



National Institute of  
Environmental Health Sciences  
Worker Training Program



# COVID-19

## Protecting EMS Healthcare Personnel

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# No Conflicts to Report

**National Ebola Training and Education Center**

**National Institute of Environmental Health Sciences-  
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**C19check.com**



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# KEEPING YOU SAFE



**Standard and Transmission Based Precautions**



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# Identify, Isolate and Inform



# Identify

## Risk assessment:

*What is the likelihood that this patient has COVID-19?*

- Signs and symptoms
- Exposure history

EMD screening and field screening

# COVID-19

- Signs and symptoms
  - **Fever** (43.8% -> 88.7%)
  - **Cough** (67.8%)
  - Sputum production (33.7%)
  - **Shortness of breath** (18.7%)
  - Headache (13.6%)
  - Sore throat (13.9)
  - Nausea and vomiting (5%)
  - Diarrhea (3.8%)



# Isolate

- 6-foot stand-off distance
- Mask the patient for source control
- Limit the number of HCW making patient contact to the minimum required to safely manage the patient
- Restrict contact with patient unless in appropriate PPE

*Standard + contact + airborne + eye protection*



# Inform

- Inform other responders about need to implement infection prevention procedures
- Inform staff at receiving facility
- Inform supervisor/medical director/local public health agency, as directed by local protocol





# EMS Biosafety Transport

- **Environmental controls**
  - Separate driver compartment from patient compartment
  - Air on high without recirc – exhaust fan on high
- **Policies and procedures**
  - Limit exposure of personnel
  - Keep driver compartment sterile – driver wear N95 respirator
  - No family members in ambulance except with minors – mask the family member
  - Mask the patient for source control
  - Modified clinical guidelines
- **Safety equipment**
  - PPE
  - Exhaust filters

## Clinical Considerations

Provide quality patient care

Balance needs of patient with the safety of the care team and the public

- Limit aerosol producing procedures
  - Nebs, BVM, CPAP, BiPAP, suction, intubation, CPR
- Termination of resuscitation guidelines – no ROSC?





# Mission Recovery

- Cleaning and disinfection of ambulance –
  - Wear appropriate PPE when cleaning and disinfecting the ambulance
  - Keep doors open, and ventilation systems turned on
  - Clean visibly soiled surfaces
  - Use EPA registered, hospital grade disinfectants
    - Examine claims against pathogens
    - Examine contact time
- Post-mission health awareness
  - Healthcare personnel should be alert for fever or respiratory symptoms for one incubation cycle
- What about testing?



# OPTIMIZE PPE SUPPLY

- N-95 respirator
  - Extended Use and Limited Reuse (5 times)
  - Alternative respirators
  - Aerosol producing procedures
- Eye protection
  - Goggles, face shield
  - Disinfection and reuse
- Gown conservation
  - Laundered gowns
  - Reserve for close contact
  - Reserve for aerosol producing procedures

*Limit number of providers making contact*



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## Resources



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

Interim Guidance for Emergency Medical Services  
(EMS) Systems and 911 Public Safety Answering Points  
(PSAPs) for 2019-nCoV in the United States

EMS INFECTIOUS DISEASE **PLAYBOOK**



[ASPRTRACIE.HHS/GOV](https://asprtracie.hhs.gov)

**NETEC eLearning Center**

**[courses.netec.org](https://courses.netec.org)**

EMS Biosafety Transport Courses  
Awareness, Operator and Technician



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