Emerging Infectious Diseases
(Respiratory Diseases, SARS, MERS-CoV, COVID-19)

Non-Transport Guidance to Limit Exposure and Spread

(Protocol only effective if ordered by the EMS Medical Director based on local indications.)

History
- Flu-like symptoms
- Travel history
- Sick contacts

Signs and Symptoms
- Fever (> 100.4°F)
- Cough
- Shortness of breath
- Nasal/chest congestion
- Sore throat
- Body aches

Differential
- Bacterial infections
- Viral infections
- Asthma / COPD
- Cardiac
- Heat related emergencies
- Hyperthyroidism

Inclusion Criteria

- History of fever with symptoms of likely viral illness (cough, nasal/chest congestion, sore throat, bodyaches)
- Age < 50 years old
- Vital Signs:
    ◊ Respiratory Rate > 8 or < 20
    ◊ Pulse oximetry > 94% on room air
    ◊ Heart Rate < 100 bpm
    ◊ Systolic BP > 100 mmHg
    ◊ Temperature > 100.4°F
    ◊ GCS 15
- Patient has a support system.
- Patient has medical decision-making capacity

Exclusion Criteria

- Refer to appropriate medical treatment protocol if yes to any of the below:
    ◊ Chest pain, other than mild with coughing
    ◊ Shortness of breath with activity
    ◊ Syncope
    ◊ Respiratory distress or cyanotic

All Levels

1. Don appropriate PPE (see "Recommended PPE" section).
2. Limit patient contact to one provider only if possible.
3. **UNIVERSAL PATIENT CARE**.
    a. Initial assessment should begin from a distance of at least 6 feet from the patient, if possible.
4. If patient meets above criteria, consider treat and release / non-transport, if patient is agreeable. A refusal form shall be filled out.
5. Contact Medical Control if patient refuses non-transport.
6. Leave information packet with patient and advise to call 911 if symptoms worsen.
7. Prior to departing the crew will instruct the patient to contact their local health department, *and* their primary care physician/clinic for further instructions.

Special Situations

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Emergency Medical Dispatch (EMD) Centers:

1. Use Emerging Infection Disease (EID) Card (or equivalent) with the following protocols (or equivalent):
   a. Breathing Problem, Chest Pain, Headache, Sick Person
2. Ask the following questions:
   a. Does the patient have any of the following symptoms:
      - Fever (≥ 100.4° F or hot to the touch) or chills
      - Difficulty breathing or shortness of breath
      - Signs/symptoms of new lower respiratory illness (e.g. cough, wheezing)
   b. In the last 14 days before symptom onset, have you traveled from an area with confirmed community transmission? (See CDC website for the latest affected geographical areas)
   c. In the last 14 days before symptom onset, have you come into close contact with a person that is under investigation, is being monitored for, or has had a positive confirmed test for EID (e.g. Coronavirus, COVID-19)?
3. If the patient meets above criteria, alert responding providers of potential for patient with possible exposure of Emerging Infectious Disease before arrival.

EMS Agencies:

1. If EMD advises that patient is suspected of having possible Emerging Infectious Disease (EID), EMS should don appropriate PPE before entering the scene.
2. If non-transport EMS agencies do not have the appropriate PPE and patient appears stable, they should wait for transport EMS agency with appropriate PPE to arrive.
3. If information about potential EID has not been provided by the EMD, EMS should exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection.
   a. Initial assessment should begin from a distance of at least 6 feet from the patient, if possible.
   b. Patient contact should be minimized to the extent possible until a facemask is on the patient.
   c. If an EID is suspected, all appropriate PPE should be used. If EID is not suspected, EMS should follow standard precautions for evaluating the patient.
   d. Limit number of providers necessary for care in order to limit potential exposures.
4. Obtain a travel history / exposure history and assess for clinical signs and symptoms.
   a. Fever and/or signs of respiratory illness with either
      i. Contact with someone or personal travel to affected geographical regions within the past 14 days; or
      ii. Contact with someone with diagnostically confirmed illness of interest; or
      iii. Recent hospitalization with respiratory illness and no clear alternative diagnosis (e.g. influenza).

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Recommended Personal Protective Equipment (PPE):

PATIENTS
- Place standard surgical mask on patient.
- 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.

PROVIDERS
(ALL REQUIRED)
- Respiratory protection - N-95 or higher-level respirator or ear loop facemask** (if a respirator is not available)
  - N-95 respirators or respirators that offer a higher level of protection should be used instead of ear loop facemask when performing or present for an aerosol-generating procedure.
- Disposable examination gloves
- Disposable isolation gown
- Eye protection (e.g. goggles or disposable face shield that fully covers the front and sides of the face)

DRIVERS
- While providing direct patient care all PPE as described above should be worn.
- 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 contaminating 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.

**When the supply chain is restored, fit-tested EMS clinicians should return to use of respirators for patients with known or suspected COVID-19.

Airway Management Techniques for Aerosol-Generating Procedures:

1. Ensure full provider PPE is donned prior to performing airway or aerosol-generating procedures.
   a. N-95 or higher-level respirator, along with other PPE, is required when performing aerosol-generating procedures.
2. Aerosol-generating procedures should be limited. If needed EMS providers should exercise extreme caution when utilizing BVM, CPAP, BiPAP, Intubation, BIAD, Suctioning, Nebulizer therapies.
   a. BVMs and other ventilator equipment, should be equipped with HEPA filtration to filter expired air.
   b. Non-transport providers should defer any aerosol-generating procedures to the transporting agency if at all possible to limit exposure.
3. Limit CPAP/BiPAP if at all possible.
4. Limit nebulized breathing treatments if at all possible. Utilization of albuterol Metered Dose Inhalers (MDI) is highly encouraged, favoring the use of patient's own MDI.
   a. If MDI is used on suspected EID patient, the MDI should be left with the patient at the receiving facility, given the limited resources.
5. Use of Blind Insertion Airway Devices (BIAD) is preferred over intubation, when needed, for patients with suspected EID.

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EMS Transportation Guidelines:

1. EMS should notify the receiving facility about the patient with concern for EID as soon as possible.
2. Keep patient separated from other people as much as possible.
3. Family members and other contacts of patients with possible EID should not ride in the transport vehicle, if possible.
4. Isolate the driver from the patient compartment and keep the pass-through door/window tightly shut.
5. When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
    a. Vehicle ventilation in both compartments should be on non-recirculated mode.
    b. If the vehicle has a rear exhaust fan, turn it on full.
6. If the vehicle does not have an isolated driver and patient compartment, open the outside air vents in the driver area and turn the rear exhaust fan on full.

Documentation:

1. Documentation of patient care should be done after EMS clinicians have completed transport, removed their PPE, and performed hand hygiene.
2. 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.

Special Situations

Vehicle Decontamination:

1. After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
   a. The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
2. 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.
3. 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.
4. 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.
5. 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:
   a. "[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."
   b. 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.
6. 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.
7. 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.
8. Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.
9. Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste.
10. Follow standard operating procedures for containing and laundering used linen. Avoid shaking the linen.

Special Situations

References:

- CDC Interim Guidance for EMS: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html
- CDC Main Coronavirus Page: https://www.cdc.gov/coronavirus/2019-nCoV/index.html