

## **Iowa HHS Highly Pathogenic Avian Influenza (HPAI) Response Procedures**

For background and overview information of HPAI please visit: [Bird Flu | CDC](#) and [USDA: Detections of Highly Pathogenic Avian Influenza](#)

### **CLINICAL AND EXPOSURE INFORMATION**

**Clinical Criteria:** [Symptoms of H5N1 human influenza infection](#) can include:

- Difficulty breathing/shortness of breath
- Sneezing or swollen sinuses
- Cough
- Sore throat
- Eye inflammation, tearing or irritation
- Headaches
- Muscle or body aches
- Runny or stuffy nose
- Eye discharge
- Diarrhea

**Exposure Criteria** (within 2 days prior to animals showing signs of illness)

**Exposure to animals infected with H5N1 influenza virus** (defined as follows):

- Close contact (within six feet) of infected animals and may include but are not limited to: handling, slaughtering, defeathering, butchering, culling (or depopulating), caring for, or milking; **OR**
- Preparing or consuming raw animal products, or consuming uncooked or undercooked food or related uncooked food products, including unpasteurized milk from infected animals; **OR**
- Direct contact with surfaces which are contaminated with feces, unpasteurized milk or other unpasteurized dairy products, or animal parts including carcasses or internal organs from infected animals.
- Individuals not considered at risk for exposure are those observing sick or dead birds in an outdoor setting who have no direct contact with the birds.

### **Home isolation recommendations for symptomatic persons with suspected, presumptive, or confirmed H5N1 influenza infection**

Based on currently available information, the following recommendations apply to home isolation of non-hospitalized suspected cases until H5N1 influenza infection is ruled out and to non-hospitalized presumptive, probable or confirmed cases until release from isolation.

- The ill person should stay home unless it is necessary to see a healthcare provider or go to work.
- If prescribed and taking influenza antiviral medication, the ill person and their household contact should continue to take it as prescribed unless instructed to stop.
- If living with other people (or pets), the ill person should:
  - Avoid contact with other household members and pets to the extent possible.
  - Wear a well-fitting mask for source control when indoor contact with other household members cannot be avoided.
  - Cover any coughs or sneezes and clean hands with soap and water afterwards.
  - Take extra care to avoid contact with [people at increased risk for complications](#) from seasonal influenza virus infections.

**\*\* For Local Public Health Use \*\***

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- Clean hands with soap and water frequently, particularly before contact with other household members. If soap and water are not available, use a 60% alcohol-based hand sanitizer to clean hands. Other household members should also clean their hands frequently.
- Avoid touching the eyes if conjunctivitis is present.
- Clean and disinfect frequently touched items and surfaces daily.
- Avoid sharing bedding and towels.
- Wear proper PPE when preparing, sorting and loading of dirty laundry.
- Avoid sharing personal items with others, particularly items that have had contact with eyes.

**Isolation discontinuation recommendations:**

- Isolation can be discontinued if H5N1 influenza has been ruled out with a documented negative test result for influenza A, and ideally for A (H5)
  - For persons with previously documented H5N1 influenza infection, by rRT-PCR testing at the State Hygienic Laboratory.
- If H5N1 influenza is confirmed, isolation should continue until:
  - Any eye infection, including redness (excluding subconjunctival hemorrhage) or drainage, is resolved; **AND**
  - Any fever (temperature of 100°F or 37.8°C or higher) has been gone for at least 24 hours without the use of fever reducing medication; **AND**
  - Other symptoms are mild and improving.

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*NOTE: It is ideal for any person with a positive influenza test, of any kind, to isolate away from others alone, preferably in a single room, until isolation discontinuation recommendations are met*

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**Modified Workplace Isolation/Refusal of Testing**

- If individuals feel well enough to work, suspected, and presumptive cases may work if they and their coworkers:
  - Wear [appropriate recommended PPE while working](#); **AND**
  - Wash hands frequently with soap and water or if soap and water aren't available, a 60% alcohol-based hand sanitizer to clean hands; **AND**
  - Wear well-fitting facemasks while together in breakrooms or other areas where PPE is typically not worn, including shared transportation to and from work; **OR**
  - Are able to work in an area that is away from others.

## MONITORING OF EXPOSED PEOPLE

**Persons with exposure to infected animals:** All persons in contact with H5N1 influenza infected animals, their raw products, or their contaminated environments should be monitored.

**Fever and symptom monitoring:** Exposed people should be monitored for the following symptoms: **Cough, sneezing or swollen sinuses, sore throat, runny or stuffy nose, difficulty breathing/shortness of breath, eye inflammation, tearing or irritation, eye discharge, diarrhea, headache, muscle or body aches.**

**An epidemiologist in CADE will work closely with each county to go over the process and provide assistance throughout the response.**

- The respective field epi or on-call epi will share the official IDALS notification with the appropriate county. If the county has not previously had a detection, Iowa Homeland Security and Emergency Management (HSEMD) may facilitate a conference call between government responders. If this call occurs, HSEMD will invite local partners (including local public health) to the joint IDALS/USDA/Iowa HHS call.
  - Local public health should hold on contacting poultry farm owner/operators until approximately 24 hours after depopulation was initiated, unless otherwise directed by CADE.
  - Local public health should hold on contacting dairy farms until after any joint partner/producer calls, unless otherwise directed by CADE.
- If joint calls occur, the Iowa HHS State Public Health Veterinarian will provide an overview of the public health response.
- Once contact to the farm can start, a representative from the local public health agency and a CADE epidemiologist should reach out to the contact provided at the farm to provide additional information about the public health response that is outlined below.
  - Provide the recommendation to the [farm owners](#) for all of their workers that may have potential exposures moving forward. Public health should recommend that all potentially exposed individuals wear [CDC recommended PPE to protect against novel influenza A viruses in high exposure settings](#). This guidance describes the highest possible protection based on exposure level. If all recommended PPE is not available or practical, prioritize PPE workers can use safely and effectively. In the U.S., the [science to-date](#) shows human infections of novel influenza A are mainly caused when the virus gets into a person's eyes, nose, or mouth while not wearing minimal levels of PPE. Utilization of at minimum the following PPE helps mitigate this risk: **mask, eye protection, and gloves**. While utilizing only available or minimal levels of PPE will help reduce risk, this approach may not mitigate risk as much as utilizing the highest level of PPE recommended.
    - Farms should utilize the enhanced PPE described above until:
      - *Dairy cattle:* until all signs of illness have resolved in the dairy cattle, the environment has been cleaned, milk production has returned to normal, expected levels and public health has begun the final ten days of monitoring.

- *Poultry*: In poultry operations full PPE should be worn by all workers entering “hot zones” until all birds on the farm have been depopulated and disposed of.
- If needed, and at the request of a farm, Iowa HHS can help supplement PPE supplies.
  - Local public health is also free to work with their EMA to see if there is PPE that can be provided to the farm. An offer can be made to provide education and possibly provide a demonstration on how to properly don and doff the PPE.
    - To respect the biosecurity of the farm, if a demonstration is planned it is preferable this occurs at an offsite location. If local public health does not feel comfortable providing demonstrations, Iowa HHS can train them in a “train-the-trainer” methodology.
- Request a list of everyone on the farm to be shared as soon as possible and provide the farm with the line list template. Everyone on the farm should be contacted as soon as the list has been provided to local public health by the farm. The worker list will ideally include name, contact information, and the language spoken.
  - If contractors are being utilized on the farm as part of the response, ask the producer/farmer for the contact information for the contracted company.
  - **NOTE:** Request email addresses to help establish another route of communication.
- Education should be provided on the symptoms to watch for during ongoing exposures and in the 10-day period after the last potential exposure. The farm owners should be instructed to call local public health or CADE immediately at 800-362-2736 during business hours or 515-323-4360 outside of business hours if they develop symptoms or hear of any symptomatic workers in the 10-days after the last potential exposure.
- [English](#) and [Spanish](#) factsheets should be provided to the farm owners and should be posted on the farm site and shared with workers.
- The farm owners should be made aware of the check-ins that local public health will be conducting with all individuals that had contact with infected animals and/or their environment, including the milking parlor for cattle, beginning two days prior to the animals showing clinical signs. The check-ins can occur over the phone, by text or email. During the check-ins the workers will be asked if they have developed any symptoms consistent with HPAI since the last check-in.
  - The frequency these check-ins should occur is every five days until ten days have passed since the last date of exposure for those exposed to poultry and for 40 days after dairy cattle first showed signs of illness (or HPAI was detected if the dairy cattle are showing no signs of illness).
- Testing through the State Hygienic Laboratory is free. If a potentially exposed individual develops symptoms consistent with avian influenza during the monitoring period testing will be strongly encouraged. Local public health will help make arrangements for specimen collection and testing at the State Hygienic Laboratory.

- After the worker list has been provided to local public health, each worker on the list should be contacted and the [HPAI Assessment & Monitoring](#) form should be completed. During the call to each individual worker education should be provided on PPE use, symptoms to watch for and they should be instructed to call public health any time of day if any symptoms develop.
- During the call it should be explained that public health will reach out every five days via phone, email or text to check in on their health status. The check-in information should be entered into the respective [HPAI Assessment & Monitoring](#) form should be completed.

## RECOMMENDING TESTING AND PEP/ANTIVIRALS

- If a person who meets the exposure criteria above develops symptoms that could be consistent with H5N1 influenza infection within 10 days of exposure, they should be offered oseltamivir and tested.
- *Due to serological studies that found evidence of infections with influenza AH5 among some asymptomatic persons with high-risk exposures, CDC recommends testing or influenza antivirals for asymptomatic persons with high-risk exposures (e.g., close contact without appropriate PPE with animals infected with HPAI or close contacts of a confirmed human case of influenza A(H5N1)).*
- If a person who meets the exposure criteria above reports not adhering to the following, they can be offered PEP (oseltamivir) and testing:
  - Eye protection
  - Face mask or Respiratory Protection
  - Adherence to on-premises biosecurity (*this is an indicator of workers' ability to follow protocols, and it is not expected for local public health to assess on-farm biosecurity practices, instead this can be a simple yes/no question asking an employer and/or worker if they have noted any gross violations of biosecurity protocols*)

**State Hygienic Laboratory (SHL) Specimen Collection and Testing Protocols:**

- If a patient has conjunctivitis and/or influenza-like symptoms and has a high-risk exposure, health care providers should contact the CADE at 800-362-2736 (during business hours) or 515-323-4360 (after business hours) for consultation.
- The CADE epidemiologist will review information about the suspect case and provide specimen collection information. Specimens should ideally be collected as soon-as-possible but can still be [collected within 7 days illness/symptom onset](#).
- Standard, contact and airborne precautions are recommended, as is the use of eye protection.
- Once specimens have been collected, the epidemiologist will contact SHL to make courier arrangements and request testing.
- **Acceptable specimens for testing:**
  - Individuals with respiratory symptoms: Nasal/oropharyngeal OR a combined Nasal & Throat swab can be accepted swab in viral transport media (VTM or UTM).
  - Individuals with conjunctivitis (with or without respiratory symptoms): Two samples needed: (1) Submit a conjunctival swab AND (2) Nasal/ oropharyngeal OR a combined Nasal & Throat swab can be accepted in viral transport media (VTM or UTM).
- **Conjunctival Specimen Collection:**
  - SHL can test conjunctival specimens IF it is submitted with a corresponding respiratory swab (NP and op/throat) in separate tubes of VTM. (Per FDA regulations conjunctival swabs cannot be tested without the corresponding NP swab).
  - Specimens should be obtained from the everted eyelid by using a Sterile Flocked Collection Swab (not cotton).
  - Specimens must contain conjunctival cells, not exudate alone.
  - For conjunctival specimen collection guidance please refer to the [SHL information](#).
- **Requesting Testing Collection Kits from SHL**
  - [Go to the SHL webpage here](#). Under the “I Want To” dropdown menu, select “Request Clinical Testing or Kits”. Scroll down on page to “Order Clinical Kits”, and under “kit information” select “Avian Influenza Kit”.
  - SHL’s avian influenza collection kit is used for Viral Infections & PCR, including influenza testing. Contact SHL to order extra VTM and swabs for collecting multiple specimens per patient.
- **Packaging and Shipping**
  - After collections, specimens should be sent to SHL on frozen cold packs.
  - Request a normal SHL courier pickup.
  - Weekend and holiday considerations: discuss with Iowa HHS to determine risk-based testing urgency and SHL capacity if specimens will not arrive to SHL within 72 hours of collection.
- For additional testing guidance see the CDC recommendations for [Interim Guidance on Specimen Collection and Testing for Patients with Suspected Infection](#)