

EMT
EMT – Intermediate BS
Advanced EMT
Paramedic

Emergency Treatment Protocol – COVID – 19

WATRS - COVID-19 Risk Score		Score
≥8 High Risk		
≥5 to <8 Moderate Risk		
Fever Pt. Presents with Fever		2
Temperature ≥ 98.7 to ≤100.4 (low grade) ≥ 100.4 (fever)		1 4
Cough Pt. presents with cough (any cough requires respiratory protection)		4
Sore Throat Pt. Presents with Sore Throat		1
Difficulty Breathing Pt. presents Difficulty Breathing		4
Contact with Person:		
Possible Exposure		3
Suspected Exposure		4
Confirmed Exposure		5
Total Score		

Signs and Symptoms

Most patients with confirmed COVID-19 have developed:

- Fever
- Cough
- Difficulty Breathing/Shortness of Breath
- Muscle Aches
- Fatigue

Risk Factors

Epidemiologic factors that may help guide evaluation decisions:

- History of travel from affected geographic areas within 14 days of symptom onset.
- Any persons, including healthcare workers, who have had **close contact** with a laboratory-confirmed or suspicion of COVID-19 patient within 14 days of symptom onset.

Close contact is defined as:

- Being within approximately 6 feet (2 meters) of a COVID -19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case.
OR
- Having direct contact with infectious secretions of a COVID -19 case (e.g., being coughed on).

Recommendations for EMS Providers and Medical First Responders

- EMS provider 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.

Recommended Personal Protective Equipment (PPE)

- EMS providers 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, Precautions and use the PPE as described below. Recommended PPE includes:
 - Facemask or N-95 or higher-level respirator
 - Facemask - Protection from splashes and sprays.
 - **N-95 or higher-level respirator should be used when performing or present for any aerosol-generating or high-risk clinical procedures.**
 - Eye protection (i.e., goggles or disposable face shield that fully covers the front and sides of the face). Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
 - Patient examination gloves. Double gloving is preferred.
 - Isolation gown.
 - **If there are shortages of gowns, they should be prioritized for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of EMS clinicians (e.g., moving patient onto a stretcher).**

Recommended Personal Protective Equipment (PPE) – continued

- 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 or facemask 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 as normal.

STATE OF OKLAHOMA

2018 EMERGENCY MEDICAL SERVICES PROTOCOLS

Patient Assessment

- If Public Safety answering point (PSAP) call takers advise that the patient is suspected of having COVID-19, EMS providers should put on appropriate PPE before entering the scene. EMS providers should consider the signs, symptoms and risk factors of COVID-19.
- If information about potential for COVID-19 has not been provided by the PSAP,
 - EMS providers 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 in this protocol should be used.
 - If COVID-19 is not suspected, EMS providers 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.

EMS Transport of a Person Under Investigation (PUI) or Patient with Confirmed COVID-19 to a Healthcare Facility (including inter-facility 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:

- **Consider contacting medical control for destination determination and/or alternative transport options based on clinical impression of the patient.**
- EMS providers 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 driver compartment 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).
- 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).
- 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 examination room).

Precautions for Aerosol-Generating Procedures

- If possible, consult with medical control before performing aerosol - generating procedures for specific guidance.
- An N-95 or higher-level respirator, instead of a facemask, should be worn in addition to the other PPE described above, for EMS clinicians present for or performing aerosol - generating procedures.
- **EMS providers 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 or other viral filter 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.

STATE OF OKLAHOMA 2018 EMERGENCY MEDICAL SERVICES PROTOCOLS

EMT
EMT – Intermediate BS
Advanced EMT
Paramedic

Emergency Treatment Protocol – COVID – 19

WATRS - COVID-19 Risk Score		Score
≥8 High Risk		
≥5 to <8 Moderate Risk		
Fever		
Pt. Presents with Fever	2	
Temperature		
≥ 98.7 to ≤100.4 (low grade)	1	
≥ 100.4 (fever)	4	
Cough		
Pt. presents with cough (any cough requires respiratory protection)	4	
Sore Throat		
Pt. Presents with Sore Throat	1	
Difficulty Breathing		
Pt. presents Difficulty Breathing	4	
Contact with Person:		
Possible Exposure	3	
Suspected Exposure	4	
Confirmed Exposure	5	
Total Score		

EMR	EMT
-----	-----

GENERAL SUPPORTIVE CARE OBTAIN VITAL SIGNS
PREFERRED METHOD OF O₂ DELIVERY VIA NC WITH SURGICAL MASK PLACED OVER THE NC
 MAY USE HIGHER THAN NORMAL FLOW RATES (UP TO 7LPM) IF NEEDED TO MAINTAIN DESIRED OXYGEN SATURATION
 NRB OR BVM AS APPROPRIATE
 APPLY CARDIAC MONITOR (if equipped)
ADULT: OBTAIN 12-LEAD ECG & TRANSMIT TO RECEIVING EMERGENCY DEPARTMENT (if equipped) ASSIST PT WITH PT'S OWN ALBUTEROL INHALER/NEBULIZER
(METERED DOSE INHALER WITH SPACER PREFERRED)

EMT OR HIGHER LICENSE:
 MEASURE END-TIDAL CO₂ & MONITOR WAVEFORM CAPNOGRAPHY (if equipped)
ADULT & PEDIATRIC WEIGHT ≥ 15 kg: METERED DOSE INHALER (MDI) WITH SPACER
 4-6 PUFFS PER DOSE OF MDI WITH SPACER, IF AVAILABLE, MAY REPEAT EVERY 5 MINUTES, AS NEEDED
 USE OF PATIENT'S MDI WITH SPACER, IF AVAILABLE IS PREFERRED.

SEVERE BRONCHOSPASM/WHEEZING
 CDC RECOMMENDS 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.
ADULT & PEDIATRIC WEIGHT ≥ 15 kg: NEBULIZED ALBUTEROL 5 mg (INCREASED CAUTION IN AEROSOL-GENERATING PROCEDURES)
PEDIATRIC WEIGHT <15 kg: NEBULIZED ALBUTEROL 2.5 mg MAY REPEAT ALBUTEROL ENROUTE X 1 AS NEEDED

CPAP/BiPAP IS ASSOCIATED WITH A SIGNIFICANTLY INCREASED RISK OF CORONAVIRUS AEROSOL TRANSMISSION AND EMS PROVIDER EXPOSURE
 PLACE SUPRAGLOTTIC AIRWAY IF INDICATED & ONLY IF BVM VENTILATIONS INEFFECTIVE

CONSIDER TRANSPORT POSITION OF LEFT LATERAL RECUMBENT OR PRONE IF THE PATIENT CAN INDEPENDENTLY CHANGE POSITIONS AND PRESENTS IN MILD TO MODERATE RESPIRATORY DISTRESS WITH O₂ SATURATION <90 AND SYSTOLIC BLOOD PRESSURE ≥ 90.
CONTRAINDICATIONS: DELIRIUM, CONFUSION, ARRHYTHMIA, INABILITY TO MAINTAIN AIRWAY, OR IMMEDIATE NEED FOR AIRWAY INTERVENTION

EMT-I85	AEMT
---------	------

ADULT INTUBATION IS A HIGH RISK PROCEDURE IN SUSPECTED COVID-19 INTUBATION IS ASSOCIATED WITH A SIGNIFICANTLY INCREASED RISK OF CORONAVIRUS AEROSOL TRANSMISSION AND EMS PROVIDER EXPOSURE.
 IF INDICATED PER APPLICABLE PROTOCOLS

IV ACCESS
ADULT: IV NS TKO IF SYS BP ≥ 100 mmHg WITHOUT HYPOTENSIVE SYMPTOMS
ADULT: IV NS 250 mL BOLUS IF SYS BP <100 mmHg WITH HYPOTENSIVE SYMPTOMS & NO SIGNS OF PULMONARY EDEMA,
ADULT: REPEAT UP TO 2 LITERS NS IF SYS BP REMAINS < 100 mmHg WITH HYPOTENSIVE SYMPTOMS & NO SIGNS OF PULMONARY EDEMA
PEDIATRIC: IV NS TKO IF SYS BP ≥ (70 + 2x age in years) mmHg
PEDIATRIC: IV NS 20 mL/kg BOLUS IF SYS BP < (70 + 2x age in years) mmHg IF NO SIGNS OF PULMONARY EDEMA

PARAMEDIC

Corticosteroids have shown no clinical benefit and may actually be harmful in patients with COVID-19; they should therefore be avoided in the non-critically ill patient.

ADULT: MAGNESIUM SULFATE 1 gram VERY SLOW IVP OVER 10 MINS
ADULT: MEDICATION-ASSISTED INTUBATION IF INDICATED PER PROTOCOL 2G
 CONTINUOUS ASSESSMENT & TREATMENT PER APPLICABLE PROTOCOL(S)



STATE OF OKLAHOMA

2018 EMERGENCY MEDICAL SERVICES PROTOCOLS



Medical Literature References

Emergency Treatment Protocol COVID - 19

1. New Hampshire Department of Safety, Division of Fire Standards and Training & Emergency Medical Services. Emergency protocol COVID-19. 2020
2. Centers for Disease Control and Prevention. Interim guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for Covid – 19 in the United States. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>
3. Health Readiness and Response Section, Public Health Division, Wyoming Department of Health. Reporting & Data Analyst Office of Emergency Medical Services. <http://health.wyo.gov/publichealth/ems/>