


# Title: PHS – Protocol - EID – COVID-19

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## I. Purpose Statement

- a. Treatment protocol for personnel responding to any patient with potential for COVID-19, or alterations of standard procedures because of COVID-19

## II. Applies to

- a. All calls for service that have contact with a patient, whether or not treatment and/or transport is required.

## III. Who can perform under this protocol

### IV. Background Information

- a. Coronavirus disease 2019 (COVID-19) is a respiratory tract infection caused by a newly emergent coronavirus, that was first recognized in Wuhan, China, in December 2019. Genetic sequencing of the virus suggests that it is a betacoronavirus closely linked to the SARS virus.
- b. While most people with COVID-19 develop only mild or uncomplicated illness, approximately 14% develop severe disease that requires hospitalization and oxygen support, and 5% require admission to an intensive care unit. In severe cases, COVID-19 can be complicated by the acute respiratory distress syndrome (ARDS), sepsis and septic shock, multiorgan failure, including acute kidney injury and cardiac injury. Older age and co-morbid disease have been reported as risk factors for death, and recent multivariable analysis confirmed older age, higher Sequential Organ Failure Assessment (SOFA) score and d-dimer > 1 µg/L on admission were associated with higher mortality. This study also observed a median duration of viral RNA detection of 20.0 days (IQR 17.0–24.0) in survivors, but COVID-19 virus was detectable until death in non-survivors. The longest observed duration of viral shedding in survivors was 37 days (3, 4).
- c. The EMS Medical Director, along with the Ambulance Coordinator, Prehospital Services Manager, and Emergency Medicine Leadership will determine if the Ambulance Service or Helicopter Service must operate in a Crisis Standards of Care mode. If decided and subsequently ordered by the EMS Medical Director, the below modifications to usual standard of care will go into effect.
- d. The Director of Missouri Department of Health and Senior Services, Dr Randall W. Williams, MD, FACOG; on March 19<sup>th</sup> suspended 19 CSR 30-40.309(2)(B) and section 190.243.4, RSMo; which allows for 911 transport triage; and alternative transport for non-urgent requests.

## II. Crisis Standards of Care Level 1

- a. Infection control precautions
  - i. Limit contact to minimum number of providers possible at one time.
  - ii. Remain 6 feet away from patient or greater if at all possible.

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- iii. Equipment should be brought nearby, but can be left at the doorway of the patient's residence.
- iv. If at all possible, extract patient from residence prior to initiating care. This limits contamination to personnel and equipment.
- b. Any patient that is Low Risk for COVID-19
  - i. All responders should wear a simple face mask, eye protection, and gloves.
- c. Any patient with fever, respiratory infection symptoms, or at Medium/High Risk for COVID
  - i. Place simple face mask (i.e. surgical mask) on patient
  - ii. Primary care provider don PAPR/CAPR (if available) or N95 , gown, and gloves
  - iii. All other providers don N95 (or higher), eye protection, gloves, and gown.
  - iv. If N95 not available, don simple face mask.
  - v. Do not initiate care for any reason until appropriate PPE is donned.
- d. Treatment of Respiratory Infection Symptoms
  - i. Mild to Moderate Symptoms
    - 1. Albuterol via Metered Dose Inhaler (MDI). 1 puff every 30-60 seconds; 2-6 doses. Repeat as necessary.
  - ii. Severe Symptoms
    - 1. Albuterol via Metered Dose Inhaler (MDI). 1 puff every 30-60 seconds; 2-6 doses. Repeat as necessary.
    - 2. Epinephrine 0.3 mg/kg [1 mg/mL concentration] IM. Repeat every 3-5 minutes as necessary.
      - a. Pediatric Dose 0.01 mg/kg IM. Max dose 0.3 mg.
  - iii. Maintain SpO2 > 88%. Treat hypoxia with minimum intervention possible.
    - 1. Nasal Cannula up to 6L. Cover face and nose with simple mask
    - 2. Non-Rebreather Mask up to 15L. Place a simple mask on the patient, and then place the NRB over the simple mask
      - a. Alternatively, cover NRB exhalation ports.
  - iv. NIPPV may be utilized only if mask is non-vented and a filter is in-place, but use should be extremely limited.
  - v. If airway management is required:
    - 1. Extra-Glottic Airway (EGA) is primary airway management method.
    - 2. Intubation should occur only if EGA fails. Video laryngoscopy is preferred.
  - vi. Filters should be placed anytime Positive Pressure Ventilation is provided. Can be placed on exhalation port or at the mask/tube opening.
  - vii. Steroids are not recommended.
- e. Alteration to Standard Protocols
  - i. Cardiac Arrest
    - 1. In cardiac arrest, place a simple mask (i.e. surgical mask) on the patient. Apply NRB mask at 15L O2. If need for further airway intervention, place EGA. Place filter in-line or on exhalation port, depending on equipment.
      - a. Bag-mask-ventilation and intubation have high potential for aerosolization and should be avoided
- f. Transport
  - i. ALS interventions including bronchodilator therapy, Heart Rate > 120, RR > 24,

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temperature > 104°F (40°C), SpO2 < 93%.

1. EMS Transport
- ii. If none of the above:
  1. Consider Private Vehicle transport or Home Isolation.
  2. Collect COVID-19 Laboratory Testing specimens if available
  3. Provide COVID-19 Resource Information
    - a. Missouri Department of Public Health Hotline number.
    - b. COVID-19 screening centers if available.
    - c. Symptomatic Care recommendations
  4. Transport patient by ambulance if patient still requests transport and no other suitable transport method available.
    - a. Ambulance transport is preferred over Taxi or Rideshare as these vehicles are not equipped for transport of persons with highly infectious disease.
- g. MU Air Medical Services
  - i. Ensure that pilot is also properly donned with PPE per GMR Guidelines.
  - ii. For ventilator patients, filter circuit should be in use.
  - iii. Maintain in-line suction, if available.
  - iv. If any transport concerns, contact Online Medical Control or Medical Director.

### III. Crisis Standards of Care Level 2

- a. In addition to Level 1 above. Applies to any patient with fever, respiratory infection symptoms, or at Medium/High Risk for COVID.
  - i. Transport patient to appropriate facility if any of the below are present.
    1. Heart Rate > 120, RR > 24, temperature > 104°F (40°C), SpO2 < 93%.
    2. Any requirement for ALS interventions.
    3. Patient does not have capacity or capability to care for self at home
    4. Patient does not have access to a telephone.
  - ii. If none of the above are present, patient will not be transported by Ambulance, and will be recommended to isolate themselves at home.
    1. Provide COVID-19 Resource Information
      - a. Missouri Department of Public Health Hotline number.
      - b. COVID-19 screening centers if available.
      - c. Symptomatic Care recommendations
    2. Collect COVID-19 Laboratory Testing specimens if available

### IV. Crisis Standards of Care Level 3

- a. In addition to Level 2. Applies to all patients.
- b. If none of the below are present, the patient will not be transported by Ambulance, and will need to seek alternative transport for healthcare evaluation if so desired. Contact Medical Director or Online Medical Control for each patient.
  - i. Acute Stroke, STEMI, or Trauma
  - ii. Acute life or limb threatening condition
  - iii. Heart Rate > 120, RR > 24, or temperature > 104°F (40°C), SpO2 < 93%.

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- iv. Any patient requiring ALS Intervention
- V. Post-Transport Decontamination after any patient with fever, respiratory infection symptoms, or at Medium/High Risk for COVID
  - a. After transporting the patient, leave the doors of the transport vehicle open for at least 15 minutes to allow for sufficient air changes to remove potentially infectious particles.
  - b. Cleaning PPE includes disposable gown, gloves, simple mask, and eye protection.
  - c. All surfaces and equipment, including the stretcher, should be cleaned using hospital approved wipes.
  - d. Routine cleaning and disinfection procedures should be performed at the beginning of the shift using hospital supplied wipes for surfaces and mops for floors.
  - e. The 1700-1800 series Braun ambulances have mounted UV lights in the patient compartment to be used for decontamination, and the hospital system has a UV robot that can be used to flash ambulance or aircraft compartments.
  - f. Staff should bring a fresh uniform to work and utilize available showering facilities when needed.
  - g. All contaminated materials should be disposed of in appropriate biohazard receptacle.

## VI. Reference Documents or Attachments

- a. WHO COVID Management Recommendations
  - i. [https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected)
- b. CDC Guidance for EMS
  - i. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>
- c. Missouri DHSS Information
  - i. <https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/professionals.php>
- d. GMR Information
  - i. [Globalmedicalresponse.com/coronavirus](http://Globalmedicalresponse.com/coronavirus)