

# Interim Guidance for Implementation of CDC and OSHA Avian Influenza Recommendations

## Delmarva Avian Influenza Joint Task Force

**PLEASE NOTE:** This document was created by the Delmarva (Delaware, Maryland, Virginia) Avian Influenza Joint Task Force based on existing CDC and OSHA Guidelines. It should be viewed as a work in progress and is subject to revision as additional guidelines become available or as the prevalence of Avian Influenza changes.

# **Delmarva Avian Influenza Joint Task Force**

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# Interim Guidance for Implementation of CDC and OSHA Avian Influenza Recommendations

## Delmarva Avian Influenza Joint Task Force

### Summary:

- In response to identification of Avian Influenza (AI) in poultry on the Eastern Shore of Maryland, in addition to reports of human illness in other countries, a task force mobilized to develop procedures based on CDC and OSHA recommendations (1, 2).
- This document provides practical guidance related to human AI infection prevention and control, including guidance related to training of workers, basic infection control, use of personal protective equipment, decontamination measures, vaccine and antiviral use, surveillance for illness, and appropriate evaluation of persons who become ill.
- For the maximum protection of workers, procedures follow the guidelines recommended by the US Centers for Disease Control and Prevention (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 department consistent with their residency.

### Background:

Avian influenza viruses are influenza viruses that mainly infect birds. Although AI viruses do not usually infect humans, rare cases of human illness caused by AI have been documented throughout the world, including in the United States. The human illnesses documented to have been caused by AI viruses have ranged from severe, sometimes fatal respiratory infections, such as those caused by the avian influenza A H5N1 virus in Asia during 2004-2005, to mild illnesses like conjunctivitis, an inflammation of the lining of the eye. Some human infections with AI even appear to result in no symptoms. To date, most human AI infections have been acquired from direct contact with infected birds; person-to-person transmission may have occurred in several cases, but appears to be generally, extremely uncommon. However, although person-to-person transmission of AI appears to be rare, one major concern is that a person infected with AI could also become co-infected with a normal human influenza virus. Genetic material could be exchanged between the AI and the human influenza virus, which could result in an AI virus that is spread easily from person-to-person. If this were to happen, a severe worldwide epidemic of influenza (pandemic) could ensue (3, 4).

To protect persons exposed to AI from becoming infected and ill, and to attempt to prevent an AI-associated pandemic, guidelines have been developed by several organizations, including in February 2004, by the US Centers for Disease Control and Prevention (CDC) (1) and, more recently by the Federal Occupation Safety and Health Administration (OSHA) (2). In response to outbreaks of AI in chickens in Delaware and the Maryland portion of the Delmarva Peninsula in Spring 2004, and using the CDC and OSHA guidance as a basis, a task force of representatives of the Delmarva poultry industry, the Delmarva local and state health and agriculture departments was convened beginning in December 2004. This interim guidance represents the work of the task force, and makes operational for the Delmarva region the current CDC and OSHA guidance. This guidance will be updated as important new information becomes available.

### **Target Human Populations:**

- I. Poultry companies' depopulation employees, typically service people, typically young, healthy, educated.
- II. Contract Bobcat operators (contracted by the poultry companies).
- III. Composters (typically Bobcat drivers).
- IV. Contract growers and their families.
- V. Employees of agencies or organizations (i.e., Department of Agriculture, lab workers, USDA field workers, etc.)
- VI. Not at increased risk: Litter truck drivers, who dump the litter outside the house.
- VII. Groups I, II, and III will be identified in advance; several from each company, will form a "Strike Team." This group will be trained, educated, vaccinated (with seasonal human flu vaccine), and be prepared to mobilize and receive antiviral therapy when the occasion arises. There will be a central listing of the Strike Team members and contact information. This listing will be maintained by the poultry companies.

### **Procedures: A Safety and Medical Officer Will Be Identified On-Site To Assure Compliance with Procedures**

- I. Training  
All Strike Team members or persons, who may be exposed to AI virus infected live poultry or premises contaminated with the AI virus, will be trained by their employer with assistance from the Local or State Health Department as needed and be required to complete the "Training Checklist" (*Attachment I*).
- II. Basic Infection Control  
By this document, and via team leaders, workers will be educated 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 with soap and water for 10-15 seconds or the use of other standard hand-disinfection procedures as specified by the poultry company's medical department. This will happen at all breaks (especially

where smoking or snacking will occur), at lunch/bathroom breaks, and prior to leaving the affected farm.

III. Personal Protective Equipment (PPE)

- A. Cloth gloves over nitrile disposable gloves shall 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 will 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.
- C. Disposable shoes, protective shoe covers, or rubber or polyurethane boots that can be cleaned and disinfected should be worn.
- D. Eye protection shall be worn to protect the mucous membranes of eyes.
- E. Disposable particulate respirators (N-95 or higher level of protection) will be worn. Fit testing is required initially and annually.
- F. Disposable PPE will be incinerated on site or a licensed medical waste provider will be contracted. Non-disposable PPE should be cleaned and disinfected after use. Hand hygiene measures should be performed after removal of PPE.

IV. Decontamination

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

V. Vaccine and Antiviral Drugs:

- A. All Strike Team members should receive the seasonal human flu vaccine from their respective companies in order to prevent the presence of flu from providing an opportunity for the AI virus to recombine with human influenza virus. Other workers not affiliated with a poultry company who may have exposure to AI during depopulation efforts, will be offered flu vaccine at the depopulation site by the State or Local Health Department. Laboratory staff are encouraged to receive flu vaccine. A declination form will be signed if flu vaccine is refused (*Attachment 2*).

- B. Although there is no data on outcomes from prophylactic use of antiviral drugs, every precaution should be taken in keeping with current CDC guidelines for their use. The recommended antiviral drug of choice is currently Oseltamavir (Tamiflu). The recommended dose of 75 mg once a day on any day the associate is involved on-site with the depopulation efforts on known AI-positive farms. A minimum treatment of three (3) days may be required by the attending physician. Antiviral drug treatment will be arranged by each company with their respective medical professionals (physicians). Individuals not affiliated with a poultry company will consult with their primary care provider or State or Local Health Department for a prescription /medication (*Attachment 3*).

VI. Surveillance Monitoring of Strike Team Members

- A. Before going to a site, all workers will complete the AI Exposure Symptom Questionnaire (*Attachment 4*); anyone answering “yes” to any question on the health assessment section baseline (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 affiliated on or about day 7 and again day 14 after the depopulation. Anyone answering “yes” to any question will be referred to the State or Local Health Department of home residence for further examination and specimen collection.

VII. Surveillance Monitoring of Workers Not Affiliated with a Specific Poultry Company

- A. Baseline data will be collected by the State or Local Health Department where the affected farm is located. This will be sent to the Health Department of residence for follow-up surveillance.
- B. Surveillance of individuals not affiliated with a specific poultry company (includes, but is not limited to: USDA, poultry grower, MDA, etc.) will be the responsibility of the State or Local Health Department of residence.
- C. Any person who is in the category as defined in B. above will be contacted by the State or Local Health Department and asked to complete the AI Exposure Symptom questionnaire (*Attachment 4*); 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 will be given to the poultry grower and family members (*Attachment 5*).
- E. State or Local Health Departments of residence will coordinate evaluation, prophylaxis, and treatment of poultry growers and their families.

### VIII. Evaluation of Ill Workers

- A. Reports of ill workers will be submitted to the state or local health department consistent with residency.
- B. Medical follow-up will be the responsibility of the poultry companies who employ or contract the individuals or agency's employee health/worker's compensation for state agency employees.
- C. A letter of instruction for medical providers for evaluation of illness will be given to the poultry grower and family members (*Attachment 6*). Medical Providers will be encouraged to follow CDC Guidelines, Respiratory Hygiene/Cough Etiquette.
- 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 will be instructed to be vigilant for the development of fever, respiratory symptoms, and/or conjunctivitis (i.e., eye infections) for 1 week after last exposure to AI-infected or exposed birds or to potentially AI-contaminated environmental surfaces. Workers will be instructed who to contact regarding questions and/or symptoms of illness.

### References:

1. 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>
2. 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>
3. CDC. "Avian Influenza Infection in Humans" January 19, 2005. Downloaded from <http://www.cdc.gov/flu/avian/gen-info/avian-flu-humans.htm>
4. 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>

# Training Checklist for Workers Exposed to Avian Influenza (AI) Virus Infected Live Poultry or Premises Contaminated with AI Virus

## Delmarva Avian Influenza Joint Task Force

**Please read, circle appropriate response, and initial each item below. Sign form at bottom when completed.**

\_\_\_\_\_ 1. I **understand/do not understand (circle one)** that the H7N2 strain of avian influenza and all previous US outbreaks of AI have not been found to cause disease in any humans in the US.

\_\_\_\_\_ 2. I **understand/do not understand (circle one)** 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 AI virus and that these precautions are being taken for my personal protection against the extremely low risk of human infection with AI virus.

\_\_\_\_\_ 3. I **have/have not (circle one)** completed and passed the “Avian Influenza Exposure Symptom Questionnaire” prior to being exposed to AI infected poultry or premises contaminated with AI virus.

\_\_\_\_\_ 4. I **have/have not (circle one)** received the seasonal human flu vaccine. I received this vaccine at least two weeks **prior to today/today (circle one.)** If I refuse vaccination I **agree/not agree (circle one)** to sign the declination form. I **understand/do not understand (circle one)** that this vaccination will not prevent human infection by AI viruses but is intended to minimize the likelihood of an AI virus from recombining with human influenza viruses.

\_\_\_\_\_ 5. I **have/have not (circle one)** been offered antiviral medications and **agree/do not agree (circle one)** to take them as directed by medical professionals.



**Attachment 1**

\_\_\_\_\_ 6. I **agree/do not agree (circle one)** to wear the Personal Protective Equipment (PPE) recommended by my employer at all times during possible exposure to AI 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 foot wear or washable boots that can be cleaned and disinfected on site, eye protection, disposable particulate N-95 (or higher) type respirator, and hair bonnet. I **have/have not (circle one)** been instructed on how to properly remove contaminated PPE to prevent cross contamination.

\_\_\_\_\_ 7. I **have/have not (circle one)** been fit tested and approved to wear an N-95 equivalent or higher respirator during the completion of physically strenuous activities.

\_\_\_\_\_ 8. I **have/have not (circle one)** been instructed about the importance of strict adherence to and proper use of hand hygiene after contact with AI infected poultry or AI virus contaminated surfaces. After removing protective gloves I **agree/do not agree (circle one)** to thoroughly wash my hands with soap and water for at least 10-15 seconds or to use other hand disinfection procedures as specified by the Medical Officer.

\_\_\_\_\_ 9. I **agree/do not agree (circle one)** 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 AI contaminated environment home: this includes shoes, underwear, etc....

\_\_\_\_\_ 10. I **agree/do not agree (circle one)** to complete the attached health questionnaire on or about day 7 and again on day 14 after possible exposure to AI virus. If I answer "yes" to any question I **agree/do not agree (circle one)** to be referred to the Medical Officer 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/do not agree (circle one)** to follow additional directions from these agencies if requested to do so.

\_\_\_\_\_ 11. I **understand/do not understand (circle one)** that both Safety and Medical Officers will be on site to answer any questions that I may have concerning these guidelines.

Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Declination of Human Influenza Vaccine**

I understand that due to my potential occupational exposure to avian influenza, I am being offered the seasonal human influenza vaccine. This vaccination will help to prevent the seasonal human influenza virus from recombining with the avian influenza virus potentially causing a new strain of influenza virus. I understand that by declining this vaccine I continue to be at risk of acquiring seasonal human influenza virus. If in the future I want to be vaccinated with seasonal flu vaccine, I can request the vaccination.

Name (Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Agency: \_\_\_\_\_

Social Security Number (optional): \_\_\_\_\_

Date: \_\_\_\_\_

**Reason for Declination:**

- Medically contraindicated \_\_\_\_\_
- Other: \_\_\_\_\_

# LETTER HEAD

## MEMO

To: (Medical Provider)  
From: \_\_\_\_\_ County 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 Avian Influenza. The duties leading to this potential exposure will include:

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The duties stated will be performed on (mm/dd/yyyy).

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](http://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 (oseltamivir) is the first choice...”

Please consider this patient for prophylaxis treatment with antiviral therapy.

If you would like a copy of the CDC guidelines, have questions, or need additional information, please contact the Communicable Disease staff at (phone number).

10/17/05

## Avian Influenza Exposure Symptom Questionnaire

**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                 | <input type="checkbox"/> Transportation of live poultry     | <input type="checkbox"/> Cleaning of poultry houses, cages or trucks |
| <input type="checkbox"/> Obtaining blood samples of poultry   | <input type="checkbox"/> Process poultry specimens in a lab | <input type="checkbox"/> Obtain cloacal or tracheal swabs            |
| <input type="checkbox"/> Slaughter poultry (not depopulation) | <input type="checkbox"/> Poultry depopulation               | <input type="checkbox"/> Composting dead poultry                     |
| <input type="checkbox"/> Disinfecting equipment               | <input type="checkbox"/> Farm owner                         | <input type="checkbox"/> Other farm work                             |
| <input type="checkbox"/> 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

**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 or higher mask)
- Eye Protection
- 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 Temp°:		
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

Additional documentation may be on an attached form.

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(Symmetrel), Rimantadine (Flumadine), Oseltamivir (Tamiflu)]

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

## MEMO

To: Medical Provider  
From: \_\_\_\_\_ County 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 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](http://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 treatment with antiviral therapy.

If you would like a copy of the CDC guidelines, have questions, or need additional information, please contact the Communicable Disease staff at (phone number).

# LETTER HEAD

## MEMO

To: (Medical Provider)  
From: \_\_\_\_\_ County 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 Avian Influenza. 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 received 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](http://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 for antibody testing to the Avian Influenza virus if needed.

The Health Department can assist you in submitting a nasopharyngeal swab and serology for Avian Influenza testing to the state laboratory. If you would like a copy of the CDC guidelines, have questions, or need additional information, please contact the Communicable Disease staff at (phone number).