



## Objectives

- This program is designed to educate the EMS responder on the topic of Swine Flu.
- Upon completion of this program, the EMS responder shall have a basic understanding of the flu virus, detection, protection and treatment considerations for Swine Flu.

## Topics

- What is swine flu?
- What the current status of its incidence is in California
- Definition of "Influenza-Like Illness" (ILI)
- How EMS personnel should approach the care of ILI patients
- Any EMS specific situational guidance recommendations
- Personal Protective Equipment (PPE) availability and appropriate use
- Local surveillance and reporting of ILI for Public Health and EMS
- Changes to local EMS policy for transport or destinations related to ILI
- Some Recommendations on Cleaning EMS Vehicles

## What is Swine-Origin Influenza A (H1N1) Virus (Swine Flu)?

- Swine-Origin Influenza A (H1N1) Virus
- Swine Flu is a disease of pigs caused by Type A influenza viruses
- Swine flu is typically a respiratory disease of pigs; however, swine flu has expanded to human-to-human transmission
- Swine flu is a type of Influenza-Like Illness (ILI)

## What is its Current Status in California?

- The number of cases of Swine Flu in California and the world is changing daily
- The nature of disease outbreaks are different than "typical" disasters (Earthquakes, Fires, Floods)
- Must be prepared for long term operations
- Different local areas may respond differently based upon the circumstances in their community

## Can humans catch swine flu?

- CDC has determined that this Swine-Origin Influenza A (H1N1) Virus is contagious.
- Documented human-to-human transmission of Swine Flu is now occurring in California.
- At this time, it is not known how easily the virus spreads between people.

### What are the signs and symptoms of Swine Flu in humans?

- Similar symptoms of regular human seasonal influenza.
- Fever (greater than 100.0° F or 37.8 ° C), AND cough and sore throat.
- Body aches, headache, chills, and fatigue or lack of appetite.
- Some people with swine flu also have reported runny nose, nausea, vomiting, and diarrhea.

### How does Swine Flu spread?

- Human-to-human transmission of Swine Flu predominantly occurs through direct droplet transmission (Usually within 6-10 feet).
- This is thought to occur in the same way as seasonal flu, which is mainly person-to-person transmission through coughing or sneezing of infected people.
- People may become infected by touching something with flu viruses on it and then touching their mouth or nose (moist mucous membranes).

### How Can Someone with the Swine Flu Infect Someone Else?

- Droplets from a cough or sneeze of an infected person move through the air.
- Germs can be spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.
- Germs can be spread when a person touches respiratory droplets from another person on a surface like a desk and then touches their own eyes, mouth or nose before washing their hands.
- Infected people may be able to infect others beginning 1 day before symptoms develop and up to 7 or more days after becoming sick.

### What Can I do to Keep From Getting the Flu?

- Wash you 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 touch surfaces that may be contaminated with the flu virus.
- Avoid close contact with people who are sick.

### Assessment of “Influenza-Like Illness” (ILI)

- Begin the primary survey at 6 feet and
- Ask if the patient has had a fever (greater than 100.0° F or 37.8 ° C), AND cough or sore throat
- The patient may additionally report lack of appetite or runny nose, nausea, vomiting, and diarrhea.
- Ask if the patient has recently been to Mexico or with someone who has recently been to Mexico.

### Special Patient Population Considerations

Patients with the following medical history should be considered susceptible for ILI:

- Respiratory disorders: including Asthma, Emphysema and other pulmonary diseases
- Cardiac disorders
- Immuno-compromised
- Recent illness
- Pediatrics and the elderly

### **What should I do if I suspect an ILI?**

- Before moving closer than 6 feet,
- Use PPE for respiratory droplet precautions (fit-tested N95 respirator, disposable gloves, gown, and eye protection).
- After contact with the patient clean hands thoroughly with soap and water or an alcohol-based hand gel.
- After caring for the patient cleanse the vehicle for respiratory droplet contamination.

### **Situational Guidance Recommendations**

- In the most common situation where EMS workers are providing care for patients with Influenza-Like Illness (ILI) who are not known contacts of a laboratory-confirmed swine flu case:
- Use Local EMS agency patient care protocols locally for this situation
- At a minimum standard barrier precautions for routine patient care plus droplet precautions (i.e., use of a surgical or procedure mask) for procedures that require close patient contact.
- Standard barrier precautions include hand hygiene and the use of eye protection if splashing or spraying of blood or body fluids (including respiratory secretions) are anticipated.
- Droplet precautions include all the standard barrier precautions plus the use of a surgical or procedure mask for procedures that require close contact.

### **Situational Guidance Recommendations**

- In the event that an EMS worker is providing care for a laboratory-confirmed swine flu case, or an ill close contact of a laboratory-confirmed swine flu case, precautions should include:
- Wear a fit-tested N95 respirator, disposable gloves, gown, and eye protection (face shield or goggles).
- Before and after contact with the patient, clean hands thoroughly with soap and water or an alcohol-based hand gel.

### **How to reduce respiratory droplet exposure?**

- Standard droplet respiratory precautions will significantly reduce the transmission of respiratory illness.
- Providers can further reduce exposure by considering Metered Dose Inhaler (MDI) rather than a nebulizer, supra-glottic adjunct airway devices versus intubation (Combitube or King Airways), and HEPA filters on bag-valve-mask devices or any Oxygen delivery systems (as available).

### **Local surveillance and reporting of ILI for Public Health and EMS**

- Follow the Policies of the local EMS agency regarding surveillance and reporting of ILI patients.
- This may include report suspected incidences of ILI to: Facility staff at the patient transport destination and Your supervisor
- Should include documentation on the Pre-Hospital Patient Care Report of your significant findings

### **Personal Protective Equipment (PPE)**

- EMS Personnel should ensure that they have the necessary personal protective equipment
- Gloves, N95 Masks, and other standard equipment for barrier and droplet precautions
- EMSA #216 Policy for PPE
- Sufficient Types and Quantities of PPE should be evaluated based upon local EMS policy

### **Local EMS policy for transport versus non-transport related to ILI**

- Based upon guidance from the local EMS agency, future consideration may include changes to either the decision to transport a patient under specified circumstances or the destination
- Contact your supervisor or local EMS agency for information on local transport considerations.

### **Antiviral treatment for Swine Flu infections in humans**

- Antivirals may be used as either a treatment to a confirmed or suspected case of Swine Flu or as prophylactic treatment to exposed individuals under specified conditions
- At this time, prehospital treatment of patients with antiviral agents is not being utilized
- CDC recommends the use of Tamiflu (*oseltamivir* phosphate) or Relenza (*zanamivir*) as part of the treatment and/or reduction of severity of infection with swine influenza viruses.
- More information on treatment recommendations can be found at [www.cdc.gov/flu/swine/recommendations.htm](http://www.cdc.gov/flu/swine/recommendations.htm)

### **Vaccinations**

- At this time, vaccine to prevent Swine Flu is not available.

### **Recommendations for vehicle decontamination**

- Perform a thorough cleaning of the stretcher and all equipment that has come in contact with or been within 6 feet with an approved disinfectant, upon completion of the call.
- Stretchers, railings, medical equipment control panels, adjacent flooring, walls, ceilings and work surfaces, door handles, radios, keyboards and cell phones that become directly contaminated with respiratory secretions and other bodily fluids during patient care, or indirectly by touching the surfaces with gloved hands

### **Recommendations for vehicle decontamination (Con't)**

- Large spills of bodily fluids (e.g., vomit) should first be managed by removing visible organic matter with absorbent material
- Place contaminated reusable patient care devices and equipment in biohazard bags
- Clean and disinfect non-patient-care areas of the vehicle according to the vehicle manufacturer's recommendations
- Cleaning should be done with detergent and water and then disinfected using an EPA-registered hospital disinfectant in accordance with the manufacturer's instructions

### **Questions?**

- Please Check with your Supervisor
- Please Check with your Local EMS Agency for policy direction
- Swine Flu Information related to EMS
- [www.emsa.ca.gov](http://www.emsa.ca.gov)