

Title: Preventing the Spread of COVID-19 – Guidance for First Responders & Healthcare Providers

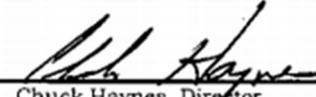
Document Type: Guidance

York County Office of
Emergency
Management

Created: 3/17/2020
Revised: 3/24/2020
Reviewed:



Approved:



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03/24/2020
Date:

I. Purpose

The outbreak of the SARS-CoV-2 virus has led to a pandemic of the COVID-19 disease process. This pandemic started in Wuhan, China and quickly spread throughout the world. The United States has seen the disease spread at an alarming rate. While the spread has become rampant, the death rate still remains low, citing deaths of a specific demographic. Deaths are noted in those of advanced age (65+) and those with significant cardiac, respiratory, immunocompromised, or diabetic histories. The concern with the spread of this virus is the impact it will have on the healthcare system. As those predisposed to serious implications from COVID-19 contract the virus, they will begin to overwhelm Emergency Departments and Intensive Care Units, of which normally operate on a daily basis at near max capacity. To add to the complexity of this situation, Personal Protective Equipment (PPE), specifically for respiratory protection, is in limited amount, with many distributors warning of a multi-week back order. With this in mind, we must be prudent and tactful with our use of PPE. This involves finding the appropriate balance of when and when not to use certain PPE. York County is committed to ensuring the safety of our first responders and citizens. The following policy strives to keep responders safe while responding to COVID-19, while being conservative with the finite PPE supplies.

II. Background & Recommendations

COVID-19 is a disease process caused by the SARS-CoV-2 virus that attacks the respiratory tract. It is spread from person to person when they are in close contact with each other, the Centers for Disease Control and Prevention (CDC) cites close contact as within six (6) feet. It is spread by respiratory droplets when an infected person sneezes or coughs; simply being in the same vicinity (breathing the same air) of a person who is infected will not facilitate the spread of the virus. Spread of COVID-19 is primarily associated with those who are showing symptoms of having the illness. While there have been cases of asymptomatic patients (those showing no signs or symptoms of being infected), they are the exception and are considered rare.

The virus can also be spread by contact with surfaces, however, there is still little known on the life of the virus after it has left its host (how long it can live outside of a human body). Symptoms of COVID-19 include:

- Fever
- Cough (typically a dry cough)
- Shortness of Breath

The CDC recommends a multi-faceted approach to preventing the spread of the disease. The first recommendation is Social Isolation and avoiding close contact with those potentially infected. This can be achieved in the first response theater by maximizing the distance first responders have with patients meeting pre-screening criteria for COVID-19 (ensuring responders do not enter the six (6) foot perimeter around the patient unless their role in patient care requires them to do so).

The CDC also recommends the use of engineering controls to limit first responder exposure. This can be done by the use of technology or other means. An example of this would be the use of a cellphone to call patients upon arrival of a transport unit to exit their home and place a surgical (non-N95) mask on prior to interaction with medical responders (this is all contingent on the patient's medical stability).

Next, the CDC recommends the limiting of healthcare providers in the care continuum of the patient. If a provider does not play a role in the direct care of the patient or the provider is not absolutely needed for the best outcome of the patient, then they do not need to be present for the care of the patient.

Having the patient wear a surgical (non-N95) mask is held as one of the best methods in preventing the spread of the virus. This is in tandem with the healthcare workers placing an emphasis in washing of hands and surfaces, as well as being mindful to not touch their eyes, nose, or mouth until they have thoroughly washed their hands. (Should a surgical mask not be available to place on a patient, then an oxygen mask, attached to flowing oxygen, may be used)

The final method the CDC recommends for limiting exposure and spread of COVID-19 is the use of PPE. Any patient showing signs or symptoms of having the virus should have a surgical (non-N95) mask placed on them, if warranted an oxygen mask will work. Dr. Marie De Pario, MD with the CDC is cited in saying "in general, healthcare persons providing general care to nCoV patients should not need a surgical N95 mask", "Surgical N95 masks should be only be worn by those working in a sterile field or those that may be exposed to high velocity blood or other bodily fluids". The CDC 'Strategies for Optimizing the Supply of N-95 Respirators' and 'Interim Guidance for Emergency Medical Services Systems and 911 Public Safety Answering Points for COVID-19 in the United State' cite that N95 masks are recommended when a healthcare provider is performing or present for an aerosol-generating procedure. These procedures may be, but are not limited to:

- Bag Valve Mask (BVM) Ventilation
- Oropharyngeal Suctioning

- Continuous Positive Airway Pressure (CPAP) administration
- Endotracheal (ET) Intubation or Blind Insertion Airway Device (BIAD) placement
- Nebulizer Treatments
- Cardiopulmonary Resuscitation (CPR)

Due to the minimal supply of N95 masks, and the unknown timeframe in supplies being available for purchase, N95s need to be conserved for the aforementioned procedures and those in close proximity (back of the ambulance) with possible COVID-19 patients. The CDC has cited that the use of a surgical (non N-95) mask is acceptable for first responders and will prevent the spread of the virus.

III. Guidance for Limiting the Exposure and Spread of COVID-19

a. *All Responders*

- i. Public Safety Communications will screen all *Unconscious, Trouble Breathing, Sickness, and Medical Alarm Calls*
 1. Upon determination of a possible COVID-19 patient, all responding entities will be made aware.
- ii. At a minimum, gloves will be worn when responding to the scene of a potential COVID-19 patient.
- iii. Gloves, Mask, and Eye Protection will be worn whenever a responder is within six (6) feet of a suspected COVID-19 patient.
- iv. N-95 Masks will only be worn by those who have gone through an OSHA approved fit test and can provide paperwork signifying a “Pass” on the fit test.
- v. N-95 masks should be used ONLY when conducting or present for aerosol-generating procedures must be conducted; or when the provider is in close proximity of the patient for prolonged periods of time (caring for a patient in the patient compartment of an ambulance while transporting to the hospital).
- vi. If an N-95 mask is worn and the patient is not deemed at risk for having COVID-19, the mask may be stored in a paper bag and worn again; if the patient is at risk for COVID-19, then the mask should be disposed of in a marked “Biohazard” container.
- vii. Upon completion of all patient care activities, all providers are to thoroughly wash their hands and arms using warm water and soap; scrubbing with soap for a minimum of 20 seconds.
 1. All equipment and apparatus surfaces that the patient may have come in contact with should be cleaned with 1:10 Bleach or other CDC/EPA approved COVID-19 disinfectant; Surfaces should be left to air dry and not used until fully dry
 2. When cleaning any apparatus or equipment after interaction with a potential COVID-19 patient, gloves, eye protection, and a surgical

(non N-95) mask should be worn; upon completion, the cleaners hands should be thoroughly washed as described above

b. *Non-EMS Medical Responders*

- i. Non-EMS Medical Responders may use routine response to calls that meet the following criteria:
 1. The 911 caller/patient meets the screening criteria to be considered at risk for COVID-19 infection
 2. The responding EMS unit with reasonably close to the location of the caller/patient
 3. The caller/patient presents as stable or not conveying any life-threatening complaints or injuries
- ii. If the 911 caller/patient presents potentially unstable/having life-threatening complaints or injuries; then response will continue as normal with appropriate PPE and Standard Isolation Precautions
- iii. Non-EMS Medical Responders should place a primary focus on limiting exposure by means other than being fully reliant on PPE (i.e. - increasing distance from patient, using isolation practices, etc.).
 1. It may be acceptable to have stable/non-life threatening patients be isolated in a different room from responders while waiting on EMS arrival
 2. It is also acceptable to limit the exposure of entire crews to the possible COVID-19 patient; this can be done by the designation of one responder to assess and treat the patient until EMS arrival (the designee is expected to wear all warranted PPE).
- iv. Until there is a more definitive timeline on receiving PPE, specifically N-95 masks, all use of N-95 masks by Non-EMS Medical Responders (Fire Departments, Law Enforcement, Rescue Squads, etc.) will need to be reported to York County Office of Emergency Management.
 1. This will be done by tracking N-95 supply by hardcopy (paper) and daily reporting by email or phone call. (Email and phone call information can be found on the N-95 Tracking Form)
 2. The number of masks used, the date, and run number will need to be reported
 3. This is imperative for tracking, redistribution, and financial purposes

c. *EMS Responders*

- i. All personnel that come in contact with a potential COVID-19 patient will, at a minimum, wear a single layer of gloves (changed if integrity is compromised or they become grossly contaminated), eye protection

(contact lenses and correctional glasses are not considered OSHA approved eye protection), and a surgical or N-95 mask. With limited supply of both, use discretion in which mask is appropriate for the situation.

- ii. The provider who will be providing care in the patient compartment of the ambulance should wear an N-95, while the driver should at a minimum wear a surgical mask (if unit has an open cab to patient compartment layout). If the layout of the EMS unit is closed from the cab to the patient compartment, then the driver does not need to wear a mask.
- iii. Limit the amount of potentially contaminated surfaces and equipment in the patient compartment. If the report can be completed after the call, leave the tablet in the cab of the unit. If there is equipment that may not be needed for the patient, store it in a closed compartment to limit the contamination that it may be exposed to
- iv. If an aerosol-generating procedure is warranted, ensure all care providers in the ambulance are wearing appropriate PPE (gloves, eye protection, and N-95 mask).
- v. Decontamination/Disinfection of the Ambulance
 1. Upon arrival to the hospital the patient compartment doors should be opened and left open while the care transfer occurs; this should provide sufficient time for the compartment to ventilate all respiratory droplets/particulates.
 2. The ambulance should be disinfected using 1:10 Bleach or other CDC/EPA approved COVID-19 disinfectant; focusing on all patient compartment surfaces, multi-use equipment, and all surfaces that may have been touched by providers or the patient during the call (door handles, steering wheel, pens, tablets, etc.)
 - a. All surfaces and equipment should be left to air dry and not used until completely dry
 3. When cleaning and disinfecting the ambulance gloves, eye protection, and a surgical (non N-95) mask should be worn; upon completion, the cleaners hands should be thoroughly washed as described above

d. *Law Enforcement*

- i. If possible, maintain a distance of 6 feet from the suspected infected person
- ii. Practice proper handwashing; wash your hands with soap and water for at least 20 seconds. If soap and water are not readily available and illicit drugs are NOT suspected, use an alcohol-based hand sanitizer with at least 60% alcohol
- iii. Do not touch your face with unwashed hands
- iv. Have EMS transport anyone you suspect to be infected with COVID-19 to the hospital
- v. Ensure duty belt and gear are disinfected after contact with an individual
 1. Clean the above mentioned gear with cleaning spray or wipe, according to the product label

e. *Other Circumstances*

- i. Transport of a suspected or confirmed COVID-19 Patient by rotorcraft is discouraged due to the inability of the aircraft to isolate the pilot from the patient area. Pilots must be free to immediately don emergency oxygen masks and the wearing of an N-95 particulate respirator in a non-isolated compartment precludes carrying out this emergency procedure.

f. *Mitigation Strategies for Maintaining Operational Readiness*

- i. It is imperative that first response and health care entities maintain operational readiness throughout the COVID-19 event. This event has a high propensity to heavily impact all aspects of first response. In efforts to ensure that all first response entities are prepared for any circumstance brought forth throughout this incident, the following suggestions have been compiled from multiple resources¹ and are as follows:
 1. Encourage all employees to stay home when sick
 2. Wash hands or use sanitizer frequently, as well as after coughing, sneezing, blowing nose, and using the restroom
 3. Avoid touching your nose, mouth, and eyes
 4. Cover coughs and sneezes with tissues or do it in your sleeve
 5. Dispose of tissues in no-touch bins
 6. Avoid close contact with coworkers and customers
 7. Avoid shaking hands/wash hands after physical contact with others
 8. Have continuity and contingency plans for limited staffing
 9. Provide frontline employees with job- or task-specific education and training on preventing the spread of COVID-19
 10. Ensure there are multiple “Biohazard” labeled containers for potentially contaminated PPE, tissues, and other cleaning/disinfectant supplies
 11. If you expect visitors or “customers” at your office/station, set up “soft barriers” to limit access. These may be tables, ropes, signs, etc.
- ii. There are practices that may aid in the monitoring of employees to reduce the spread of non-job related illnesses that are not specifically outlined by the CDC. While the CDC maintains that the best prevention is to limit employee interaction, the roles and responsibilities that accompany first responders make many of those practices difficult. Below are practices that may aid in identifying those who are most at risk to spread an infection:
 1. Identify those who are working other jobs in the healthcare field (PRN work in a hospital or other healthcare setting, part-time work with another first response entity, etc.)

¹ Resource list is at the end of this document for further review.

2. Monitor and record employees body temperatures as they arrive for a shift and after the completion of their shift.²
- iii. The above practices are only to be used as a guidance for limiting the spread of the virus within the first response community. The practices outlined in “ii” may not fully protect your employees from the spread of COVID-19. Ultimately the best practice is consistent handwashing and disinfecting of surfaces, as well as limiting interaction amongst people.

IV. Exposure

- a. Should a first responder (medical or not) be exposed to a patient with active COVID-19 activities for monitoring of the responder will vary based on the situation. The following will provide an outline and understanding of what will occur should a responder come into contact with a COVID-19 patient. *While a vast array of scenarios will be covered, there will always be exceptions, all exposures will be addressed on a case by case basis.*
- b. Immediately following the potential exposure, State and local public health and emergency management authorities should be notified.
- c. Contingent upon the patient interaction, exposure controls taken, and PPE worn, a plan for monitoring the responder will be developed. Simple interaction with a potential COVID-19 patient WILL NOT warrant isolation nor quarantine.
- d. Definitions (From CDC.gov):
 - i. Self-monitoring means Health Care Provider (HCP) should monitor themselves for fever by taking their temperature twice a day and remain alert for respiratory symptoms (e.g., cough, shortness of breath, sore throat). Anyone on self-monitoring should be provided a plan for whom to contact if they develop fever or respiratory symptoms during the self-monitoring period to determine whether medical evaluation is needed.
 - ii. Active monitoring means that the state or local public health authority assumes responsibility for establishing regular communication with potentially exposed people to assess for the presence of fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat). For HCP with high- or medium-risk exposures, CDC recommends this communication occurs at least once each day. The mode of communication can be determined by the state or local public health authority and may include telephone calls or any electronic or internet-based means of communication.

For HCP, active monitoring can be delegated by the health department to the HCP’s healthcare facility occupational health or infection control program, if both the health department and the facility are in agreement.

² There are multiple caveats to this practice, they include, but are not limited to, variances in body temperature between each person, variances in thermometer ready based on thermometer type, user, and environment, and the person taking the employees temperature must be in close contact with the employee

Note, inter-jurisdictional coordination will be needed if HCP live in a different local health jurisdiction than where the healthcare facility is located.

- iii. Self-Monitoring with delegated supervision in a healthcare setting means HCP perform self-monitoring with oversight by their healthcare facility's occupational health or infection control program in coordination with the health department of jurisdiction, if both the health department and the facility are in agreement. On days HCP are scheduled to work, healthcare facilities could consider measuring temperature and assessing symptoms prior to starting work. Alternatively, a facility may consider having HCP report temperature and absence of symptoms to occupational health prior to starting work. Modes of communication may include telephone calls or any electronic or internet-based means of communication.

Occupational health or infection control personnel should establish points of contact between the organization, the self-monitoring personnel, and the local or state health departments of authority in the location where self-monitoring personnel will be during the self-monitoring period. This communication should result in agreement on a plan for medical evaluation of personnel who develop fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat) during the self-monitoring period. The plan should include instructions for notifying occupational health and the local public health authority, and transportation arrangements to a designated hospital, if medically necessary, with advance notice if fever or respiratory symptoms occur. The supervising organization should remain in contact with HCP through the self-monitoring period to manage self-monitoring activities and provide timely and appropriate follow-up if symptoms occur in a HCP. Note, inter-jurisdictional coordination will be needed if HCP live in a different local health jurisdiction than where the healthcare facility is located.

e. Defining Exposure Risk Category

- i. High-risk exposures refer to HCP who have had prolonged close contact with patients with COVID-19 who were not wearing a facemask while HCP nose and mouth were exposed to material potentially infectious with the virus causing COVID-19. Being present in the room for procedures that generate aerosols or during which respiratory secretions are likely to be poorly controlled (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction) on patients with COVID-19 when the healthcare providers' eyes, nose, or mouth were not protected, is also considered high-risk.
- ii. Medium-risk exposures generally include HCP who had prolonged close contact with patients with COVID-19 who were wearing a facemask while

HCP nose and mouth were exposed to material potentially infectious with the virus causing COVID-19. Some low-risk exposures are considered medium-risk depending on the type of care activity performed. For example, HCP who were wearing a gown, gloves, eye protection and a facemask (instead of a respirator) during an aerosol-generating procedure would be considered to have a medium-risk exposure. If an aerosol-generating procedure had not been performed, they would have been considered low-risk.

- iii. *Low-risk* exposures generally refer to brief interactions with patients with COVID-19 or prolonged close contact with patients who were wearing a facemask for source control while HCP were wearing a facemask or respirator. Use of eye protection, in addition to a facemask or respirator would further lower the risk of exposure.

f. Table 1 – Responder Exposure and Response

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
Prolonged close contact with a COVID-19 patient who was wearing a facemask (i.e., source control)			
HCP PPE: None	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection	Low	Self with delegated supervision	None
HCP PPE: Not wearing gown or gloves ^a	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator)	Low	Self with delegated supervision	None
Prolonged close contact with a COVID-19 patient who was not wearing a facemask (i.e., no source control)			
HCP PPE: None	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection ^b	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing gown or gloves ^{a,b}	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator) ^c	Low	Self with delegated supervision	None

g. Additional Scenarios

- i. Proper adherence to currently recommended infection control practices, including all recommended PPE, should protect HCP having prolonged close contact with patients infected with COVID-19. However, to account for any inconsistencies in use or adherence that could result in unrecognized exposures, HCP should still perform self-monitoring with delegated supervision.
- ii. HCP not using all recommended PPE who have only brief interactions with a patient regardless of whether patient was wearing a facemask are considered low-risk. Examples of brief interactions include: brief conversation at a triage desk; briefly entering a patient room but not having direct contact with the patient or the patient's secretions or excretions; entering the patient room immediately after the patient was discharged.
- iii. HCP who walk by a patient or who have no direct contact with the patient or their secretions/excretions and no entry into the patient room are considered to have no identifiable risk.
- h. Further guidance can be found at the below links:
 - i. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>
 - ii. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>
 - iii. <https://www.ems.gov/pdf/ASPR-EMS-Infectious-Disease-Playbook-June-2017.pdf>
 - iv. <https://www.scdhec.gov/sites/default/files/Library/CR-012593.pdf>

V. Further Guidance

- a. Further guidance can be found through the following sources:
 - i. SC Department of Health and Environmental Control
 - 1. <https://www.scdhec.gov/>
 - ii. Centers for Disease Control and Prevention
 - 1. <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
 - iii. Johns Hopkins University
 - 1. <https://coronavirus.jhu.edu/>
 - iv. National Institute of Environmental Health Sciences
 - 1. <https://www.niehs.nih.gov/>