Sumner County

Emergency Medical Services

Infectious Disease / Pandemic Plan

March 1, 2020

Sumner County EMS Pandemic Plan

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Letter of Authority

This plan has been developed by Sumner County EMS, with assistance from the Tennessee Department of Health, Division of Emergency Medical Services. The Sumner County EMS Chief and Medical Director, by their signatures, have approved the protocols, as recommendations, which will be applicable to patient care procedure during the event of a pandemic.

_____ Date: _____

Sumner County EMS Chief

_____ M.D. Date: _____

Sumner County Medical Director

Introduction

Sumner County EMS understands that a significant challenge will arise in the event of an Epidemic or Pandemic. Such an event would have an impact to the health and well-being of our staff, patients and community.

This plan has been developed to minimize the effects of an epidemic/pandemic in our community. This plan will address preparedness and response activities such as prevention, surveillance, and control of infection. Resources for patient care will be addressed as well, such as, education, training, communication and a need for an increase in supplies.

In the event of an epidemic/pandemic, many adults and children will present to EMS providers. Those presenting will seek care for febrile and respiratory illness. The likelihood of EMS providers being exposed will be significant due to exposure from work environment as well as the home. Shortages of staff will cause further problems for the service. Hospitals will be faced with the same problems, further taxing the EMS system.

Definitions

ALS: Advanced Life Support

Alternate Treatment Centers: Alternative sites set up to care for patients with pandemic illness. Schools, churches, public buildings set up through the Public Health authority or volunteer agencies to care for the sick, (if indicated by TDH).

BLS: Basic Life Support

CAD: Computer Aided Dispatch

CBD: Criteria Based Dispatch

CDC: Center for Disease and Control

EOC: Emergency Operations Center

EMS: Emergency Medical Service

Epidemic: A localized outbreak of an infectious disease

Febrile Respiratory Illness: Patients presenting with cough and fever. Fever indicates infection. Cough indicates contagious.

Haz-Mat: Hazardous Materials

HEPA: High Efficiency Particulate Air Filter mask or filter

I.D.: Infectious Disease

Isolation: Sequestration of patients with infectious disease to prevent pathogen spread.

MCI: Mass/Multiple Casualty Incident

NIMS: National Incident Management System, a national incident management system that allows agencies of different disciplines and jurisdictions to work together during times of crisis or disaster.

N-95/N-100 Masks: NIOSH rated particulate masks

Pandemic: A worldwide outbreak of infectious disease.

PEP: Post Exposure Prophylaxis medication

Plan "P": Standing orders specific to the EMS response to pandemic patients.

PPE: Personal Protective Equipment. Fit-tested HEPA masks, gloves, gowns, shields and eye protection.

PSA: Public Service Announcements

Quarantine: Sequestration of individuals who have been exposed to infectious disease, but are not symptomatic until a determined incubation period has passed.

S & S: Signs and Symptoms

TDH: Tennessee Department of Health

211 Line: Telephone line that is used for general information by the public.

WHO: World Health Organization

Pandemic EMS Alert Levels

EMS-3: Human pandemic exists somewhere in the world. No cases identified in Region 5.

EMS-2: Human pandemic cases identified in Region 5. No significant impact on EMS and medical systems.

EMS-1: Human pandemic has achieved rapid human-to-human transmission with increased morbidity and mortality. Overwhelming impact on EMS and medical systems.

Flu Terms Defined

Seasonal (or common) flu is an annual, recurring respiratory illness that can be transmitted person to person. Most people have some immunity and a vaccine is usually available.

Avian (or bird) flu is caused by the H5N1 or other identified influenza virus that may occur naturally among wild birds. This type of flu virus is deadly to domestic fowl and can be transmitted from birds to humans. There is no human immunity and vaccine may not be available.

Pandemic flu is virulent human flu that causes a global outbreak – or "pandemic" – of serious illness. Because there is little natural immunity, the disease can spread easily from person to person, against which humans have little historic immunity.

H1N1 (or swine) flu is a common respiratory disease in pigs that doesn't usually spread to people. When pigs catch this flu, many get quite sick, and 1% to 4% die, according to the World Health Organization. In the past, people have sometimes caught swine flu if they worked directly with pigs.

Coronavirus-2019 (COVID-19) flu was discovered in the city of Wuhan, China that possibly originated from a marketplace in December 2019. Still much is unknown about the virus.

Purpose and Goals

The purpose of an Infectious Disease and Pandemic Plan is designed to offer guidance, continuity and organization to the delivery of emergency medical care during a significant infectious disease outbreak or pandemic. By providing "Best Practice" activity during normal day to day activity (i.e. Good use of PPE), we will be better prepared for a pandemic.

We acknowledge that during pandemic things may not go as planned. Many of us here have not dealt with incident that has had the kind of implication a pandemic may cause. Therefore, this plan is written with limited knowledge and imperfect forecasting. This plan must remain flexible and subject to revision on short notice.

The regional impact will require uniformity of policy and action. In the event of a pandemic, the principles of the National Incident management System (NIMS) must be applied.

The following points are recognized goals of the infectious disease/pandemic incident (as outlined by the State of Tennessee).

1. Achieve EMS "culture change" by incorporating "best practices" into daily infectious disease operation.
2. Safe, rapid and adequate response to the incident (whether long or short term)
3. Adequate Personal Protective Equipment {(PPE) if available} to ensure responder safety.
4. Rapid containment to achieve personal safety and patient accountability and to reduce exposure.
5. Maximize utility of available resources.
6. Provide reasonable patient care in the environment of limited resources.
7. Sustain public safety activities during times of prolonged or extended duress.
8. Recover and return to "normal" EMS operations as quickly and safely as possible.

Background

Recent concerns of increased flu outbreaks, Anthrax outbreak of 2001, SARS outbreak in Toronto in 2003, MERS outbreak in Saudi Arabia of 2012, threat of smallpox & bio-terrorism accelerates the need for a pandemic plan. We should not specifically limit this plan to the "Flu." It should include any pathogen that may reach pandemic proportions and impact.

During a pandemic, it may be necessary to make painful decisions regarding limited care in the face of increased demand and decreasing resources. These decisions will be difficult, go against what we are taught and practice daily, but must be made. Bluntly, we cannot afford to use time, resources or personnel to help those beyond survival. As in triage at an MCI, the goal of our approach to a pandemic must be to maximize the use of available resources and provide reasonable help to the greatest number of people.

While compassion and caring are always appropriate, it is imperative that we do not allow these natural, human feelings to cloud our judgment in making treatment, transportation or resource decisions. If resources are limited, the decisions we make in the field have implication beyond that of the individual patient. Subverting these guidelines could potentially threaten the entire medical system.

We, at Sumner County EMS, feel it is important that we give these topics some consideration now so that we will be better prepared – not just operationally, but emotionally as well, if a pandemic or other natural or manmade "disaster" occurs.

What are my Exposure Risks to Pandemic Illness at Work?

EMS personnel are at high risk of occupational exposure to illness anytime personnel are required to be in close proximity (within 6 feet) of sick people (e.g. EMS runs), or they are required to have repeated or extended contact with known or suspected sources (e.g. station living). Influenza for example, unlike most illness, is transmittable PRIOR to the onset of symptoms making it imperative that employees take precautions for ALL patient encounters if the prevalence of disease is high or the disease is severe. The ECO/Safety Officer will monitor both national and state public health advisories to inform all EMS personnel of their exposure risk from the community.

How Could a Severe Pandemic Affect Sumner County EMS?

Unlike natural disasters of terrorist events, a pandemic will be widespread, affecting multiple areas of the United States and other countries at the same time. A pandemic will also be an extended event, with multiple waves of outbreaks in the same geographic area; each outbreak could last from 6 to 8 weeks and waves of outbreaks may occur over a year of more. A pandemic could affect as many as 30-40% of the workforce during periods of peak influenza illness. Some statistics say up to 60% of the workforce could be affected. Many employees will be absent because they are sick, they must care for sick family member(s), schools and day care facilities are closed, they are afraid to come to work of the employee has died.

Alternative Staffing & Housing

Sumner County EMS recognizes the impact of a pandemic on employees and their families and therefore will implement the following policy upon declaring a pandemic within Sumner County. Employees are urged to stay at home during their illness throughout the contagious phase (till 24 hours after fever has subsided) to reduce the spread of the virus. Likewise, employees should recognize the potential impact upon the Sumner County EMS workforce and the EMS system and return to work as soon as possible. Employees will be further discouraged (Vacation time may be cancelled) from requesting absences unrelated to the pandemic. Employees will not be disciplined for taking time off without available sick time up to four (4) shifts (if 24-hour employee) or 4 regular working days if normal workday is (8) hours. If more time is needed it will be considered on a case by case basis by the Shift Battalion Chief (BC) and/or Operations manager.

Employees may be asked to stay for extended shifts. Sumner County EMS will attempt to find alternative housing (e.g. churches or schools) for employees that do not want to return home and possibly affect their family. The possibility of taking the complete building over at Station 1 is a consideration for extended housing for employees. Every attempt will be made to find more comfortable housing. Will work with County Administrators to accommodate housing. It is important to note that only non-contagious employees will be allowed in EMS areas. Dispatch will be off limits to all non-essential personnel.

ALL stations should be locked and secured at all times during a pandemic (this includes the ambulance bays and administration). Entry should be made by on-duty personnel only. Members of the general public should not be allowed into the stations at anytime during the pandemic. We understand that family members may want to visit the employees during this time, please limit family visits to the ambulance bay and we ask that family members with signs and symptoms of the flu not visit.

Unit & Vehicle Utilization

During an EMS-1, pandemic staffing situation and call volume will dictate how vehicles are used and staffed. If stations/units are to be shut down this decision will be made by the on-duty BC, Captain or Lieutenant. These decisions may be ultimately decided by the EMS Chief or Assistant Chiefs.

Truck 1 and Truck 2 may be staffed by an EMT or Paramedic and utilized to respond to calls to determine if transport by an ambulance is required by Plan "P" protocols. When EMS resources are limited, it may be necessary to utilize other county vehicles (e.g. school buses and county vans) and employees (e.g. school bus drivers) to transport patients to an alternative treatment center, that will be determined by the County Health Department. These resources will be utilized by direction of the Sumner County EMS Chief and Sumner County EMS Medical Director as allowed by the county.

Isolation & Quarantine

Isolation refers to keeping sick individuals from exposing other – for example, an employee with a fever during a pandemic would be required to stay home and asked to minimize exposure to others. Quarantine refers to keeping individuals that may have been exposed under watch for symptoms and sometimes keeping them in a single location. There is no role for involuntary isolation and quarantine the recommendations for these are to help prevent further spread of illness. Requests for "self-imposed-station" isolation and quarantine to prevent taking illness home will be discouraged based on the fact it doubles well-employees' exposures. Additionally, stations are not equipped to handle long term employee isolation and quarantine. If an employee becomes ill, responds poorly to treatment and/or treatment is unavailable, under the direction of the Sumner County EMS Medical Director, Sumner County Risk Management referred Doctor, Tennessee Department of Health, periods of isolation and/or quarantine may be necessary. Listed below are best "Home Isolation" practices in order to reduce the spread of disease to well family members.

Home Isolation Checklist

1. Limit physical contact between those who are sick and those who are not. The ill household member(s) needs to be physically separate from non-ill persons living in the home. Pick one room in the house where the ill person(s) can stay for their entire infectious period. That is one day before clinically ill and two days after symptoms

resolve (around 7 days). If more than one person in the home is sick all ill persons can share the same room.

The ideal room for ill person(s):

- Has windows that open to increase air circulation.
- Gets natural light (UV light will often kill the causative agent).
- Has a door that closes.
- Doesn't share bathroom space with well persons.

One person in the home should be the designated caregiver; all others should have limited to no contact. The designated caregiver can bring meals, beverages and medicines to the room of the ill person.

2. Contain the respiratory or wound secretions of the ill. All persons with signs and symptoms of a pandemic illness regardless of presumed cause should:
    a. Cover their nose and mouth when coughing or sneezing and/or keep weeping wounds covered.
    b. Use tissues to contain respiratory secretions or dressings to cover wounds.
    c. Dispose of tissues or dressing materials in the nearest waste receptacle after use.
    d. Wash your hands after contact with respiratory/wound secretions and contaminated objects/materials.
    e. Wear a simple mask (surgical mask – soft type) when in contact with other.

3. Protect the well-employee with personal protective equipment (PPE) such as mask (an N-95 when available) and encourage frequent handwashing. The primary caregiver, or anyone who cannot avoid contact with the ill household member, can protect themselves by wearing an N-95, surgical or procedure mask when in close contact (< 3 feet) with an infectious person. Masks should be changed and discarded when they become moist. Wash hands or use alcohol-based hand rub after touching or discarding a mask. Mask recommendations will be updated at the time of an event. Wear gloves if there is likely to be in contact with wound or respiratory secretions. Discard gloves immediately after use. Wash hands with warm soap and water. When soap and water are not available, an alcohol-based hand rub can be used any time after contact with a person who may be ill, after removing mask or gloves, or after touching items or surfaces that may be soiled.

4. Keep environment clean. Tissues or waste (dressings) used by the ill person should be placed in a bag and disposed of with other household waste. Laundry may be washed in a standard washing machine with warm or cold water and detergent. It is typically not necessary to separate soiled linen and laundry used by a sick person from other household laundry. Care should be used when handling soiled laundry (i.e. avoid

"hugging" the laundry) to avoid self-contamination. Clean hands after handling soiled laundry. Soiled dishes and eating utensils should be washed either in a dishwasher or by hand with warm water and soap. Separation of eating utensils for use by a sick patient is not necessary. Environmental surfaces in the home can be cleaned using normal procedures and detergents or 1:10 bleach solution. An EPA registered hospital disinfectant can be used according to manufacturer's instructions but is not necessary. There is no evidence to support the widespread disinfection of the environment or the air.

5. Prevent illness among household members. Persons who have not been exposed to pandemic illness and who are not essential for patient care or support should not enter the home while persons are actively ill with pandemic symptoms. Household members should monitor closely for the development of symptoms and contact a telephone hotline such as the TDH hotline (www.health.state.tn.us) or their own medical care provider if symptoms occur.

Mass Dispensing

In the event of a pandemic it may become necessary to provide all essential personnel with medications, vaccinations or cached PPE. This will be done in accordance with the Tennessee Department of Health (TDH), Sumner County Health Department or Emergency Management Agency (EMA). Sumner County EMS, in conjunction with Sumner County EMA has contracted with the TDH and Sumner County Health Department to be a closed Point of Dispensing (PODS) to be able to provide personnel with proper vaccinations in case of an outbreak.

Sumner County EMS personnel may be asked to assist in "Mass Dispensing", and will do so if available scheduling allows. We will follow protocol of the Health Department and the Sumner County EMS Medical Director. We will not act outside our scope of practice.

Use of PPE

Guidance of use of PPE will be provided by the Center of Disease and/or the TDH regarding the appropriate use of PPE that will be necessary to protect you against the pandemic disease-producing organism. This information will be disseminated electronically on the Sumner County EMS Crew website, Facebook account or email. Every effort will be made to obtain PPE from Vendors and the Federal Stockpile. This could be difficult do to increase demand and waiting for the Federal Stockpile to reach us. During a pandemic re-use of mask will be allowed as outlined in **Appendix C**. It will not be necessary to use an N-95 mask on every patient, only those showing signs/symptoms of the pandemic disease.

During a pandemic it is recommended that N-95 and/or surgical mask along with protective eyewear be used during the following procedures such as intubation, nebulizer treatments, oral suctioning or actively vomiting.

Safe Work Practices & Procedures

- **Pre-Response**
  - Do NOT come to work sick.
  - Cover all open wounds.
  - Wash hands after going to bathroom or before putting anything into your mouth (chewing gum, smoking)
  - Keep station clean – sweep/mop floors daily, wipe down all hard surfaces with disinfectant (especially common areas such as door knobs, railings, phone receivers, computer keyboards), do NOT share personal items or utensils, use paper towels to turn off faucets, bend of the elbows to cover coughs or open doors, discard used tissues in waste can that has a liner or flush down the toilet.
  - Keep a clean uniform and a pair of shoes in your locker and do NOT wear dirty uniform or work shoes home.
  - As weather, availability and security allows, open the windows to encourage fresh air exchange.
  - Use gloves and commercial disinfectants or bleach (¼ cup bleach to 1 gallon of water) for disinfecting contaminated equipment or hard surfaces or inanimate surfaces inside apparatus cab.
- **Making-the-Response**
  - Wear medical exam gloves whenever you make a response or you anticipate meeting, greeting or touching the public or inanimate objects such as bed railings or doorknobs. We recommend that you do not shake hands with other(s) during a pandemic event.
  - Limit the number of individuals exposed, including responders and the public. The unit commander shall ensure decreased exposure by denying entry to unneeded responders and Law Enforcement. We should only utilize these personnel when absolutely necessary, for patient care, to limit exposure.
  - ANYTIME you will be less than 3 feet of an individual (e.g. suctioning, intubation, CPAP, nebulizer treatments) cover your eyes, nose and mouth (shielded face mask or safety glasses w/ mask), as available PPE allows.
  - If you sustain a “direct” cough, splash or spit to your unprotected face (no mask, no safety glasses) and/or transferred blood/body fluid from a patient to their non-intact and unprotected skin IMMEDIATELY wash contaminated skin with soap and water (if available) or use waterless hand soap ASAP, flush your eyes blow your nose, gargle your mouth out and at the end of the call return to the station for further decontamination and report exposure appropriately.
  - Instruct all patients to cover their cough, wear a surgical or procedure mask, or put them on oxygen mask with O2 flowing appropriate.
  - It is appropriate to place a surgical mask on patients that are not suffering from any type of respiratory compromise (e.g. asthma attack, CHF crisis). If a person

requires oxygen, you may place a surgical mask over the O2 delivery method. This is to identify the patient as a possible exposure risk to other personnel.
    - Guidance may be given during the event to place a simple mask on all patients.
    - During transport, close off cab from patient compartment, turn on mechanical vent and open windows.
    - Remove PPE and discard in ambulance or destination trash containers prior to leaving the scene or in patient's trash containers.
    - Aero-Medical should not be utilized for patients that have infectious disease causing the pandemic.
- **After-the-Call**
    - Any employee who sustained a "direct" cough, splash or spit to their unprotected face (no mask, no safety glasses) and/or transferred blood/body fluid from a patient to their non-intact and unprotected skin, wash your contaminated skin with soap and water or further flush your eyes, blow your nose or gargle, take a shower, don a clean uniform and wash the contaminated uniform in a station washer/dryer (hot water and detergent) to kill the bacteria/virus. Complete a Pandemic Exposure Report to include the patient's name and write a brief description of the incident to include the words, "possible pandemic exposure" in the [COMMENTS] section of the report. Monitor of signs/symptoms of pandemic illness such as fever, cough, rash, difficulty breathing, sore throat, weakness, headache, diarrhea, fatigue, joint or muscle aches. Should you become ill, follow the instructions outlined in the section entitled, "Crew Exposure Reporting" listed above.
    - Clean all non-disposable equipment or hard surfaces using commercial disinfectant or bleach (ratio ¼ cup bleach to 1 gallon of water) while wearing gloves. Discard waste, unless DRIPPING blood or body fluids, then red-bag and properly dispose of at the ER or place in bay to have supply transport waste to Station 1 to be discarded.
    - Wash hands using soap and water.
    - It is recommended that no crew members wear their uniform home. After the shift is over the crew member should change clothes and place uniform in a trash bag until able to wash it.
    - For the latest recommendation related to the on-going Pandemic illness refer to the following web sites www.cdc.gov or www.pandemicflu.gov or www.health.state.tn.us.
    - During a pandemic, it may be necessary to stop using the computer for doing PCR's. This will be done under the discretion of the Sumner County EMS Chief. Paper tickets will then go in use. This will then be turned in via the station lock boxes.

Reduction of Service Policy

1. **Purpose/References**

   To authorize an alternative form of medical instruction for callers during an EMS-1 Pandemic in which EMS service may be reduced. This may be due to overwhelming increase in demands for service, decreased or unavailable resources and/or no available regional transport destinations.

2. **Policy**

   When an event or conditions impact our ability to manage the calls for service, these procedures shall be implemented to assist the caller during an EMS-1 Pandemic.

3. **Procedure**

   3.1 Implementation

   In the event that an EMS-1 Pandemic has been declared, there would be continued provisions for police services, fire combat, extrication and rescue activity and minimal medical responses. Requests for EMS responses related to patients with Respiratory Febrile Illness (RFI) and/or "flu-like symptoms will not receive an EMS response. When the request for service is denied we will provide resources and/or instructions for the caller to receive any assistance available. These may include alternate resources phone numbers, personal hygiene, scene safety, self-care and patient care directions, or directions to alternate care sites.

   3.2 Exclusions

   Patients or callers reporting signs/symptoms of RFI, flu-like symptoms (acute onset, fever, dry cough, sore throat, head and muscle aches, general malaise), in combination with:

   - Shortness of breath
   - Respiratory distress
   - Decreased level-of-consciousness
   - Unknown illness, including "Flu-like" symptoms

   3.3 Instructions

   Depending on available resources there may be outside service options, i.e. Public Health Information line through 211, 311 or TRP, etc. for callers who need instructions on how to deal with the ill, dying or decreased. If those services are not available, the following procedures will be followed by the communications staff.

   Script for Reduction of Service

   - "Due to the recent declaration of an EMS-1 Pandemic we are unable to provide an aid response to your location."
   - **Instructions**

     Position patient for comfort. If seated, have the patient lean forward. If supine (lying down), place patient on their side. Provide hydration with oral fluids and, if possible, Tylenol for fever and body aches.

Dispatch Guidelines

In the event of an H1N1 pandemic dispatch will begin asking callers about RFI and relaying this information to EMS. These questions will include the presence of:

- Fever (indicates infection)
- Cough (indicates contagion)
- Shortness of breath
- Exposure to other ill individuals
- Travel to regions of known infectious disease outbreaks (may not be needed, depending on the type of outbreak)

If the caller answers yes to any of these questions, dispatch will give call information and advise crews with statement of "PPE advised."

Questioning the callers may begin prior to a pandemic when there is an outbreak in another area or region.

If the Plan "P" protocol is placed in effect Dispatch may need to provide the following information:

- Directions to any other available information lines (Public Health hotline, 211)
- General Disease infectious disease/Pandemic information
- Personal hygiene and decontamination
- Self-care and care of any ill patients
- Directions to alternative care facility
- Reporting fatalities and care of dead bodies, this information will be provided by the Primary Death Investigator

Dispatchers will be involved in the same employee screening as the EMS crews.

It is understood that the required call-processing time limits will be waived, along with the response time requirement and ambulance response times. When this occurs, it will be necessary to advise the caller that there will be a delay in response. Dispatch may need to triage the call and a Captain, Lieutenant or other Administrative Paramedic may possibly need to be staffed in dispatch to assist in caller triage.

If a Plan "P" is implemented, the dispatchers will follow the script in the Reduction of Service Policy.

Reduction of Service

During Pandemic EMS-1 operations, communications centers may be directed the Medical Director to reduce or restrict EMS responses. This will be implemented by a "Reduction of Service Policy" to specific EMS call types or Incident Dispatch Codes. The "Reduction of Service

Policy" will be terminated upon directions from the Medical Director. In this case it may be necessary to have a Captain, Lieutenant or other Administrative Paramedic in Dispatch to assist in triage of calls.

EMS Responses in Plan "P" Protocol

The Medical Director has two phases of a Plan "P". The first is to have a unit or "Triage" responder to respond to all calls. Transport decisions will be made by the on-scene crew. This may also include transport to an alternative care site, if symptoms of the infectious (pandemic) disease are the primary complaint and stable.

The second phase of Plan "P" with Triage usage is outlined below. It may become necessary during a Pandemic to follow the START (triage) system, with the addition of Purple status.

Triage – Patients will be triaged in the pre-hospital setting using the following criteria:

- **Green** – Patient stable, no treatment or transport required.
- **Yellow** – Patient in need of medical care with reasonable chance of survival, may need to contact private physician or transport to alternative care facility.
- **Red** – Patient in need of advanced medical care with reasonable chance of survival. No signs/symptoms of infectious (pandemic) disease. Transport to ER.
- **Purple** – Infectious (pandemic) disease patients in need of care and comfort measures, palliative care. Seriously ill with little or no change of survival. Contact Medical Control for transport status or on scene comfort measures orders.
- **Black** – Dead or immediately expected to expire.

Plan "P" EMS Protocols

During a Plan "P", the following will need to be transported during Plan "P" or Plan "P" with Triage.

1. Paramedic Discretion – suspicion of critical illness/injury.
2. Altered Vital Signs – (or age-specific abnormal vital signs), including one of these:
    - Systolic B/P <90
    - O2 Saturations <92%
    - RR <12 or >30 (or respiratory distress)
    - HR <60 or >130
3. Breathing
    - Respiratory distress
    - Cyanosis, pallor/ashen
4. Circulation/Shock
    - Signs/Symptoms of shock

- Severe/Uncontrollable bleeding
- Large amounts of blood (or suspected blood) in emesis or stool.

5. Neurologic
    - Unconscious or altered level of consciousness
    - New focal neurologic signs (stroke, etc.)
    - Status, multiple or new onset of seizure
    - Severe headaches-especially sudden onset of accompanied with neck pain/stiffness
    - Head injuries with loss of consciousness or continued neck pain, dizziness, vision disturbance, ongoing amnesia or headache, and/or nausea and vomiting.
6. Trauma
    - Significant trauma with chest/spinal/abdominal injury deemed unstable or potentially unstable.
    - Suspected fractures or dislocations that cannot be safely transported by private vehicle.
7. Age
    - If patient age <12 or >65 transport to the hospital.

When a Plan "P" is implemented, consider patients with following presentation for:

- Transportation by ambulance – note that many "transport by ambulance" patients will not require emergency transport to the hospital – in which case, the crew may answer additional calls, up to two (2) patients.
- Transportation by alternative means:
    - Private vehicle or police or clinic/alternative care facility.
    - Except in very limited cases the patient should not self-transport to the hospital/clinic but could be driven by someone else.
- Advise to contact a private physician for homecare instructions. Advise patients this does not restrict them from seeking care at a clinic or hospital on their own should they desire.

Specific Patient Care Guidelines

1. Abdominal Pain
    - Pulsating mass (visual or palpated)
    - Marked tenderness/guarding
    - Pain radiating into back and/or groin/inner thighs
    - Recurrent severe vomiting not associated with diarrhea
    - Recurrent severe vomiting associated with diarrhea. Transport to ER, if signs/symptoms associated with dehydration, but to urgent care or clinic, if no dizziness or abnormal vital signs.
2. Anaphylaxis or Stings
    - Patients who have had epinephrine administered for symptoms

- Patients experiencing airway, low blood pressure or respiratory symptoms after an allergy exposure.
- Patients with itching after exposure – if rapid onset of symptoms, may require EMS transport; if delayed > 1 hour, safe for private transport. All patients with history of anaphylaxis should be seen in the ER if possible. Others may be seen in clinic or urgent care. EMS may administer Benadryl prior to clearing scene, up to 1 mg/kg.

3. Back Pain
    - Acute trauma with midline spinal tenderness
    - New onset of extremity weakness, numbness or tingling, other neurological changes, no control of urine or bowel, or bloody urine
        - Concern for Abdominal Aortic Aneurysm
        - Pain radiating into abdomen, or groin/inner thighs
        - Inability to ambulate
        - Concern for kidney stone, bloody urine
4. Behavioral
    - Uncontrolled agitation requiring sedation by EMS
    - Suicidal ideation – MUST be left with responsible party
    - Other emotionally disturbed patients may be transported at law enforcement discretion or by other means.
5. Bleeding (Lacerations, Abrasions or Avulsions)
    - Patient is on Coumadin or other blood thinner with significant ongoing bleeding or large hematoma
    - Significant laceration after bandaging to be transported to the ER
        - Heavily contaminated
        - Bite-related
        - Likely to involve foreign body
        - Deep structure injury
        - Sensory/motor deficit
    - Lacerations requiring simple repair
        - Consider self-transport to physician's office or urgent care center
        - Patient will need to call ahead to verify if doctor can do the procedure
    - Abrasions or avulsions not requiring suturing or repair, no significant contamination
    - Minor lacerations that do not require sutures
6. Burns
    - All chemical and electric burns
    - Suspected inhalation burns
    - Significant third degree burns
    - Second degree burns to $\geq$ 5% of body area
    - Second degree burns to face, mouth

- Severe pain
- Second degree burns to hands, feet or to other locations 1% to 5% body surface area (size of patient's palmer area)
- Second degree burns < 1% body surface area, non-critical location
- First degree burns

7. Cardiac Arrest
    - Witnessed down time ≤ 10 minutes – Follow normal protocol
    - If Plan "P" in effect work for 10 minutes if no change calls the code.
    - All others – report to dispatch and return to service – do not wait for law enforcement or MDI arrival
8. Chest Pain
    - Chest pain or other signs/symptoms suspicious for cardiac ischemia, pulmonary embolus, or other life threat
    - Chest pain ongoing for > 12 hours and a normal ECG
    - Chest pain with deep breath or movement (pulse ox and color normal)
    - Chest pain reproducible or known cardiac disease, unlikely to require treatment for acute coronary syndrome
9. Diabetic
    - Any patient with glucose < 70 – if transported by private vehicle, after glucose is > 70 after treatment, must not drive self
    - Critical high glucose with sign/symptoms and dehydration
    - Patient with history of diabetes can be left as long as a responsible adult is present, and the patient has eaten.
10. Environmental
    - Heat-related illness with any alteration in mental status (confusion, decreased LOC)
    - Frozen extremity
    - Hypothermia with AMS
    - Frostbite to face, hands, feet or other location with suspected deeper injury, blisters, or frozen to touch
    - Heat-related illness without alteration in mental status – initiate external cooling at home under supervision of friends/family
    - Minor frostbite with tissue now soft, pink, no blisters, and not involving fingers
11. ETOH/Substance Abuse
    - Very decreased LOC or other confounding issues (head injury, suspicion of aspiration)
    - Otherwise, maybe transported at law enforcement's discretion
    - Patient maybe left with responsible individual who can assist patient
    - Able to ambulate safely without assistance

12. Eye Pain
    - Impaled objects or possible penetrating injury to eye, or globe rupture
    - Chemical exposure – after decontamination and initial rinsing
    - Eye pain and/or acute changes to vision should receive transport for urgent evaluation to ER or another qualified clinic (e.g. eye clinic)
13. Fever
    - Fever plus altered mental status including confusion
    - Fever plus severe symptoms by paramedic assessment
    - Fever plus seizures, lethargy, stiff neck, rash blistering
    - < 3 months with fever estimated > 100 to ER
    - Fever reduced with antipyretics to clinic or contact physician
14. Headache
    - With vision changes, lethargy
    - New headaches for patient require assessment
    - Usual headaches for patient may require treatment
15. Musculoskeletal Injuries (isolated)
    - Loss of distal pulse
    - Unable to effectively spline the affected area
    - Neurological changes or deficits (not moving extremities equal or numbness and tingling)
    - Open fractures
    - Displaced fractures or pain requiring pain management
    - Suspected fractures that are stable and do not require pain management may be splinted and transported by private vehicle
    - Neck pain and back pain after MVC that is delayed in onset and not associated with midline tenderness or neurologic symptoms
16. Nosebleed
    - Signs of hypovolemia (weakness or dizziness upon standing)
    - Patient is on blood thinners (Coumadin, Lovenox, Clopidogrel, etc.)
    - Continued high blood pressure (SBP > 200) in setting of nosebleed
    - Continued severe bleeding despite EMS efforts to control
17. OB/Pregnancy
    - Imminent delivery
    - Pain in abdomen or back
    - Profuse vaginal bleeding
    - Third trimester (> 24 weeks) bleeding
    - Pre/eclampsia – syncope, seizure, altered mental status, SBP $\geq$ 140
18. Swallowing Problems
    - Patient unable to manage own secretions due to pain or obstruction

19. Syncope
    - History of coronary disease or heart failure
    - Age => 55
    - Pregnant
    - Chest pain, headache, or shortness of breath (or other symptoms concerning to paramedics)
    - Likely dehydration, with dizziness preceding the syncope
    - Other underlying medical conditions
20. Toxicological
    - Overdose or other toxic exposure – contact Poison Control and/or on-line medical control
    - If intentional, see Behavioral
21. Vulnerable Person in Potential Danger
    - EMS should assure that person will not be left in dangerous environment
    - If safe disposition and transport can be arranged and the injuries do not otherwise require medical evaluation, other transport may be appropriate

Appendix A

Sumner County EMS Employee Screening for Seasonal FLU/H1N1 Novel Influenza A

Suspect (H1N1) Novel "A" Influenza Screening Form

1. Symptoms
   - Temperature _____ ^{o}F Highest Temperature _____ ^{o}F
   - Fever or feverishness (chills) Yes No
   - Cough Yes No
   - Sore Throat Yes No
   - Nasal congestion or runny nose Yes No
   - Date of first symptom onset _____/_____/_____
2. Is this patient
   - Complaining of lower respiratory symptoms (chest pain, shortness of breath, cough)? Yes No
   - Contact to a confirmed or suspect case of (H1N1) Novel Influenza A viral infection? Yes No

IF patient has 1 or more symptoms with fever THEN:

Complete form with employee demographics. If at outlying station place into lockbox, and if at administration or Station 1, then place in ECO mailbox. Contact on-duty BC, Captain or Lieutenant.

Last Name: _____ First Name: _____

Date of Birth: _____/_____/_____ Age: _____ Sex: M F

Patient Phone: (_____) _____-_____ (cell/home) (_____) _____-_____ (cell/home)

Submitter Information

Name (person completing form): _____

Phone Number (_____) _____-_____

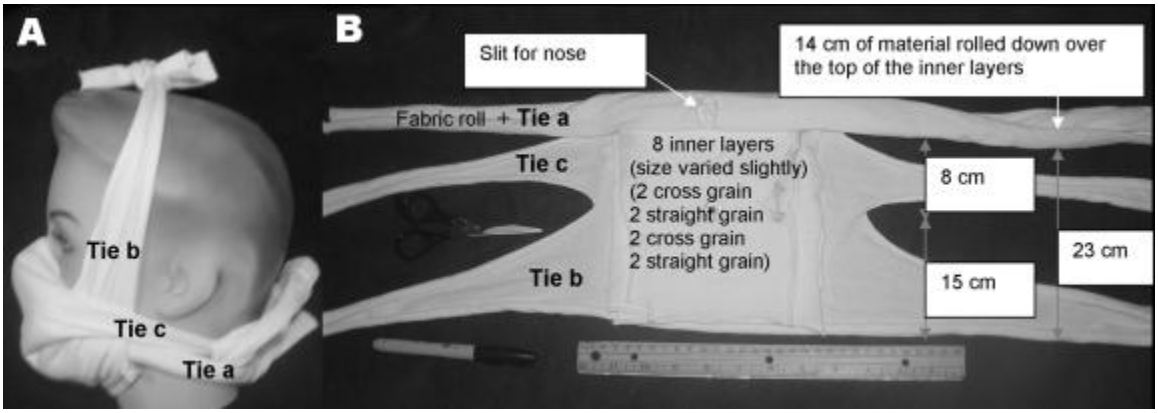
Station: _____ Shift: _____

Employee will be allowed to return to work 24 hours after fever has subsided.

Appendix B

Make a Simple Mask (Center for Disease Control)

(Virginia M. Dato,* David Hostler,* and Michael E. Hahn*
***University of Pittsburg, Pennsylvania, USA)**



Prototype mask. A) Side view, B) Face side. This mask consisted of 1 outer layer (≈37 cm × 72 cm) rolled and cut as in panel B with 8 inner layers (<18 cm2) placed inside (against the face). The nose slit was first placed over the bridge of the nose, and the roll was tied below the back of the neck. The area around the nose was adjusted to eliminate any leakage. If the seal was not tight, it was adjusted by adding extra material under the roll between the cheek and nose or by pushing the rolled fabric above or below the cheekbone. Tie b was tied over the head. A cloth extension was added if tie b was too short. Finally, tie c was tied behind the head. The mask was then fit tested.

Appendix C

Interim Respirator Re-Use Protocol for H1N1 novel influenza (does not apply to TB patients)

Reuse of respirator masks is current best practices during a Pandemic as approved by Tennessee Department of Health and the CDC

Any reuse is restricted to a single person: mask cannot be shared between employees.

A disposable N-95 respirator can be reused with the following precautions:

- Protective covering such as a medical mask or a clear plastic face shield may be worn over the respirator if tolerated to protect it from surface contamination.
- The inside of the mask should not be handled with contaminated gloves or hands.
- Mask should be carefully stored in a bag between uses, consider labeling with your name.

Removal

- Remove gloves / gown and perform hand hygiene.
- Remove surgical mask/face shield using straps, avoiding contact with the front of the mask/shield. Discard the surgical mask by the straps if used. (Face shield reuse – disinfect exterior surfaces with disinfectant wipes).
- Remove N-95 respirator by straps without touching inside of mask, place in a clean bag, and again perform hand hygiene. You do not need a clean bag each time – may consider discarding bag when the mask is discarded.

Discard N-95 when:

- Damaged
- Defective (failing fit-test, broken straps, etc.)
- Damp (from provider respirations)
- Dirty – soiled or contaminated (directly coughed on or secretions from patient). Masks should be assumed to be "dirty" after airway procedures such as intubation. May become dirty much faster if covering mask is not used.

Appendix D

COVID-19

What is coronavirus disease 2019 (COVID-19)?

Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China**.**

Can people in the U.S. get COVID-19?

COVID-19 is spreading from person to person in China, and limited spread among close contacts has been detected in some countries outside China, including the United States. At this time, however, this virus is NOT currently spreading in communities in the United States. Right now, the greatest risk of infection is for people in China or people who have traveled to China. Risk of infection is dependent on exposure. Close contacts of people who are infected are at greater risk of exposure, for example health care workers and close contacts of people who are infected with the virus that causes COVID-19. CDC continues to closely monitor the situation.

Have there been cases of COVID-19 in the U.S.?

Yes. The first case of COVID-19 in the United States was reported on January 21, 2020. The current count of cases of COVID-19 in the United States is available on CDC's webpage at https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html.

How does COVID-19 spread?

The virus that causes COVID-19 probably emerged from an animal source, but now it seems to be spreading from person to person. It's important to note that person-to-person spread can happen on a continuum. Some diseases are highly contagious (like measles), while other diseases are less so. At this time, it's unclear how easily or sustainably the virus that causes COVID-19 is spreading between people. Learn what is known about the spread of newly emerged coronaviruses at https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html.

What are the symptoms of COVID-19?

Patients with COVID-19 have had mild to severe respiratory illness with symptoms of fever, cough and shortness of breath.

What are severe complications from this virus?

Many patients have pneumonia in both lungs which can lead to Acute Respiratory Distress Syndrome (ARDS).

How can I help protect myself?

The best way to prevent infection is to avoid being exposed to the virus that causes COVID-19. There are simple everyday preventive actions to help prevent the spread of respiratory viruses. These include:

- Avoid close contact with people who are sick.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Wash your hands often with soap and water for at least 20 seconds. Use an alcohol-based hand sanitizer that contains at least 60% alcohol if soap and water are not available. If you are sick, to keep from spreading respiratory illness to others, you should
- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces.

What should I do if I recently traveled to China and got sick?

If you were in China within the past 14 days and feel sick with fever, cough, or difficulty breathing, you should seek medical care. Call the office of your health care provider before you go, and tell them about your travel and your symptoms. They will give you instructions on how to get care without exposing other people to your illness. While sick, avoid contact with people, don't go out and delay any travel to reduce the possibility of spreading illness to others.

Is there a vaccine?

There is currently no vaccine to protect against COVID-19. The best way to prevent infection is to avoid being exposed to the virus that causes COVID-19.

Is there a treatment?

There is no specific antiviral treatment for COVID-19. People with COVID-19 can seek medical care to help relieve symptoms.

What to do if you are sick with COVID-19?

If you are sick with COVID-19 or suspect you are infected with the virus that causes COVID-19, follow the steps below to help prevent the disease from spreading to people in your home and community.

Stay home except to get medical care

You should restrict activities outside your home, except for getting medical care. Do not go to work, school, or public areas. Avoid using public transportation, ride-sharing, or taxis.

Separate yourself from other people and animals in your home

People: As much as possible, you should stay in a specific room and away from other people in your home. Also, you should use a separate bathroom, if available.

Animals: Do not handle pets or other animals while sick. See COVID-19 and Animals for more information.

Call ahead before visiting your doctor

If you have a medical appointment, call the healthcare provider and tell them that you have or may have COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

Wear a facemask

You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) or pets and before you enter a healthcare provider's office. If you are not able to wear a facemask (for example, because it causes trouble breathing), then people who live with you should not stay in the same room with you, or they should wear a facemask if they enter your room.

Cover your coughs and sneezes

Cover your mouth and nose with a tissue when you cough or sneeze. Throw used tissues in a lined trash can; immediately wash your hands with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.

Avoid sharing personal household items

You should not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people or pets in your home. After using these items, they should be washed thoroughly with soap and water.

Clean your hands often

Wash your hands often 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, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty. Avoid touching your eyes, nose, and mouth with unwashed hands.

Clean all "high-touch" surfaces every day

High touch surfaces include counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables. Also, clean any surfaces that may have blood, stool, or body fluids on them. Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.

Monitor your symptoms

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). **Before** seeking care, call your healthcare provider and tell them that you have, or are being evaluated for, COVID-19. Put on a facemask before you enter the facility. These steps will help the healthcare provider's office to keep other people in the office or waiting room from getting infected or exposed.

Ask your healthcare provider to call the local or state health department. Persons who are placed under active monitoring or facilitated self-monitoring should follow instructions provided by their local health department or occupational health professionals, as appropriate.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive.

Discontinuing home isolation

Patients with confirmed COVID-19 should remain under home isolation precautions until the risk of secondary transmission to others is thought to be low. The decision to discontinue home isolation precautions should be made on a case-by-case basis, in consultation with healthcare providers and state and local health departments.

Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States

This guidance applies to all first responders, including law enforcement, fire services, emergency medical services, and emergency management officials, who anticipate close contact with persons with confirmed or possible COVID-19 in the course of their work.

Background

Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and providing emergency medical treatment and transport for ill persons. However, unlike patient care in the controlled environment of a healthcare facility, care and

transports by EMS present unique challenges because of the nature of the setting, enclosed space during transport, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.

When preparing for and responding to patients with confirmed or possible coronavirus disease 2019 (COVID-19), close coordination and effective communications are important among 911 Public Safety Answering Points (PSAPs)— commonly known as 911 call centers, the EMS system, healthcare facilities, and the public health system. Each PSAP and EMS system should seek the involvement of an EMS medical director to provide appropriate medical oversight. For the purposes of this guidance, "EMS clinician" means prehospital EMS and medical first responders. When COVID-19 is suspected in a patient needing emergency transport, prehospital care providers and healthcare facilities should be notified in advance that they may be caring for, transporting, or receiving a patient who may have COVID-19 infection.

Updated information about COVID-19 may be accessed at https://www.cdc.gov/coronavirus/2019-ncov/index.html. Infection prevention and control recommendations can be found here: https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html. Additional information for healthcare personnel can be found at https://www.cdc.gov/coronavirus/2019-nCoV/guidance-hcp.html.

Case Definition for COVID-19

CDC's most current case definition for a person under investigation (PUI) for COVID-19 may be accessed at https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html.

Recommendations for 911 PSAPs

Municipalities and local EMS authorities should coordinate with state and local public health, PSAPs, and other emergency call centers to determine need for modified caller queries about COVID-19, outlined below.

Development of these modified caller queries should be closely coordinated with an EMS medical director and informed by local, state, and federal public health authorities, including the city or county health department(s), state health department(s), and CDC.

Modified Caller Queries

PSAPs or Emergency Medical Dispatch (EMD) centers (as appropriate) should question callers and determine the possibility that this call concerns a person who may have signs or symptoms and risk factors for COVID-19. The query process should never supersede the provision of pre-arrival instructions to the caller when immediate lifesaving interventions (e.g., CPR or the Heimlich maneuver) are indicated. Patients in the United States who meet the appropriate criteria should be evaluated and transported as a PUI. Information on COVID-19

will be updated as the public health response proceeds. PSAPs and medical directors can access CDC's PUI definitions here.

Information on a possible PUI should be communicated immediately to EMS clinicians before arrival on scene in order to allow use of appropriate personal protective equipment (PPE). PSAPs should utilize medical dispatch procedures that are coordinated with their EMS medical director and with the local or state public health department.

PSAPs and EMS units that respond to ill travelers at US international airports or other ports of entry to the United States (maritime ports or border crossings) should be in contact with the CDC quarantine station of jurisdiction for the port of entry (see: CDC Quarantine Station Contact List) for planning guidance. They should notify the quarantine station when responding to that location if a communicable disease is suspected in a traveler. CDC has provided job aids for this purpose to EMS units operating routinely at US ports of entry. The PSAP or EMS unit can also call CDC's Emergency Operations Center at (770) 488-7100 to be connected with the appropriate CDC quarantine station.

Recommendations for EMS Clinicians and Medical First Responders

EMS clinician practices should be based on the most up-to-date COVID-19 clinical recommendations and information from appropriate public health authorities and EMS medical direction.

State and local EMS authorities may direct EMS clinicians to modify their practices as described below.

Patient assessment

- If PSAP call takers advise that the patient is suspected of having COVID-19, EMS clinicians should put on appropriate PPE before entering the scene. EMS clinicians should consider the signs, symptoms, and risk factors of COVID-19 (https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html).

- If information about potential for COVID-19 has not been provided by the PSAP, EMS clinicians should exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection. Initial assessment should begin from a distance of at least 6 feet from the patient, if possible. Patient contact should be minimized to the extent possible until a facemask is on the patient. If COVID-19 is suspected, all PPE as described below should be used. If COVID-19 is not suspected, EMS clinicians should follow standard procedures and use appropriate PPE for evaluating a patient with a potential respiratory infection.

- A facemask should be worn by the patient for source control. If a nasal cannula is in place, a facemask should be worn over the nasal cannula. Alternatively, an oxygen mask can be

used if clinically indicated. If the patient requires intubation, see below for additional precautions for aerosol-generating procedures.

- During transport, limit the number of providers in the patient compartment to essential personnel to minimize possible exposures.

Recommended Personal Protective Equipment (PPE)

- EMS clinicians who will directly care for a patient with possible COVID-19 infection or who will be in the compartment with the patient should follow Standard, Contact, and Airborne Precautions, including the use of eye protection. Recommended PPE includes:
    - A single pair of disposable patient examination gloves. Change gloves if they become torn or heavily contaminated,
    - Disposable isolation gown,
    - Respiratory protection (i.e., N-95 or higher-level respirator), and
    - Eye protection (i.e., goggles or disposable face shield that fully covers the front and sides of the face).
- Drivers, if they provide direct patient care (e.g., moving patients onto stretchers), should wear all recommended PPE. After completing patient care and before entering an isolated driver's compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
    - If the transport vehicle does **not** have an isolated driver's compartment, the driver should remove the face shield or goggles, gown and gloves and perform hand hygiene. A respirator should continue to be used during transport.
- All personnel should avoid touching their face while working.
- On arrival, after the patient is released to the facility, EMS clinicians should remove and discard PPE and perform hand hygiene. Used PPE should be discarded in accordance with routine procedures.
- Other required aspects of Standard Precautions (e.g., injection safety, hand hygiene) are not emphasized in this document but can be found in the guideline titled Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

Precautions for Aerosol-Generating Procedures

- If possible, consult with medical control before performing aerosol-generating procedures for specific guidance.
- In addition to the PPE described above, EMS clinicians should exercise caution if an aerosol-generating procedure (e.g., bag valve mask (BVM) ventilation, oropharyngeal suctioning, endotracheal intubation, nebulizer treatment, continuous positive airway pressure (CPAP), bi-phasic positive airway pressure (biPAP), or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary.
    - BVMs, and other ventilatory equipment, should be equipped with HEPA filtration to filter expired air.

    - EMS organizations should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
- If possible, the rear doors of the transport vehicle should be opened and the HVAC system should be activated during aerosol-generating procedures. This should be done away from pedestrian traffic.

EMS Transport of a PUI or Patient with Confirmed COVID-19 to a Healthcare Facility (including interfacility transport)

If a patient with an exposure history and signs and symptoms suggestive of COVID-19 requires transport to a healthcare facility for further evaluation and management (subject to EMS medical direction), the following actions should occur during transport:

- EMS clinicians should notify the receiving healthcare facility that the patient has an exposure history and signs and symptoms suggestive of COVID-19 so that appropriate infection control precautions may be taken prior to patient arrival.
- Keep the patient separated from other people as much as possible.
- Family members and other contacts of patients with possible COVID-19 should **not** ride in the transport vehicle, if possible. If riding in the transport vehicle, they should wear a facemask.
- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
    - Close the door/window between these compartments before bringing the patient on board.
    - During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
    - If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
    - Some vehicles are equipped with a supplemental recirculating ventilation unit that passes air through HEPA filters before returning it to the vehicle. Such a unit can be used to increase the number of air changes per hour (ACH) (https://www.cdc.gov/niosh/hhe/reports/pdfs/1995-0031-2601.pdfpdf icon).
- If a vehicle without an isolated driver compartment and ventilation must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting. This will create a negative pressure gradient in the patient area.
- Follow routine procedures for a transfer of the patient to the receiving healthcare facility (e.g., wheel the patient directly into an Airborne Infection Isolation Room).

Documentation of patient care

- Documentation of patient care should be done after EMS clinicians have completed transport, removed their PPE, and performed hand hygiene.
    - Any written documentation should match the verbal communication given to the emergency department providers at the time patient care was transferred.
- EMS documentation should include a listing of EMS clinicians and public safety providers involved in the response and level of contact with the patient (for example, no contact with patient, provided direct patient care). This documentation may need to be shared with local public health authorities.

Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed COVID-19

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a PUI:

- After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
    - The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.

- When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves. A face shield or facemask and goggles should also be worn if splashes or sprays during cleaning are anticipated.

- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly, to include the provision of adequate ventilation when chemicals are in use. Doors should remain open when cleaning the vehicle.

- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 (the virus that causes COVID-19) in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.

- Products with EPA-approved emerging viral pathogens claims are recommended for use against SARS-CoV-2. These products can be identified by the following claim:
    - "[Product name] has demonstrated effectiveness against viruses similar to SARS-CoV-2 on hard non-porous surfaces. Therefore, this product can be used against SARS-CoV-2 when used in accordance with the directions for use against [name of supporting virus] on hard, non-porous surfaces."

    - This claim or a similar claim, will be made only through the following communications outlets: technical literature distributed exclusively to health care facilities, physicians, nurses and public health officials, "1-800" consumer information services, social media sites and company websites (non-label related). Specific claims for "SARS-CoV-2" will not appear on the product or master label.
    - See additional information about EPA-approved emerging viral pathogens claims.
- If there are no available EPA-registered products that have an approved emerging viral pathogen claim, products with label claims against human coronaviruses should be used according to label instructions.
- Clean and disinfect the vehicle in accordance with standard operating procedures. 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 grade disinfectant in accordance with the product label.

- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.

- Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste.

- Follow standard operating procedures for containing and laundering used linen. Avoid shaking the linen.

Follow-up and/or Reporting Measures by EMS Clinicians After Caring for a PUI or Patient with Confirmed COVID-19

EMS clinicians should be aware of the follow-up and/or reporting measures they should take after caring for a PUI or patient with confirmed COVID-19:

- State or local public health authorities should be notified about the patient so appropriate follow-up monitoring can occur.
- EMS agencies should develop policies for assessing exposure risk and management of EMS personnel potentially exposed to SARS-CoV-2 in coordination with state or local public health authorities. Decisions for monitoring, excluding from work, or other public health actions for HCP with potential exposure to SARS-CoV-2 should be made in consultation with state or local public health authorities. Refer to the Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with Coronavirus Disease 2019 (COVID-19) for additional information.
- EMS agencies should develop sick-leave policies for EMS personnel that are nonpunitive, flexible, and consistent with public health guidance. Ensure all EMS personnel, including staff who are not directly employed by the healthcare facility but provide essential daily services, are aware of the sick-leave policies.

- EMS personnel who have been exposed to a patient with suspected or confirmed COVID-19 should notify their chain of command to ensure appropriate follow-up.
    - Any unprotected exposure (e.g., not wearing recommended PPE) should be reported to occupational health services, a supervisor, or a designated infection control officer for evaluation.
    - EMS clinicians should be alert for fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat). If symptoms develop, they should self-isolate and notify occupational health services and/or their public health authority to arrange for appropriate evaluation.

EMS Employer Responsibilities

The responsibilities described in this section are not specific for the care and transport of PUIs or patients with confirmed COVID-19. However, this interim guidance presents an opportunity to assess current practices and verify that training and procedures are up-to-date.

- EMS units should have infection control policies and procedures in place, including describing a recommended sequence for safely donning and doffing PPE.
- Provide all EMS clinicians with job- or task-specific education and training on preventing transmission of infectious agents, including refresher training.
- Ensure that EMS clinicians are educated, trained, and have practiced the appropriate use of PPE prior to caring for a patient, including attention to correct use of PPE and prevention of contamination of clothing, skin, and environment during the process of removing such equipment.
- Ensure EMS clinicians are medically cleared, trained, and fit tested for respiratory protection device use (e.g., N95 filtering facepiece respirators), or medically cleared and trained in the use of an alternative respiratory protection device (e.g., Powered Air-Purifying Respirator, PAPR) whenever respirators are required. OSHA has a number of respiratory training videos.
- EMS units should have an adequate supply of PPE.
- Ensure an adequate supply of or access to EPA-registered hospital grade disinfectants (see above for more information) for adequate decontamination of EMS transport vehicles and their contents.
- Ensure that EMS clinicians and biohazard cleaners contracted by the EMS employer tasked to the decontamination process are educated, trained, and have practiced the process according to the manufacturer's recommendations or the EMS agency's standard operating procedures.