

ATTACHMENT D

INTERIM GUIDANCE FOR THE IMPLEMENTATION OF CDC AND OSHA
AVIAN INFLUENZA PUBLIC HEALTH RECOMMENDATIONS (DRAFT)

Interim Guidance for the Implementation of CDC and OSHA Avian Influenza Public Health Recommendations

Pennsylvania Poultry Industry and Pennsylvania Department of
Health Joint Working Group on the Response to
Highly Pathogenic Avian Influenza

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Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint Working Group on the Response to Highly Pathogenic Avian Influenza - Participants

- Pennsylvania Poultry Industry
- Pennsylvania Department of Health
- Pennsylvania Department of Agriculture
- Pennsylvania State University
- University of Pennsylvania
- United States Department of Agriculture

Interim Guidance for the Implementation of CDC and OSHA Avian Influenza Public Health Recommendations

Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint Working Group on the Response to Highly Pathogenic Avian Influenza

Summary:

- In response to the identification of Avian Influenza (AI) in poultry on the Eastern Shore of Maryland and Delaware, in addition to reports of human illness in other countries related to Highly Pathogenic Avian Influenza (HPAI) outbreaks, an ad hoc working group was convened in Pennsylvania to develop procedures based on U.S. Centers for Disease Control and Prevention (CDC) and federal Occupation Safety and Health Administration (OSHA) recommendations.
- This document provides practical guidance on the training of workers and emergency response personnel, basic infection control, use of personal protective equipment (PPE), decontamination measures, vaccine and antiviral usage, surveillance for illness, and appropriate evaluation of persons who become ill.
- For the maximum protection of workers, procedures follow the guidelines recommended by the CDC.
- Poultry companies will work in conjunction with state and local public health authorities.
- The medical departments of the poultry companies will closely monitor workers after their involvement with depopulation efforts for one week after last exposure as recommended by the CDC.
- Workers not employed, or contracted by a particular poultry company, will be monitored by the health agency of the jurisdiction for their place of residence.

Background:

Avian Influenza (AI) viruses are responsible for outbreaks that mainly affect birds (epornitics). The principle hosts of AI viruses are waterfowl. AI viruses can be classified into low pathogenic (LPAI) and highly pathogenic (HPAI) forms based on their virulence and the severity of the illness they cause. Most AI virus strains are of low pathogenicity, and typically cause little or no clinical signs in infected birds (1). However, some LPAI virus strains can mutate, under field conditions, into HPAI viruses (H5 and H7 hemagglutinin subtypes), which are extremely infectious and fatal, and once established, can spread rapidly from flock to flock (1). Rare cases of human illness caused by AI have been documented throughout the world, including in the United States. In most cases, human illnesses have been associated with laboratory confirmed HPAI viruses, suggesting a zoonotic potential of the virulent strain.

The documented human illnesses resulting from infection with AI viruses have been with HPAI viruses. The clinical signs have ranged from severe, sometimes fatal, respiratory infections, such as those caused by the avian influenza A subtype H5N1 virus in Asia during 2004-2005, to mild illnesses such as conjunctivitis (an inflammation of the lining of the eye). To date, most human HPAI infections have been acquired from direct contact with infected birds; person-to-person transmission may have occurred in several cases, but appears to be extremely uncommon. Although person-to-person transmission of HPAI appears to be rare, one major concern is that a person infected with HPAI could also become co-infected with a normal human influenza virus. Genetic material could be exchanged between the HPAI virus and the human influenza virus, which could result in an influenza virus that is transmitted easily from person-to-person. If this were to happen, a severe worldwide epidemic of influenza (pandemic) may ensue (2,3). Vaccines and antiviral drugs are important in reducing the morbidity and mortality associated with a pandemic, but the emergence and exposure of an immunologically naïve population to a new virus may expose the inadequacy of the manufacturing capacity and distribution of effective vaccines and antiviral agents.

To protect persons exposed to HPAI from becoming infected and ill, and to prevent an AI-associated pandemic, guidelines have been developed by several organizations, including the CDC (4) in February 2004, and more recently by OSHA (5). On July 25, 2005, representatives from the Pennsylvania Poultry Industry, Pennsylvania Department of Health, Pennsylvania Department of Agriculture, Pennsylvania State University and the University of Pennsylvania convened in response to recent outbreaks of LPAI in the nearby states of Delaware and Maryland (2004; H7N2), Virginia (2002; H7N2), and a prior HPAI outbreak in Pennsylvania (1983; H5N2) that killed over 11 million chickens. A plan of action was formulated using CDC and OSHA recommendations, and the Delmarva Poultry Industries – Health Departments Joint Task Force (6) guidance as a basis. This interim document represents the product of the Pennsylvania working group, and provides operational guidance for a Pennsylvania HPAI response plan based. This guidance will be updated as new and significant information becomes available.

Target Human Populations:

- I. Poultry company workers tasked with depopulation (e.g. service personnel, company veterinarians).
- II. Equipment operators contracted by poultry companies.
- III. Composters (e.g. equipment operators).
- IV. Farm caretakers and their families.
- V. Employees of state, federal, private agencies or organizations not associated with poultry companies (i.e., Pennsylvania Department of Agriculture, university, and United States Department of Agriculture field personnel, laboratory workers, FBI field personnel, etc.).

Not considered at an increased risk are litter truck drivers, who dump the litter outside the poultry houses. Group I, II, and III will be identified in advance.

Procedures:

Select personnel from each poultry company will form “Primary Response Teams.” A “Team Leader” will head each Primary Response Team. These groups will be trained, educated, vaccinated, and prepared to mobilize and receive antiviral therapy when the occasion arises. The poultry companies will maintain a central listing of the workers along with their contact information.

A Safety Officer and a Public Health Representative will be identified to assure on-site compliance with procedures. A Safety Officer is an individual designated by the poultry company with the knowledge base regarding operations, with the task of ensuring that safety procedures are followed. A Public Health Representative is an individual designated by the Pennsylvania Department of Health with the task of ensuring that preventive health measures are followed.

I. Training.

- a. Workers will be trained and required to complete the “Training Checklist” for exposure to HPAI (see **Attachment 1**)

II. Basic Infection Control

- a. Team leaders will use this document to educate workers about the importance of strict adherence to and proper use of hand hygiene after contact with infected or exposed poultry, contact with contaminated surfaces, or after removing gloves. Hand hygiene should consist of washing hands with hot soap and water for 10-15 seconds (7), or the use of other standard hand-disinfection procedures as specified by the poultry company medical department. This will happen at all breaks (including, but not limited to smoking, snacking, lunch and bathroom), and prior to leaving the affected farm.

III. Personal Protective Equipment (PPE)

- a. Cloth gloves over nitrile disposable gloves should be worn. Gloves must be changed if torn or otherwise damaged. Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces.
- b. "Throwaway clothes," clothing that is inexpensive and that shall be discarded after the event. No special protective clothing need be worn. Clean clothes will be brought and changed into after showering out of the environment. Suitable and approved disposable overgarments that remain intact during service may be used in lieu of throwaway garments if approved by the on site Public Health Representative.
- c. Disposable shoes, protective shoe covers, or rubber or polyurethane boots that can be cleaned and disinfected, should be worn.
- d. Safety goggles shall be worn to protect the mucous membranes of the eyes.
- e. Disposable particulate respirators will be worn (i.e., N-95, N-99, or N-100). Fit testing will be required initially, and annually.
- f. Disposable PPE shall be properly discarded, and non-disposable PPE shall be cleaned and disinfected after use. Hand hygiene measures shall be performed after removal of PPE.

IV. Decontamination

- a. All personnel who work in the interior of poultry houses will shower at the end of the work shift, either on site at a decontamination trailer, or through arrangements with local hotels (utilizing a dirty room for removal of clothing and showering and a clean room for dressing in clean clothing to be worn home). Separate sex showering facilities should be provided.
- b. No clothing worn inside the poultry houses can be worn home; this includes shoes, underwear, etc. Shoes do not have to be discarded if they are worn inside boots that are disinfected or covered by disposable covers that remain intact.

V. Vaccine and Antiviral Drugs

- a. All Response Team members will receive the seasonal human flu vaccine from their respective companies in order to reduce chance of co-infection with human influenza virus that might recombine with the AI virus.
- b. Follow current CDC guidelines for prophylaxis, the recommended antiviral drug of choice is currently Oseltamavir (Tamiflu), 75 mg once a day on any day the person is involved on-site with depopulation efforts on

laboratory confirmed HPAI-positive farms. The attending physician may require a minimum treatment of three days. Each company will arrange antiviral prophylaxis with their respective medical professionals (i.e., physicians). Individuals that are not associated with a poultry company will be provided a letter (Anticipated Exposure to HPAI) and will consult with their primary care provider for a prescription (**see Attachment 2**).

VI. Monitoring of Workers attached to a Poultry Company

- a. Before going to a site, all workers will complete the HPAI Exposure Symptom Questionnaire (**see Attachment 3**); anyone answering “yes” to any question on the health assessment section Baseline (i.e., Day 0) of the matrix will be excluded from that depopulation episode.
- b. The questionnaire will be administered again by the poultry company to which that individual is attached to, on or about day seven, and again on the 14th day after depopulation. State or local health departments of residence will recommend evaluation and treatment of poultry workers and their families by their medical providers, accordingly.

VII. Monitoring of Individuals not attached to a specific poultry company

- a. Monitoring of individuals not attached to a specific poultry company (e.g. Pennsylvania Department of Agriculture and USDA field personnel, laboratory workers, poultry growers, FBI field personnel, etc.) will be the responsibility of the state or local health department of residence.
- b. The state or local health departments where the affected farm is located will collect baseline data. This will be sent to the health department of residence for follow-up surveillance.
- c. Any person who is in the category as defined in (a.) above will be contacted by the state or local health department and asked to complete the HPAI questionnaire (attached); anyone answering “yes” to any question on the health assessment section of the matrix will be followed up by the state or local health department, including identification of additional contacts of these individuals, for further evaluation and specimen collection.
- d. A letter of instruction for medical providers (Request for Post-Exposure Prophylaxis) will be given to the poultry grower and their family members (**see Attachment 4**).
- e. State or local health departments of residence will recommend evaluation and treatment of poultry growers and their families by their medical providers, accordingly.

VIII. Evaluation of Ill persons

- a. Reports of ill workers will be submitted to the state or local health department of their place of residence.
- b. Medical follow up will be the responsibility of the poultry companies who employ or contract the individuals or agency employee health/worker's compensation for state agency employees.
- c. A letter of instruction for medical providers for evaluation of illness (Symptomatic) will be given to the poultry grower and their family members (**see Attachment 5**).
- d. Specimen collection will be coordinated by the state or local health department and will include nasopharyngeal swab and acute serum (convalescent serum may be obtained 2-8 weeks later if appropriate).
- e. Workers are instructed to be vigilant for the development of fever, respiratory symptoms, and/or conjunctivitis (i.e., eye infections) for one week after the last exposure to avian influenza-infected or exposed birds or to potentially avian influenza-contaminated environmental surfaces. Workers will be instructed who to contact regarding questions or symptoms of illness

References:

1. USDA, APHIS, VS. “Highly Pathogenic Avian Influenza.” Factsheet. February 2004. Downloaded from http://www.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/faq_ahhpai.pdf
2. CDC. “Avian Influenza Infection in Humans.” January 19, 2005. Downloaded from <http://www.cdc.gov/flu/avian/gen-info/avian-flu-humans.htm>
3. CDC. “Key facts about Avian Influenza (Bird Flu) and Avian Influenza A (H5N1) Virus.” March 18, 2005. Downloaded from <http://www.cdc.gov/flu/avian/gen-info/facts.htm>
4. CDC. “Interim Guidance for Protection of Persons Involved in U.S. Avian Influenza Outbreak Disease Control and Eradication Activities.” February 17, 2004. Downloaded from <http://www.cdc.gov/flu/avian/pdf/protectionguid.pdf>
5. OSHA. “Avian Influenza Protecting Poultry Workers at Risk. Safety and Health Information Bulletins 12-13-2004.” December 13, 2004. Downloaded from <http://www.osha.gov/dts/shib/shib121304.html>
6. Delmarva Poultry Industries – Health Departments Joint Task Force. “Interim Guidance for Implementation of CDC and OSHA Avian Influenza Recommendations.” March 8, 2004.
7. CDC. “An ounce of prevention: Keeps germs away.” April 5, 2000. Downloaded from <http://www.cdc.gov/ncidod/op/handwashing.htm>

Training Checklist for Workers Exposed to Highly Pathogenic Avian Influenza

Attachment D

Attachment 1

Pennsylvania Poultry Industry- Department of Health Joint Working Group on the Response to Highly Pathogenic Avian Influenza

Please read and initial each item below. Sign form at bottom when completed.

_____ 1. I **understand** that these guidelines provided by my employer, are the recommendations of the Centers for Disease Control and Prevention (CDC) for maximum protection for workers exposed to Highly Pathogenic (HPAI) viruses, and that these precautions are being taken for my personal protection against the extremely low risk of human infection with the HPAI virus.

_____ 2. I **have** completed and passed the “Highly Pathogenic Avian Influenza Exposure Symptom Questionnaire” prior to being exposed to HPAI infected poultry or premises contaminated with HPAI virus.

_____ 3. I **have** received the seasonal human flu vaccine at least two weeks prior to today and I **understand** that this vaccination will not prevent human infection by HPAI viruses but is intended to minimize the likelihood of an HPAI virus from recombining with human influenza viruses.

_____ 4. I **have** been offered antiviral medications and **agree** to take them as directed by medical professionals.

_____ 5. I **agree** to wear the personal protective equipment (PPE) recommended by my employer at all times during possible exposure to HPAI virus. This PPE includes but is not limited to: cloth gloves over nitrile disposable gloves (replace gloves immediately if torn or otherwise damaged), discardable clothing and shoe wear or washable boots that can be cleaned and disinfected on site, safety goggles, disposable particulate N-95 type respirator (or better), and hair bonnet.

_____ 6. I **have** been instructed on how to properly remove contaminated PPE to prevent cross contamination.

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_____ 7. I **have** been fit tested and approved to wear an N-95 (or better) respirator during the completion of physically strenuous activities.

_____ 8. I **have** been instructed about the importance of strict adherence to and proper use of hand hygiene after contact with HPAI infected poultry or HPAI virus contaminated surfaces. After removing protective gloves I **agree** to thoroughly wash my hands with soap and water for at least 20 seconds or to use other hand disinfection procedures as specified by the Public Health Representative.

_____ 9. I **agree** to shower at the end of the work shift in a decontamination unit on site or via arrangements with local hotels using a dirty room for clothing removal and showering and a clean room for dressing in clean clothing to be worn home. Under no circumstances will I wear clothing worn in an HPAI contaminated environment home: this includes shoes, underwear, etc.

_____ 10. I **agree** to complete the attached health questionnaire on or about day 7 and again on day 14 after possible exposure to HPAI virus. If I answered “yes” to any question I **agree** to be referred to the Public Health Representative and to follow their instructions for further examination and specimen collection as needed. I understand that my personal health information may be shared with appropriate county and state health departments and **agree** to follow additional directions from these agencies if requested to do so.

_____ 11. I **understand** that both the Safety Officer and the Public Health Representative will be on site to answer any questions that I may have concerning these guidelines.

Printed Name: _____ Date: _____

Signature: _____

LETTER HEAD

Attachment 2

MEMO

To: (Medical Provider)
From: _____ PA State, County, and/or Municipal Health Department
Date: _____
Re: _____ (patient name)

The person identified above is referred to you for consideration of prophylaxis therapy for potential exposure to laboratory confirmed Highly Pathogenic Avian Influenza. The duties leading to this potential exposure will include: _____
_____. The duties stated will be performed on (date).

This patient () has () has not been vaccinated with the current season's influenza vaccine.

CDC Interim Guidance for Protection of Persons Involved in US Avian Influenza Outbreak Disease Prevention and Control and Eradication Activities (www.cdc.gov/flu/avian/professional/protect-guid.htm) recommends the following: "Workers receive an influenza antiviral drug daily for the duration of time during which direct contact with infected poultry or contaminated surfaces occurs." "A neuraminidase inhibitor (oseltamavir) is the first choice..."

Please consider this patient for prophylaxis with antiviral therapy.

If you would like a copy of the CDC guidelines, have questions or need additional information, please contact the PA State, County, and/or Municipal Health Department at (phone number).

Highly Pathogenic Avian Influenza Exposure Symptom Questionnaire

Attachment 3

Date of interview (mm/dd/yy) _____ Name of interviewer: _____

Name: (Last) _____ (First) _____

Address (# Street Name): _____ City/State/ZIP: _____

County of Residence: _____ Primary Language Spoken _____

Home Phone: _____ Work/cell phone: _____

Age (Years): _____ DOB (mm/dd/yy): _____ Gender: M F

Vaccination Information:

Did you receive an influenza vaccination this year?

Yes (approximate date mm/dd/yy _____) What type? Flu shot FluMist No

Work Information:

Occupation: _____

Employer : Poultry Company _____ Private contractor _____ State/Fed Agency _____

Type of work (check all that apply):

- | | | |
|---|---|---|
| <input type="checkbox"/> Care of live poultry or trucks | <input type="checkbox"/> Transportation of live poultry | <input type="checkbox"/> Clean of poultry houses, cages |
| <input type="checkbox"/> Obtaining blood samples of poultry swabs | <input type="checkbox"/> Process poultry specimens in a lab | <input type="checkbox"/> Obtain cloacal or tracheal |

- Slaughter poultry (not depopulation)
- Poultry depopulation
- Composting dead poultry
- Disinfecting equipment
- Farm owner
- Other farm work
- Other _____

What is the most recent date you were performing any of the above activities (at any location)?

Date (mm/dd/yy):: _____ Still performing above duties

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What is the most recent date you performed any of the above activities at a site where poultry were known to be infected with avian influenza?

Date (mm/dd/yy):: _____ Still performing above duties

While performing these activities (during the past two weeks), have you used personal protective equipment (PPE)?

- Yes, always
- Yes, most of the time
- Yes, sometimes
- Never

Name: (Last) _____ **(First)** _____

Exposure Date (mm/dd/yy): _____ **Exposure Location** _____ **Exposure #**

If you used PPE, which articles did you use? (Check all that apply)

- Protective clothing (such as disposable clothing)
- Disposable gloves
- Hair bonnet
- Fit-tested respirator (such as an N95 mask or better)
- Goggles

Disposable protective foot wear or washable boots

Other _____

Health Assessment:

Since your first possible contact with avian influenza infected birds, have you developed any of the following symptoms?

Symptoms	Day 0 (Today's Date: _____)			Day 7 (Today's Date: _____)			Day 14 (Today's Date: _____)		
	Circle One	Date of Onset	Date Resolved	Circle One	Date of Onset	Date Resolved	Circle One	Date of Onset	Date Resolved
Fever	Yes No			Yes No			Yes No		
Measured Temp \geq 100F	Yes No Temp°:			Yes No Temp°:			Yes No		
Cough	Yes No			Yes No			Yes No		
Sore Throat	Yes No			Yes No			Yes No		
Runny Nose	Yes No			Yes No			Yes No		
Body Aches *	Yes No			Yes No			Yes No		
Red or Watery Eyes	Yes No			Yes No			Yes No		
Diarrhea	Yes No			Yes No			Yes No		
Headache	Yes No			Yes No			Yes No		
Drowsiness	Yes No			Yes No			Yes No		
Other: _____	Yes No			Yes No			Yes No		

* symptom by itself does not indicate referral to local health department for follow up

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Did you seek medical care for your illness? No Yes

If yes, name of provider: _____ Address: _____ Phone Number: _____

Were you hospitalized? No Yes If yes, Name of Hospital _____ Dates admitted _____

Antiviral Information:

Have you taken any antiviral medication? (Amantadine/Rimantadine/Oseltamivir)

Yes Name of antiviral: _____ First dose: _____ Last dose _____ No

Have any of your family members or other close contacts developed any of the above symptoms? No Yes If yes, who?

<u>Name</u>	<u>Age (Yrs.)</u>	<u>Relationship</u>	<u>Contact #</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

LETTER HEAD

Attachment 4

MEMO

To: Medical Provider
From: _____ PA State, County, and/or Municipal Health Dept.
Date: _____
Re: _____ (patient name)

The person identified above is referred to you for evaluation and follow-up due to their exposure to laboratory confirmed Highly Pathogenic Avian Influenza. The exposure occurred on (date). The duties leading to this exposure included: _____

This patient () has () has not been vaccinated with the current season's influenza vaccine.

CDC Interim Guidance for Protection of Persons Involved in US Avian Influenza Outbreak Disease Prevention and Control and Eradication Activities (www.cdc.gov/flu/avian/professional/protect-guid.htm) recommends the following: "Workers receive an influenza antiviral drug daily for the duration of time during which direct contact with infected poultry or contaminated surfaces occurs." "A neuraminidase inhibitor (oseltamavir) is the first choice..."

Please consider this patient for prophylaxis with antiviral therapy.

If you would like a copy of the CDC guidelines, have questions, or need additional information, please contact the PA State, County, and/or Municipal Health Department at (phone number).

LETTER HEAD

Attachment 5

MEMO

To: (Medical Provider)
From: _____ PA State, County, and/or Municipal Health Department
Date: _____
Re: _____ (patient name)

The person identified above is referred to you for evaluation and follow-up due to their exposure to laboratory confirmed Highly Pathogenic Avian Influenza (HPAI). An interview with the patient revealed the following information:

- Interview date _____
- Exposure date _____
- Duties leading to this exposure included: _____
- Symptoms began on _____
- Symptoms include _____
- This patient () has () has not been vaccinated with the current season's influenza vaccine.
- This patient () has () has not receive antiviral prophylaxis during the exposure period.

CDC Interim Guidance for Protection of Persons Involved in US Avian Influenza Outbreak Disease Prevention and Control and Eradication Activities (www.cdc.gov/flu/avian/professional/protect-guid.htm) recommends the following evaluation of ill workers:

- Workers who develop a febrile respiratory illness should have a respiratory sample (e.g., nasopharyngeal swab or aspirate) collected.
- Optimally, an acute- (within 1 week of illness onset) and convalescent-phase (after 3 weeks of illness onset) serum sample should be collected and stored locally in case testing for antibody to the HPAI virus should be needed.

The Health Department can assist you in submitting a nasopharyngeal swab and serology for HPAI testing to the state laboratory. If you would like a copy of the CDC guidelines, have questions, or need additional information, please contact the PA State, County, and/or Municipal Health Department at (phone number).