

Marion County Fire and EMS Administrators,

Introduction

The Marion County EMS Medical Directors would like to offer a consensus statement regarding prehospital guidance for personal protective equipment (PPE), prophylaxis strategies, and best practices for mitigation of disease spread. This consensus document is to serve as an interim guidance for prehospital personnel providing any degree of patient care. The guidance included here is based on current best evidence and expert opinion in conjunction with local, state, and federal findings and predictions. These guidelines are subject to change, and will be updated accordingly. The EMS Medical Directors of Marion County strongly support a regional approach to prehospital PPE, prophylaxis, and mitigation strategies. We strongly encourage all administrations to engage their physician medical directors in the implementation of these guidelines.

Assumptions

Current guidance is based on several current assumptions and evidence about the North American Influenza virus, commonly known as "swine flu." While the virus contains portions of swine, avian, and human influenza viruses it is not transmissible through pork, but is likely limited to only human to human spread through respiratory droplets and direct contact. The contagious period is thought to be 1-2 days prior to onset of symptoms until up to 7 days after symptoms subside.

Current surveillance loosely defines suspect patients as respiratory symptoms with a fever. While there has been some increased frequency of GI symptoms with this strain, the current case definitions do not include GI symptoms. Also, any recent travel to Mexico or close contact with those who have recently returned from Mexico, with respiratory symptoms and a fever, are highly suspect. There are over 90 cases here in the US, and all are mild with one exception in an immunocompromised patient. There appears to be one confirmed case in Indiana, as well. The virus is susceptible to oseltamivir (Tamiflu®) and zanamivir (Relenza®), but not amantadine or rimantidine." These medications only reduce the severity of what is an apparently mild course, and reduce the overall course by 1-2 days. Please keep in mind, current limited treatment and prophylactic stockpiles of these drugs were developed and reserved for life threatening influenza strains with high mortality rates similar to prior epidemics.

Case Definition

Symptoms of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue. Some people have reported diarrhea and vomiting associated with swine flu. Crews can use the ED thermometers to determine fevers.

Personal Protective Equipment

Since the virus' spread is limited to respiratory droplets and direct contact, we recommend that prehospital providers mirror current emergency department practice. Current local expert opinion maintains that respirators do not need to be fit tested for this particular exposure because of the size of the respiratory droplets. This opinion is subject to change. Current stockpiles of respirators are acceptable.

- All patients with respiratory symptoms of cough, rhinorrhea, and congestion AND a fever (subjective fever is acceptable for our purposes) should have a surgical mask applied.
- All other prehospital care protocols should continue to be utilized to guide care and treatment. There is no alternate standard of care at this time
- Prehospital providers in close contact or caring for these patients should employ a surgical grade facemask as well and the standard gloves. If the patient cannot be placed in a surgical facemask, then the prehospital provider should employ a respirator, N95 or greater, for their own use.
- When intubating, providing NPPV, or administering nebulized medications to such patients, providers should employ both eye protection and a respirator, N95 or greater.
- A respirator should never be placed on a patient.
- Facemasks are only useful for one patient encounter. A provider need not change masks when managing two suspected influenza patients at the same time.
- Perform a thorough cleaning of the stretcher and all equipment that has come in contact with or been within 2 meters (6.5 feet) with an approved disinfectant, upon completion of the call.

Transmission of the viral particles is primarily via aerosolized droplets from coughing or sneezing, and subsequent inhalation of these droplets or contact from where these droplets have deposited (from the contact's coughing/sneezing/touching other items) to one's mucous membranes (eyes, nose, mouth).

- Use a three tiered approach, based on:

- 1) Distance
- 2) Barrier Contact/Respiratory Filtering
- 3) Post contact decontamination

1) Distance – As you walk up to the scene, observe the patient for obvious symptoms of coughing, sneezing, wiping at their nose/blowing their nose, congestion, red eyes, etc. If such symptoms are observed, be proactive and apply gloves and a facemask before placing a facemask on the patient. If the contact becomes distressed at the presence of masks, often just saying "I see

that you're coughing/sneezing, this mask is just a precaution." will often set them at ease.

Having patient come outdoors if possible/safe (ie. as opposed to talking to them in close confines) will mitigate a lot of the potential for concentration/exposure to respiratory droplets in a closed space. If possible, interview symptomatic patients from a distance of at least 5 feet

2) When transporting patients, consider keeping front windows open, and avoiding use of recirculating mode in the ambulance's AC system is helpful.

3) Post contact decontamination is best accomplished through frequent hand washing. If this is not possible, use a virucidal topical hand lotions/foams, sprays and wipes. The ones that are alcohol based are not anti-viral. Wiping down the interior of the vehicles after transports these is also advisable.

While these measures are not guaranteed to prevent transmission/infection, they are simple enough and easy to institute so as not to be too much of a burden on your staff while providing some protection and reassurance to your staff and their families.

Prophylaxis

All confirmatory testing is done at the state and/or federal level, will likely take 3 days to over a week, and will not affect acute care management decisions. Hospitals can only provide screening testing for the strain in question. Therefore, there is little to no mechanism for alerting providers that they have come in contact with confirmed cases. However, we will continue to pursue strategies to improve upon such a mechanism.

- Neither prophylactic nor treatment regimens will be offered or provided through current stockpiles.
- Providers who develop symptoms should be removed from the workplace immediately, and directed to occupational health or their primary care provider for further management and testing.

These medications only reduce the severity of an apparently already mild course, and reduce the overall course by 1-2 days. Please keep in mind, current limited treatment and prophylactic stockpiles of these drugs were developed and reserved for life threatening influenza strains with high mortality rates similar to prior epidemics. It makes little sense to deplete these extremely expensive caches for such mild disease while there are many other conventional resources to acquire such medications. This strategy is obviously open to change as our current situation

continues to evolve.

Mitigation

At this time, common sense prevails for mitigating spread. First and most important: wash your hands. Try to stay in good general health. Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food. Try not to touch surfaces that may be contaminated with the flu virus. Minimize close contact with people who you suspect to be infected with influenza.

From the CDC Website:

What should I do if I get sick?

If you live in areas where swine influenza cases have been identified and become ill with influenza-like symptoms, including fever, body aches, runny nose, sore throat, nausea, or vomiting or diarrhea, you may want to contact your health care or occupational health care provider, particularly if you are worried about your symptoms. Your health care provider will determine whether influenza testing or treatment is needed.

If you are sick, you should stay home and avoid contact with other people as much as possible to keep from spreading your illness to others.

If you become ill and experience any of the following warning signs, seek emergency medical care.

In children emergency warning signs that need urgent medical attention include:

- * Fast breathing or trouble breathing
- * Bluish skin color
- * Not drinking enough fluids
- * Not waking up or not interacting
- * Being so irritable that the child does not want to be held
- * Flu-like symptoms improve but then return with fever and worse cough
- * Fever with a rash

In adults, emergency warning signs that need urgent medical attention include:

- * Difficulty breathing or shortness of breath
- * Pain or pressure in the chest or abdomen
- * Sudden dizziness
- * Confusion
- * Severe or persistent vomiting

The Marion County EMS Medical Directors encourage open and timely discussion and engagement with administrators in drafting local policy and protocol. The aforementioned guidelines are in line with hospital and public health practice and recommendations, and we strongly recommend the incorporation of this guidance regionally. Please feel free to direct all questions and concerns to your respective physician medical director.

Sincerely,

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