COVID-19: Considerations, Strategies, and Resources for Emergency Medical Services Crisis Standards of Care

Product (EMS14) Purpose
In response to the COVID-19 pandemic, emergency medical services (EMS) agencies (including fire service, third government service, hospital-based, private for-profit, and private non-profit services) may need to adjust operations and standards of care in order to preserve and effectively allocate limited EMS and healthcare system resources in the face of overwhelming demand due to the national pandemic response. This document provides an overview of general considerations, potential strategies, and existing resources that EMS agencies may use to inform changes to their operations and standards of care. Sample documents are provided for illustrative purposes only and should be modified to locally adopted protocols as necessary.

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Developed By
The Federal Healthcare Resilience Task Force (HRTF) is leading the development of a comprehensive strategy for the U.S. healthcare system to facilitate resiliency and responsiveness to the threats posed by COVID-19. The Task Force’s EMS/Pre-Hospital Team is comprised of public and private-sector Emergency Medical Service (EMS) and 911 experts from a wide variety of agencies and focuses on responding to the needs of the pre-hospital community. This Team is composed of subject matter experts from NHTSA Office of EMS, CDC, FEMA, USFA, US Army, USCG, and non-federal partners representing stakeholder groups and areas of expertise. Through collaboration with experts in related fields, the team develops practical resources for field providers, supervisors, administrators, medical directors and associations to better respond to the COVID-19 pandemic.

Intended Audience
State, Local, Tribal, and Territorial Governments (SLTTs) EMS and 911 agencies.

Expected Distribution Mechanism
EMS.gov webpage, 911.gov webpage, EMS/911 GOVdelivery, USFA webpage, USFA GOVdelivery and USFA social media, Stakeholder Calls, EMS stakeholder organization’s membership distribution, email mechanisms.

Primary Point of Contact
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Date Published
April 25, 2020
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Document Developed by the Healthcare Resilience Task Force
Emergency Medical Services (EMS) Prehospital Team
Overview

In response to the COVID-19 pandemic, emergency medical services (EMS) agencies (EMS delivery models including but not limited to; free standing, third-service; fire-based, hospital-based, private, independent, volunteer, and related emergency medical service providers) may need to adjust operations and standards of care in order to preserve and effectively allocate limited EMS and healthcare system resources in the face of overwhelming demand due to the national pandemic response. This document provides an overview of general considerations, potential strategies, and existing resources that EMS agencies may use to inform changes to their operations and standards of care. Sample documents are provided for illustrative purposes only and should be modified to locally adopted protocols as necessary.

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General Considerations

Continuum of Care, Indicators, and Triggers

- Changes to standards of care should take place along a continuum of levels of care:
  - Conventional: normal level of healthcare resources
  - Contingency: demand for healthcare resources begins to exceed supply
  - Crisis: resources are exceeded by demand or depleted; functionally equivalent care is no longer possible to address all requirements
- Advanced planning for alterations in response procedures and in the allocation of resources will be required at the contingency level of care, with the primary goal of avoiding a transition into the crisis level of care.
- EMS agencies should clearly identify indicators that will signal a shift in the level of care that is able to be provided and that will trigger changes to standards of care. Triggers should be established in conjunction with local and state EMS and public health agencies.
- The level of care that can be delivered may be dynamic and shift rapidly. Standards of care should be adjusted up or down to match the circumstances (resource availability vs. demand) at a given time, consistent with pre-identified indicators and triggers.
Legal

- National and state emergency declarations were issued to carry out activities under the nationwide emergency and for COVID-19 may provide EMS agencies additional flexibility and liability protections, including the waiver and/or suspension of certain state laws and regulations governing EMS.
- EMS agencies should nonetheless ensure that any changes to their operations and standards of care comply with the EMS laws and regulations in their respective jurisdictions.
- EMS agencies should also coordinate operational adjustments with relevant state, regional, and local EMS authorities—including relevant medical direction.
- Civil rights norms and laws are not suspended in the disaster context. Federal civil rights laws and regulations apply, and have not been suspended or waived, during the COVID-19 national health emergency.
  - Changes to standards of care, including denials of care, must be made after nondiscriminatory consideration of each situation, free from stereotypes and biases based on disability or age—including generalizations and judgments about the quality of life, or relative value to society.
  - If particular groups receive favorable treatment, this priority should stem from relevant factors (e.g., greatest likelihood of survival) and/or promote important community goals (e.g. achieving the best outcomes for the largest number).
- There is never a justification for careless decision making or willful misconduct, especially in the setting of a disaster response, when patients are at their most vulnerable.

Ethical

- Standards of care at all levels of care should adhere to core ethical principles, including fairness, duty to care, duty to steward resources, transparency in decision-making, consistency, proportionality, and accountability.
- When resource scarcity reaches crisis levels, clinicians are ethically justified to use available resources to sustain life and well-being to the greatest extent possible for the greatest number possible.
- EMS medical directors should synthesize relevant ethical considerations into clear guidance for EMS agencies and clinicians on resource allocation and clinical decision-making in the context of crisis standards of care.

Communications

- Changes to standards of care should be communicated to the public in a proactive, honest, transparent, and accountable manner.
- EMS clinicians should also be provided clear guidance by their medical director on:
  - Relevant changes to EMS laws, regulations, policies, and procedures; including changes in legal protections for providers.
  - How to apply changes to standards of care in an informed and consistent manner, in order to ensure that decisions are reasonable under the circumstances.
# Sample Continuum of Care

<table>
<thead>
<tr>
<th>Call-Taking &amp; Dispatch</th>
<th>Conventional</th>
<th>Contingency</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider initial auto-answer during times of high call volume for the purpose of filtering high-acuity calls.</td>
<td>Prioritize calls according to potential threat to life; “pend” apparently non-life-threatening calls (note this requires a medically trained dispatcher).</td>
<td>Decline response to calls without evident potential threat to life (also requires a medically trained dispatcher).</td>
<td></td>
</tr>
<tr>
<td>Modify resource assignments (e.g., only fire/rescue dispatched to motor vehicle crashes unless EMS are clearly required, single-agency EMS responses if fire agencies are overtaxed).</td>
<td>Modify resource assignments to a greater extent.</td>
<td>Request EMS units from emergency management (if possible).</td>
<td></td>
</tr>
<tr>
<td>Seek mutual-aid assistance from surrounding areas.</td>
<td>Change EMS assignments to closest available unit rather than advanced life support (ALS)/basic life support (BLS).</td>
<td>Utilize scheduled BLS providers to answer emergency calls.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consider staffing configuration changes (e.g., from two paramedics to one paramedic plus one emergency medical technician [EMT]).</td>
<td>Change staffing to one medical provider, one driver.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Further modify resource assignments as possible.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response &amp; Operations</th>
<th>Conventional</th>
<th>Contingency</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Utilize scheduled BLS providers to answer emergency calls.</td>
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<td></td>
<td>Change staffing to one medical provider, one driver.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Further modify resource assignments as possible.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attempt no resuscitation of cardiac arrests (except ventricular fibrillation [VF] witnessed by EMS).</td>
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<tr>
<td></td>
<td></td>
<td>Consider use of National Guard ambulances or other first responder assets (SAR teams, etc.).</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment &amp; Transport</th>
<th>Conventional</th>
<th>Contingency</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow patients with very minor injuries to use their own transportation.</td>
<td>Encourage patients with minor injury/illness to use their own transportation to appropriate facilities.</td>
<td>Assess patients and decline to transport those without significant injury/illness (according to guidance from EMS medical director).</td>
<td></td>
</tr>
<tr>
<td>Transport patients to the closest appropriate facility (rather than the facility of the patient’s choice).</td>
<td>Consider batched transports—answer subsequent call(s) before transporting stable patients to the hospital.</td>
<td>Decline transports as above; employ batch transports as needed.</td>
<td></td>
</tr>
</tbody>
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<thead>
<tr>
<th>Contingency</th>
<th>Crisis</th>
<th>Return to Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surveillance Data</strong></td>
<td><strong>Indicators</strong></td>
<td>Increased patient encounters by EMS</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Increased emergency department and/or hospital census</td>
</tr>
<tr>
<td></td>
<td><strong>Triggers</strong></td>
<td>Significantly elevated number of dispatch requests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significantly increased patient care encounters with similar signs and symptoms or high patient acuity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significantly increased data registry entries from state or regional electronic prehospital patient care record systems</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Multiple hospitals closed to EMS</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Mutual aid partners not able to answer calls involving potential life threats</td>
</tr>
<tr>
<td><strong>Community and Communications Infrastructure</strong></td>
<td><strong>Indicators</strong></td>
<td>Compromised public safety communications systems</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Increased calls or ambulatory presentation of patients to EMS agencies seeking medical advice or treatment</td>
</tr>
<tr>
<td></td>
<td><strong>Triggers</strong></td>
<td>&gt;20% increase in emergency medical dispatch or medical advice hotlines</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Emergency medical dispatch overwhelmed by call volumes and unable to answer all calls</td>
</tr>
<tr>
<td></td>
<td><strong>Indicators</strong></td>
<td>Operational or structural collapse of the communication centers</td>
</tr>
<tr>
<td></td>
<td><strong>Triggers</strong></td>
<td>Inability of high-acuity patients to access the emergency response system</td>
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<th>Contingency</th>
<th>Crisis</th>
<th>Return to Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicators</td>
<td>Patient tracking mechanisms and systems are overwhelmed</td>
<td>Triggers Number of requests to emergency medical dispatch and for EMS are returning to baseline levels</td>
</tr>
<tr>
<td>Members of the EMD and EMS workforce within the at-risk population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of the EMD and EMS workforce unable to report for duty due to illness, injury, or physical entrapment in residences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of 10% or more of the workforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicators</td>
<td>Overwhelming number of patients with insufficient staff to meet the demand for triage, treatment, and transport</td>
<td>Indicators</td>
</tr>
<tr>
<td>Significant portion of the emergency medical dispatch and EMS workforce is sustaining illness or physical fatigue due to extended work shifts and incident stress</td>
<td></td>
<td>Return to normal shift level and staffing</td>
</tr>
<tr>
<td>Significant number of the EMD and EMS workforce are affected and are unavailable to respond</td>
<td>Triggers</td>
<td>The number of emergency medical dispatch and EMS personnel reporting for duty is starting to stabilize</td>
</tr>
<tr>
<td>EMS and medical personnel are becoming victims of criminal activity by individuals seeking medications, medical supplies, vaccinations, and expedited treatment or transport</td>
<td>Recovery of EMS personnel from illness</td>
<td></td>
</tr>
<tr>
<td>Triggers</td>
<td>Unable to maintain staffing for EMS units</td>
<td></td>
</tr>
<tr>
<td>Staff overwhelmed by number of patients who need care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual aid staffing resources have been exhausted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
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<tr>
<th>Supplies</th>
<th>Contingency</th>
<th>Crisis</th>
<th>Return to Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicators</strong></td>
<td>EMS agencies report increased use of PPE, medical supplies, medications, or airway management equipment</td>
<td>Manufacturers of PPE, medical supplies, vaccines, medications, or ventilators report decreased stock available</td>
<td>Manufacturers of PPE, medical supplies, vaccines, medications, or ventilators report insufficient or depleted stock</td>
</tr>
<tr>
<td><strong>Triggers</strong></td>
<td>Available PPE is less than what is needed for the EMS workforce</td>
<td>Use of medical supplies, medications, vaccines, and antidotes begins to exceed their replacement</td>
<td>Manufacturers of disaster supplies and recovery equipment report factory closures and/or halted production due to loss of workforce</td>
</tr>
<tr>
<td><strong>Indicators</strong></td>
<td>EMS reports inadequate or depleted supply of PPE, medical supplies, medications, or airway management equipment</td>
<td>Manufacturers of PPE, medical supplies, vaccines, medications, or ventilators report insufficient or depleted stock</td>
<td>Manufacturers of disaster supplies and recovery equipment report improving product availability</td>
</tr>
<tr>
<td><strong>Triggers</strong></td>
<td>PPE is no longer available</td>
<td>Vaccinations, medications, or antidotes are depleted to the point that equivalent treatment cannot be provided</td>
<td>Incident command is receiving reduced requests for additional PPE and medical supplies from EMS personnel</td>
</tr>
<tr>
<td><strong>Indicators</strong></td>
<td>Demand for PPE for EMS personnel is subsiding</td>
<td>Demand for medical supplies or airway management equipment is reduced</td>
<td>Emergency departments, emergency care facilities, and hospitals have reduced requests for medications, antidotes, vaccinations, and ventilators</td>
</tr>
<tr>
<td><strong>Indicators</strong></td>
<td>Manufacturers of PPE, medical supplies, medications, or ventilators report insufficient or depleted stock</td>
<td>Manufactures of disaster supplies and recovery equipment report a return to production</td>
<td>Manufacturers of disaster supplies and recovery equipment report a return to production</td>
</tr>
</tbody>
</table>

Adapted from Institute of Medicine (2013). [Crisis Standards for Care: A Toolkit for Indicators and Triggers (Emergency Medical Services)](https://www.iom.edu/).
### Community Release: MedStar EMS System Modifying Patient Referral Procedures

*Move aims to navigate patients to the most appropriate resources for their medical care*

EMS agencies within the Metropolitan Area EMS Authority (MedStar) system are modifying on-scene procedures for patients assessed with **low-acuity** medical complaints who are identified as potentially COVID-19 related.

Patients will receive a screening assessment on scene by EMS personnel. If the patient has signs and symptoms that are consistent with COVID-19, but does not have any priority conditions, or significant risk factors, the patient will be informed that they are in a low risk category, and therefore will most likely will not be tested or receive additional emergency medical treatment at the Emergency Department based on their current symptoms and condition.

The EMS personnel will recommend that the patient **not** go to the ED for evaluation.

The patient will be instructed to contact their primary care provider or other telehealth resource and will be provided with information on home care and self-monitoring instructions, including contact information for the county public health agency, or other resources for further evaluation.

These modifications are being implemented for the following reasons:

1. To ensure patients receive the **proper care**, in the **most appropriate setting**
2. To reduce the risk of patients being exposed to contagious illnesses
3. To help ensure essential hospital services are available for critical patients

Adapted from Metropolitan Area EMS Authority (MedStar) (2020).

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Call-Taking & Dispatch

- As care is stratified during the COVID-19 response, more front-end triage of patient complaints should be performed to limit the burden on healthcare resources.
- A central dispatch or call center may activate medically approved dispatch protocols and prearrival instructions designed to alleviate the burden on EMS response capabilities that are being overwhelmed.

Potential Strategies

**Call-Taking**

- Caller Screening
  - Add specific caller queries for COVID-19 like symptoms (i.e., fever, cough, shortness of breath, etc.). [CDC COVID19 Symptoms](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-test/symptoms.html)
- Call Triage
  - Identify patients who don’t require an ambulance response when ambulance resources are depleted by overwhelming system demand.
- Referral to Non-Emergency Resources
  - Determine which specific call types can be transferred to a secondary triage center (e.g., nurse triage, aligned telehealth resources or advice line).
- Auto-Answer with Pre-Recorded Message
  - Use pre-recorded messages to filter calls that require direct contact with a call-taker and refer callers with a non-acute illness to non-emergency resources.

**Dispatch**

- Prioritized Dispatch
  - Prioritize calls according to potential threat to life.
  - Delay apparently non-life-threatening calls until resources are available and communicate the delay to the caller.
- Dispatch of Non-Emergency or Non-Ambulance Vehicles
  - Dispatch non-emergency transport vehicles for low-acuity patients.
  - Dispatch non-ambulance vehicles (e.g., passenger vans, Uber/Lyft).
- Callback System
  - Utilize a call-back system when emergency response will be delayed.
- Non-Dispatch
  - Decline response to calls without evident or potential threat to life.
  - Refer callers to non-emergency resources.
Sample Call COVID-19 Screening Questions

COVID-19 like Symptoms
1. Does the caller have any of the following symptoms?
   o Fever
   o Cough
   o Shortness of Breath

COVID-19 Test Status
2. Has the caller tested positive for COVID-19?
3. Has the caller been tested for COVID-19 but not yet received a result?

• It may be necessary to modify the provision of prehospital emergency medical care during the COVID-19 response.
• Fundamental changes in prehospital operations may be required, including changes to scope of practice, response models, and staffing for ambulances.

Potential Strategies

Response

• Modified Resource Assignments
  o Reduce multi-unit responses unless clearly required.
  o Assign units irrespective of level of care (ALS, BLS, EMR).
  o Adopt timely care over appropriate level of care for highest levels of triage when transport resources are severely limited.

• Modified Staffing Configurations
  o Staff ambulances with the trained personnel that are available, irrespective of certification level (ALS, BLS, EMR).

Operations

• Modified Licensure/Re-Licensure Requirements (e.g., staffing and equipment)
  o Deploy ambulances irrespective of level of care and required equipment.
  o Permit delivery of certain treatments by lower levels of care (e.g. supraglottic placement).

• Use of Non-EMS Support Personnel
  o Permit non-EMS and non-EVOC personnel to drive ambulances.

• Optimization of Personal Protective Equipment
  o Consider extended use and limited re-use of PPE consistent with CDC guidance.
Treatment & Transport

- EMS provider practice should be based on updated COVID-19 clinical recommendations and treatment protocols/information from appropriate public health authorities and EMS medical direction.
- During the COVID-19 response, healthcare facilities may become overwhelmed with patients, making it necessary to consider alternative options for disposition of patients who would be otherwise transported to the hospital under normal circumstances.
- The Centers for Medicare & Medicaid Services (CMS) has temporarily expanded the list of allowable destinations for ambulance transports for the duration of the COVID-19 public health emergency. More information can be found in the CMS Fact Sheet on Ambulances: CMS Flexibilities to Fight COVID-19.
- The status of local hospitals and alternative care site facilities should be communicated and updated continuously, in order to inform transport destination decisions. In rapidly evolving scenarios, local, state and regional access to care sites is likely to be dynamic and frequently changing.

Potential Strategies

Treatment

- Modified Treatment Protocols
  - Aerosolizing Procedures
  - Invasive Procedures
  - Resuscitation
  - Termination of Care
  - Treatment in Place (Treat & Release)
Transport

- Batched Transport
  - Respond to multiple calls prior to transporting several low-acuity patients at one time.

- Transport by Alternate Means
  - Encourage low-acuity patients to use their own transportation or commercial transportation (Uber/Lyft, etc.) to a hospital or alternative care site.
  - Transport low-acuity patients using non-transport vehicles (e.g. chase cars).

- Transport to Alternative Destinations
  - Transport patients to pre-identified alternative care site destinations. Consider load balancing to prevent overloading any particular destination.

- Non-Transport
  - Decline to transport patients without significant injury/illness.
Sample Maryland COVID-19 Triage Protocol

Maryland Institute of EMS Services (2020). [Viral Syndrome Pandemic Triage Protocol](#).

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Document Developed by the Healthcare Resilience Task Force

Emergency Medical Services (EMS) Prehospital Team
Clinical Treatment for Patient with Suspected COVID-19 Crisis Standards of Care

**Purpose:** To reduce the increased risk associated with the performance of treatments and procedures on patients who screen positive for risk of COVID-19 infection.

I. Applicable patients

Request for EMS should be screened for risks of COVID-19. **Refer to Emergency Protocols 8-37 & 8-39**

a. Each EMS provider should exercise due caution when responding to all emergency calls and assure that each patient is thoroughly vetted through a screening process for risk of COVID-19 infection, based on community spread. A patient reporting any of the following symptoms will be considered at risk for COVID-19 infection.

i. Symptoms include:

1. Fever:
   a. Pediatrics: low grade
   b. Adults: low grade
   c. Elderly (> 65) May not present with a fever

2. Difficulty breathing
   a. Shortness of breath
   b. Chest tightness/chest pain

3. Nausea/Vomiting

II. Treatment

a. Follow **General Prehospital Care Protocol** with the following exceptions, listed below.

ii. For patients identified as at risk for COVID-19 infection, whenever possible, avoid performing aerosolizing procedures, even when clinically indicated. Aerosolizing procedures include:

1. Non-rebreather mask
2. CPAP/BiPAP
3. Assisted ventilations
4. ET intubation
5. Nebulized medication
6. Suction

iii. Alternative treatments that present a low risk of producing aerosolized droplets should be utilized to mitigate the risks to EMS providers associated with the performance of these procedures.
1. At most, use a nasal cannula to deliver oxygen. Place a surgical mask over the patients nose, mouth and nasal cannula.

iv. In cases where alternative treatments are ineffective, or cannot be avoided, EMS providers should attempt to isolate themselves from the increased production of aerosolized droplets associated with these procedures. Risk mitigation strategies include:
   1. EMS providers should wear a N-95 or greater mask.
   2. When performing assisted ventilations, use a BVM with a HEPA filter.
      a. If a BVM with a HEPA filter is not available, attempt to contain the exhausted air from the BVM by another means.
      b. Whenever possible, while performing rescue breathing, avoid hyperventilation.

v. For patients who have a risk of COVID-19 and present in cardiac arrest follow the Cardiac Arrest General Protocol 5-1 with the following modifications:
   1. Administer a nasal cannula to deliver oxygen. Place a surgical mask over the patients nose, mouth and nasal cannula.
   2. Avoid performing rescue breaths, as well as ET intubation.
   3. If the airway must be secured, utilize a supraglottic airway device. Refer to Emergency Airway Protocol, 7-9.

4. CAUTION: Do not allow oxygen to flow across the defibrillator’s adhesive pads during defibrillation.

5. Patients in continuous cardiac arrest WILL NOT BE TRANSPORTED, regardless of mechanical CPR device. Resuscitation will either be terminated on scene or ROSC sustained (continued palpable pulse and systolic BP ≥60 mmHg for >5 minutes) BEFORE moving the patient to the patient compartment of a vehicle.

6. For witnessed arrests inside the patient care compartment:
   a. Pull vehicle to the side of the road and perform resuscitation in full PPE, with doors OPEN.
   b. If patient has mechanical CPR device in place and has lost ROSC, the device may be resumed with continued transport to the hospital, as long as all personnel in the patient compartment have sufficient respiratory PPE in place.
Federal Healthcare Resilience Task Force
EMS/Prehospital Team

III. Transport

a. Interventions should be performed PRIOR to loading into or closing patient compartment of the ambulance.
b. Only one provider will remain with patient for transport, if possible.

Oakland County Medical Control Authority (2020). Clinical Treatment for Patient with Suspected COVID-19 Crisis Standards of Care.
Sample Texas COVID-19 Alternative Disposition Protocol

**Purpose:** The purpose of this directive is to provide alternate disposition for low risk patients with signs and symptoms consistent with COVID-19 during times of pandemic declaration within the jurisdiction of the Metropolitan Area EMS Authority (MAEMSA).

**Definition:** A COVID-19 pandemic is an epidemic of COVID-19 virus that spreads on a worldwide scale and infects a large proportion of the human population. According to the World Health Organization (WHO), a pandemic can start when three conditions have been met: emergence of a disease new to a population; agents infect humans, causing serious illness; and agents spread easily and sustainably among humans. A local declaration of COVID-19 pandemic and implementation of this directive will be made on a weekly basis by the Medical Director and the Tarrant County Public Health Authority.

**Scope:** This directive applies to patients within the MAEMSA System during times of a local COVID-19 pandemic.

**Indications:**

1. Patients with signs and symptoms consistent with COVID-19:
   a. Fever
   b. Cough
   c. Sore throat
   d. Nasal congestion
   e. Body aches
   f. Headache
   g. Chills
   h. Fatigue
   i. Nausea / vomiting
   j. Diarrhea

**Requirements:**

1. Age 5-64 years of age
2. Temperature less than 102 degrees Fahrenheit
3. Systolic blood pressure above 90 mmHg (or age-specific) with no signs of hypo-perfusion or dehydration.
4. Heart rate less than 110 beats per minute.
5. Respiratory rate less than 20
6. Pulse oximetry greater than or equal to 94% on room air.
7. No contraindications as listed below

**Contraindications:**

1. Children less than 5 years of age
2. Adults 65 years of age or older
3. Pregnant women or within 2-weeks postpartum
4. Following high risk symptoms:
   a. Syncope
   b. Chest pain
5. Following physical exam findings:
   a. Neck pain or rigidity
   b. Abnormal breath sounds or respiratory distress
   c. EMS provider suspicion for severe illness

6. Patients with the following conditions/diseases:
   a. Chronic lung disease (such as Asthma, COPD, and cystic fibrosis)
   b. Heart disease (such as congenital heart disease, congestive heart failure, and coronary artery disease)
   c. Kidney disorders
   d. Liver disorders
   e. Diabetes Mellitus
   f. Weakened immune system due to disease or medication (such as people with HIV or AIDS, cancer, those on chronic steroids, or immunotherapy).

7. Unsafe to leave in place or inability to care for themselves

**Procedure:**

1. Patients who meet the inclusion criteria with no contraindications will have a complete history and physical completed and documented.
2. The patient will be informed that they are in a low risk category and will most likely not be tested or receive antiviral medications, as there is not one currently available, at the Emergency Department (ED), and do not require transportation to the ED for evaluation.
3. If the patient agrees to non-transport
   a. Instruct the patient to call 911 if condition changes
   b. Complete patient care report and select COVID-19 Non-transport
   c. Provide patient with home care and self-monitoring instructions and handout, including contact information for Tarrant County Public Health.
4. If the patient continues to request transport to the ED,
   a. Contact OLPG
5. If need for further guidance or questions, contact OLPG.
6. OMD will complete 100% review of all patients in which this directive was used.

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Document Developed by the Healthcare Resilience Task Force
Emergency Medical Services (EMS) Prehospital Team
Sample Nevada COVID-19 Transport Protocol

Nevada (2020). Note: Travel history is no longer utilized in screening due to the prevalence of community spread of COVID-19. This document was developed earlier in the event.

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Sample Illinois COVID-19 Alternative Destination Algorithm (Non-COVID-19 Illness)

**ALTERNATE CARE SITES ARE ACTIVATED: EMS TRANSPORT DECISION SUPPORT FOR NON-CRITICAL PATIENTS WHO DO NOT HAVE COVID-19-LIKE ILLNESS SYMPTOMS**

1. EMS arrives on scene. Screens patient to determine COVID-19 status. Is patient a confirmed or potential COVID-19 case?
   - **YES**
     - Does patient require urgent medical evaluation or intervention?
       - **YES**
         - Transport to ED.
       - **NO**
         - Does patient require an advanced evaluation or procedure that only a hospital can perform?
           - **YES**
             - Transport to Urgent Care Facility
           - **NO**
             - Does condition require on-going EMS intervention to stabilize?
               - **YES**
                 - No transport. Contact Online Medical Control for referral to self-transport for same day appointment with primary care.
               - **NO**
                 - No transport. Refer for self-transport to primary care.
2. **NO**
   - Does patient require urgent medical evaluation or intervention?
     - **YES**
       - Telehealth consult with Online Medical Control. Is additional evaluation or treatment required?
         - **YES**
           - No transport. Self-management at home with instructions provided.
         - **NO**
           - Follow algorithm for patients with-COVID-19-like illness symptoms
     - **NO**
       - No transport. Self-management at home with instructions provided.

Illinois (2020).

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COVID-19 Potential Illness
If you are sick with COVID-19 or think you might have it, follow the steps below to help protect other people in your home and community.

Instructions after your EMS call*:

- **Stay home.** People who are mildly ill with COVID-19 are able to recover at home. Do not leave, except to get medical care. Do not visit public areas.
- **Stay in touch with your doctor.** Call before you get medical care. Be sure to get care if you feel worse or you think it is an emergency.
- **Avoid public transportation.** Avoid using public transportation, ride-sharing, or taxis.

*If you develop emergency warning signs for COVID-19 get medical attention or call 911.*

**Emergency warning signs include:**

- Difficulty breathing or shortness of breath
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

This list is not all-inclusive. Please consult your medical provider or call 911 for any symptoms that are severe or concerning.

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Emergency Medical Services (EMS) Prehospital Team

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Actions You Should Take*:

- **Stay away from others**: As much as possible, you should stay in a specific “sick room” and away from other people in your home. Use a separate bathroom, if available.

- **Call ahead**: If you have a medical appointment, call your doctor’s office or emergency department, and tell them you have or may have COVID-19. This will help the office protect themselves and other patients.

- **Cover**: Cover your mouth and nose with a tissue when you cough or sneeze.

- **Dispose**: Throw used tissues in a lined trash can.

- **Wash hands**: Immediately wash your hands with soap and water for at least 20 seconds. If soap and water are not available, clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol.

- **Do not share**: Do not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people in your home.

- **Wash thoroughly after use**: After using these items, wash them thoroughly with soap and water or put in the dishwasher.

- **If needed, seek additional help by contacting your doctor or medical facility, or in an emergency, call 911.**

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Resources

General

- [Rapid Expert Consultation on Crisis Standards of Care for the COVID-19 Pandemic](https://example.com) (NASEM)*
- [Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response (Vol. 6: Prehospital Care Emergency Medical Services)](https://example.com) (Institute of Medicine)*
- [Crisis Standards of Care and COVID-19: What EMS Needs to Know](https://example.com) (U.S. Department of Transportation)
- [Framework for Expanding EMS System Capacity During Medical Surge](https://example.com) (Centers for Disease Control and Prevention)
- [EMS Pandemic Influenza Guidelines for Statewide Adoption](https://example.com) (U.S. Department of Transportation)
- [Technical Resources, Assistance Center, and Information Exchange (TRACIE): Crisis Standards of Care](https://example.com) (U.S. Department of Health and Human Services)

Call-Taking and Dispatch

- [Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States](https://example.com) (Centers for Disease Control and Prevention)
- [Phone Advice Line Tools: Guidelines for Children (2-17 years) or Adults (over 18 years) with Possible COVID-19](https://example.com) (Centers for Disease Control and Prevention)
- [Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and PSAPs](https://example.com) (U.S. Department of Transportation)

Continuum of Care, Indicators and Triggers

- [Crisis Standards of Care: A Toolkit for Indicators and Triggers](https://example.com) (Institute of Medicine)*

Legal Issues

- [Emergency Medical Services and Medical Surge: Essential Legal Issues](https://example.com) (Oak Ridge Associated Universities)*

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Response & Operations

- Strategies to Optimize the Supply of PPE and Equipment (Centers for Disease Control and Prevention)

Sample Protocols

- COVID-19 Resources (National Association of State EMS Officials)*

Treatment & Transport

- Coronavirus Waivers & Flexibilities (Centers for Medicare & Medicaid Services)
- COVID-19: 10 Steps to Help Patients While Staying Safe (Resuscitation Academy)*