Avian Influenza A/H7N9 – Is This the Next Pandemic Flu Strain?

A new bird flu virus, called H7N9 for short, is infecting people in China and causing serious illness. About 25 percent of the people who have been infected have died. Luckily, H7N9 is not spreading easily between people the way seasonal influenza (flu) viruses do. Available evidence indicates that most people are being infected after exposure to birds or to environments that might be contaminated with bird flu virus (like live bird markets, for example). To date, the new H7N9 virus has not been detected in people or birds in the United States.

For now, the risk of getting sick from H7N9 in the United States is low. CDC does not have any new or special recommendations for the U.S. public associated with H7N9. However, with the H7N9 situation in China, several things are worrisome:

• The H7N9 virus has genetic changes that have been associated with making bird flu viruses spread more easily to mammals, causing more severe disease and causing disease to progress more quickly.

• Human H7N9 virus infections often have resulted in very serious illness. Cases have started with typical flu-like symptoms including fever and cough and progressed quickly to severe pneumonia, acute respiratory distress syndrome (ARDS) and multi-organ failure.

• In the two months since H7N9 was first detected, 131 lab-confirmed cases in Chinese citizens have been reported, including 36 deaths.

It is reassuring that no evidence of ongoing human-to-human spread of this disease has been found. But influenza viruses are constantly changing, and a big concern is that this H7N9 virus might gain the ability to spread easily from person to person. Such a change could result in a world-wide pandemic with a high toll in illnesses, hospitalizations and deaths.

CDC is following this situation closely and taking proactive steps to be ready for the possibility that this virus may change to spread easily between people. On April 11, 2013, the Influenza Division laboratory at CDC received one of the H7N9 viruses from China. CDC has been using the virus for the following routine preparedness measures:

• Develop a test kit for detecting H7N9 infections in humans.

• Test for the presence of antibodies against the H7N9 virus in human blood samples.

• Test to see if certain existing antiviral drugs (i.e., oseltamivir [Tamiflu®] and zanamivir [Relenza®]) will work to treat H7N9.

• Develop a candidate vaccine virus that could be used to make a vaccine if it is needed.

Many people travel between China and the United States. CDC issued a health alert for public health officials and clinicians in the United States to look for flu symptoms in travelers who are returning from countries with H7N9 bird flu. Since H7N9 is not spreading easily from person to person at this time, CDC does not recommend that people delay or cancel trips to China. Travelers should continue to visit CDC Travelers’ Health for up-to-date information about CDC’s travel recommendations.

This situation continues to evolve and CDC will provide updates as more information becomes available. To learn more about H7N9, visit CDC’s Avian Influenza A (H7N9) Virus website at: www.cdc.gov/flu/avianflu/h7n9-virus.htm
Mosquito Fact: In 2012, York County ranked 3rd in the nation for detection of West Nile virus in mosquito samples. The York County West Nile Virus (WNV) Program Office recommends that now is the time to take early action in order to prevent this year from being another WNV “record buster” season.

With the return of warm weather, mosquitoes will quickly reappear in York County. Some mosquito species overwinter as adults in protected locations such as abandoned buildings and sewers. Other species deposit their eggs in the fall in places where the eggs can survive the winter weather. Once mosquitoes and their larvae emerge, the biological circle begins again, including the introduction of WNV into the mosquito population.

When WNV is transmitted to humans by infected mosquitoes, a range of illness signs and symptoms can occur – from little or no illness at all to West Nile fever and West Nile encephalitis, the latter being the most serious consequence of WNV infection. According to the U.S. Centers for Disease Control and Prevention (CDC), all residents of areas where virus activity has been detected are at risk of getting West Nile encephalitis.

The York County WNV Program Office advises all residents, businesses, developers, farmers and municipalities to clean up to help eliminate mosquitoes. Property should be inspected for sources of stagnant water that can collect in traps, tires, buckets, construction debris, trash, pools, plastic toys, gutters, watering troughs and birdbaths. Eliminating these sources of stagnant water is the best method to reduce mosquito populations that can transmit WNV.

Additional sources for breeding mosquitoes can be rain barrels and ornamental ponds. Rain barrels need to be completely screened. Ornamental ponds and fountains need to be stocked with fish or treated with a bacterial larvicide available at most hardware stores.

For more information about reducing mosquitoes in York County call the Penn State Cooperative Extension – York County WNV Program Office at (717) 840-2375. For information about West Nile illness in humans, visit the PA State West Nile website at www.westnile.state.pa.us.