Swine Flu Exposure

Adult Office-Hours Version

Schmitt-Thompson Clinical Content

DEFINITION

* Exposure to Swine Influenza (Swine Flu; Novel H1N1 influenza virus)
* Patient has no respiratory symptoms (i.e., cough, runny or stuffy nose, sore throat)
* Questions about Swine Influenza

EXPOSURE to Swine Influenza, is defined as:
* Household CLOSE CONTACT: Living in the same house (household contacts) with a person with confirmed, probable, or suspected Swine Flu (H1N1).
* Other CLOSE CONTACT (within 3 feet, 1 meter; touching distance) with a person with confirmed, probable, or suspected Swine Flu (H1N1). Examples of such close contact include kissing or embracing, sharing eating or drinking utensils, carpooling, close conversation, performing a physical examination (relevant to health care providers), and any other direct contact with respiratory secretions of a person with Swine Flu.

The following groups of Individuals are at higher risk for complications from Swine Flu and therefore are considered as HIGH RISK in this protocol:
* Persons 65 years and older
* Persons younger than 19 years old who are receiving long-term aspirin therapy (Reason: at risk for Reye syndrome)
* Pregnant women
* Asthma
* Neurological and neuro-developmental conditions [including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury].
* Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
* Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
* Blood disorders (such as sickle cell disease)
* Endocrine disorders (such as diabetes mellitus)
* Kidney disorders
* Liver disorders
* Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
* Weakened immune system due to disease or medication (such as people with HIV or AIDS, or cancer, or those on chronic steroids)

BACKGROUND

GENERAL INFORMATION ABOUT H1N1 INFLUENZA (SWINE FLU)
* Swine flu viruses normally do not infect humans. Cases of swine flu spread from pigs to humans in Mexico during March 2009. An outbreak of swine flu in humans occurred in the U.S. and Canada April 2009 and started spreading person-to-person through respiratory droplets.
* Incubation Period: After exposure, a person will come down with swine flu symptoms in 1 to 4 days. The longest incubation period is thought to be 7 days.
* Symptoms: The symptoms of swine flu are similar to those of regular human influenza. The main symptoms are runny nose, sore throat, cough, and fever. Other common symptoms are muscle pain, headache and fatigue. Some people also have vomiting and diarrhea.
* Prognosis and Symptom Severity: Symptoms of swine flu can be mild to severe, just as with regular human influenza. Thus far in the US and Canada, the symptoms have generally been mild; it is hoped that complications will be uncommon and death will be rare.

* Complications: The worst complications are pneumonia and respiratory failure. Complications are more likely to occur in certain HIGH RISK patients (see list in Definition Section)
* Diagnosis: Physician offices and Emergency Departments have a Rapid Influenza Diagnostic Test (RIDT). RIDT has a sensitivity of between 10-70% for the detection of novel influenza A (H1N1) virus and between 20-100% for seasonal influenza viruses. RIDT cannot distinguish between influenza infections caused by novel influenza A viruses and seasonal influenza A viruses. (See: http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm; updated 8/12/09)
* Expected Course: The expected course will probably be similar to regular human influenza: fever for 2-3 days, runny/congested nose for 7-14 days, and the cough for 2-3 weeks.
* Transmission: The swine flu virus is spread via airborne droplet, from sneezing and coughing, just like other influenza viruses. It also can be transmitted by hands contaminated with secretions. Swine flu is NOT transmitted by eating pork.
* Contagious Period: A person is potentially contagious (virus may be in respiratory secretions) from 1 day prior to and for 7 days after the onset of symptoms (e.g., fever, cough). The CDC recommends that people with influenza-like illness remain at home until at least 24 hours after they are free of fever (100° F or 37.8°C).
* Treatment - Antiviral Medications: See below.
* Prevention - Vaccine: Last winter's human influenza vaccine offers no protection against the swine flu virus. A vaccine against swine flu is being developed; it will probably be available in Fall 2009.

ANTI-VIRAL MEDICATIONS FOR SWINE FLU
* Two medications licensed in the U.S. and Canada are believed to be effective against the swine influenza virus: zanamivir (Relenza), and oseltamavir (Tamiflu).
* TREATMENT: Treatment IS recommended for symptomatic patients who require hospitalization and symptomatic patients at HIGH risk for complications. Treatment IS NOT generally recommended for influenza-like illness in most healthy patients. Healthy patients who are not high risk and have mild, uncomplicated illness are not likely have any benefit from treatment if initiated more than 48 hours after illness onset. [December 7 2009 CDC Antiviral Recommendations]
* POST-EXPOSURE (PREVENTION): These medications can also be taken prophylactically to prevent illness. Three groups that may especially benefit from prophylaxis are [a] pregnant women, [b] health care workers, and [c] patients at higher risk of complications who have had a close contact with someone with suspected or confirmed Swine Flu.
* Reference: http://www.cdc.gov/swineflu/recommendations.htm

FIRST AID

N/A

TRIAGE ASSESSMENT QUESTIONS FOR SWINE FLU (H1N1) EXPOSURE

See More Appropriate Protocol

- Swine flu suspected (i.e., fever and respiratory symptoms; probable Swine Flu exposure)

  Go to Protocol: Swine Flu (H1N1) (Adult)

- Swine Flu EXPOSURE (close contact) within the last 7 days AND any respiratory symptoms (i.e., cough, runny or stuffy nose, sore throat)

  Go to Protocol: Swine Flu (H1N1) (Adult)

- Cough AND NO EXPOSURE (Close Contact) OR begins over 7 days after Swine Flu EXPOSURE

  Go to Protocol: Cough (Adult)

- Cold symptoms AND NO EXPOSURE (Close Contact) OR begins over 7 days after Swine Flu EXPOSURE

  Go to Protocol: Colds (Adult)

- Sore throat AND NO EXPOSURE (Close Contact) OR begins over 7 days after Swine Flu EXPOSURE

  Go to Protocol: Sore Throat (Adult)

Go to ED Now

- Headache and stiff neck (can't touch chin to chest)

  R/O: meningitis

Go to ED Now (or to Office with PCP Approval)

- Difficulty breathing that is not severe, and not relieved by cleaning out the nose
- Patient sounds very sick or weak to the triager

See Today in Office

- Fever present > 3 days
- Patient wants to be seen

Discuss with PCP and Callback by Nurse Today

- Swine Flu EXPOSURE (Close Contact) within last 7 days AND exposed person is HIGH RISK (e.g., age > 64 years, pregnant, HIV+, or chronic medical condition)

  Reason: Prophylaxis with antiviral medication can be considered (CDC); PCP may wish to phone in a prescription to the pharmacy. High Risk is defined in Definition area of protocol.

- Swine Flu EXPOSURE (Close Contact) within last 7 days AND exposed person is a health care worker, public health worker, or first responder (EMS)

  Reason: Prophylaxis with antiviral medication can be considered (CDC); PCP may wish to phone in a prescription to the pharmacy.

Home Care

- Swine Flu EXPOSURE (Close Contact) within the last 7 days AND NO respiratory symptoms or fever AND not HIGH RISK

  Reason: Not a HIGH RISK patient. Patients who are not high risk typically do not require prophylaxis with anti-viral medication.

- Swine Flu EXPOSURE > 7 days ago AND no respiratory symptoms

  Reason: Asymptomatic and risk for transmission of Swine Flu has passed.

- Swine Flu, questions about
- Swine Flu prevention, questions about

HOME CARE ADVICE FOR SWINE FLU (H1N1) EXPOSURE

Swine Flu Questions

1. SWINE FLU - GENERAL INFORMATION AND REASSURANCE:
   * An outbreak of swine flu in humans started in the U.S. and Canada in April 2009. By June 2009, it had spread to most countries in the world.
   * For healthy people, the symptoms of Swine Flu are similar to those of the common cold. However, with Swine Flu, the onset is more abrupt and the symptoms are more severe. Feeling very sick for the first 3 days is common.
   * The treatment of Swine Flu depends on your main symptoms and is usually no different from that used for other viral respiratory infections.

2. SWINE FLU - SYMPTOMS:
   * The symptoms of swine flu are the same as those seen with regular human influenza.
   * The main symptoms are fever, cough, sore throat and runny nose.
   * Fever must be present to make this diagnosis (CDC).
   * Other common symptoms are muscle pain, headache and fatigue.
   * Some people also have vomiting and diarrhea, but never as the only symptom.

3. SWINE FLU - TREATMENT WITH ANTIVIRAL MEDICATIONS:
   * There are two anti-viral medications that are possibly helpful in treating this infection: oseltamivir (brand name Tamiflu) and zanamivir (brand name Relenza).
   * Treatment is recommended for HIGH RISK patients (e.g., age > 64 years, pregnant, HIV+, or chronic medical condition) with Swine Flu or any patient with severe symptoms. (per CDC).
   * Treatment is typically not recommended for mild to moderate Swine Flu illness that occurs in most healthy patients (per CDC).
   * Most patients recover without taking antiviral medications.

4. SWINE FLU - CONTAGIOUSNESS:
   * Symptoms usually start within 4-6 days of exposure to a person with swine flu (7 days is an outer limit). If more than 7 days pass from exposure without you developing symptoms, you should be safe and not get swine flu.
   * The swine flu virus is spread by airborne droplets, from sneezing and coughing, just like other influenza viruses. It also can be transmitted by hands contaminated with secretions. Swine flu is NOT transmitted by eating pork.
   * A person is potentially contagious (virus may be in respiratory secretions) from 1 day prior to and for 7 days after the onset of symptoms (e.g., fever, cough). The CDC recommends that people with influenza-like illness remain at home until at least 24 hours after they are free of fever (100° F or 37.8°C).

5. CALL BACK IF:
   * You have other questions or concerns
   * You become worse.

Preventing Swine Flu

1. HOW TO PROTECT YOURSELF FROM GETTING SICK:
   * Wash hands often with soap and water.
   * Alcohol-based hand cleaners are also effective.
   * Avoid touching the eyes, nose or mouth. Germs on the hands can spread this way.
   * Do not share eating utensils (e.g., spoon, fork).
   * Try to avoid close contact with sick people.
   * Try to avoid unnecessary visits to the emergency department and urgent care centers because those are the places where you are more likely to be exposed to Swine Flu, if you don't have it.

2. HOW TO PROTECT OTHERS - STAY HOME WHEN SICK:
   * Cover the nose and mouth with a tissue when coughing or sneezing.
   * Wash hands often with soap and water, especially after coughing or sneezing. Alcohol-based hand cleaners are also effective.
   * Limit contact with others to keep from infecting them.
   * Stay home from school or work for at least 24 hours after the fever is gone (CDC, August 2009).

3. FACE MASKS:
   * Face masks refer to disposable masks labeled as surgical or dental masks.
   * For healthy people, face masks may help reduce the risk of getting swine flu in crowded settings, if swine flu becomes prevalent (CDC).
   * Avoiding sick people and frequent handwashing are more effective preventive measures.
   * At the present time, face masks are not needed in the U.S. for healthy people. (Possible exception: households where a family member has Swine Flu).
   * Sick people should wear a face mask if they must leave their home to seek medical care.

4. SWINE FLU VACCINE:
   * A vaccine against H1N1 Influenza became available in October 2009.
   * The CDC has guidelines regarding who should get the vaccine.

5. PREVENTING SWINE FLU - ANTIVIRAL MEDICATIONS:
   * Two medications licensed in the U.S. and Canada are believed to be effective in PREVENTING the swine influenza virus: zanamivir (Relenza), and oseltamavir (Tamiflu).
   * Possible indications: Recent close contact with person with confirmed Swine Flu AND the exposed person is in a HIGH RISK group (e.g., age > 64 years, pregnant, HIV+, or chronic medical condition).
   * It is effective only while you are taking it and ceases once you stop taking it.
   * You should only take one of these antiviral medications if your physician recommends it.

6. CALL BACK IF:
   * You have other questions or concerns
   * You become worse.

Internet Resources

1. INFORMATION FROM THE WORLD HEALTH ORGANIZATION (WHO) ABOUT SWINE FLU
   * On June 11, 2009, the WHO signaled that a global pandemic of novel influenza A (H1N1) was underway by raising the worldwide pandemic alert level to Phase 6.
   * WHO Swine Influenza (H1N1) Website http://www.who.int/csr/disease/swineflu/en/index.html
   * WHO complete list of guidance documents: http://www.who.int/csr/disease/swineflu/guidance/en/index.html

2. INTERNET RESOURCE FOR U.S.
   * Centers for Disease Control and Prevention, United States (CDC)
   * For most up to date information, visit CDC's Swine Flu Web site at http://www.cdc.gov/swineflu/
   * Swine Flu Video PodCast by Joseph Bresee MD, Chief, Epidemiology & Prevention Branch, CDC Influenza Division: http://www.youtube.com/watch?v=-nTQDs7ZQG0

3. INTERNET RESOURCE FOR CANADA
   * Health Canada
   * http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php

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Content Set: **Telephone Triage Protocols - Adult Office-Hours Version**

Version Year: **2009**

Last Revised: **12/19/2009**