Care of the Adult Suspected/Confirmed COVID-19/ILI Patient in the Emergency Department/Urgent Care Centre

Emergency Strategic Clinical Network

Note: This document is an adaptation of the Care of ADULT Critically Ill COVID-19 document. The original document was developed by the Provincial Critical Care Communicable Disease Working Group and the Critical Care Strategic Clinical Network. This adaptation for use within the Emergency Department and/or Urgent Care Centre (ED/UCC) care area was coordinated by the Emergency Strategic Clinical Network with permission.

Intention for use:
- To guide all providers of ED/UCC care in Alberta as to the basic care of adult patients with known or suspected COVID-19 infection to ensure such patients receive optimal, consistent and equitable care throughout the ED/UCCs of Alberta
- Recognize that the application of the guidance in this document will need to be adapted to the characteristics of each individual site, zone and department.

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Questions or concerns with this document may be directed to Emergency.SCN@AHS.ca
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<tr>
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<td>Various link updates; Infection Prevention Precautions updated; changes in Medical Care section; Respiratory Care section updated to reflect current research and alignment with provincial guidelines; Addition of links to Staffing Considerations; Addition of sample intubation checklist;</td>
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<td>Andrew Fisher, Manager, Emergency Strategic Clinical Network Dr. Brian Holroyd, Sr. Medical Director, Emergency Strategic Clinical Network</td>
<td>Added link to AGMP web reference; Added link to Goals of Care decision tool; Updated/added Handling Patient Care Items and Equipment; Added Environmental Cleaning; Added reference to LPNs in staffing section; Minor updates to pre-triage/triage section; Updated Medical Care to reflect changes in COVID-19 swabbing; Respiratory Management section updated to reflect changes from Respiratory Health; Added Admission consideration to follow Provincial Pandemic Flowsheet; Added End-of-Life Care to Medical Care; Removed Preparation and Admission of COVID-19 Patients to ICU; Updated Code Blue Response; Patient Positioning added to Respiratory Care</td>
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A. Surveillance

Case Description for COVID-19

COVID-19 is an infectious syndrome caused by SARS-CoV-2, a novel coronavirus that has not been previously detected in humans. Though information is rapidly evolving, at this point it is noted that though the vast majority of patients have only mild symptoms, a small portion develop critical illness, in particular hypoxemic respiratory failure. In some cases there has been late cardiac decompensation, after hypoxic failure seems to be resolving. COVID-19 is believed to be spread via respiratory droplets (similar to influenza, MERS, and SARS) and/or contact (e.g. contaminated hands to mucous membranes). Person to person spread has been identified within Alberta.

COVID-19/ILI Screening Criteria:

Click link to see the current updated screening criteria for COVID-19/ILI:


NOTE: This link is updated regularly and must be reviewed prior to every shift.

B. Facility Entrances, Pre-Screening and Triage

All sites shall ensure that appropriate signage (as indicated on the ECC Insite page https://www.albertahealthservices.ca/topics/Page17000.aspx) is posted for all patients and visitors entering the facility.

Dedicated staff for screening patients and visitors prior to entering the ED/UCC is strongly encouraged to identify and sort patients who meet COVID-19/ILI screening criteria if possible in the ED. Prescreening may be performed by RN, LPN, ACP, or PCP. Staff in pre-triage screening and in triage to maintain contact and droplet precautions (https://www.albertahealthservices.ca/assets/healthinfo/ipc/hi-ipc-assmt-cntrs-covid-ppe-matrix-res-topics-z0-emerging-issues.pdf). If ED registration staff are first point of contact, they too should use appropriate precautions. All patients and visitors should immediately apply facemask and use antiseptic hand solution prior to entry. Symptomatic patients should be moved to an appropriate treatment space or holding area for triage and care. All patients who cannot be screened (e.g. unconscious) should be considered positive until proven otherwise. All patients who screen negative for COVID-19/ILI will proceed to regular triage for further evaluation.

All visitors to the ED/UCC must also be screened for COVID-19/ILI symptoms. All symptomatic visitors will not be allowed within the ED/UCC. Watch for updates on visitation rules on the COVID-19 AHS webpage.

For sites not utilizing pre-triage screening, contact and droplet PPE precautions shall be used by triage staff. All patients and visitors should immediately use antiseptic hand solution and apply facemask. Cohorting decisions are site specific and staff will follow site processes.

Registration staff should also be using contact and droplet PPE precautions, and practice routine hand cleansing between each patient interaction.
C. General ED/UCC Logistics

1. Patient Area Supplies
   - Use disposable supplies wherever possible.
   - Stock isolation cart with adequate supply of N95 masks (all brands and sizes), goggles, face shields, gloves (all sizes), yellow isolation gowns, surgical masks and disinfectant wipes.
   - Ensure canisters of disinfectant wipes inside and outside the patient room are adequately full.
   - Avoid overstocking rooms – only bring in supplies as required. All items that cannot be surface disinfected should be discarded when the patient is discharged.
   - Alert charge nurse/unit clerk immediately if supplies of PPE equipment are low so that they can be ordered.
   - Alcohol based hand sanitizer will be available outside and inside patient rooms.
   - Ensure garbage and laundry hamper are stationed inside patient room for doffing of PPE.

2. Equipment
   - Where possible, equipment (e.g. BP cuffs, Sat monitors) should be kept in the patient’s room to avoid transmission via objects. Dedicate equipment (e.g. stethoscope, vitals monitor, etc.) to isolation room, or clean with hospital grade disinfectant after use prior to returning to general circulation.
   - Review Stethoscope Use for Patients on Contact and Droplet Precautions including COVID-19 Patients.

3. Charting
   - Do not take the paper chart or laboratory results into the patient room.
   - Mobile computer terminals are to remain outside the patient room at all times unless a dedicated mobile terminal is available to remain in room (e.g. for units where dedicated mobile terminals are available for very sick patients requiring in-room presence of staff a majority of the time). Regular cleaning of computers/keyboards must be performed.
   - Review Nursing Practice and Documentation Efficiency During a Pandemic. Recommendations for COVID-19.

4. Diagnostic Imaging (DI) considerations:
   - Follow site process for advance communication with DI prior to movement of symptomatic patients.
   - Symptomatic unwell patients will have all x-rays performed via portable means, where possible.

5. EMS Interface – see Provincial Pre-Triage for COVID-19 for Adult and Pediatric Patients in Emergency Departments and Urgent Care Centres
   - EMS crews will screen patients for COVID-19/ILI prior to ED/UCC arrival.
   - EMS will contact receiving site to inform of any symptomatic patient prior to arrival to allow for space allocation and proper precautions.
   - Receiving ED/UCC will seek to accommodate symptomatic EMS patients in appropriate care space.
   - NOTE: For patients arriving via EMS who require CPR and do not yet have an advanced airway, EMS will continue with chest compressions alone as they enter the department. To minimize possible AGMP risk, the patient’s mouth and nose must be covered by a mask, an article of clothing, or a blanket/sheet during the transfer for source control.

6. Meals: Used meal trays and dishes do not require special handling. Disposable dishes and utensils are not required.

7. Visitors of suspected/confirmed COVID-19/ILI patients:
   - In person visitation should be discouraged. Consider electronic means of communication for patients and visitors.
   - Watch for updates on visitation rules on the COVID-19 AHS webpage.
   - Pediatric visitors will not be allowed to visit any patient care spaces.
   - Minimize number of visitors for ALL patients in department to one per patient, where possible. Visitors must be asymptomatic.
8. Provincial ED/UCC COVID-19 Pandemic Surge Phases
Refer to AHS Provincial Emergency Department/Urgent Care Centre COVID-19 Pandemic Surge Phases for direction/planning for potential surges.

The Directive: COVID-19 Triage Diversion may be considered only under the strict conditions as outlined within the Directive. See also:
- COVID-19 Diversion Directive Background & Directions
- AHS Provincial Emergency Department/Urgent Care Centre COVID-19 Pandemic Surge Phases
- Diverted Patient Instructions - ED
- Diverted Patient Instructions - UCC

D. Infection Prevention Precautions

1. Handwashing is critical to prevent the spread of COVID-19. Special attention to hand hygiene is essential for staff, patients, and visitors. Wash hands with soap and water or use antiseptic hand rub before and after each and every contact with patients or their environment. Remind colleagues is you see lapses in hand hygiene behaviour. Educate patients and visitors about how and when to use hand hygiene products:
   https://www.albertahealthservices.ca/assets/healthinfo/ipc/if-hp-ipc-flu-handwash-how-to.pdf

2. Confirmed and suspected COVID-19/ILI cases in the ED/UCC should be managed with contact and droplet precautions. Use N95 respirators for all aerosol generating medical procedures (AGMP). Please refer to the Aerosol-Generating Medical Procedure Guidance Tool for the most complete list of AGMPs.
   https://www.albertahealthservices.ca/assets/healthinfo/ipc/hi-ipc-respiratory-additional-precautions-assessment.pdf

   For patients receiving any AGMP (e.g. High flow heated humidity oxygen therapy devices, NIV, tracheostomy with frequent suctioning) healthcare providers should wear N95 masks and have the patient in an appropriate environment. In addition, due to the risk of disconnection of endotracheal tube and ventilator, healthcare providers should use N95 masks when providing care to all intubated, presumed or confirmed, COVID-19 patients.


4. Personal eyewear is not sufficient eye protection.

5. For patients with suspected but not confirmed COVID-19/ILI infection, maintain contact and droplet isolation precautions including N95 respirators for AGMP and intubated patients.

   **Applying N95 respirators:** Hold mask in your hand and pull both elastic ties, bottom first, over your hand for ease of putting mask on. Test to ensure that mask is secure and that there are no leaks. Discard immediately outside of room after use. If your site is participating in the N95 recycling project, please follow local protocol.

   **Eye protection (disposable face shields/goggles):** Face shields or goggles are to be worn upon entering the patient room. Personal eyewear (glasses) is not sufficient. Face shields are single use. Discard face shields outside of the room after use. If goggles are re-used they must be fully wiped down with disinfectant wipes prior to re-use.

   **Gloves:** Always perform hand hygiene prior to putting on gloves and after removal.

   **Gowns:** Remove lab coat before donning. Ensure the back of the gown is secured.

   **Donning:** https://www.albertahealthservices.ca/assets/Infofor/hp/if-hp-ipc-donning-ppe-poster.pdf

   **Doffing:** https://www.albertahealthservices.ca/assets/Infofor/hp/if-hp-ipc-doffing-ppe-poster.pdf. Be certain to clean hands after each step of doffing.
6. For guidance in cleaning personal clothing and surfaces:  

E. Medical Care

Refer to *Stratification of ED/UCC patients presenting with symptoms consistent with COVID-19*.

For suggested initial ED/UCC orders, see the *COVID-19 Evaluation & Management Adult ED/UCC Order Set*.

At this time there are no specific proven treatments recommended for COVID-19 infections. Supportive and symptomatic care is important particularly for those with severe symptoms of COVID-19.

For patients presenting with an ILI where SARS-CoV-2 is one possible etiology, it is critical to recognize the high likelihood of more common viral and bacterial pathogens to underlie the patients presentation, even in the presence of exposure to COVID-19 infected individuals or relevant travel exposures.

Establishment of Goals of Care (GOC) designation should be pursued as early as possible; where GOC designation isn't available, use clinical judgment and facility practice. See *Streamlined Goals of Care Designation decision-making for COVID-19*.

1. Microbial Testing

Even in patients with proven COVID-19 infection, particularly in patients with severe disease, bacterial and/or other viral co-pathogens often are also present.

All patients evolving severe illness should be tested for the full spectrum of respiratory viruses (including SARS-CoV-2) and bacterial pathogens. This should include:

- In all patients, a nasopharyngeal swab and/or throat swab for respiratory viruses (including SARS-CoV-2)

Refer to *Recommendations for Antimicrobial Management of Adult Hospitalized Patients with COVID-19*.

2. Empiric Antimicrobial Therapy

Refer to *Recommendations for Antimicrobial Management of Adult Hospitalized Patients with COVID-19*.

3. Imaging

Where clinically necessary, COVID-19 suspected cases should have chest x-ray performed. CT chest should be reserved for severe cases where the study can be used to guide or monitor management. Currently there are no pathognomonic imaging findings for COVID-19.

- See *General Radiography Chest Imaging during COVID-19 Pandemic*

4. COVID-19 Specific Antiviral Therapy

Refer to *Recommendations for Antimicrobial Management of Adult Hospitalized Patients with COVID-19*.

5. Systemic Corticosteroids

Systemic corticosteroids for the treatment of viral pneumonia are not currently recommended. Studies thus far in patients with severe influenza, SARS, and MERS have revealed either harm or no benefit. Systemic steroids may be of value for other clinical indications such as severe septic shock.

If the patient is currently prescribed long-term steroids or is at risk of adrenal crisis, replacement steroids should be considered.
6. Fluid Management

Use conservative fluid management in patients with COVID-19 when there is no evidence of significant dehydration. COVID-19 patients should be assessed for dehydration as fever may have increased fluid losses with decreased oral intake. Patients with COVID-19 should be treated cautiously with intravenous fluids, because aggressive fluid resuscitation may worsen oxygenation. Hypotonic fluids, starches and albumin should generally be avoided. Euvolemia is the goal.

7. Admission

Consider following:
- Stratification of ED/UCC patients presenting with symptoms consistent with COVID-19
- COVID-19 Provincial Pandemic Flowsheet Admission to Acute Care (from ED, Assessment Centre or Observational Unit)

8. End of Life Care

For patients with M1, M2, C1 or C2 Goals of Care Designation where death is anticipated and symptom support is needed, alongside any medical management that might be continuing, consider following Symptom Management for Adult Patients with COVID-19 Receiving End-of-Life Supportive Care Outside of ICU.

F. Respiratory Care

As there have been observations of hypoxemic COVID-19 patients with a profound absence of the typical signs or symptoms of respiratory distress, all suspected or confirmed COVID-19 patients must have their oxygen saturation levels checked.

For more detailed respiratory care refer to Respiratory Management of Confirmed and Suspected Adult COVID-19 Patients.

The World Health organization (WHO) suggests that all respiratory care poses a potential risk during the COVID-19 pandemic. Staff should strictly adhere to hand hygiene protocol and ensure they use optimal donning and doffing technique of all PPE to reduce risk. Use N95 and other appropriate PPE for aerosol generating medical procedures (AGMP) which are described within the link below.

NOTE please refer to the Aerosol-Generating Medical Procedure Guidance Tool to confirm the list of AGMPs.

The basic principles are to always use personal protective equipment in addition to appropriate isolation precautions and minimize the use of aerosol-generating procedures. Consider following Infection Prevention guidelines found here: https://www.albertahealthservices.ca/assets/healthinfo/ipc/ipc-respiratory-additional-precautions-assessment.pdf

For Non-Intubated Patients:

- Oxygen therapy is often necessary for patients with COVID-19. If patient is hypoxemic and clinical judgement warrants, start oxygen administration. Maintain SpO2 target range at 92-96% or 88-92% in those at risk of hypercapnia (e.g. COPD) or 90-92% for acute coronary syndromes.
- Use dry oxygen; avoid humidification to reduce the risk of aerosolization and microbial spread.
- Select the least invasive oxygen therapy option that best meets the patient’s needs. Patient’s needs include maintaining the ordered SpO2 range, and ensuring optimum attainable patient comfort and work of breathing.
• Patients receiving oxygen by any type of nasal cannula should also be given a procedure mask to wear (if tolerated), so to reduce others’ exposure to cough/sneeze droplet spread (especially during transport and in shared spaces).

Patient Positioning:

The Alberta Health Services COVID-19 Scientific Advisory Group has put forward the following:

Recommendations

The efficacy and safety of awake prone positioning of non-intubated COVID-19 patients with hypoxemic respiratory failure is not established and hence this practice is not recommended for routine application in this population of patients. Ongoing clinical trials (some of which are active in Alberta) should inform the best utility of this practice in the future.

Practical Considerations

1. If being considered for awake prone positioning outside of a clinical trial, COVID-19 patients should be assessed:
   a. to determine their ability to communicate and co-operate with procedures, rotate to front and adjust position independently and to confirm an absence of anticipated airway issues.
   b. to rule out absolute contraindications including respiratory distress (RR ≥ 35, PaCO2 ≥ 48, accessory muscle use), immediate need for intubation, hemodynamic instability (SBP < 90mmHg) or arrhythmia, agitation or altered mental status, unstable spine/thoracic injury/recent abdominal surgery
   c. to rule out relative contraindications: facial injury, neurological issues (e.g. frequent seizures), morbid obesity, pregnancy (2/3rd trimesters), pressure sores / ulcers
2. If awake prone positioning for COVID-19 patients is being considered for use outside of a clinical trial, health systems should be assessed to identify the required setting including equipment, staffing, and monitoring required.
3. If awake prone positioning for COVID-19 patients is being considered for use outside of critical care, a pathway should be developed to characterize required training, monitoring, documentation and outcomes measurement and include appropriate thresholds for discontinuation and escalation to the next level of care.

For more details, see Rapid Review: Awake Prone Positioning for Non-intubated Patients

Non-Invasive Ventilation (CPAP and BIPAP/BILEVEL):

• Any form of NIV is an AGMP, and recommendations regarding its use in the COVID-19 pandemic are based on the considered balance of likely benefit of NIV to the patient, versus risk of AGMP and the resources consumed by the intervention (PPE, staff, and isolation rooms)

Heated Humidified High Flow Oxygen Therapy

• The use of heated humidified high flow oxygen therapy during the COVID-19 pandemic is controversial. There is some indication that it may offer value to individuals with early hypoxemia using appropriate PPE with inclusion of N85, but is a very limited resource and creates the need for AGMP precautions where they would not otherwise be required. Definitive treatment with ventilation or intubation shouldn’t be delayed for patients with R GOC; emergent and uncontrolled resuscitation poses increased risk to the patient as well as risk of aerosolized virus exposure to others

• Heated humidified high flow oxygen therapy may be used in the event that ventilator care is not available, or is delayed, so guidelines may need to be adjusted for future resource limitations. All AGMP precautions must be followed if used.
When to Consult Critical Care:

Patients with COVID-19 may decline rapidly and require careful monitoring (particularly their SpO2). Intubation in a crisis is best avoided. Clinicians should consider consulting Critical Care service if ANY of the following criteria are met:

- Worsening hypoxia requiring greater than 6 LPM of oxygen continuously; or
- Severe respiratory distress, rapid deterioration in status, central cyanosis, shock, altered mental status, convulsions, or other worsening symptoms

Incentive Spirometry

It is strongly recommended that incentive spirometry not be used for patients that are suspected, probable or confirmed COVID-19. There is little or no evidence of effectiveness, and there is concern regarding risk of increasing viral particle release from the patient. Deep breathing and mobilization are effective alternatives.

When to Consider Intubation (R1 or R2 Goals of Care):

- Rapidly progressive oxygen needs and/or progressive respiratory distress, despite adequate oxygen.
- Clinical judgment is paramount.
- If time and situation permits, consult critical care for participation in patient management prior to intubation.

For intubation procedure, see suggested guidance here: https://insite.albertahealthservices.ca/Main/assets/ccmc/tms-ccmc-covid19-ilicovid-modifications.pdf

Sample intubation checklist can be found in Appendix

G. ‘Code Blue’ response for COVID-19/ILI patients

(Summary per Provincial COVID-19 Code Blue Working Group)

Guiding Principles:

1. Minimize number of participants in the patient room during resuscitation
2. Minimize equipment in the room wherever possible.
3. Proper PPE (contact and droplet precautions, including a fit-tested N95 mask) shall be donned prior to initiating resuscitation by all response team members, even if there is a perceived delay in resuscitation efforts.
4. Assume patient is COVID-19 positive, unless otherwise identified/known.
5. Routine practices, such as defibrillation and CPR, are otherwise unchanged from non COVID-19 patients.
6. Pre-planning for Code situations is essential and should be done as part of site preparations. Communication methods between clinicians involved in the room and those outside should be considered.

For Code Blue response outside of the ED/UCC, current paging/notification processes should be followed. Upon arrival to the code, team members should quickly clarify roles and which members will be working inside versus outside the room.

a. Ensure that PPE is readily available for responding team members. Since the availability of suitable PPE in sufficient quantities at the site of the arrest may not be guaranteed, the use of PPE pre-made kits should be considered, to travel with the response team or to be stored with code carts (where possible).

b. Full CPR is an aerosol generating medical procedure. Staff should adhere to contact and droplet precautions with a fit tested N95 mask before commencing.

c. Donning should be carried out quickly but meticulously, even if there is a perceived delay to resuscitation. If multiple individuals arrive at the same time, priority for donning and entering the room should be given to the Code Blue team leader and/or airway expert physician, and to the ICU/ED/UCC RN (assumes compressors are already in place with appropriate PPE).
Inside the room:
- Code cart with defibrillator and arrest drugs. If feasible and if sufficient clean carts are available on site, the code cart may be left just outside the patient's door and the defibrillator and medication drawer may be removed and passed into the patient's room.
- Intubation equipment:
  - Video laryngoscopy is highly recommended for the first attempt at intubation (where available).
  - Priority should be placed on intubation and obtaining a secure airway with closed ventilation, especially in an unresponsive patient.
  - If the patient has a supraglottic airway in situ, it should be changed to a cuffed endotracheal tube as soon as possible.
  - Manual resuscitation bag with a HEPA filter, capnography and inline suction placed between the mask/endotracheal tube and the bag.
- Suggested response team members:
  - Code Blue Team Leader
  - Airway expert physician (if available)
  - RRT to assist with intubation and ventilation (if available)
  - RN to administer medications, cardioversion/defibrillation and update code blue team leader regarding changes in cardiac rhythm
  - RN/LPN to do CPR (1) – Usually first responder
  - RN/LPN to do CPR (2)
  - RN for documentation and time-keeping

Outside the room:
- RN/LPN “runner”, to assist with supply of equipment and the activation of other HCWs, if required.

Modifications to ACLS in COVID-19 Patients:
- Intubate patients early and hold CPR during intubation to minimize aerosolization of particles and optimize intubation success.
- Manual BVM should be avoided if possible. If unsuccessful initial intubation, use two experienced practitioners to establish an intact seal, and minimize the risk of aerosolization.
- Avoid disconnections between the ETT and resuscitation bag. If disconnect is required due to gas trapping, the plan should be announced loudly in advance and the ETT should only be disconnected beyond the HEPA filter.

Post-Arrest:
- PPE Doffing: DO NOT RUSH. BE METHODICAL. Remove PPE slowly and carefully to avoid inadvertent contamination of yourself or others, performing hand hygiene in between each step while doffing.
- Team to decontaminate specialty equipment as per standard routines and IP&C guidelines.
- Discard any opened supplies or any that cannot be cleaned appropriately.

Charting Considerations:
- Computer code narrator may be utilized with existing computers within the room or immediately outside the resuscitation room.
- No portable computer devices should be brought into the room.
- All efforts to maintain a clean paper chart should be taken:
  - If any paper record is taken into the room it is deemed to be contaminated and shall be transcribed onto a new clean record
  - Crash cart rhythm strips that are contaminated should be placed in a biohazard bag and label as contaminated
  - Where possible, recorder should not participate in any patient care delivery during a resuscitation
  - Recorder shall attempt to maintain a distance of two meters from the patient
H. Laboratory Testing

1. Diagnostic studies:
   a. Nasopharyngeal Swab (NPS) or Throat Swab: Collect swabs as per
      https://www.albertahealthservices.ca/assets/wf/plab/wf-provlab-collection-of-
      nasopharyngeal-and-throat-swab.pdf and send sample to lab. For throat swabs
      collected using saline transport medium, refer to
      https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-saline-
      transport-medium-collection.pdf.
   b. Endotracheal Tube Aspirate (ETA)/Expectorated sputum: If ordered by
      Critical Care, collect ETA/sputum and place minimum 0.5-1 ml of secretions into
      sterile leak proof container. No additional transport medium is required. Mark
      sample as STAT. Order both COVID-19 and Respiratory Virus Panel for the
      same sample (only a single sample is required for all respiratory viral testing).
      Send sample to lab. NOTE: this collection is considered to be an AGMP.

2. The expected turn-around time for Provincial Laboratory reporting of the full respiratory
   virus panel including COVID-19 testing is <72 hours.

3. Only one swab +/- ETA/sputum sample needs to be collected for both routine respiratory
   panel testing and COVID-19 investigation.

I. Movement of Patient from ED/UCC

1. Contact receiving department prior to moving a critically ill patient.

2. All health care providers involved in transport must use appropriate isolation precautions.
   For intubated patients, staff involved in the transport should don N95 respirators with
   their PPE. Other AGMP should be held during transfer. In the absence of the above
   conditions, surgical masks should be worn.

3. Staff providing direct care during the transport should also don protective eye wear,
   masks, gown and gloves. Note: personal eye wear is not sufficient.

4. Hand hygiene should be performed before and after patient transport.

5. Wipe the handles of the bed before transport with disinfectant wipes. Where possible,
   designate one porter/assistant as ‘clean’ to open doors and touch elevator buttons.

6. Transport with minimum number of people necessary - registered nurse (RN), registered
   respiratory therapist (RRT), most responsible health practitioner (MRHP), and health
   care aide (HCA) as available and appropriate.

7. If patient intubated:
   a. Transport using an in-line filter, in-line suction catheter and heat moisture
      exchange filter (HMEF).
   b. Use of transport ventilators (with filtering systems) is preferred to minimize the
      need for hand bagging. If use of a transport ventilator is not possible, use a
      manual bagging unit (with PEEP valve).
   c. Where available, RRT will manage airway and oxygen requirements.
   d. Clean and disinfect transport ventilator after use and discard breathing circuit.

8. If patient not intubated:
   a. Transport with non-humidified (dry) oxygen supply – respiratory (where available)
      to identify the most appropriate oxygen delivery mask.
   b. Patients receiving oxygen by any type of nasal cannula should be given a
      procedure mask to wear.

9. Clean O2 cylinder(s) and transport stretcher with disinfectant wipes before returning to
   general circulation.
K. Staffing Considerations

The principle is to minimize the number of staff involved directly with the patient with suspected or confirmed COVID-19/ILI while providing quality patient care.

1. The nurse in charge is responsible to determine patient assignment and will coordinate care of all patients in the unit with the principle in mind that the total number of staff caring for a COVID-19/ILI patient should be kept to a minimum. If possible, cohort staff so that RNs, LPNs, and RRTs caring for COVID-19/ILI patients are not caring for non–COVID-19 patients. Geographical cohorting of COVID-19/ILI patients may assist with staff assignments if appropriate to facilitate.

2. All members of the healthcare team, inclusive of Physicians, NPs, RNs, LPNs, RRTs, allied health, and support staff will continue to perform their usual duties. They must review and adhere to all appropriate isolation precautions prior to entering rooms.

3. Staff (including those who are pregnant, immunocompromised, or have underlying medical conditions) do not need to be restricted from providing care to patients who are under investigation for COVID-19, or those who have probable or confirmed COVID-19/ILI, so long as the staff member is able to demonstrate proper use and fit of personal protective equipment, including donning and doffing, and can competently adhere to the IPC recommendations for COVID-19/ILI.

AHS Position Statement: Pregnant Healthcare Workers and COVID-19

AHS Position Statement: Healthcare Workers with Underlying Medical Conditions and Potential Risk Factors for Severe COVID-19 Disease

For students (medical or otherwise) working within an ED/UCC, please check with current site and educational institution guidelines for any restrictions to practice or exposures.

4. Individuals who are unable to competently adhere to the IPC recommendations for COVID-19 (e.g. skin condition that precludes proper hand hygiene practices; unable to wear N95 mask due to approved religious beliefs that do not allow the individual to shave) should not provide care to patients who are under investigation for COVID-19, or those who have probable or confirmed COVID-19/ILI. Staff who are unable to be “Fit Tested for N95 masks” should not care for COVID-19/ILI patients that are intubated or require any AGMP.

L. Handling Patient Care Items and Equipment

1. Use disposable patient equipment when possible.

2. Dedicate re-useable equipment for single-patient use only and until discharge.

3. If reusable equipment cannot be dedicated for a single patient use, clean and disinfect it between patients.

4. Additional precaution rooms should contain a dedicated linen bag; double bag only if leaking.

5. Do not share items that cannot be cleaned and disinfected.

6. Special handling of linen or waste is not required. General waste from patients on additional precautions is not biomedical waste.
M. Environmental Cleaning

1. Room surfaces and equipment cleaning/disinfection is required on a daily basis or more frequently if directed by IPC using AHS approved products and procedures.

2. AHS approved disinfection products are effective against COVID-19.

3. After discharge, transfer or discontinuation of contact and droplet precautions, clean room as per existing facility cleaning practices.

4. Replace privacy curtains if visibly soiled.

5. Additional precaution signs should not be removed until both patient’s personal hygiene and environmental cleaning have been completed.

Enhanced Environmental Cleaning during COVID-19
Appendix

INTUBATION CHECKLIST FOR RESPIRATORY DISTRESS

URGENT INTUBATION CHECKLIST

PREPARATION
☐ Is the patient stable enough to allow time for the pause?
☐ Are Goals of Care R1 or R2?
☐ Assign Roles ___ primary intubator ___ airway assistance ___ med RN ___ clean runner ___ backup intubator ___ c-spine
☐ Is everyone wearing full PPE correctly (goggles/face shield, N95 mask, gown, gloves)?
☐ Has communication with the clean runner been established?

PATIENT
☐ Predicted anatomical difficulties? (and mitigation strategies)
☐ Predicted physiological difficulties? (anticipate hypoxia, mitigation strategies)
☐ Patient position optimized
☐ Oxygenation maximized
☐ Monitor and record current vitals
☐ Who will read out O2 sats? (determine threshold for action)

DRUGS
☐ Functional vascular access
☐ Premedication required? (for acidosis, blood pressure)
☐ Intubation medications and doses (any contraindications?)
☐ Hemodynamic compromise plan
☐ Post-intubation medications
☐ Crash cart and I/O equipment located and ready

RESPIRATORY
☐ Bag, FILTER, PEEP valve, suction, oxygen sources, oral airway, bougie
☐ Laryngoscopes ready and operational (video laryngoscope, direct laryngoscopy)
☐ What sizes of blades and ETTs are prepared?
☐ End-tidal CO2 ready?
☐ Post intubation equipment ready (syringe, tube holder, ETT clamp, tape)?
☐ Difficult intubation cart located and on standby (including cricothyrotomy kit?)
☐ Surgical cric kit located (taped to wall)?
☐ Critical ventilation/oxygenation consideration
   - 2 person and 2 hand BVM ventilation with OPA only if oxygen saturation <70%
   - Ensure FILTER is between the mask/ETT and bagger
   - No bagging until ETT cuff is inflated
   - Clamp ETT before disconnecting from bagger or ventilator unless spontaneous resps

PLAN (please verbalize)
☐ PLAN A
☐ PLAN B
☐ When to call backup
☐ EMERGENCY PLAN

Department of Emergency Medicine, Edmonton Zone, Alberta Health Services (March 29, 2020 edition)