Coronavirus – COVID-19
Montana EMS Guidance for Patient Care, PPE, and Surface Cleaning

Novel coronavirus SARS-CoV-2 (which causes COVID-19 disease) continues to spread rapidly in Asia and cases are present in many other countries including a major outbreak in Italy. While not as severe as SARS, this is a novel virus that can cause severe disease, particularly in the elderly and those with underlying medical conditions. Guidance for patient care, PPE, and surface cleaning is the focus of this document. Coronavirus spreads mainly by the droplet route, but can spread via contact and aerosols (airborne small particles) as well. Routine diligent use of infection control precautions is the best defense against contracting COVID-19, influenza, and other viruses - including routine masking of patients with respiratory symptoms, hand hygiene, and selecting appropriate masks and other protection based on known or suspected disease.

Note: Do not use N95 masks unless the patient is a suspected COVID-19 case or for TB or other situations in which N95 are required. Simple surgical masks offer significant protection and in a randomized, crossover trial of healthcare providers working in emergency departments N95 offered no overall benefit over simple masks (Radonovich L et. al., JAMA Sept. 2, 2019). Also, N95 masks must be fit-checked every time they are used to assure maximal effectiveness.

A. Patient Care and Transport Principles

- Screen for risk – currently international or domestic travel to an affected state (https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html) in the last 2-3 weeks OR exposure to a known case (none currently in MT) AND fever or respiratory symptoms – 911 dispatch may ask callers with respiratory symptoms about travel or coronavirus exposure and advise responders of any positive information. Crews also ask the screening questions for ill patients.

If positive screen, do the following:

- Apply a simple surgical mask to the patient and have them perform hand hygiene
- Perform hand hygiene yourself, and repeat after any patient care activity
- Don PPE as below
- Involve the fewest EMS personnel required to minimize possible exposures.
- Family members and other contacts of COVID-19 patients should not ride in the ambulance if possible. If necessary, family members and other contacts should be asked to wear a simple surgical mask when riding in the vehicle.
- Open the outside air vents in the driver area or crack the windows in the driver compartment (may also crack the door window in the patient compartment) and turn on the rear exhaust fan to the highest setting. This will create a negative pressure gradient in the patient area.
- Respiratory interventions such as airway management, suctioning, or BiPAP can significantly increase provider risk of exposure and should be minimized when possible
- When COVID-19 is suspected provide as much advance notice to healthcare facilities as possible that you are transporting a patient who may have COVID-19 disease

B. Personal Protective Equipment
Personnel should follow CDC infection control guidance and use Standard, Contact, Droplet, and Airborne precautions, including the use of eye protection (e.g. goggles or a face shield). CDC guidance for Isolation Precautions at [https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html](https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html)

- Disposable isolation gown or coveralls (which may be preferred for vomiting/diarrhea)
- Disposable gloves
- Eye protection (i.e., goggles or face shield)
- Respiratory protection (i.e., N-95 or PAPR)

Personnel in the driver’s compartment who will have no direct patient contact should wear an N-95 respirator during transport of a suspect case.

Drivers who also provide direct patient care (e.g., moving patients on stretchers) should wear the recommended PPE during patient contact. Gowns and gloves should be removed and hand hygiene performed after completing patient care and before entering driver’s compartment to avoid contaminating the compartment.

- Avoid touching the face while wearing gloves
- Remove and discard PPE after transferring the patient at the receiving facility and perform hand hygiene. Treat used disposable PPE as normal medical waste.

C. Post-Transport Management of the Contaminated Vehicle

- Follow standard operating procedures for the containment and disposal of regulated medical waste.
- Follow standard operating procedures for linen. Wear appropriate PPE when removing soiled linen from the vehicle. Avoid shaking the linen.
- Leave the vehicle doors open as much as possible to increase air circulation during patient evaluation/loading/unloading/cleaning.
- Clean and disinfect the vehicle using standard operating procedures. Personnel performing the cleaning should wear a disposable gown and gloves during the clean-up process; the PPE should be discarded after use.
- All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered hospital disinfectant in accordance with manufacturer’s recommendation (e.g. Oxivir or other wipes).
- Clean and disinfect reusable patient-care equipment according to manufacturer’s instructions.

D. Follow-up of EMS Personnel

- EMS personnel should assure that the Duty Chief record all EMS staff involved in the call, the incident/run number, and also any first responder agencies with direct patient contact so that test results can be communicated.