

LOM Standard Operating Procedure for Infectious Respiratory Patients: COVID-19

V12 Revised December 3, 2020

Purpose: To achieve application of operational infection control best practice recommendations by LifeFlight of Maine aviation and medical personnel in the care and transport of highly infectious disease (HID) patients. This document provides direction regarding transport of patients with suspected or confirmed influenza and/or COVID-19 infection based upon the most current recommendations by CDC, infectious control staff, and evidence brought forth in the current literature.

- Referral diagnosis to LifeFlight care may be in addition to known or unknown Patients Under Investigation (PUI) status
- Use of standard precautions is to be used routinely
- Presume all critically ill patients are potentially a PUI or Covid positive regardless of negative test status
- To optimize protection for us and our patients, be vigilant of each other to monitor and correct breaches of practice

Definition of a patient under investigation (PUI) can include

- Patients confirmed by PCR test, or for whom Covid-19 testing has been initiated
- Patients who have noted risk factors suspicious for Covid-19 infection which include
 - Bilateral infiltrates on CXR
 - Clinical presentation (signs and symptoms)
 - Supportive lab values

SYSTEM APPROACH TO SAFETY.

Managing the complexity of critically ill patients who have a concurrent HID is a daunting clinical challenge. Our goal is to layer intervention and protective measures to optimize patient care while keeping our providers safe in managing patients with a potential respiratory communicable illness.

A. Reduce exposure and contamination:

- Use biocontainment measures, Isoark, Isopod, Sea Long Non-Invasive Ventilation helmet, patient wraps, and patient masks to reduce aerosolized and fomite transmission.
- Limit exposure to least number of clinical providers including isolating the patient care area from cab or cockpit.

- The crew should attempt to determine which EMS and LOM equipment will be necessary and minimize exposure of all unnecessary equipment by storing anticipated item not to be needed in closed or external compartments.

B. Protect providers:

- Use designated PPE for all patients
- Standard work practices

C. Protect patients

- Updated unscheduled rider policy to accommodate for ID patients
 - Screening checklist to be completed
 - Surgical mask to be worn by unscheduled passengers provided by sending facility regardless of patient diagnosis or presence of symptoms

D. Protect care environment

- Decontaminate patient care areas as close to transfer of patient care as possible. If not at site of transfer remain in PPE and decontaminate at a hangar space.
- Use initial decon lamps (UVC as available) followed by wiping all surfaces with approved disinfectant following manufacturers dwell times

REDUCE EXPOSURE AND CONTAMINATION

Patient Identification

For patients for whom MedComm receives a direct request for transport of a patient with severe symptomatology or other critical illness or injury diagnosis, alert crews per standard procedure.

To assure early capture of potential COVID-19 presumed or confirmed patients, all requests for transport will be screened per standard Maine Emergency Medical Services (MEMS) dispatch criteria (i.e. U-21). Any critically ill patient and any patient with fever, cough/shortness of breath, pneumonia, severe respiratory compromise, cardiac complaint or gastrointestinal bleed should be presumed COVID-19 until proven otherwise.

Assure that alignment between referring and receiving clinicians as to PUI status has been achieved. If the call has been managed by a transfer center, staff should be able to provide you with this information.

Contact Medical Director if referring and receiving physicians are not in alignment for physician to physician consultation.

Notify Crew of potential Infectious Disease (ID) Patient as soon as possible. If the transport is going by ground asset, the EMS agency providing the ambulance should be informed as well.

In transport:

Limit team members interaction with patients to essential personnel

USE BIOCONTAINMENT MEASURES

Evaluate and use as necessary:

- Assure that a surgical mask is in place on patient with nose and mouth covered
 - Nasal Cannula (NC)
 - Oxyimizer, pendant or mustache
 - Non-rebreather mask (NRB)
- Sea-Long Non-Invasive Ventilation Helmet
- Isoarc/Isopod (for those patients with obvious leakage of body fluids)
- For intubated patients that are not able to be placed in the Isoarc, HEPA filters must be in the appropriate positions in the ventilation circuit

Protect Providers

Personal protective Equipment

1. Regardless of COVID status
 - a. **For ALL** patient encounters the medical crew shall wear as a minimum:
 - i. N95 mask (or ENVO mask equivalent to N95 protection with exhalation port covered)
 - ii. Goggles or personal safety glasses
 - iii. General standard precautions to include gown, gloves as needed
 - b. ALL patients are to be provided and wear a surgical mask
 - i. The mask will be placed over a supplemental oxygen device including NC, NRB or oxyimizer
 - ii. Transport of a HID patient on BiPAP or CPAP is discouraged. Providers will consider weaning to above supplemental oxygen devices or Sea-Long helmet if clinical condition warrants. This requires input of a Medical Director for transport.
2. Covid Positive or PUI for Covid-19
 - a. PPE to be worn

- i. N95 mask (ENVO mask equivalent to N95 protection, exhalation port must be covered, elastomeric ½ face mask)
 - ii. Goggles or personal safety glasses
 - iii. Gloves, double layered
 - iv. Tyvek suit or gown
 - v. Head covering – optional
 - vi. Shoe covering – optional
3. Be mindful that meticulous attention to donning and doffing of PPE is required to optimize your protection including use of hand sanitizer in between every change of PPE

Protect Patients

Unscheduled passenger policy for patients with suspected PUI Status

An unscheduled passenger will only be brought in an LFOM vehicle if:

- A patient is 18 years old or less
- Screening checklist has been completed
 - Surgical masks are worn by unscheduled passengers regardless of the patient diagnosis or presence of symptoms
 - Ask sending facility to provide the unscheduled passenger with a surgical mask
- Upon arrival, the crew deems it necessary to take an unscheduled passenger
- If it is necessary for law enforcement personnel to accompany patient

PROTECT CARE ENVIRONMENT

Post Transport Decontamination – requires FULL PPE to be worn during cleaning stage

1. Ground Vehicles and equipment per checklist
 - a. As per MEMS Bulletin #202-01-24-01U5: Novel Coronavirus (COVID-19) Pneumonia Update (March 18, 2020):
 - i. After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles for at least 30 minutes
 - ii. To contaminate to the ambulance, any visibly soiled surface must first be cleaned using EPA registered hospital disinfectant according to directions on the label

- iii. Disinfect all potentially contaminated surfaces (e.g., stretcher, rails, control panels, floors, walls, and work surfaces) with an EPA-registered hospital disinfectant according to directions on the label
 - iv. Medical equipment (stethoscope, BP Cuff, etc.) making patient contact should be disposable or cleaned and disinfected using appropriate disinfectants before use on another patient
 - b. Post Cleaning, 10 minute air venting time for drying. This cannot be shortened and must be completed prior to restocking the ambulance
- 2. Aircraft: decontamination to be completed in accordance with Global Medical Response procedure for Air and Ground Vehicle COVID-19 Decontamination: https://www.globalmedicalresponse.com/getdoc/508f7791-0614-4ba7-8b61-d72b5c701492/GMR-Air-and-Ground-Vehicle-COVID-19-Decon_3-19-20.aspx
 - a. Bleach spray cannot be used to clean the inside of any aircraft and wipes should be used
 - b. Only use isopropyl alcohol (70-95%) to clean aircraft windows and NVG glass
 - c. Procedures around the ventilation of the aircraft should mimic the recommendation put forward by Maine EMS in March 2020
 - i. After transporting the patient, leave the cabin doors of the aircraft open to allow for sufficient air changes to remove potentially infectious particles for at least 30 minutes
 - ii. Post cleaning, 10 minute air venting time for drying. This cannot be shortened and must be completed prior to restocking the aircraft
- 3. Decontamination solution: HB Quat or a bleach solution may be used for the back of the ambulance and stretcher. Use the wipes for equipment to preserve the supply
 - a. As per CDC recommendations: [link here](#)
 - b. Diluted household bleach solutions (at least 1000ppm sodium hypochlorite) can be used if appropriate for the surface. Follow manufacturer's instructions for application, ensuring recommended dwell times are achieved. Assess expiration date of product. Never mix household bleach with ammonia or any other cleanser. Unexpired bleach is effective against coronaviruses when properly diluted. Prepare a bleach solution by mixing:
 - i. 5 tablespoon (1/3rd cup) bleach per gallon of water or
 - ii. 4 teaspoons bleach per quart of water

Laundering of clothing: options for laundering clothing are available from each base. Contact the respective CBM for guidance. May launder clothing and patient wraps at hangar spaces that have washer/dryer.

- The turn around time for laundering may be several days, so plan additional uniform and clothing items in the interim. If you feel you need any additional uniform clothing supply your CBM.

We must all be committed to accessing credible health care information sites to remain aware of the most contemporary guidance and recommendations. We will provide updates and adjust recommendations based on new knowledge as soon as it is known and validated. We remain in constant contact with ME CDC, MEMS, and each of our parent Infectious Disease Control programs. We encourage all colleagues to avail themselves of resources available through the CDC and Maine EMS. The information as provided by Global Medical Response, at <https://www.globalmedicalresponse.com/coronavirus>, is particularly comprehensive and relevant to our practice and operations.

This is a rapidly evolving situation globally and new science and knowledge is being gained daily. This dynamic activity creates uncertainty, and it is normal that you, and your loved ones, have concerns and questions. If you or your loved ones have questions, concerns, comments, or if you simply wish to talk about any recommendations at greater depth, please let us know. The only problem questions are those that are not asked. Each of us is committed to remaining informed and available to each of you.

Sincerely,

Norm Dinerman, MD	Pete Tilney, DO	Amber Richards, MD	Kelly Klein, MD
Tom Judge, CEO	Chuck Hogan, DCO	Dave White, CBM	Carl Zenk, CBM