Swine Flu – Summary of Issues

April 30, 2009

Introduction

This document provides an overview of the issues related to Swine Influenza A (H1N1) virus that may be useful in guiding decisions related to supply chain and reducing risk of transmission in work, community, home and healthcare settings. Premier will be sharing information as it becomes available and updating this document on an ongoing basis.

The primary source for updated information on Swine Flu is the CDC Web site at www.cdc.gov/swineflu

Influenza is always serious – each year, in the United States, seasonal influenza results, on average, in an estimated 36,000 deaths from flu-related causes. The swine outbreak has the potential to be at least as serious as seasonal flu if not more so. Because this is a new virus, most people will not have immunity to it and so illness may be more severe and widespread as a result.

The swine flu outbreak continues to grow as new cases are confirmed in the United States and internationally. As of noon on April 30, 2009 the CDC has reported 109 confirmed cases in the United States from eleven states with one reported death of a child in Texas. There are a total of 257 confirmed cases from eleven countries. All U.S. cases had recent travel to Mexico or exposure to someone who traveled to Mexico. Although more than 1500 suspected cases were initially being reported from Mexico, only 97 cases to date have been confirmed with laboratory testing with 7 reported deaths. As suspected cases are confirmed, the number of cases is expected to increase.

Incubation period

Most of the cases of swine flu appear to have an incubation period of approximately 48 hours. The period of infectiousness for a confirmed case is one day before symptoms develop and up to a week after symptoms developed.

Signs and Symptoms

Swine influenza A virus infection (swine flu) is a febrile respiratory illness and can cause a wide range of symptoms, including fever, cough, sore throat, body aches, headache, chills and fatigue. Some people have reported diarrhea and vomiting associated with swine flu. Like seasonal flu, swine flu in humans can vary in severity from mild to severe. Severe disease with pneumonia, respiratory failure and even death is possible with swine flu infection. Certain groups might be more likely to develop a severe illness from swine flu infection, such as persons with chronic medical conditions. Sometimes bacterial infections may occur at the same time as or after infection with influenza viruses and lead to pneumonias, ear infections, or sinus infections.

How Flu Spreads

Influenza viruses are spread from person to person primarily from large respiratory droplets from coughs and sneezes. This can happen when droplets from a cough or sneeze of an infected person are propelled through the air and deposited on the mouth or nose of people nearby. Influenza viruses may also be spread when a person touches respiratory droplets on another person or an object and then touches their own mouth or nose (or someone else's mouth or nose) before washing their hands. Although swine flu transmission is still being investigated, it is likely that it is transmitted in the same manner as seasonal flu, in large droplets.

Informational Resources from the CDC

The CDC's special Web site should be consulted for daily interim guidance and updated information on the swine flu investigation, as well as guidelines for health care professionals and the public at www.cdc.gov/swineflu. Monitoring the local and state public health department Web site is also advised for state-specific guidance.

World Health Organization Pandemic Alert

In response to the intensifying outbreak, the World Health Organization has raised the worldwide pandemic alert to Phase 5 which is characterized by a new influenza virus with confirmed person-to-person spread in multiple countries. This increase in the pandemic alert phase indicates the greater likelihood of a pandemic.

Travel Warning

CDC has issued a travel warning recommending that people avoid non-essential travel to Mexico. Individuals returning from Mexico should pay close attention to their health for 10 days. If they become sick with a fever PLUS a cough and sore throat or have trouble breathing, they should see a doctor. When making an appointment, the doctor should be notified about symptoms, recent travel, and if there has been close contact with a sick person or farm animal.

Strategic National Stockpile (SNS) Allocations

CDC's Division of the Strategic National Stockpile (SNS) is releasing one-quarter of its antiviral drugs, personal protective equipment, and respiratory protection devices to help states respond to the outbreak.

U.S. Department of Health and Human Services has determined the priority for delivering countermeasures, based on recommendations from the SNS as follows:

- States with reported cases
- States who have no reported cases, but who have requested materials
- All other states, localities and U.S. territories

The SNS has 49.9 million regimens of antiviral drugs. Six million of this total quantity is designated for specific purposes i.e. containment and the remaining 44 million are allocated to the public health emergency preparedness project areas, based on their population. The Division of Strategic National Stockpile has begun pro-rata deployment of the first 25 percent of SNS held antiviral drugs and other materials to all 50 states and U.S. territories.

- This includes:
  - approximately 11 million antiviral regimens
  - masks, N95 respirators, gowns, gloves and face shields

- SNS estimates all states and territories will receive their 25 percent allocation by May 3.

Healthcare Organizations and Supplies
Organizations concerned about sufficient supplies (e.g., pharmaceuticals, gowns, gloves, facemasks and respirators) should check CDC updates each day, knowing that CDC is on schedule to distribute the allotments from the Strategic National Stockpile to all states by May 3. The appropriate individual designated in the organization's pandemic flu plan should communicate with local, regional and state plans and agreements for supply allocations – especially for antivirals, masks and respirators.

Social Distancing
Community-level social distancing (or keeping our distance) to reduce risk of spread of flu will be in an important tool at our disposal against this swine influenza outbreak. At the local level, some schools have been closed in parts of California, Texas and Ohio. Decisions about closures of schools and public gatherings will be made on a state by state basis and in collaboration with the public health department.

Antiviral Drugs
The swine influenza A (H1N1) virus is susceptible to the prescription antiviral drugs oseltamivir (Tamiflu) and zanamivir (Relenza).

Influenza antiviral drugs work best when started soon after illness onset (within two 2 days), but treatment with antiviral drugs should still be considered after 48 hours of symptom onset, particularly for hospitalized patients or people at high risk for influenza-related complications.

The swine influenza A (H1N1) viruses that have been detected in humans in the United States and Mexico are resistant to amantadine and rimantadine so these drugs will **not** work against these swine influenza documents.

Additional guidance on the use of antivirals for treatment and prophylaxis (prevention) is available on the CDC web site for swine flu.

Clinicians
CDC recommends the use of oseltamivir or zanamivir for the treatment and/or prevention of infection with swine influenza viruses.

Clinicians should continue to consider swine influenza infection in the differential diagnosis of patients with acute febrile respiratory illness who have either been in contact with persons with confirmed swine flu, or who were in one of the U.S. states that have reported swine flu cases or in Mexico during the 7 days preceding their illness onset.

Patients who meet these criteria should be tested for influenza. At this point, specimens should be sent through the public health laboratory systems to conduct testing specific for swine

influenza virus. Guidance of collection and testing of the specimens is provided by the CDC on its Web site at www.cdc.gov/swineflu

Public

There is no vaccine available right now to protect against swine flu but there are antiviral medications; we have begun the process to get a vaccine developed. In addition, there are everyday actions that can help prevent the spread of germs that cause respiratory illnesses like influenza.

Everyone should take these steps to protect their health:

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
- If you do not have a tissue handy, DO NOT cough into your hands. Rather, cough into the arm sleeve of the clothing you are wearing or bend your arm and cough into the bend of your elbow.
- Avoid touching your eyes, nose or mouth because this is how influenza virus gains access to your body.
- Try to avoid close contact with sick people, especially with respiratory illness.
- Do not go to work or school if you are sick. CDC recommends that you limit contact with others to keep from infecting them.

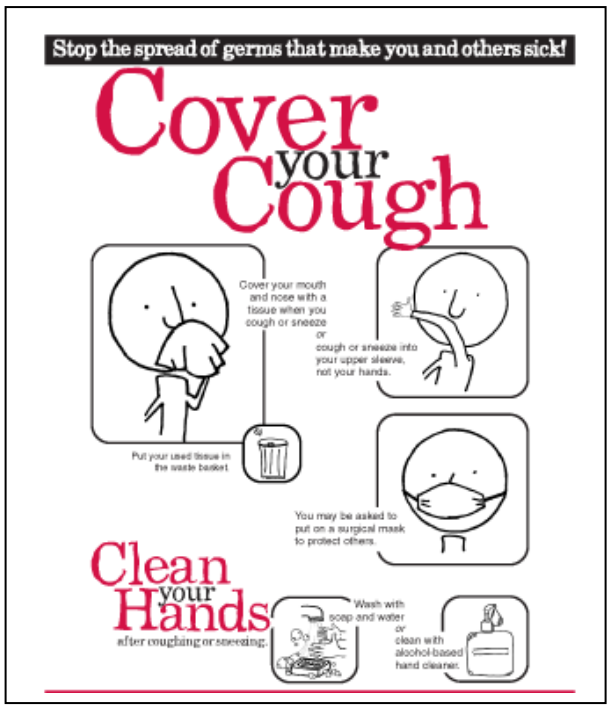
Hospitals and Healthcare Settings

Respiratory Hygiene-Cough Etiquette

To prevent the transmission of **all** respiratory infections in healthcare settings, including season influenza and swine flu, the following infection control measures should be implemented at the first point of contact with a potentially infected person. They should be incorporated into infection control practices as one component of Standard Precautions that should be used on all patients.

Visual Alerts Post visual alerts at the entrance to outpatient facilities (e.g.,emergency departments, physician offices, outpatient clinics) instructing patients and persons who accompany them (e.g., family, friends) to inform healthcare personnel of symptoms of a respiratory infection when they first register for care and to practice Respiratory Hygiene/Cough Etiquette.

Educate patients and emphasize (eg with signs) the need to for Respiratory Hygiene and Cough Etiquette that includes cover their coughs and sneezes and cleaning of hands. Additional information and signage is available from CDC at http://www.cdc.gov/flu/protect/covercough.htm



Respiratory Hygiene/Cough Etiquette

-Recommended for all individuals with signs and symptoms of a respiratory infection.

-Cover the nose/mouth when coughing or sneezing;

-Use tissues to contain respiratory secretions and dispose of them in the nearest waste receptacle after use;

-Perform hand hygiene (e.g., hand washing with non-antimicrobial soap and water, alcohol-based hand rub, or antiseptic handwash) after having contact with respiratory secretions and contaminated objects/materials; and

-If you do not have a tissue handy, DO NOT cough into your hands. Rather, cough into the arm sleeve of the clothing you are wearing or bend your arm and cough into the bend of your elbow.

Provide supplies To assure adherence with Respiratory Hygiene/Cough Etiquette in waiting areas for patients and visitors, healthcare facilities should provide tissues, no-touch receptacles for used tissue disposal and handwashing supplies or conveniently located dispensers of alcohol-based hand rubs.

Mask and separate persons with respiratory symptoms During periods of increased respiratory infection activity in the community (e.g., when there is increased absenteeism in schools and work settings and increased medical office visits by persons complaining of respiratory illness), offer masks to persons who are coughing. Either procedure masks (i.e., with ear loops) or surgical masks (i.e., with ties) may be used to contain respiratory secretions. (Respirators such as N-95 are not necessary for this purpose). When space and chair availability permit, encourage coughing persons to sit at least three feet away from others in common waiting areas. Some facilities may find it logistically easier to institute this recommendation year-round.

Care of patients in the home with confirmed or suspected swine A influenza virus infection

If you or a family member has influenza, either seasonal influenza, or suspected or confirmed swine flu, the CDC has developed guidance for the care of a sick person in the home to reduce risk of transmission to other members in the household, including frequent hand hygiene, respiratory protection, and environmental cleaning. Full guidance available at www.cdc.gov/swineflu

Facemask and respirators

Facemasks refers to disposable masks cleared by the U.S. FDA for use as medical devices and includes facemasks labeled as surgical, dental, medical procedure, isolation or laser masks. They have several designs, for example, a soft (pleated or duck billed shape) and affixed to head with two ties or ear loops and conforms to face with a flexible adjustment on the nose

bridge. There is also a pre-molded type that adheres to the head with a single elastic band and has a flexible adjustment for the nose bridge. A respirator refers to a N-95 or high filtering facepiece respirator certified by NIOSH. (Note: Facemasks and respirators may look similar in appearance, however, filtration efficiency is one of the primary differences.)

Facemasks and respirator use in community settings where swine flu virus transmission has been detected

It is extremely important to note that no single action will provide complete protection from any influenza virus. However, the risk of infection can be reduced through a combination of simple actions. These actions include frequent handwashing, covering coughs, having ill persons stay home (except to seek medical care if needed), and minimize contact with others in the household. Additional measures to limit transmission of suspect or confirmed swine flu, is for household members to stay home, reduce unnecessary social contacts, and avoidance whenever possible of crowded settings.

Information on the effectiveness of facemasks and respirators for the control of influenza in community settings is extremely limited. In the absence of clear scientific data, interim recommendations have been developed based on public health judgment and historical use of facemasks and respirators in other settings.

Interim recommendations from the CDC, effective: April 26, 2009 are as follows:

- ***Facemasks*** should be considered by individuals who enter crowded settings, both to protect their nose and mouth from other people's coughs and to reduce the wearer's likelihood of coughing on others. Because the influenza virus enters the body through the eyes, nose, and mouth, facemasks *may* also help reduce the risk of touching the nose and mouth and may serve as a reminder not to touch the eyes.
- ***Respirators*** The CDC, in their interim recommendations, suggest that respirators should be considered for use by individuals for whom close contact with an infectious person is unavoidable. This can include selected individuals who must care for a sick person (e.g., family member with a respiratory infection) at home.

Guidance for Healthcare Settings, Clinicians, Public Health officials and State Public Health Laboratories

Please refer to the CDC Web site at www.cdc.gov/swineflu for interim guidance documents that are being updated on an ongoing basis. A selected list of the titles of these documents is provided here for review.

CDC Interim Guidance Documents

- Specimen Collection, Processing, and Testing for Patients with Suspected Infection
- Emergency Use Authorization (EUA) of Medical Products and Devices
- Guidance for Clinicians on Identifying and Caring for Patients
- Guidance for Clinicians on Prevention and Treatment in Young Children
- Taking Care of a Sick Person in Your Home
- Antiviral Recommendations for Patients and Close Contacts
- Nonpharmaceutical Community Mitigation

- Facemask and Respirator Use in Community Settings Where Transmission Has Been Detected
- Biosafety Guidelines for Lab Workers
- Infection Control for Care of Patients in a Healthcare Setting
- Guidance on Case Definitions for Investigations of Cases
- Guidance for Airlines Regarding Flight Crews Arriving from Domestic and International Areas Affected by Swine Influenza
- Guidance to Assist Airline Flight Deck and Cabin Crew in Identifying Passengers Who May Have Swine Influenza
- Pregnant Women: Considerations for Clinicians

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