP Lab safety coach. The latter will monitor donning and doffing for break in practice.
33. Medications from the code blue cart will be passed into Lab 2 as required, and will supplement the anesthesia cart.
34. The Guidelines for Adult Code Blue Response during Covid-19 to be followed.

Transfer to Inpatient Unit or Home Hospital

35. IPAC protocol for the Transportation of Patients Within or Between HealthCare Facilities of Who are Suspected or Confirmed Covid-19 to be followed.

Procedure Room Cleaning

36. Following the procedure of a patient with suspected or confirmed Covid-19, Lab 2 will undergo a terminal clean as per the CSS - Covid-19 Environmental Cleaning Protocol.
37. Following transfer of suspected or confirmed Covid-19 patient, the Reception Bays used to provide care during prep/recovery will be cleaned using the same protocol.