Microgard® Protective Clothing Guidelines for Avian Flu

Sources of Information

Department of Health and Human Services Centre For Disease Control and Prevention CDC

RKI & Bevolkerungsschutz-Gruppe Germany

World Health Organization

What is avian influenza (bird flu)?

Bird flu is an infection caused by avian (bird) influenza (flu) viruses. These flu viruses occur naturally among birds. Wild birds worldwide carry the viruses in their intestines, but usually do not get sick from them. However, bird flu is very contagious among birds and can make some domesticated birds, including chickens, ducks, and turkeys, very sick and kill them.

Do bird flu viruses infect humans?

Bird flu viruses do not usually infect humans, but several cases of human infection with bird flu viruses have occurred since 1997.

How are bird flu viruses different from human flu viruses?

There are many different subtypes of type A influenza viruses. These subtypes differ because of certain proteins on the surface of the influenza A virus (hemagglutinin [HA] and neuraminidase [NA] proteins). There are 16 different HA subtypes and 9 different NA subtypes of flu A viruses. Many different combinations of HA and NA proteins are possible. Each combination is a different subtype. All known subtypes of flu A viruses can be found in birds. However, when we talk about "bird flu" viruses, we are referring to influenza A subtypes chiefly found in birds. They do not usually infect humans, even though we know they can. When we talk about "human flu viruses" we are referring to those subtypes that occur widely in humans. There are only three known A subtypes of human flu viruses (H1N1, H1N2, and H3N2); it is likely that some genetic parts of current human influenza A viruses came from birds originally. Influenza A viruses are constantly changing, and they might adapt over time to infect and spread among humans.

What are the symptoms of bird flu in humans?

Symptoms of bird flu in humans have ranged from typical flu-like symptoms (fever, cough, sore throat and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. The symptoms of bird flu may depend on which virus caused the infection.

How does bird flu spread?

Infected birds shed flu virus in their saliva, nasal secretions, and faeces. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions. It is believed that most cases of bird flu infection in humans have resulted from contact with infected poultry or contaminated surfaces. The spread of avian influenza viruses from one ill person to another has been reported very rarely, and transmission has not been observed to continue beyond one person.

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Transmission of the Avian Influenza virus to humans is typically via inhalation of contaminated particles (liquid or solid), and smear infection by contact with faeces, blood and other body liquids as well as dung and sewage from poultry farms. Medical employees treating infected humans at hospitals are also potentially at risk.
(Source CDC Key Facts Sheet)

Personal Protective Equipment

It is generally recommended that personal protective equipment to protect humans against flu pathogens and minimize the risk of cross contamination are worn in risk areas. The following type of personal protective equipment shall be used: face protection (mouth, nose, eyes), respiratory protection, hand protection, full body protection including head and foot protection.

When leaving a contaminated area or ending work with infected living or dead animals, PPE, especially gloves, shoe/boots and garments must be cleaned from dirt and other contamination. After this cleaning process a second decontamination process, using Influenza A-effective disinfectants, is recommended. This disinfection work is typically done with low-pressure showers, brushes and wipes. Its purpose is to reduce the number of active viruses to a minimum before PPE is taken off to minimise risk of cross contamination.
(Source: RKI & Bevölkerungsschutz-Gruppe, Germany).

Microgard® bases its recommendation on types of full body protection on the following factors

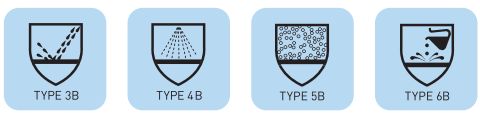
1. Protection against Viral Material
2. Protection against faeces and blood carrying viral contamination
3. Barrier against wash down disinfectants

"Based on risks of infections by human and the personal protective measures recommended, chemical protective clothing of European type 4 level may be used depending upon the level of mechanical and chemical exposure during decontamination. For assured protection including chemical barrier against disinfectants, type 3 level protection is recommended. (The clothing fabric selection is based on the chemical barrier requirements against the selected disinfectant.)"
Source Dupont Personal Protection

In areas where individuals need to be protected against Avian bird flu infected birds or potentially contaminated areas Microgard 2500 Plus would be recommended to provide body protection. Additionally appropriate PPE should be used to protect the face, respiratory function and hands.

Microgard® 2500 Plus provides protection to the following standards:

ASTM 1671 – barrier to bacteria virus and blood borne pathogens
EN 14126 – barrier to infective agents and biological hazards
Type 3 Barrier to Saturation Spray with liquids
Type 5 barrier to particulate hazards.



Microgard® 2500 Plus is available sizes small to XXX large as a hooded coverall and with or without attached feet. A range of accessories are also available with the same fabric barrier properties.

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