Avian Influenza Information – Quick Tips

What Is Bird Flu?

Bird flu is the disease caused by the viral infection with avian (bird) influenza (flu) viruses. These viruses occur naturally among wild aquatic birds worldwide. They carry the viruses in their intestines and respiratory tract and usually do not get sick from them. However, bird flu is very contagious among birds and can possibly sicken or kill domesticated birds such as chickens, ducks and turkeys.

Which Virus Causes Bird Flu?

There are four types of influenza virus: A, B, C and D. The virus that causes bird flu is influenza A. These viruses are categorized based on their genetic makeup, impact on bird health and other factors. AI viruses are classified by a combination of two groups of proteins: the hemagglutinin or H proteins, of which there are 18 (H1–H18), and neuraminidase or N proteins, of which there are 11 (N1–N11). Some of these are worse or more severe than others.

How Does the Bird Flu Affect Birds?

Most often there are no signs a bird is infected. But in some cases, the viruses are highly pathogenic, meaning they kill and spread quickly. A1 strains are divided into two groups based on the ability of the virus to produce disease in domestic poultry: low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI). In the late 1990s, a new strain of bird flu arose that was remarkable for its ability to cause severe disease and death, especially in domesticated birds. As a result, this strain was called highly pathogenic avian influenza and termed H5N1.

From December 2014 to June 2015, the U.S. endured its largest animal health emergency with more than 200 cases of highly pathogenic avian influenza found in commercial and backyard

poultry, as well as wild birds. Additional cases were confirmed in 2016, 2017, 2018 and early 2019.

Is Bird Flu Contagious to Humans?

At first, bird flu was thought only to infect wild and domestic bird populations, and not humans. However, some of the strains, such as H5N1 and H7N9, have caused serious infections in people. These cases have been largely confined to Southeast Asia, Africa, the Pacific, the Middle East and parts of Europe. One of the more common means of contracting the virus is through the inhalation of dried/pulverized fecal matter from an infected bird.

There is no evidence that the virus can spread from one human to another. However, the World Health Organization (WHO) and other experts warn that if it ever spreads person to person, it could cause a worldwide pandemic. Unlike an annual flu that people typically encounter, a pandemic flu occurs three or four times a century and can occur in any season. A pandemic infection rate can affect anywhere from 25 percent to 50 percent of the population and is usually associated with more severe illness and a high risk of death.

What Are the Symptoms of Bird Flu in Humans?

For people who might have had contact with the H5N1 virus, the infectious period is seven days after resolution of fever in adults and 21 days after onset of illness in children. The median time between exposure and onset of illness is three days and can range from two to four days. Avian flu symptoms are like other flu types and include fever, malaise, sore throat and cough. In certain cases, victims also might develop conjunctivitis.

How Can I Prevent the Spread of Bird Flu?

Decontamination and isolation techniques are suggested for people culling, transporting or disposing of infected birds, as well as for people in the healthcare industry who might have contact with the virus. People should choose and use the appropriate level of personal protective equipment (PPE), which might include dust- and fluid-resistant protective garments/clothing, gloves, overshoes

that can be disinfected or disposed of, goggles and respiratory protection. The minimum form of respiratory protection that OSHA suggests is an N95, N99 or N100 NIOSH-approved disposable particulate respirator.

The most basic method to control the spread of infection is proper hand hygiene practices, such as washing hands thoroughly with soap and clean running water for 15 to 20 seconds. If handwashing facilities are not readily available, use of alcohol-based hand sanitizers that contain at last 60 percent alcohol is suggested.

Research on vaccines against avian influenza viruses is ongoing. Antiviral drugs are being produced and stockpiled to help limit the symptoms and potentially reduce the disease's opportunity to spread.

As a general precaution, people should avoid wild birds and observe them only from a distance. They should also avoid contact with domestic birds (poultry) that appear ill or have died, and avoid contact with surfaces that appear to be contaminated with feces from wild or domestic birds.

Commonly Asked Questions

Q: What are bird flu symptoms?
A: Reported symptoms of avian influenza in humans have ranged from normal influenza-like symptoms (cough, sore throat, fever and muscle aches) to eye infections, acute respiratory distress, pneumonia, viral pneumonia and other severe, life-threatening complications.

Q: What are the antiviral agents for bird flu?
A: Some antiviral drugs that could potentially treat or prevent bird flu are clinically effective against uncomplicated influenza A infection, but they might have limitations. In addition, these drugs are expensive and supplies are limited. Authorities have stockpiled the antiviral drug Tamiflu, which seems to be an effective antiviral agent against bird flu. Studies are under way to prove its effectiveness and the effectiveness of other antiviral agents such as Oseltamavir, Zanamavir and Relenza.

Q: What is used to clean/disinfect surfaces within the healthcare industry that have been exposed to the virus?
A: According to the World Health Organization's interim infection-control guidelines for healthcare facilities, the virus is inactivated by 70 percent alcohol and by chlorine. Therefore, cleaning environmental surfaces with a neutral detergent followed by a disinfectant solution is recommended.

Sources

World Health Organization – Avian Influenza

United States Department of Agriculture – Avian Influenza

Centers for Disease Control and Prevention NIOSH Alert – Protecting Poultry Workers From Avian Influenza (Bird Flu) (PDF)

United States Department of Agriculture Animal and Plant Health Inspection Service

Centers for Disease Control Prevention Influenza Type A Viruses

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