

COVID-19/Pandemic EMS Response and Treatment Guidelines

Overview

The COVID-19 pandemic is creating challenges not previously seen by the Mississippi EMS community. Relatively high patient volumes and high acuity levels across the country have led to a lack of normally available resources. The rapidly spreading virus has also thinned the ranks of qualified medical providers. The changes being caused by this pandemic will require changes in the manner in which EMS screens, responds to and manages patients.

These guidelines are intended to make the EMS work environment as safe as possible while still providing indicated medical care for all patient types. They will also assist EMS providers in the decision-making process regarding hospital destination selection and clinical decision-making under difficult conditions. These guidelines may be implemented by the local EMS medical director with approval of the MSDOH EMS Medical Director and, once implemented, will remain in effect until such time as federal and state authorities remove the emergency declaration related to the COVID-19 pandemic. The CDC website may offer additional helpful information: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>

These guidelines are intended to provide guidance to EMS administrators and medical directors in developing alternate standards of care for EMS services during the COVID 19 pandemic. They are intended for use only during a declared state of emergency during which time an EMS system or service is grossly overwhelmed. However, this is a dynamic situation during which patient volume and system demand may change frequently and there may be periods when providers are capable of functioning at a normal/pre-Covid level. Providers should adjust their approaches to patient care according to the demand level placed upon them at any given time. It is acceptable to shift between these guidelines and normal/pre-Covid operating guidelines as the situation evolves.

- I. Call screening
Each service should have in place a protocol for screening emergency and non-emergency requests for emergency medical services which is as specific as possible for identifying symptomatic cases of COVID-19.
- II. Safety and response
 - A. Ambulance personnel should utilize appropriate PPE on every response. Since the median incubation period of the COVID-19 virus is 5+ days, infected patients are capable of shedding the virus long before they become symptomatic. Therefore, there must be an assumption that all patients are capable of spreading the virus.
 - B. In cases where PPE is not available or not available in adequate volume, alternative means of patient isolation should be considered. Anything which can be used as a barrier between the patient and others may decrease the risk of viral contamination. Face-cloths, towels or any other semi-permeable cloth placed over the patient's mouth and nose may decrease the spread of droplets or aerosolized viral particles. However, non-permeable materials such as thin plastic sheets may be more effective. Any non-conventional material used as a barrier should be used with caution to avoid causing any unintended consequence. N95 masks and other PPE may be reused and cloth masks may be used when necessary.
 - C. A rotation schedule may be considered in cases where N95 masks and other PPE is in short

supply. One set would be used every 4th day as allowed by the number of devices available. The length of shelf time between uses would minimize risk of viral viability upon repeat use. Ref CDC website regarding PPE reuse (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html>).

- D. EMS agencies should consider agreements with local hospitals for access to PPE sterilization devices.

III. Patient assessment and management

Assessments and treatments should be performed in a manner to minimize the risk of spreading the virus.

A. Airway management and oxygen delivery

1. The airway should be managed in a manner which is least likely to produce airborne viral particles.
2. Bag-valve-mask ventilation in the patient compartment is discouraged and should be done only when essential to maintain adequate ventilation and for the least amount of time possible. When possible, this procedure should be done prior to placing the patient in the patient compartment and should be replaced with a more acceptable form of airway management (supraglottic airway or ET tube). If, during transport, bag-valve-mask use becomes unexpectedly necessary, when possible, the vehicle should be stopped in an area free of pedestrians, the rear doors should be opened, and the HVAC system activated. When available, HME-F filter use should be considered.
3. Supplemental oxygen should be administered only when necessary (SpO₂ < 93) and then only at the minimal level necessary to maintain SpO₂ at or above 93%. If a nasal cannula is utilized it should be covered with a face mask.
4. Oxygen masks should be used only when a nasal cannula proves inadequate and a patient is likely to deteriorate otherwise and then only at a flow rate necessary to maintain minimal SpO₂ of 93%.
5. When available, metered dose inhalers should be used in place of aerosolized bronchodilator treatments. An MDI dose of four puffs is roughly equivalent to the volume of medication delivered with a typical albuterol aerosol treatment.
6. If metered dose inhalers are not available, aerosolized bronchodilators should be used only when required to maintain SpO₂ of 93% or greater and only in a large, well ventilated room or outside any structure.
7. Aerosolized bronchodilators should not be utilized in the ambulance patient compartment unless used with a HEPA type exhaust filter. If needed this treatment should be done prior to placing the patient in the patient compartment of the ambulance. If required during transport the vehicle should be stopped and the doors opened when possible.
8. Nasopharyngeal airways should not be utilized.
9. Suctioning of the oropharynx should be done only when essential to maintain a patent airway and preferably only in a large, well ventilated room or outside any structure.
10. For patients who require a definitive airway to maintain adequate respiratory status, the use of a supraglottic airway should be considered. If endotracheal intubation becomes necessary, video laryngoscopy is preferred. The patients face/head should be covered with a non-permeable plastic sheet (or similar). Endotracheal intubation should be performed only when essential to maintain an airway in a patient who is

otherwise viable.

11. Conventional intubation should be considered only if the paramedic has full PPE in place and the procedure can be performed in a large, well ventilated room or outside any structure or if a paramedic has a self-contained breathing apparatus.

In ambulances with a door between the cab and patient compartment, the door should remain closed and be made as air tight as possible.

The patient compartment exhaust fan should remain on during all patient transports and should remain on (when possible) until the patient compartment has been decontaminated.

B. Cardiac arrest and peri-arrest patients

1. Cardiac arrest patients should be treated only when the arrest was witnessed by a member of the EMS team or if CPR is in progress at the time of EMS arrival. Unless ROSC is achieved, a patient should not be transported. All other patients found in a pulseless state should be pronounced at the scene. All decisions should be made in consultation with medical direction.
2. Cardiac arrest patients for whom resuscitation appears appropriate should be subject to no less than 20 minutes of aggressive resuscitation efforts. If the patient remains pulseless at that time, efforts should be ceased and the patient pronounced dead. Consider contacting medical control if there is disagreement from the family or any other situational conflict.
3. Peri-arrest patients should be managed aggressively and stabilized as much as possible prior to being placed in the patient compartment.

IV. Treat and release/paramedic initiated refusals

In cases where all-patient call volume rises to an overload status during which it is not feasible to transport low-acuity patients the following policy should be implemented:

- A. A paramedic must assess each patient and perform a complete assessment to include
 1. Chief complaint
 2. History of present illness
 3. Vital signs (to include temp and SpO2)
 4. Medications
 5. Past medical history
 6. Physical exam (to include breath sounds, peripheral pulses, etc.)
- B. The paramedic will contact medical control and the medical control physician must agree to the refusal.
- C. In cases of gross system overload where medical control physicians may be unavailable due to other needs, paramedic initiated refusal may be completed without physician contact. If this occurs, the paramedic will consult with his/her immediate supervisor prior to initiation and each case should be reviewed through the PI process within 24 hours of occurrence and corrective action taken when indicated.
- D. Each service should have in place a written counselling form to leave with the patient in cases of paramedic initiated refusal. This form may also be utilized in cases where a patient initiates refusal during a pandemic event. This form should contain at least the following information:
 1. Date and time of the encounter
 2. Patient name and age

3. Options offered for medical follow up if needed (call regular physician, call urgent care clinic, utilize taxi for transport, call back if symptoms get worse, etc.)

V. Selecting a hospital destination

- A. Patients should be transported to the nearest appropriate hospital.
 1. The “nearest appropriate hospital” may change as patient volumes increase/decrease. Utilize professional judgement when determining patient destination.
- B. All systems of care guidelines will continue to apply for specialty patient types
- C. If doubt or conflict exists, consider contacting medical control for resolution.

VI. Minimizing delivery time

- A. Hospitals should make every effort to move patients from ambulance cots promptly upon patient arrival.
- B. Wait times of greater than 15 minutes will generally be considered excessive.
- C. Facilities accepting interfacility transfers should have a bed or holding area available at the time the patient is accepted to avoid undue delays in patient acceptance upon arrival.

VII. Alternative staffing

- A. During the period when the COVID-19/pandemic system of care has been activated the following alternative staffing practices may be allowed:
1. Non-certified drivers may be utilized
 - a. In the event that an ambulance service is unable to staff vehicles with normally certified EMS drivers due to COVID-19/pandemic impact, non-Certified drivers may be utilized. Such drivers should receive a brief orientation regarding expectations and responsibilities prior to implementation.
 2. EMTs may serve as primary care givers.
 3. Paramedics may practice for limited periods of time in hospital emergency departments.
 4. ED and critical care RNs with appropriate training may serve as primary care givers during prehospital and interfacility transports.
 5. Medical personnel from the Mississippi National Guard may be utilized in roles for which they are qualified (Driver, EMT, paramedic).
 6. EMS personnel (certified drivers, EMTs and paramedics) may function at any location within the State of Mississippi regardless of limitations stated on jurisdictional medical control agreements.