

Purpose:

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

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, multi-organ 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 (qSOFA) 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 agency Medical Director, along with the Ambulance Service Director or Chief of Ground Ambulance Service or Helicopter Service will determine if Ambulance Service must operate with Crisis Field Treatment Protocols. If decided and subsequently ordered by the EMS Medical Director, the below modifications to usual field treatment protocols will go into effect.
- d. The Director of Missouri Department of Health and Senior Services, Dr Randall W. Williams, MD, FACOG; on March 19th 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.

Crisis Field Treatment Protocols

Infection control precautions:

- a. Limit contact to minimum number of providers possible at one time.
- b. Remain 6 feet away from patient or greater if at all possible.
- c. Equipment should be brought nearby, but can be left at the doorway of the patient's residence.
- d. If at all possible, extract patient from residence prior to initiating care. This limits contamination to personnel and equipment.
- e. Any patient that is Low Risk for COVID-19
 - i. All responders should wear a simple face mask, eye protection, and gloves.
 - ii. Place simple face mask (i.e. surgical mask) on patient
- f. Any patient with fever, respiratory infection symptoms, or at Medium/High Risk for COVID
 - i. Primary care provider don PAPR/CAPR (if available) or N95 , gown, and gloves
 - ii. Place simple face mask (i.e. surgical mask) on patient
 - 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.

Crisis Field Treatment Protocols

Treatment of Respiratory Infection Symptoms:

1. Maintain SpO₂ > 88%. Treat hypoxia with minimum intervention possible.
 - a. Nasal Cannula up to 6L. Cover face and nose with simple mask
 - b. Non-Rebreather Mask up to 15L. Place a simple mask on the patient, and then place the NRB over the simple mask. Alternatively, cover NRB exhalation ports.
2. NIPPV may be utilized only if mask is non-vented and a filter is in-place, but use should be extremely limited.
3. If airway management is required:
 - a. Extra-Glottic Airway (EGA) is primary airway management method.
 - b. Intubation should occur only if EGA fails. Video laryngoscopy is preferred.
4. HEPA exhalation filters should be placed anytime Positive Pressure Ventilation is provided. Can be placed on exhalation port or at the mask/tube opening.
5. Steroids are not recommended. Avoid nebulizer therapy.

Alteration to Standard Protocols:

1. Cardiac Arrest

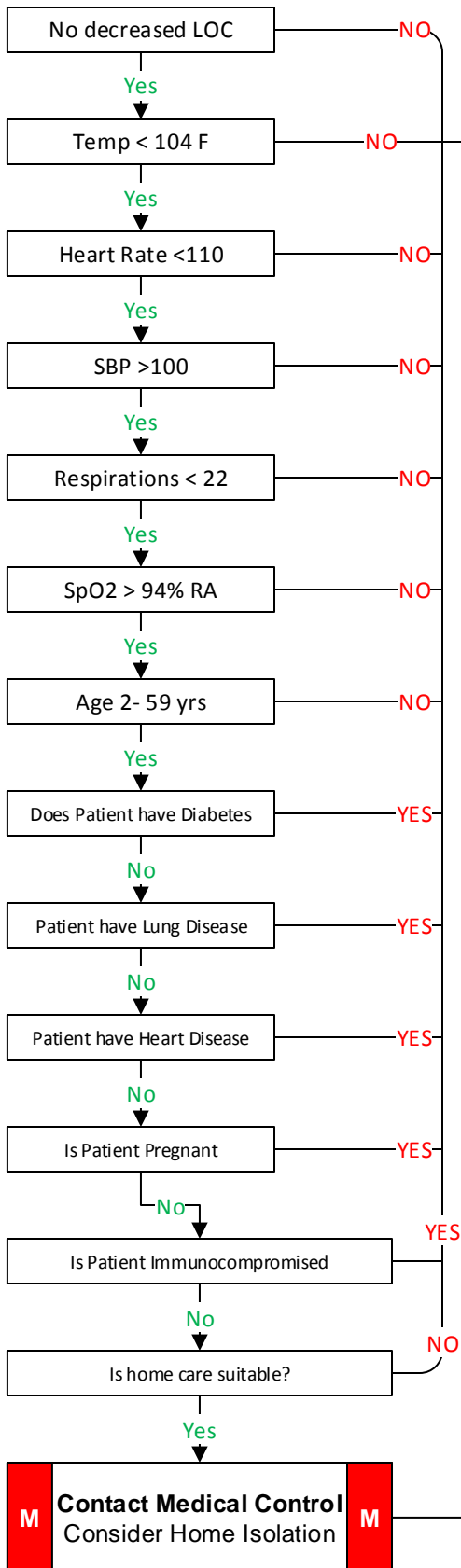
In cardiac arrest, place a simple mask (i.e. surgical mask) on the patient. Apply NRB mask at 15L O₂. If need for further airway intervention, place EGA. Place filter in-line or on exhalation port, depending on equipment.

- a. Bag-mask-ventilation and intubation have high potential for aerosol generation and should be avoided.

References:

1. <https://www.ems.gov/pdf/ASPR-EMS-Infectious-Disease-Playbook-June-2017.pdf>
2. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html> accessed 3-25-2020
3. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html> accessed 3-25-2020
4. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html> accessed 3-25-2020
5. <https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/pdf/ems-911-calls3-19-20.pdf> accessed 3-25-2020
6. <https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/professionals.php> accessed 3-25-2020
7. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management> accessed 3-25-2020

Transport Decision Tree



 **Transport using High Consequence Pathogen Protocol**

- Suitability Assessment for Home Care**
- Appropriate caregivers are available, if needed
 - The patient is competent and consents to non-transport
 - There is a separate bedroom where the patient can recover without sharing immediate space with others
 - Access to food, water, and other necessities
 - There are no household members at high risk of complications

- If Sending Home from Public Location**
- Place surgical mask on patient
 - Have patient transport themselves home while minimizing exposure to others
 - Discourage public transportation

- If Considering Not Transporting Patient**
- Place surgical mask on patient
 - Consider Private Vehicle transport or Home Isolation.
 - Consider collecting COVID-19 Laboratory Testing specimens if available
 - Provide COVID-19 Resource Information
 - Missouri Department of Public Health Hotline number: 24 hour hotline: [1-877-435-8411](tel:1-877-435-8411)
 - COVID-19 screening centers if available.
 - Symptomatic Care recommendations
 - LPHA Monitoring Toolkit if available
 - Transport patient by ambulance if patient still requests transport and no other suitable transport method available
 - Ambulance transport is preferred over Taxi or Rideshare as these vehicles are not equipped for transport of persons with highly infectious disease.
 - Consult with Medical Control about alternate destinations.