

# SWINE INFLUENZA

A WHITE PAPER

A number of swine influenza (swine flu) viruses has emerged over time, including some that are a mixture of swine, human and bird flu. Zoonotic transmission (from animals to humans) and cases of swine flu in humans are normally rare, typically involving direct contact with pigs. However, viral transmission between humans does occur, as previously evidenced by four cases in Fort Dix in 1976 and a Wisconsin outbreak in 1988.

An outbreak of swine flu – specifically swine influenza A (H1N1) – has recently occurred in Mexico and has already spread to other nations. It is considered to be highly contagious among humans. As of April 28, there were 64 confirmed cases in the United States.<sup>1</sup> Approximately 1600 cases had been reported in Mexico with 152 deaths.<sup>2</sup>

Swine flu can be transmitted between humans by direct contact between persons, contact with an inanimate contaminated object or surface, or from air-borne droplets from coughing or sneezing by an infected person. An individual is infectious until up to a week after falling ill. (It should be noted that eating pork does not transmit the swine flu virus from pigs to humans.)

The human symptoms of the current outbreak of swine flu are similar to human flu. These include a high temperature/fever, headache, sore throat, coughing, a lack of appetite and lethargy. Gastrointestinal upset with diarrhea, nausea and vomiting may also be present. Some or all of these symptoms may be present. In severe cases, pneumonia, respiratory disease and death can occur. Swine flu affects the young, healthy and older population. If you experience flu-like symptoms you should seek medical advice and care. Antivirals effective in lessening the severity of illness are available.

### **Preventing Disease Transmission**

Swine flu prevention depends on limiting contact with others if you have flu-like symptoms, and in healthcare settings following standard infection control protocols and, in the case of patients with flu-like symptoms, following specific recommendations from the Centers for Disease Control, including droplet and contact precautions.

#### ***Limiting contact with others and care***

If you have flu-like symptoms, you should limit your contact with other people. To avoid potentially transmitting swine flu to others, you should stay home and seek medical advice if you have flu-like symptoms. You should also cover your nose or mouth with tissue when coughing or sneezing, and immediately dispose of the tissues in the trash and thoroughly wash your hands with soap and water or an alcohol-based hand sanitizer. Alcohol-based hand sanitizers should have at least 60% alcohol. If you are healthy, avoid contact with sick people.

#### ***The Dental Office Setting***

If a patient calls with flu-like symptoms or thinks he or she may have swine flu, if the appointment is not for a true emergency that must immediately be treated then cancel the dental appointment and make one for after the patient has recovered and after the period during which the patient is infectious. This will limit exposure of staff and attending patients to the virus.

*For healthcare settings in general* (not specifically dental) interim guidance on infection control for the care of patients with confirmed or suspected swine flu is available from the Centers for Disease Control. The guidance includes isolating the patient in the treatment room with the door closed, having the patient wear a mask when on the premises and not in the treatment room, and using a HEPA filter for air or exhausting air directly outside.<sup>3</sup>

### ***Precautions for dental healthcare professionals***

Standard, droplet and contact precautions are recommended by the CDC in the care of patients infected with swine flu.<sup>3</sup> Standard infection control practices should be performed for all surfaces and instruments. Dental healthcare professionals in contact with all patients and potentially contaminated instruments and surfaces must wear personal protective equipment (PPE) that includes gowns, masks, and eye protection. Single-use, disposable surgical gloves must be used for each patient, and utility gloves for instrument processing and surface treatments. An appropriate hand hygiene protocol must always be followed. These are all standard precautions for infection control. There is no vaccine available for swine flu. Dental healthcare professionals should also follow the same procedures as the general public if coughing or sneezing and avoid touching eyes, nose or mouth. It is worth noting that evidence of viral transmission of swine flu from patient to healthcare worker was found during the Wisconsin outbreak in 1988.

It has also been recommended that the April 27, 2009 'Interim Guidance for Infection Control for Care of Patients with Confirmed or Suspected Swine Influenza A (H1N1) Virus Infection in a Healthcare Setting' be followed until more is known about the virus.<sup>4</sup> These recommendations include the use of a disposable N95 respirator for procedures that involve aerosol generation.

### **References**

1. U.S. Human Cases of Swine Flu Infection *CDC*. 27 Apr 2009. Web. 28 Apr 2009. <<http://www.cdc.gov/swineflu/> >
2. Mexico City at epicenter of growing swine flu fears. *CNN*. 28 Apr 2009. Web. 28 Apr 2009. <<http://www.cnn.com/2009/HEALTH/04/28/swine.flu/> >
3. CDC. Interim Guidance for Infection Control for Care of Patients with Confirmed or Suspected Swine Influenza A (H1N1) Virus Infection in a Healthcare Setting. *CDC*. 27 Apr 2009. Web. 28 Apr 2009 <[http://www.cdc.gov/swineflu/guidelines\\_infection\\_control.htm](http://www.cdc.gov/swineflu/guidelines_infection_control.htm) >
4. CDC. Interim Guidance for Infection Control for Care of Patients with Confirmed or Suspected Swine Influenza A (H1N1) Virus Infection in a Healthcare Setting. *CDC*. 27 April 2009. Web. 28 Apr 2009. <[http://www.cdc.gov/swineflu/guidelines\\_infection\\_control.htm](http://www.cdc.gov/swineflu/guidelines_infection_control.htm)>

### **Sources and Additional Resources**

<http://www.cdc.gov/swineflu/>

<http://www.pandemicflu.gov/plan/healthcare/maskguidancehc.html>

<http://www.osap.org>

[http://www.cdc.gov/ncidod/dhqp/gl\\_environinfection.html](http://www.cdc.gov/ncidod/dhqp/gl_environinfection.html).