

# Avian Influenza (H5N1) Screening Considerations

## Background:

- Since 2022, Highly Pathogenic Avian Influenza (HPAI) H5N1 has been detected in waterfowl, commercial poultry and backyard hobbyist flocks in the United States. Wild aquatic birds, especially dabbling ducks, are considered reservoirs (hosts) for avian influenza A viruses. Ducks and other waterfowl can be infected without showing any signs or symptoms. In contrast, HPAI in chickens has a mortality rate of 90-100% within 48 hours of developing symptoms.
- Since 2024, avian influenza H5N1 has been detected in dairy cattle in the United States, with the majority of detections in California. While H5N1 is associated with high morbidity and mortality in birds, this is not the case for dairy cattle with the majority recovering with supportive care.
- Avian influenza rarely infects people. There has been no wild bird to human transmission documented in the United States. Most human cases of HPAI occur due to prolonged workplace exposure at commercial agriculture operations.

## What would be considered an exposure:

HPAI virus transmission can occur from three types of unprotected exposure: fomite-contact transmission, including contact with contaminated surfaces (e.g., with feces, carcasses or internal organs from infected animals); droplet transmission, in which particles  $>5\ \mu\text{m}$  contact a person's conjunctiva or respiratory mucosa; and droplet nuclei transmission (or aerosol transmission), in which a person inhales particles  $<5\ \mu\text{m}$  suspended in the air.

- Those with the **highest risk** for an exposure are individuals with a history of working with infected animals or working at facilities where HPAI has been identified. These include, but are not limited to:
  - Farm workers
  - Depopulation and/or disposal consultants
  - State or federal responders
- Individuals at **elevated risk** for an exposure would be those with close, prolonged contact with wild and/or domestic birds. These include, but are not limited to:
  - Backyard hobbyist flocks (*i.e. those that own birds and personally care for them*)
  - Disposal crews or park staff removing and handling ill or deceased birds
  - Veterinarians or researchers handling deceased/ill birds or related specimens
  - Hunters handling wild birds that appear sick
- 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.

## How to facilitate testing if exposure criteria is met:

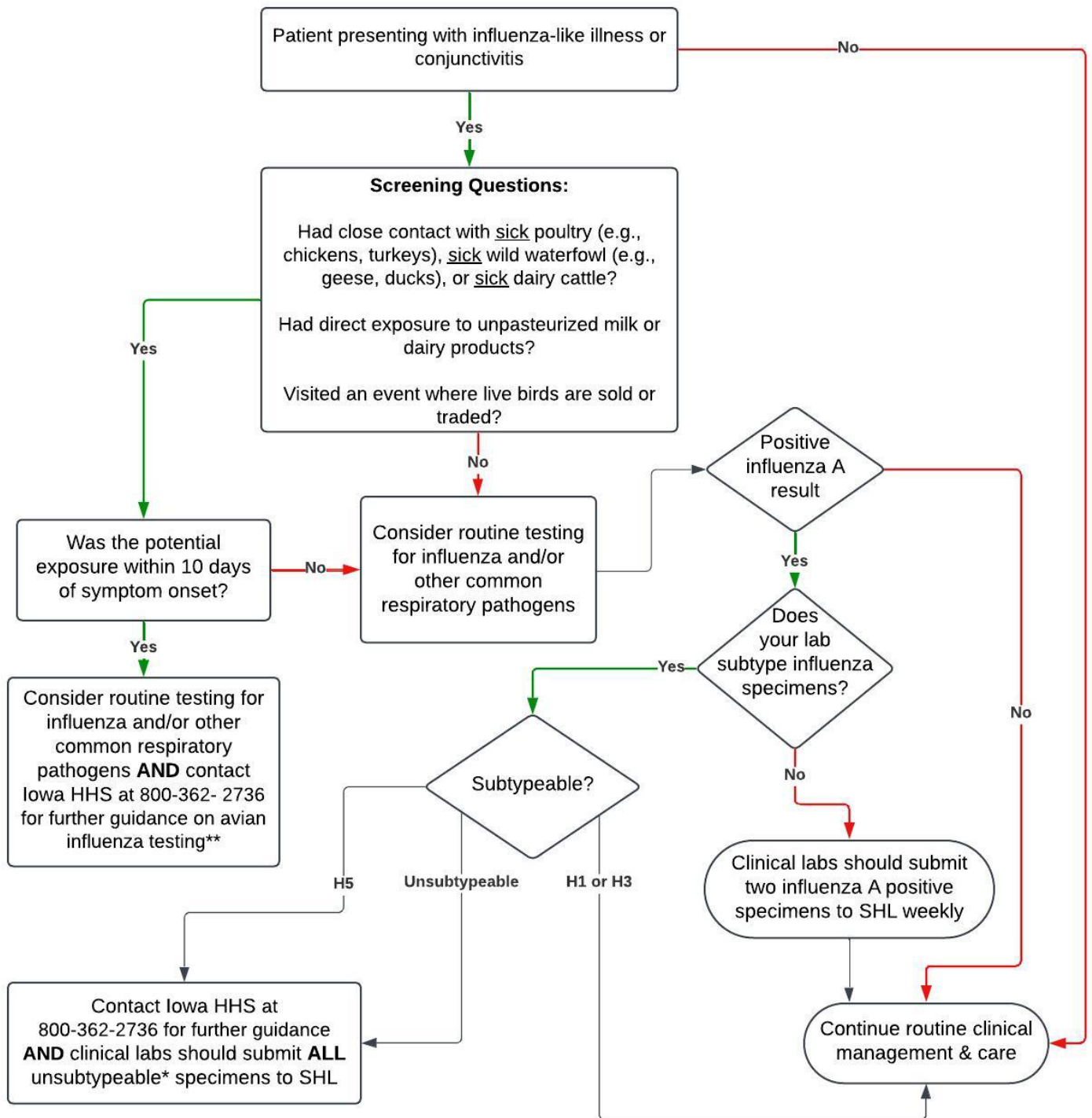
Avian influenza testing can be considered for individuals that **meet exposure criteria** (see *algorithm on the next page*). For those that do not meet exposure criteria but have symptoms of respiratory illness, consider testing for common respiratory viruses (seasonal influenza, COVID, RSV, etc.).

If exposure criteria are met in a patient with symptoms consistent with avian influenza, testing can be considered by contacting the respective Iowa HHS Center for Acute Disease Epidemiology (CADE) [field epidemiologist](#) or by calling CADE directly at 1-800-362-2736.

## General reminders:

- No known person-to-person spread of HPAI has been identified in the United States. Individuals that have family members or close contacts with a high-risk exposure that develop symptoms consistent with avian influenza, should also be considered for influenza screening.
- Per the Iowa Department of Agriculture and Land Stewardship (IDALS), it is safe to consume properly prepared and cooked poultry, eggs or their derivative products. There is also no concern about the safety of pasteurized milk or dairy products. Pasteurization has continually proven to successfully inactivate bacteria and viruses, like influenza, in milk. Iowa HHS would not consider their consumption a potential exposure.
- Avian influenza viruses are classified by animal health officials as either high or low pathogenicity based on how sick the virus makes domestic poultry such as chickens, turkeys, etc. Therefore, you may hear the virus referred to as Low Pathogenicity Avian Influenza (LPAI) or Highly Pathogenic Avian Influenza (HPAI). **This classification does not indicate how the virus will behave in people.**

## Avian Influenza (H5N1) Testing Algorithm:



*\*Unsubtypeable: positive for influenza A virus but negative for seasonal influenza A virus subtypes [i.e., A(H1) and A(H3)]*

**\*\* For Use by Healthcare Providers in Iowa \*\***

Last Updated: 1/30/2025

**\*\*When the decision has been reached that avian influenza testing is indicated, the following respiratory specimens should be collected as soon as possible after illness onset:**

- i. a nasopharyngeal swab, **AND**
- ii. a nasal swab **combined** with an oropharyngeal swab (e.g., two swabs collected separately and combined into one viral transport media vial).

If the person has conjunctivitis (with or without respiratory symptoms), both a conjunctival swab **AND** nasopharyngeal swab should be collected (per FDA regulations conjunctival swabs cannot be tested without the corresponding nasopharyngeal swab).

**NOTE:** Swab specimens should be collected using swabs with a synthetic tip (e.g., polyester or Dacron®) and an aluminum or plastic shaft. Swabs with cotton tips and wooden shafts are not recommended. Specimens collected with swabs made of calcium alginate are not acceptable. The swab specimen collection vials should contain 1-3ml of sterile viral transport medium or universal transport medium (e.g., containing protein stabilizer, antibiotics to discourage bacterial and fungal growth, and buffer solution).