

2009 H1N1 Flu Virus

Safety Management Council Meeting

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What is 2009 H1N1 (swine flu)?

The swine influenza A (H1N1) virus that has infected humans in the U.S. and Mexico is a novel influenza A virus that has not previously been identified in North America. This virus is resistant to the antiviral medications amantadine (Symmetrel) and rimantadine (Flumandine), but is sensitive to oseltamivir (Tamiflu) and zanamivir (Relenza). Swine flu is very dangerous because it differs from every other known flu virus. As a result, most people are defenseless against it. That makes a vaccine the keystone of any effort to prevent illness and save lives. The first batches of the vaccine are planning to be available in mid-October.

What are the signs and symptoms?

The symptoms of novel H1N1 flu virus in people are similar to the symptoms of seasonal flu and include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue. A significant number of people who have been infected with H1N1 flu virus also have reported diarrhea and vomiting. Severe illnesses and death has occurred as a result of illness associated with the virus.

How does H1N1 virus spread?

The spreading of the 2009 H1N1 virus is thought to occur in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through coughing and sneezing by people with influenza. In some cases people may become infected by touching surfaces or objects with flu viruses on it and then touching their nose or mouth.

How does 2009 H1N1 flu compare to seasonal flu in terms of its severity and infection rates?

With seasonal flu, seasons vary in terms of timing, duration and severity. Seasonal influenza can cause mild to severe illness, and at times can lead to death. Each year, in the United States, on average 36,000 people die from flu-related complications and more than 200,000 people are hospitalized from flu-related causes. Of those hospitalized, 20,000 are children younger than 5 years of age. Over 90% of deaths and about 60% of hospitalization occur in people older than 65 years of age.

After the H1N1 virus was first detected in April 2009, CDC analyzed a significant amount of information which supports the conclusion that 2009 H1N1 has caused greater disease burden

in people younger than 25 years of age than older people. At this time, there a few deaths reported in people older than 64 years old, which is unusual when compared with seasonal flu. Pregnancy and other previously recognized high risk medical conditions from seasonal influenza appear to be associated with increased risk of complications from this 2009 H1N1. These underlying conditions include asthma, diabetes, suppressed immune systems, heart disease, kidney disease, neurocognitive and neuromuscular disorders and pregnancy.

How long can an infected person spread the virus to others?

People infected with seasonal and H1N1 flu shed virus and may be able to infect others from 1 day before getting sick to 5 to 7 days after. This can be longer in some people, especially children and people with weakened immune systems and in people infected with the new H1N1 virus.

PREVENTION & TREATMENT

What can you do to protect yourself from getting sick?

There is no vaccine available right now to protect against 2009 H1N1 virus. However, a vaccine is currently in production and plans on being available for the public in the fall. There are everyday actions that can help prevent the spread of germs that cause respiratory illnesses like influenza.

Everyday steps to protect your 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.
- Avoid touching your eyes, nose or mouth. Germs spread this way.
- Try to avoid close contact with sick people.
- If you are sick with flu-like illness, CDC recommends that you stay home for at least 24 hours after your fever is gone except to get medical care or for other necessities. (Your fever should be gone without the use of fever-reducing medicine.) Keep away from others as much as possible to keep from making others sick.

What should you do if you get sick?

If you live in areas where people have been identified with 2009 H1N1 flu and become ill with influenza-like symptoms, you should stay home and avoid contact with other people. Staying at home means that you should not leave your home except to seek medical care. This means avoiding normal activities, including work, school, travel, shopping, social events, and public gatherings.

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

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

- Fast breathing or trouble breathing.

- Bluish or gray skin color
- Not drinking enough fluids
- Severe or persistent vomiting
- 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

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
- Flu-like symptoms improve but then return with fever and worse cough.

Conclusion

Health officials have stated that this year's flu season will be severe but not as severe as the 1918 pandemic, the world's worst. In 1918, flu killed at least 675,000 people in the United States and up to 50 million worldwide. It is more likely that the pandemic would mirror 1957, when flu killed about 70,000 people in the United States and 1 to 2 million people in the world according to the Centers for Disease Control and Prevention. It was stated that about 36,000 people in the United States die and 200,000 are hospitalized in typical flu seasons.

A flu expert from Vanderbilt University, William Schaffner, cautions that "flu is fickle" and there's no way to predict precisely how the coming flu season will unfold. One difference between the swine flu and the 1957 version is that that new virus strikes a higher proportion of children and young people than elderly.

With the flu season quickly approaching, we all need to start taking some cautious measures to protect ourselves, our families, and our coworkers. It is very important that individuals become better informed on the 2009 H1N1 Flu virus and the many signs and symptoms that take place. The H1N1 virus can be very dangerous if it is not treated properly and has a possibility to cause death. If you have severe illness or you are at high risk for flu complications, please contact your health care provider.