Dayton MMRS | Public Health - Dayton & Montgomery County | GMVEMSC

COVID-19 Bulletin 2: Current Clinical & PPE Issues

This is drawn from CDC, Ohio EMS, and federal EMS Office materials, as well as recommendations from local/regional groups. Dayton MMRS has received numerous calls from public safety agencies (law enforcement, fire, and EMS among others) regarding COVID-19. Working with Public Health – Dayton & Montgomery County, Greater Miami Valley EMS Council, the Region 3 Regional Physicians Advisory Board and others, we have developed this bulletin on issues your agency may want to consider.

This will discuss immediate steps and clinical actions for EMS. Additional recommendations for planning at the agency level are included in Bulletin 3. An abbreviated version of this is being developed for law enforcement and corrections personnel.

COVID-19 is the name of the disease. The virus that causes COVID-19 is SARS-CoV-2. It was initially called a novel coronavirus, simply meaning a new virus. There are numerous coronaviruses. Most infect animals. Seven coronaviruses infect humans. Four cause many of our "common colds" (others are caused by rhinoviruses). The other three coronaviruses are more severe: SARS, MERS, and now COVID-19.

The virus is thought to spread mainly from person-to-person via respiratory droplets among close contacts. Respiratory droplets are produced when an infected person coughs or sneezes and can land in the mouths or noses, or possibly be inhaled into the lungs, of people who are nearby. lose contact may include:

- Being within approximately 6 feet of an individual with COVID-19 for a prolonged period of time.
- Having direct contact with body fluids (such as blood, phlegm, and respiratory droplets) from an individual with COVID-19.

The most common mortality rate quotes are in the range of 2-3%. That is very high for an infectious disease, especially one as communicable as this appears to be. Seasonal influenza mortality is generally less than 0.1%. It is as yet unknown what the rate will be in Western populations. Please realize that we learn more about this disease daily. **Information and recommendations will change over time.**

Here are recommendations for your consideration. It is the responsibility of each agency's chief and medical director to determine the procedures for that agency.

- All personnel should develop good infectious disease prevention practices:

- To help prevent infections, keep your hands away from your eyes, nose, and mouth. .
- Wash hands frequently for at least 20 seconds with soap and water.

- **PPE:**
  - If feasible, ensure that each person on duty has the following PPE available:
    - Surgical mask, impermeable coveralls or gown, nitrile gloves, and face shield
    - These can and SHOULD be used as needed for any patient who may have an infectious disease (at the moment, influenza is much more likely to kill people in the US than COVID-19)
  - N-95 respirator masks or PAPRs are recommended when caring for a suspected COVID-19 patient (see Clinical Aspects). EMS personnel generally do not need N95 respirators when caring for patients under droplet precautions for infectious diseases except under certain circumstances (e.g., aerosol-generating procedures for influenza).
  - Save N95s for now, unless there is significant risk. They may be needed later
  - Be aware that many suppliers are already experiencing shortages of PPE.
  - N-95 respirators must be fit-tested, and training in donning, wearing, and doffing the respirators is a crucial part of the process.
  - 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 should continue to be used during transport.
    - Do not let family members to travel in the ambulance, unless there are extreme circumstances requiring them to accompany the patient. They may be infected.
- **Dispatch Centers**
  - Dispatch centers that are aware of patients with a fever or other indications of infectious disease should make that information known to police, fire, and EMS crews so that the crews can don PPE prior to entering the scene.
  - Dispatch Centers should not announce on the air anything that indicates a patient has a disease. Instead, they should use terms such as "respiratory protection is indicated."
- **Clinical aspects:**
  - Patient assessments:
    - Local health departments, in consultation with clinicians, determine whether a patient is a PUI for COVID-2019. EMS should treat as a potential COVID-19 patient anyone who presents with:
      - Fever **or** signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)

        - And has, in the past 14 days, traveled to an area from an affected geographic region **or** any known exposure to a patient known or suspected to have COVID-19 infection.
        - Affected Geographic Areas with Widespread or Sustained Community Transmission as of February 26, 2020 are China, Iran, Italy, Japan, and South Korea.
        - These criteria are subject to change. Travel history should NOT be the primary criteria for assessment.
    - Notify the receiving hospital as early as possible. Expect to receive directions regarding which entrance to use.
    - Use the "one person only, starting 6 feet away from the patient" as the routine approach to any infectious disease or dangerous patient.
    - Patient contact should be minimized to the extent possible until a facemask is on the patient.
    - The patient's facemask may be worn over a nasal cannula, or an oxygen mask can be used if clinically indicated.
    - Avoid aerosol-generating procedures (intubation, nebulizer, CPAP, etc.) if COVID-19 is suspected. If they must be utilized, do the procedure in an open air location, not in a small room, or the back of the ambulance
    - If COVID-19 or other serious infectious diseases are suspected, limit the number of providers in the patient compartment to essential personnel.
    - Minimize the amount of EMS equipment in the care of the patient, and in the patient compartment to minimize contamination and the need for disinfection.
    - EMS and Law Enforcement needs learn a public health term: PUI.
        - A "Person Under Investigation" (PUI) for a given disease is a person who has both the signs or symptoms, and epidemiologic risk factors consistent of the disease as follows should be considered a PUI. In some circumstances, EMS may be notified in advance of the need to transport a PUI.
    - 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.
- After patient transfer is concluded, following the GDAHA & GMVEMSC Infectious Disease Exposure Reporting Policy by notifying the charge nurse in the ED as well as your chain of command of your potential exposure.
- EMS documentation should include a listing of EMS clinicians and public safety providers involved in the response and level of contact with the patient (for example, no contact with patient, provided direct patient care). This documentation may need to be shared with local public health authorities.
- After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
- The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
- When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves. A face shield or facemask and goggles should also be worn if splashes or sprays during cleaning are anticipated.

- Doors should remain open when cleaning the vehicle.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2.
- Products with EPA-approved emerging viral pathogens claims are recommended for use against SARS-CoV-2.
- All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected.

- **Training**
  - Consider having personnel view the recorded webinar from the NHTSA EMS Office. Watch the webinar now.
  - Emphasize cleaning surfaces. Be diligent in cleaning Engines and Ladders, as well as Medic Units.
  - Emphasize cleaning surfaces in stations.