Vermont Emergency Medical Services Guidelines for Response to Swine Influenza A (H1N1) [Swine Flu] Updated May 29, 2009 at 0900

Although the risk of widespread swine influenza A currently appears low in Vermont, the Vermont Department of Health is issuing these guidelines as a precaution for EMS personnel. The Centers for Disease Control (CDC) and the World Health Organization have issued information on, and guidance for, swine-origin influenza virus (S-OIV), also known as novel influenza A (H1N1) virus. The CDC website is http://www.cdc.gov/swineflu. The following information is based on recommendations from the CDC as of 5/28/09.
The Vermont Department of Health (VDH) has scaled down its Health Operations Center (HOC) to a level slightly above normal operations. The HOC is no longer functionally available for emergency assistance, although the Department continues to monitor developments closely. These recommendations will be updated as more information becomes available. The date and time of any changes will be clearly indicated.

Cases in Vermont
Confirmed cases of swine influenza A in Vermont as of 5/29/09 @1400: 5
For statistics on the number of cases in the U.S., go to CDC H1N1 Flu | CDC H1N1 Flu Update: U.S. Human Cases of H1N1 Flu Infection

Case Definitions for Infection with Novel Influenza A (H1N1) Virus
A **confirmed case** of novel influenza A (H1N1) virus infection is defined as a person with an influenza-like illness with laboratory confirmed novel influenza A (H1N1) virus infection by one or more of the following tests:

1. real-time RT-PCR
2. viral culture

A **probable case** of novel influenza A (H1N1) virus infection is defined as a person with an influenza-like-illness who is positive for influenza A, but negative for human H1 and H3 by influenza RT_PCR

For further definitions of pertinent terms, go to www.cdc.gov/swineflu/recommendations.htm.

Treatment
Swine influenza A (H1N1) virus is sensitive (susceptible) to the neuraminidase inhibitor antiviral medications zanamivir and oseltamivir. The Vermont Department of Health has delivered a portion of the state-held cache of these antiviral medications to hospitals. There are additional supplies available both in Vermont and in the Strategic National Stockpile, where some are being held for Vermont

Infection Control Guidelines for EMS Personnel Responding to Suspected Swine Flu Calls
If there HAS NOT been swine-origin influenza reported in the geographic area (http://www.cdc.gov/swineflu/), EMS providers should assess all patients as follows:

- Step 1: EMS personnel should stay more than 6 feet away from patients and bystanders with symptoms and exercise appropriate routine respiratory droplet precautions while assessing all patients for suspected cases of swine-origin influenza.

- Step 2: Assess all patients for symptoms of acute febrile respiratory illness (fever plus one or more of the following: nasal congestion/ rhinorrhea, sore throat, or cough).
    - If no acute febrile respiratory illness, proceed with normal EMS care.
    - If symptoms of acute febrile respiratory illness, then assess all patients for travel to a geographic area with confirmed cases of swine-origin influenza within the last 7 days or close contact with someone with travel to these areas.
        - If travel exposure, don appropriate PPE for suspected case of swine-origin influenza.
        - If no travel exposure, place a standard surgical mask on the patient (if tolerated) and use appropriate PPE for cases of acute febrile respiratory illness without suspicion of swine-origin influenza (as described in PPE section).

If the CDC confirmed swine-origin influenza in the geographic area (U.S. Human Cases of H1N1 Flu Infection)

- Step 1: Address scene safety:
    - If PSAP (public safety answering point or 9-1-1 call-taker) advises potential for acute febrile respiratory illness symptoms on scene, EMS personnel should don PPE for suspected cases of swine-origin influenza prior to entering scene.
    - If PSAP has not identified individuals with symptoms of acute febrile respiratory illness on scene, EMS personnel should stay more than 6 feet away from patient and bystanders with symptoms and exercise appropriate routine respiratory droplet precautions while assessing all patients for suspected cases of swine-origin influenza.
- Step 2: Assess all patients for symptoms of acute febrile respiratory illness (fever plus one or more of the following: nasal congestion/ rhinorrhea, sore throat, or cough).
    - If no symptoms of acute febrile respiratory illness, provide routine EMS care.
    - If symptoms of acute febrile respiratory illness, don appropriate PPE for suspected case of swine-origin influenza if not already on.

Personal protective equipment (PPE):
Interim recommendations:

- When treating a patient with a suspected case of swine-origin influenza as defined above, the following PPE should be worn:
    - Fit-tested disposable N95 respirator and eye protection (e.g., goggles; eye shield), disposable non-sterile gloves, and gown, when coming into close contact with the patient.
- When treating a patient that is not a suspected case of swine-origin influenza but who has symptoms of acute febrile respiratory illness, the following precautions should be taken:
    - Place a standard surgical mask on the patient, if tolerated. If not tolerated, EMS personnel may wear a standard surgical mask.
    - Use good respiratory hygiene – use non-sterile gloves for contact with patient, patient secretions, or surfaces that may have been contaminated. Follow hand

hygiene including hand washing or cleansing with alcohol based hand disinfectant after contact.

- Encourage good patient compartment vehicle airflow/ ventilation to reduce the concentration of aerosol accumulation when possible.

Infection Control:
EMS agencies should always practice basic infection control procedures including vehicle/equipment decontamination, hand hygiene, cough and respiratory hygiene, and proper use of FDA cleared or authorized medical personal protective equipment (PPE).

Interim recommendations:

- Pending clarification of transmission patterns for this virus, EMS personnel who are in close contact with patients with suspected or confirmed swine-origin influenza A (H1N1) cases should wear a fit-tested disposable N95 respirator, disposable non-sterile gloves, eye protection (e.g., goggles; eye shields), and gown, when coming into close contact with the patient.

- All EMS personnel engaged in aerosol generating activities (e.g., endotracheal intubation, nebulizer treatment, and resuscitation involving emergency intubation or cardiac pulmonary resuscitation) should wear a fit-tested disposable N95 respirator, disposable non-sterile gloves, eye protection (e.g., goggles, eye shields), and gown, unless EMS personnel are able to rule out acute febrile respiratory illness or travel to an endemic area in the patient being treated.

- All patients with acute febrile respiratory illness should wear a surgical mask, if tolerated by the patient.

Interfacility Transport
EMS personnel involved in the interfacility transfer of patients with suspected or confirmed swine-origin influenza should use standard, droplet and contact precautions for all patient care activities. This should include wearing a fit-tested disposable N95 respirator, wearing disposable non-sterile gloves, eye protection (e.g., goggles, eyeshield), and gown, to prevent conjunctival exposure. If the transported patient can tolerate a facemask (e.g., a surgical mask), its use can help to minimize the spread of infectious droplets in the patient care compartment. Encourage good patient compartment vehicle airflow/ ventilation to reduce the concentration of aerosol accumulation when possible.

Interim Guidance for Cleaning EMS Transport Vehicles After Transporting a Suspected or Confirmed Swine-origin Influenza Patient

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a suspected or confirmed swine-origin influenza patient. This guidance may be modified or additional procedures may be recommended by the Centers for Disease Control and Prevention (CDC) as new information becomes available.

Routine cleaning with soap or detergent and water to remove soil and organic matter, followed by the proper use of disinfectants, are the basic components of effective environmental management of influenza. Reducing the number of influenza virus particles on a surface through these steps can reduce the chances of hand transfer of virus. Influenza viruses are susceptible to inactivation by a number of chemical disinfectants readily available from consumer and commercial sources.

After the patient has been removed and prior to cleaning, the air within the vehicle may be

exhausted by opening the doors and windows of the vehicle while the ventilation system is running. This should be done outdoors and away from pedestrian traffic. Routine cleaning methods should be employed throughout the vehicle and on non-disposable equipment.

For additional detailed guidance on ambulance decontamination EMS personnel may refer to "Interim Guidance for Cleaning Emergency Medical Service Transport Vehicles during an Influenza Pandemic" available at: Interim Guidance for Cleaning Emergency Medical Service Transport Vehicles during an Influenza Pandemic .

EMS Transfer of Patient Care to a Healthcare Facility

When transporting a patient with symptoms of acute febrile respiratory illness, EMS personnel should notify the receiving healthcare facility so that appropriate infection control precautions may be taken prior to patient arrival. Patients with acute febrile respiratory illness should wear a surgical mask, if tolerated. Small facemasks are available that can be worn by children, but it may be problematic for children to wear them correctly and consistently. Moreover, no facemasks (or respirators) have been cleared by the FDA specifically for use by children.

- If your agency has not begun fit testing and medical clearance for use of N-95 masks, this is the appropriate time to do so. The Vermont Department of Health has been working to arrange fit testing for all EMS personnel with the goal of having all medically qualified personnel fit tested by fall. Until fit testing and medical clearance have occurred, the EMS provider should wear a surgical mask.
- Follow all routine Vermont EMS protocols for care of the patient's chief complaint and presenting symptoms.
- Patients presenting with respiratory distress should receive high concentration oxygen through a nonrebreather mask.
- When transporting a suspected swine flu patient in an ambulance, set the ventilation controls to "non-recirculating." If the ambulance is equipped with HEPA filtration, this should be used.
- Additional guidance regarding swine flu infection control is available at http://www.cdc.gov/ swineflu/guidance_ems.htm.

Other Swine Influenza Hygiene and Clean-Up Considerations

- Use standard precautions. For all contact with suspected swine flu patients, pay special attention to careful hand hygiene, including use of an alcohol-based handrub; if hands are visibly soiled, wash hands with soap and water.
- Each patient with suspected swine flu should be advised to cover his or her mouth and nose with a facial tissue when coughing or sneezing.
- EMS personnel who are ill with respiratory signs or symptoms should **NOT** report for EMS duty.
- EMS personnel and EMS agencies should have enough food, water and other supplies on hand to last at least three days. For more information, go to www.fema.gov/areyouready/assemble_disaster_supplies_kit.shtm.
- Refer to the infection control protocol in the Vermont EMS protocols for additional guidance on vehicle and equipment clean up.

Management of Unprotected Exposures among EMS Personnel

Given the currently available information on the epidemiology of swine flu in the United States, the following outlines interim guidance for the management of exposures to swine flu.

- *Exclusion from duty is **NOT** recommended for an exposed healthcare worker who is asymptomatic (has no symptoms).*
- Antiviral medication treatment may be appropriate under certain circumstances for EMS personnel with unprotected exposures. See the CDC's recommendations at http://www.cdc.gov/h1n1flu/recommendations.htm.

For more information, you may:

- refer community members to Vermont's assistance and information line at 2-1-1
- go to the CDC web site www.cdc.gov/swineflu
- go to the Vermont Department of Health web site healthvermont.gov.