



COVID-19 Viral Respiratory Pathogen Exposure Reduction Procedure

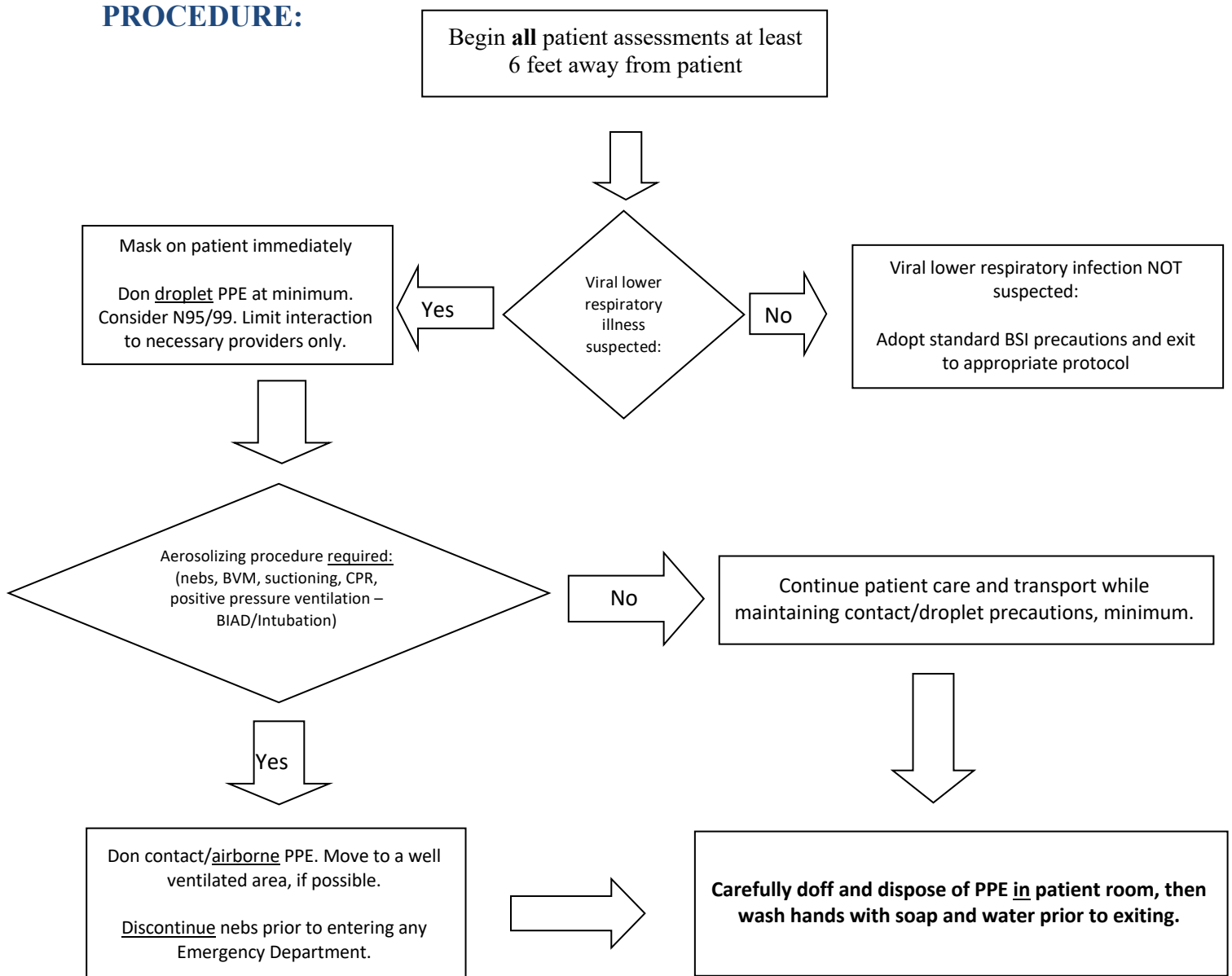


CRITERIA:

Patients with signs and symptoms of a viral respiratory infection (e.g. COVID-19, SARS, MERS).

- Symptoms consistent with viral lower respiratory infection, including:
Fever and/or non-productive cough and/or shortness of breath and/or fatigue
AND / OR
- Exposure to any person with known infection
AND / OR
- Hx of travel to area with known pathogens in the community in the past 21 days

PROCEDURE:





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Contact/Droplet PPE: Gloves, gown, standard face mask, goggles/face shield

Airborne PPE: Required for aerosolizing procedures. N-95/N-99/P100, gloves, gown, eye protection.

Airway - noninvasive: Nasal Cannula/Smart Capnoline or NRB ***surgical mask overtop**

Airway – Invasive: Neb/CPAP/Suction/BVM//BIAD/Intubation/CPR ***perform in a well ventilated area**

Drivers & Support personnel: Doff, Dispose of PPE, and Wash/sanitize hands prior to entering hospital

Patient Care Providers: At *minimum*, all crew use contact/droplet precautions.

- Notify facilities early & enter receiving facilities at their direction
- Use Exhaust fan & non-recirculated HVAC
- **Doff PPE and wash hands for at least 20 seconds prior to leaving patients room**

Hospital Transport:

MINIMIZE Cross Contamination

- A single parent/legal guardian of a minor or any person able to provide information on behalf of a patient who is unable to provide information may ride to the hospital at the discretion of the AIC.
 - o The passenger is required to be asymptomatic and should ride in the patient compartment.
 - o The passenger must sanitize hands prior to entering the vehicle and wear a mask.
- Secure openings between cab & patient compartment
- Stop apparatus and open doors if needed for aerosol producing procedures

DO NOT DRIVE WITH REAR DOORS OPEN

PEMS Medication Box:

- Keep Medication Box clear from patient contact, such as behind the head of the stretcher, in the drug box compartment, at the far end of the bench seat, etc.

- Clean *Exterior* of Medication Box with appropriate wipes prior to exchange. https://www.cdc.gov/coronavirus/2019-ncov/prepare/cleaning-disinfection.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcommunity%2Fhome%2Fcleaning-disinfection.html

Documentation:

-List all persons & level of contact – EMS/Fire/Law/Bystander & no contact vs indirect vs direct.

-Notify EMS Supervisor, Safety Officer, Infection Control Officer, Health and/or Safety Officer per individual agency policy.

Unit decontamination:

- Don contact/droplet PPE
- Open doors and windows
- Clean all exposed surfaces and equipment per individual agency policy & CDC/VDH Guidelines



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PEARLS:

- If faced with a limited supply of gowns and/or N95/99 masks, reserve use for potentially aerosol-generating procedures. Consider using cloth patient gowns in absence of isolation gowns.
- The 2020 COVID19 global pandemic is a continually evolving healthcare crisis. It is imperative that agencies and providers remain informed about latest recommendations for provider and patient safety. Refer to the CDC website “Interim Guidance for EMS Systems” for the most up to date information.
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>
- <https://www.csems.org/cdc-guidance-video-donning-and-doffing-ppe-for-covid-19/>
- As of March, 2020, there is evidence of community transmission of the SARS-CoV-2 virus in the PEMS region. Heightened precautions and a more conservative approach to patient interactions are both warranted and advised. Providers should carefully weigh the potential risk of any procedure against the likely benefit prior to proceeding and should clearly document their rationale for any deviation from standard procedure.
- If any aerosolizing procedure is performed, providers should remain in airborne PPE for the duration of treatment and transport. It is recommended that unit decontamination also be performed in airborne PPE with doors and windows open.

PRINCIPLES* OF AIRWAY MANAGEMENT IN CORONAVIRUS COVID-19

FOR SUSPECTED/REPORTABLE** OR CONFIRMED CASES OF COVID-19



BEFORE

STAFF PROTECTION



Hand Hygiene



Full Personal Protective Equipment***



Minimize Personnel During Aerosol Generating Procedures****



Airborne Infection Isolation room (if available)



Early Preparation of Drugs and Equipment



Formulate plan Early



Meticulous Airway Assessment



Connect Viral/Bacterial Filter to Circuits and Manual Ventilator



Use Closed Suctioning System



Use Video Laryngoscopy

PREPARATION

DURING

TEAM DYNAMICS



Clear Delineation of Roles



Clear Communication of Airway Plan



Closed-loop Communication Throughout



Cross-monitoring by All Team Members for Potential Contamination



Airway Management by Most Experienced Practitioner



Lowest Gas Flows Possible to Maintain Oxygenation



Tight Fitting Mask with Two Hand Grip to Minimise Leak



Rapid Sequence Induction and Avoid Bag-Mask Ventilation When Possible



Ensure Paralysis to Avoid Coughing



Positive Pressure Ventilation Only After Cuff Inflated

TECHNICAL ASPECTS

AFTER



Avoid Unnecessary Circuit Disconnection



If Disconnection Needed, Wear PPE and Standby Ventilator +/- Clamp Tube



Strict Adherence to Proper Degowning Steps



Hand Hygiene



Team Debriefing



*Principles of Airway Management of COVID-19 may apply to Operating Theatre, Intensive Care, Emergency Department and Ward Settings. Similar principles apply to extubation of COVID-19 patients.

**There are regional and institutional variations on definition of a suspected/reportable case. Please refer to your own institutional practice.

***Personal Protective Equipment according to your own institutional recommendation, may include: Particulate Respirator, Cap, Eye Protection, Long-sleeved Waterproof Gown, Gloves

****Aerosol Generating Procedures: Tracheal Intubation, Non-invasive Ventilation, Tracheostomy, Cardiopulmonary Resuscitation, Manual Ventilation before Intubation, Bronchoscopy

References:

1. World Health Organization. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected Interim guidance. January 2020.

2. Center for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Patients with Confirmed 2019 Novel Coronavirus (2019-nCoV) or Persons Under Investigation for 2019-nCoV in Healthcare Settings. February 2020.

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@gaseousXchange

What you need to know about coronavirus disease 2019 (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?

Yes. COVID-19 is spreading from person to person in parts of the United States. Risk of infection with COVID-19 is higher for people who are close contacts of someone known to have COVID-19, for example healthcare workers, or household members. Other people at higher risk for infection are those who live in or have recently been in an area with ongoing spread of COVID-19. Learn more about places with ongoing spread at <https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html#geographic>.

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 is now spreading from person to person. The virus is thought to spread mainly between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs or sneezes. It also may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads. 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
- shortness of breath

What are severe complications from this virus?

Some patients have pneumonia in both lungs, multi-organ failure and in some cases death.

How can I help protect myself?

People can help protect themselves from respiratory illness with everyday preventive actions.

- 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 from an area with ongoing spread of COVID-19?

If you have traveled from an affected area, there may be restrictions on your movements for up to 2 weeks. If you develop symptoms during that period (fever, cough, trouble breathing), seek medical advice. 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 take everyday preventive actions, like avoiding close contact with people who are sick and washing your hands often.

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.



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% 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.

