
ENSURING THE PROTECTION OF EMPLOYEES INVOLVED IN HIGHLY PATHOGENIC AVIAN INFLUENZA CONTROL AND ERADICATION ACTIVITIES

1. PURPOSE

This Directive specifies APHIS policy to ensure the safety of employees engaged in highly pathogenic avian influenza (HPAI) control and eradication activities. The policy is based on the degree of risk known to be associated with various levels and types of exposures to HPAI viruses and should be considered complementary to avian disease control and eradication strategies as determined by State government, industry, or the United States Department of Agriculture (USDA).

2. AUTHORITIES

- a. Occupational Safety and Health Act of 1970, Section 5(a)(1), the General Duty Clause of the Act: “each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.”
- b. 29 Code of Federal Regulations (CFR) 1910.120, 1910.132, 1910.134, and 1910.1030, Occupational Safety and Health Administration (OSHA) General Industry Regulations.

3. BACKGROUND

Avian influenza (AI) is a contagious viral infection or disease of many avian species including poultry, wild and exotic birds, ratites, shorebirds, and migratory waterfowl. HPAI is seen primarily in poultry (rarely in other birds) and is characterized by severe depression, a decrease in egg production, high mortality, edema, hemorrhage, and necrosis. Birds that are infected with avian influenza virus can shed virus in saliva, nasal secretions, and feces. Contact with feces or respiratory secretions is important in the transmission of infection among poultry.

Avian influenza viruses may be defined as highly pathogenic based either on mortality rates in chickens following intravenous inoculations or on the amino acid sequence at the hemagglutinin cleavage site. Only those results confirmed as HPAI by the National Veterinary Services Laboratory (NVSL) in Ames, Iowa will be considered highly pathogenic.

Although HPAI viruses rarely infect humans, since 1997, instances of human infection have occurred outside the United States resulting in serious illness and even death. Transmission to humans is mainly thought to be caused by direct contact with infected poultry. The modality of transmission is not known, but could include virus entering a person's mouth, nose, eyes, or lungs via aerosolization and inhalation into the lungs, or by ingestion of contaminated material. Additionally, it is possible that infection could result from contact with virus-contaminated surfaces followed by self-inoculation of the virus in the eyes, nose, or mouth.

This Directive is based on what are currently deemed optimal precautions to protect individuals from infection and illness while they are involved in the response to an HPAI outbreak, and to guard against the subsequent risk of viral reassortment (i.e., mixing of genes from human and avian viruses) if a human does become infected.

Employees involved in HPAI control and eradication activities on known affected or potentially affected premises are at increased risk for exposure to the HPAI virus because those employees frequently have prolonged and direct contact with infected birds or contaminated surfaces in an enclosed setting.

4. POLICY

- a. APHIS employees involved in activities to control and eradicate any HPAI virus among poultry in the United States or abroad must read, understand, and follow Attachment 1 entitled: "APHIS Guidance for Protecting Workers Against Highly Pathogenic Avian Influenza." This document was adapted from the Occupational Safety and Health Administration (OSHA) publications "Guidance for Protecting Workers Against Avian Flu" (<http://www.osha.gov/dsg/guidance/avian-flu.html>) and "Avian Influenza—Protecting Poultry Workers at Risk" (<http://www.osha.gov/dts/shib/shib121304.html>).
- b. Employees also must review the Centers for Disease Control and Prevention's interim guidance documents regarding protection of employees involved in controlling and eradicating avian influenza in U.S. poultry. These guidance documents, "Interim Recommendations for Persons with Possible Exposure to Avian Influenza During Outbreaks Among Poultry in the United States" and "Interim Guidance for Protection of Persons Involved in U.S. Avian Influenza Outbreak Disease Control and Eradication Activities" are available online at <http://www.cdc.gov/flu/avian/professional/possible-exposure.htm> and <http://www.cdc.gov/flu/avian/professional/protect-guid.htm>, respectively.
- c. To mitigate the risk of exposure or infection, all employees involved in such activities must follow the precautions specified in Attachment 1. Among other topics, the Attachment includes recommendations about personal protective equipment, vaccination with the seasonal influenza vaccine, administration of

antiviral drugs for prophylaxis, surveillance and monitoring of workers, and evaluation of workers who develop a febrile respiratory illness within 7 days of their last exposure to infected birds or contaminated surfaces.

- d. All employees involved in an HPAI response must understand and comply with this Directive.
- e. Any required negotiations with appropriate bargaining unit exclusive representatives will be conducted.

5. INQUIRIES

- a. Questions about this Directive or the specific instructions detailed in Attachment 1 should be directed to the Safety, Health, and Employee Wellness Branch (SHEWB), Employee Services Division, Marketing and Regulatory Programs Business Services. SHEWB can be reached during regular business hours Monday-Friday (8 AM to 5 PM Eastern Time) at 301-734-6116.
- b. This Directive is available on the Internet at www.aphis.usda.gov/library

/s/

Wm. R. DeHaven
Administrator

Attachment

**ANIMAL AND PLANT HEALTH INSPECTION SERVICE
GUIDANCE FOR PROTECTING WORKERS AGAINST HIGHLY PATHOGENIC
AVIAN INFLUENZA**

GUIDANCE FOR PROTECTING POULTRY WORKERS AT RISK

Highly pathogenic avian influenza (HPAI) is a highly contagious disease of poultry. Despite the uncertainties, poultry experts agree that immediate culling of infected and exposed birds is the first line of defense to both reduce further losses in the agricultural sector and to protect human health. However, culling must be carried out in a way that protects workers from exposures to highly pathogenic avian influenza viruses and therefore reduce the likelihood of infection, illness or viral reassortment.

Exposure to infected poultry, their feces, or respiratory secretions, or contact with potentially contaminated surfaces can result in transmission of the virus to humans. Human infection with avian influenza, however, is a rare occurrence. Although there is evidence of limited person-to-person spread of the HPAI virus infection, sustained and efficient human-to-human transmission has not been identified.

The following summarizes recommendations for protecting at-risk workers developed by the Centers for Disease Control and Prevention (CDC), the World Health Organization, and the Occupational Safety and Health Administration. Employees involved in HPAI control and eradication activities must take these precautions.

1. All persons who have been in contact with poultry, their feces or respiratory secretions, or contact with potentially contaminated surfaces must wash their hands frequently. Hand hygiene also must be performed immediately after gloves are removed and must consist of washing with soap and water for at least 15-20 seconds or using other standard hand-disinfection procedures as specified by State government, industry, or United States Department of Agriculture (USDA) outbreak-response guidelines.
2. All workers involved in the culling, transport, or disposal of HPAI virus-infected poultry must not eat, drink, or smoke while performing these duties and must be provided with the following appropriate personal protective equipment:
 - a. Protective clothing capable of being disinfected or discarded, preferably coveralls (plus an impermeable apron) or surgical gowns with long cuffed sleeves (plus an impermeable apron).
 - b. Gloves capable of being disinfected or discarded; gloves must be carefully removed and discarded or disinfected and hands should be thoroughly washed when possible or disinfected using an alcohol-based handcleaner or 10% bleach/water solution. Gloves should be changed if torn or otherwise damaged.

- c. Respirators: the minimum recommendation is a disposable particulate respirator (e.g., N95, N99 or N100) used as part of a comprehensive respiratory protection program. The elements of such a program are described in 29 CFR 1910.134. At a minimum, workers will be medically cleared and fit tested for the model and size respirator they wear and be trained to fitcheck the seal of the facepiece to the face. An N95 or higher respirator that is fluid resistant should be considered for workers who have a high risk of exposure to splashes or fluids.
 - d. Eye protection (e.g., goggles).
 - e. Boots or protective foot covers that can be disinfected or discarded.
3. Environmental clean-up must be carried out in areas of culling, using the same protective measures as in items 1. and 2., above.
 4. Unvaccinated workers are highly encouraged to immediately receive the current season's inactivated influenza A viruses and potential genetic reassortment. Influenza vaccine recipients should be advised that the seasonal influenza vaccine does not protect against avian influenza viruses. This vaccine will be made available at no cost to the worker.
 5. Workers also are highly encouraged to receive an influenza antiviral drug daily (that is approved for use as prophylaxis), for the duration of time during which direct contact with poultry, their secretions, or contact with contaminated surfaces occurs and continuing 5-7 days after the last day of potential virus exposure. Antivirals must be administered in combination with inactivated influenza vaccine (as mentioned above). The choice of antiviral drug should be based on sensitivity testing when possible. In the absence of sensitivity testing, a neuraminidase inhibitor (e.g., oseltamivir) is the first drug of choice since the likelihood is smaller that the virus will be resistant to this class of antiviral drugs than to amantadine or rimantidine.
 6. Potentially exposed workers must monitor their health for the development of fever, respiratory symptoms, and/or conjunctivitis (i.e., eye infections) for 1 week after last exposure to HPAI virus-infected or exposed birds or to potentially contaminated environmental surfaces. Individuals who become ill must seek prompt medical care and give notification prior to arrival at the health care provider's office or clinic that they may have been exposed to an HPAI virus.
 7. It is important to take measures to prevent the virus from being spread to other areas. To do this, disposable items of personal protective equipment must be discarded properly, and non-disposable items must be cleaned and disinfected according to outbreak-response guidelines.
 8. To prevent the possible risk of transmission of an HPAI virus to their contacts, especially household members, ill persons must practice good respiratory and hand hygiene to lower the risk of transmission of the virus to others. For more information, visit CDC's "Cover Your Cough" website: www.cdc.gov/flu/protect/covercough.htm

9. Patients or health care providers who wish to report possible human cases of zoonotic transmission of highly pathogenic avian influenza must consult with their local or State Department of Health.

GUIDANCE FOR WILDLIFE BIOLOGISTS

1. Wildlife Biologists handling **healthy** wild birds should:
 - a. Work in a well-ventilated area if working indoors.
 - b. Work upwind of animals, to the extent practicable, to decrease the risk of inhaling aerosols such as dust, feathers, or dander when working outdoors.
 - c. Wear rubber or latex gloves that can be disinfected or disposed of.
 - d. Wear protective eyewear or a face shield while handling animals.
 - e. Wash hands with soap and water often and disinfect work surfaces and equipment between sites. If soap and water are not available, alcohol-based handcleaner or 10% bleach/water solution will be used.
 - f. Not eat, drink, or smoke while handling animals.
2. Wildlife Biologists handling **sick or dead** birds should:
 - a. Follow the recommendations above, and, at a minimum, wear protective clothing, including coveralls, rubber boots, and latex or rubber gloves that can be disinfected or disposed of.
 - b. Minimize exposure to mucosal membranes by wearing protective eyewear (goggles) and a particulate respirator (NIOSH N95 respirator at a minimum).
 - c. Decontaminate and properly dispose of potentially infectious material including carcasses.
 - d. Not eat, drink, or smoke while handling animals.
3. HPAI Response in Wild Birds. Wildlife Biologists working with wildlife in an area where HPAI H5N1 is suspected or has been detected must comply with this Directive by:
 - a. Following the recommendations above and the basic guidelines for infection control, including how to put on and use, remove, disinfect, or dispose of personal protective equipment and clothing.

- b. Washing hands with soap and water frequently and disinfecting exposed surfaces and field equipment between work sites. If soap and water are not available, alcohol-based handcleaner or 10% bleach/water solution will be used.
- c. Not eating, drinking, or smoking while handling animals.
- d. Wearing coveralls, gloves, shoe covers, or boots that can be disinfected or discarded, a respirator (NIOSH N95 respirator at a minimum protective), and eyewear (goggles).
- e. Monitoring their health for clinical signs of influenza infection, such as fever, cough or sore throat, trouble breathing, or eye inflammation, during and for one week after, their last exposure to potentially HPAI virus-infected or exposed birds.
- f. Contacting their healthcare provider if they develop fever, flu-like symptoms, or conjunctivitis (eye inflammation). Inform the provider prior to arrival that they have potentially been exposed to HPAI.

Additional information about HPAI H5N1 can be found at the following web link:
USGA National Wildlife Health Center:

http://www.nwhc.usgs.gov/disease_information/avian_influenza/index.jsp

GUIDANCE FOR VETERINARY LABORATORY WORKERS

Highly pathogenic avian influenza A viruses are classified as “select agents” and must be handled under Biosafety Level (BSL) 3 enhanced or BSL 3-Agriculture laboratory standards. These include controlled access, double door entry with change room and shower out, use of respirators when working with specimens outside a biological safety cabinet, and decontamination of all waste. Laboratories working on these viruses must be USDA-approved.

Clinical specimens from suspect HPAI virus cases may be tested by polymerase chain reaction (PCR) assays using standard BSL 2 work practices in a Class II biological safety cabinet. In addition, commercial antigen detection testing can be conducted under BSL 2 levels to test for influenza viruses.

All employers processing biologic specimens suspected of being infected with the HPAI virus must ensure that their employees comply with all provisions of 29 CFR 1910.1030 for employee protection against bloodborne pathogens, including the reporting of accidental exposure to avian influenza virus. Any accidental exposure must be reported to an immediate supervisor or employee health department.

Additional Sources of Information on Avian Influenza

Centers for Disease Control and Prevention, <http://www.cdc.gov/flu/avian/index.htm>

U.S. Department of Agriculture, Animal and Plant Health Inspection Service,
http://www.aphis.usda.gov/lpa/issues/ai_us/ai_us.html

World Health Organization, "Avian Influenza – Fact Sheet"
http://www.who.int/csr/disease/avian_influenza/en/

World Health Organization, "Avian Influenza Frequently Asked Questions"
http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/

APHIS Medical Surveillance Service Form 29 and How to Complete
<http://www.aphis.usda.gov/mrpbs/forms/aphisforms.html>