

High Consequence Pathogens - COVID-19 Specific

Introduction

- * Patients should specifically be asked if he/she has traveled internationally in the past 14-days
 - Current high suspicion countries: China, Japan, South Korea, Italy, Iran, Europe
 - Current high risk U.S. locations: Washington state, New York
 - Or ask if close contact with person(s) who have traveled to at risk locations or is being evaluated for potential emerging infectious disease
 - As of March 20, 2020 community transmission was noted in North Carolina (patient testing positive with no travel or known at risk exposure); therefore, travel history is much less important in the screen
- * Differential diagnosis
 - Influenza
 - Bacteremia/septicemia
- * Transmission occurs via contact with respiratory droplets of infected individuals:
 - Between people who are in close contact with one another
 - ~ 3 – 6 feet for ≥ 10 minutes
 - COVID-19
 - It may be possible that a person can get COVID-19 by touching contaminated surface or object that has the virus on it and then touching their own mouth, nose, or eyes
 - This is not believed to be the main way the virus spreads
- * Symptoms:
 - Fever ($>100.4^{\circ}\text{F}$)
 - Cough/upper respiratory illness symptoms
 - Difficulty breathing or shortness of breath
- * Persons that should be considered high risk
 - Influenza-like illness = temp > 100.4 (or have taken an antipyretic in past 4-6 hours)
Plus, one of the following:
 - Cough
 - Shortness of breath
 - Known exposure to person with COVID-19 within past 14 days
 - Travel to high risk county or U.S. state
- * Consider that at-risk sites of travel may change with time ****

Basic / Advanced Medical Care

1. Screening on scene should take place for ALL patients (medical and trauma)
2. EMS personnel should don personal protective equipment (PPE) with any patient with a positive field screen (symptoms and international travel in past 14 days) as soon as identified utilizing standard donning procedures for airborne/droplet precautions
 - A. Eye protection (goggles / face shield)
 - B. Fluid impervious gown
 - C. Gloves
 - D. N-95 mask (surgical mask may be utilized if N-95 mask is not available)
3. For CMED EIDS screen positive – one provider should don a surgical mask with face shield
 - A. Hand the patient a surgical mask to don
 - B. Perform a Field Screen within 5 minutes to verify EIDS status
 - C. For field screen positive ALL care providers who will be within 6 feet of patient don full PPE
 - D. For field screen negative follow standard PPE guidelines
4. Only essential personnel should have any contact with the patient
5. First responder personnel should **NOT** have patient contact unless critical intervention / assistance required
6. Surgical mask should be placed on any patient with a positive screen for a high consequence pathogen = symptoms + travel (until travel has been removed as a risk)
7. Contact operations supervisor as soon as a patient with a positive screen is identified
8. **Medical Initial Assessment Protocol or Pediatric Initial Assessment Protocol**
9. Temperature must be assessed on ALL patients
10. Care as per appropriate protocol (note advisements in #7 below)
11. Avoid the aerosolizing procedures if not distinctly indicated
 - A. Nebulizer treatments, suctioning, high flow nasal cannula, CPAP, SGD, BVM, ETT
 - B. **If any aerosolizing procedure is required, PPE as above with an N-95 mask must be utilized**
 - C. Avoid attempts at endotracheal intubation
12. If supplemental oxygen is required a non-rebreather mask should be utilized
13. Limit utilized equipment to only essential equipment required for needed patient care
14. With negative screen provide care as per appropriate protocol and transport per patient destination general triage protocol
15. During encode notify receiving emergency department of "EIDS positive patient"
16. If nebulizer is being utilized, this should be halted and held upon arrival to the emergency department until the patient has been placed in their treatment room
17. Use of CPAP must be discussed with the receiving facility prior to arrival and plan for patient transition from ambulance to treatment room clarified prior to arrival
 - A. This may include momentary halting of CPAP during patient movement

Additional Considerations

- * Driver of transporting ambulance should wear PPE as described above when participating in patient care activities (including patient transport & loading)
 - Remove PPE except for N-95 (or surgical mask) and perform hand hygiene prior to entering vehicle cab to prevent contamination of driver's compartment
- * CMED will screen at call-taking (CMED will advise "Positive EIDS patient" if positive screen)
 - It is imperative that field providers also ask screening questions on scene
- * Transport of patient with suspected high consequence pathogen must be reported to Operations Supervisor
 - Must be reported to local public health authorities
 - Ensure Supervisor and Public health notified of any patient who refuses transport or is pronounced dead on scene (if positive screen for a high consequence pathogen)
- * Extreme care should be utilized in doffing PPE post transport per standard procedure to ensure no contamination from exposure to used PPE
 - Do not touch outer surface of PPE
 - Do not remove N-95 mask or eye protection prior to gown/coverall removal
- * No family members or bystanders should be transported in the ambulance
- * Appropriate PPE is required during cleaning / disinfecting of any EMS equipment
 - Utilize appropriate approved disinfectant cleansing solution
 - Equipment includes ambulance interior and surfaces exposed to patient contact
- * Following patient care activity utilize standard hand hygiene utilizing soap and water for 30 seconds or alcohol-based hand sanitizer
- * If any personnel exposure occurs Supervisor will perform a risk assessment and notify employee health as soon as indicated following decontamination / cleansing / irrigation of exposure
- * Recommended to wear surgical mask and consider eye protection for any patient with fever; even outside this protocol
- * Negative Pressure in care compartment:
 - For door or window available to separate driver's and care compartment space:
 - Close door/window between driver's and care compartment
 - Operate rear exhaust fan on full
 - For no door or window available to separate driver's and care compartment space:
 - Open outside air vent in driver's compartment and set rear exhaust fan to full
 - Set vehicle ventilation system to non-recirculating to bring in maximum outside air

- * Airborne precautions
 - Standard PPE with fit-tested N95 mask (or PAPR respirator) and utilization of a gown, change of gloves after every patient contact, and strict hand washing precautions
 - Utilized with Aspergillus, Tuberculosis, Measles (rubeola) Chickenpox (varicella-zoster), Smallpox, Influenza, Rhinovirus, Norovirus, and Rotavirus, or zoster (shingles)
- * Contact precautions
 - Standard PPE with utilization of a gown, change of gloves after every patient contact, and strict hand washing precautions
 - Utilized with GI complaints, blood or body fluids, C diff, scabies, wound and skin infections, MRSA
 - Clostridium difficile (C. diff) is not inactivated by alcohol-based cleaners and washing with soap and water is indicated
- * Droplet precautions
 - Standard PPE plus a standard surgical mask for providers who accompany patients in the treatment compartment and a surgical mask or NRB O₂ mask for the patient
 - Utilized when Influenza, Meningitis, Mumps, Streptococcal pharyngitis, Pertussis, Adenovirus, Rhinovirus, SARS, and undiagnosed rashes
- * All-hazards precautions
 - Standard PPE plus airborne precautions plus contact precautions
 - Utilized during the initial phases of an outbreak when the etiology of the infection is unknown or the causative agent is found to be highly contagious (e.g. COVID19)
- * COVID-19 guide for evaluations of persons under investigation
 - <http://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html>
- * Follow all operational guidelines for avoiding exposure, reporting exposure, self-monitoring
 - Be aware that guidelines are constantly in a state of updating