

Highly Pathogenic Avian Influenza A(H5) Virus Testing at MDHHS BOL and CDC

5/31/2024

Criteria for Influenza A(H5) Virus Testing at MDHHS BOL

- Testing should be performed on persons who meet epidemiologic criteria **AND** **either** clinical **OR** public health response criteria.
 - [Case Definitions for Investigations of Human Infection with Avian Influenza A Viruses in the United States \(cdc.gov\)](#)
- During the current influenza A (H5) outbreak, CDC is recommending a low threshold for testing of individuals with a known or suspected exposure, including those with mild symptoms.
 - CDC is suggesting testing of individuals who have had contact with HPAI infected animals as soon as possible if they exhibit any respiratory symptoms (e.g., cough, runny nose, sore throat, congestion) or conjunctivitis regardless of the presence or absence of fever and regardless of whether symptoms may be explained by other etiologies such as seasonal allergies
 - [Signs and Symptoms of Avian Influenza A Virus Infections in Humans](#)
- In addition to influenza testing, MDHHS BOL can test nasopharyngeal (NP) specimens from persons who meet testing criteria using the FilmArray Respiratory Panel assay, which tests for over 20 viral and bacterial respiratory pathogens.
 - The test must be ordered by the submitter in order for results to be released to the patient.

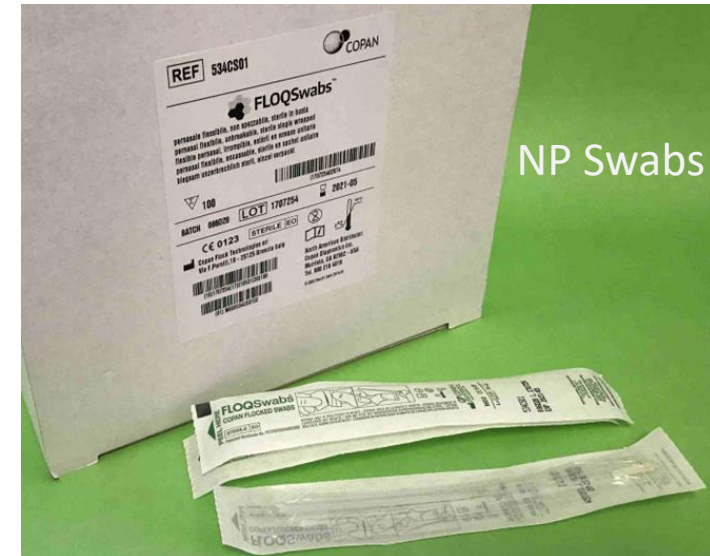
Criteria for Influenza A(H5) Virus Testing at MDHHS BOL, cont.

- For symptomatic individuals with unknown exposures, consult the MDHHS Respiratory Unit or your Regional Epidemiologist.
 - During the influenza “off-season”, individually report and obtain additional epidemiologic information on all influenza cases identified during times of low influenza prevalence. Specimens should be shipped to MDHHS BOL for routine confirmatory testing.
[Influenza Guidance for Healthcare Providers.pdf \(michigan.gov\)](#)

Notification of Suspect Cases and Specimen Testing

- Enter suspect case into MDSS under the Influenza, Novel reportable condition.
- Document the following information in MDSS:
 - Symptoms
 - Onset Date
 - Relevant epidemiologic information including any potential exposures or history of animal contact
 - Specimens collected
- Notify the Regional Epidemiologist about specimens collected and provide the MDSS investigation ID.
 - Include information on how specimens will be transported to BOL and the time frame BOL can expect the specimen to arrive (such as "sent today via UPS overnight shipping")
 - If specimens are being delivered outside of normal courier routines, the name of the person delivering the specimen, phone number, and ETA must be provided to BOL prior to delivery; identification of this delivery person must be presented and match to gain access to BOL

Swabs and Viral Transport Media (VTM)



[MDHHS BOL Kit #45](#) is used for Viral Infections & PCR, including influenza testing. Contact MDHHSlab@michigan.gov to order extra VTM and swabs for collecting multiple specimens per patient.

Acceptable Specimens for Testing

- **Individuals with respiratory symptoms**

- Nasopharyngeal (NP) swab and oropharyngeal (OP) swab in separate* tubes of VTM.
- If an OP swab cannot be collected, a single NP swab in VTM is requested.

**Keeping the NP and OP in separate tubes are requested so that BOL can report out results from FilmArray Respiratory Panel for clinical purposes (if requested). If OP/NP swabs are combined, FilmArray may be run, but cannot be reported out or used for clinical purposes.*

- **Individuals with conjunctivitis (with or without respiratory symptoms)**

- Submit a conjunctival swab AND a NP swab in separate tubes of VTM.
- IF an OP swab or Nasal swab is ALSO collected, please notify your Regional Epidemiologist or BOL.

Conjunctival Specimen Collection

- Currently CDC is limiting testing to conjunctival specimens that arrive in VTM.
- BOL can now test conjunctival specimens **IF** it is submitted with a corresponding NP swab in separate tubes of VTM.
 - Without a corresponding NP swab, the conjunctival swab must be sent to CDC for testing, which will delay results.
- Specimens should be obtained from the everted eyelid by using a Dacron (DuPont) tipped swab or the swab specified by the manufacturer's test kit (not cotton).
- Specimens must contain conjunctival cells, not exudate alone.

Conjunctival Specimen Collection, Cont.

- Gently pull down the lower eyelid of the patient to expose the conjunctiva that lines the inside of the eyelid and covers the white part of the eye.
- Collect the specimen by gently rotating the swab over the infected area 2-3 times, avoiding touching the cornea (the clear front part of the eye).
- Gently remove the swab and place it into the transport medium immediately.
- A separate swab is required for each eye, and each swab should be put in its own individual tube of VTM. If both eyes are swabbed, label “left eye” and “right eye”.



Infection Control when Collecting Specimens

- Standard, contact, and airborne precautions are recommended, as is the use of eye protection.
- [Highly Pathogenic Avian Influenza A\(H5N1\) Virus in Animals: Interim Recommendations for Prevention, Monitoring, and Public Health Investigations | Avian Influenza \(Flu\) \(cdc.gov\)](#)
- [Interim Guidance for Infection Control Within Healthcare Settings When Caring for Confirmed Cases, Probable Cases, and Cases Under Investigation for Infection with Novel Influenza A Viruses Associated with Severe Disease | Avian Influenza \(Flu\) \(cdc.gov\)](#)

Patient Information: Form & Specimen Tubes

Complete Patient Information (Section 3):

- Ensure each specimen tube is labeled with two unique patient identifiers (last name, first name and date of birth) the date of collection, and the type of specimen collected.
- The label on the specimen tubes must match the patient information in the MDHHS-6097 form **exactly**

SECTION 3 – PATIENT INFORMATION (MUST MATCH SPECIMEN LABEL EXACTLY)

Name (Last, First, Middle Initial or Unique Identifier)

Bird, Big

Address and Apartment Number (if applicable)

123 Sesame Street

City

Wayne

State

MI

Zip Code

48184

Phone Number

734-555-7878

Submitter's Patient Number (if applicable)

Race

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

Other

Ethnicity

Hispanic or Latino

Not Hispanic or Latino

Unknown

Sex

Male Female

Date of Birth (MM/DD/YYYY)

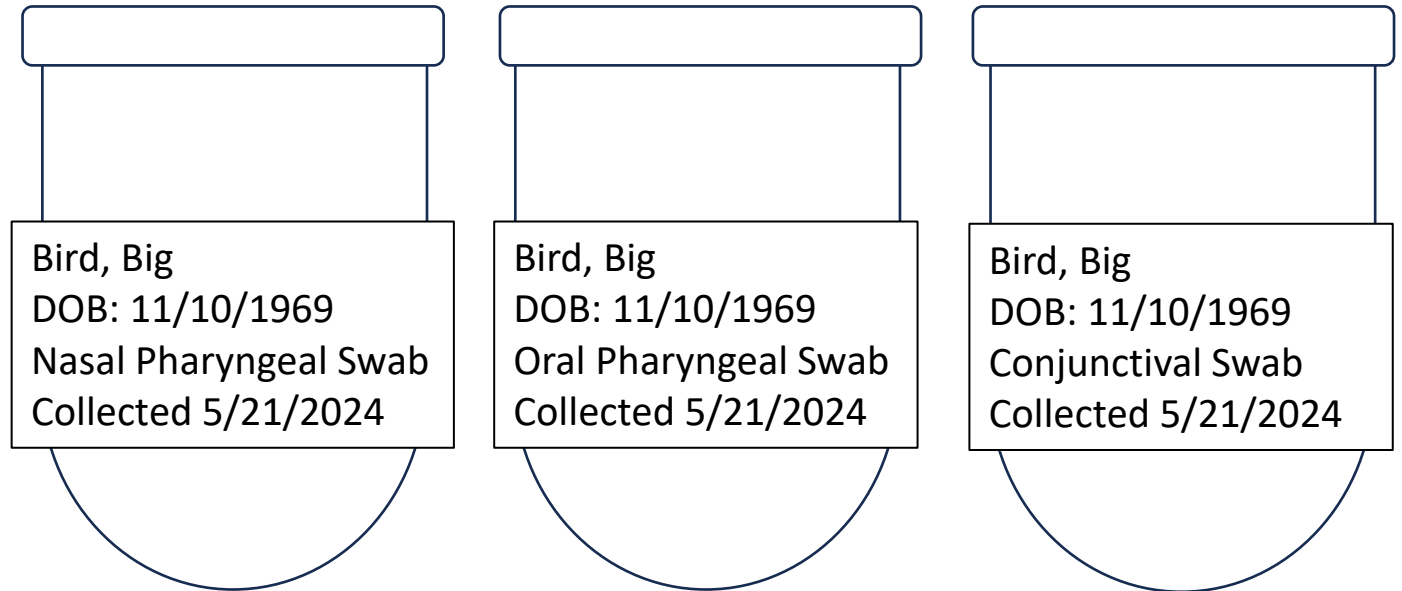
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Pregnant?

Yes No

Label for Specimen Tube (must match Section 3 in MDHHS 6097 form)

- First and Last Name
- Date of Birth
- Type of Specimen
- Date Collected



*REMEMBER – To test a conjunctival specimen at BOL, a nasopharyngeal (NP) swab must also be collected.

MDHHS-6097 Form – Sections 4 through 7

SECTION 4 – TESTING REASON(S)

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Diagnosis | <input checked="" type="checkbox"/> Outbreak (Complete Section 8) |
| <input type="checkbox"/> Surveillance | <input type="checkbox"/> Other _____ |

MDHHS Prior Approval should be coordinated via the Local Health Department. Approval can be obtained from MDHHS Respiratory Unit, Regional Epidemiologist, or MDHHS On-Call.

SECTION 5 – SPECIMEN INFORMATION

Submitter's Specimen Number (if applicable) _____	Date Collected (MM/DD/YYYY) 05/28/2024	Time Collected _____
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Indicate Specimen Source

- | | | |
|---|---------------------------------|---|
| <input checked="" type="checkbox"/> Nasopharyngeal (NP) | <input type="checkbox"/> Nasal | <input type="checkbox"/> Bronchial Wash |
| <input checked="" type="checkbox"/> Oropharyngeal (OP) | <input type="checkbox"/> Sputum | <input checked="" type="checkbox"/> Other (Specify) Conjunctival |

SECTION 6 – TEST(S) REQUESTED

Indicate Test(s) Requested

- | | |
|--|--|
| <input checked="" type="checkbox"/> Influenza (complete Section 9) | <input type="checkbox"/> COVID-19 (SARS-CoV-2) |
| <input type="checkbox"/> Influenza/SARS-CoV-2 (complete Section 9) | <input type="checkbox"/> Other _____ |

Please request Influenza Testing
Note: Effective 5/28/2024, BOL no longer wants LHDs to request Influenza/SARS-CoV-2 testing for suspect Influenza A(H5) cases

SECTION 7 – VIROLOGY – RESPIRATORY TESTS THAT REQUIRE PRIOR MDHHS APPROVAL


- | |
|---|
| <input checked="" type="checkbox"/> Film Array Respiratory Panel |
| <input type="checkbox"/> Cepheid Respiratory Panel |
| <input type="checkbox"/> Middle East Respiratory Syndrome (MERS) - (A PUI MUST be completed to obtain testing approval) |
| <input type="checkbox"/> Other _____ |

The Film Array Respiratory Panel can be selected as a reflexed test. Only individual NP swabs can be tested and reported out to the patient.

MDHHS Prior Approval Name For example: Regional Epi name or Sue Kim	Date _____
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MDHHS-6097 Form – Sections 8 through 10

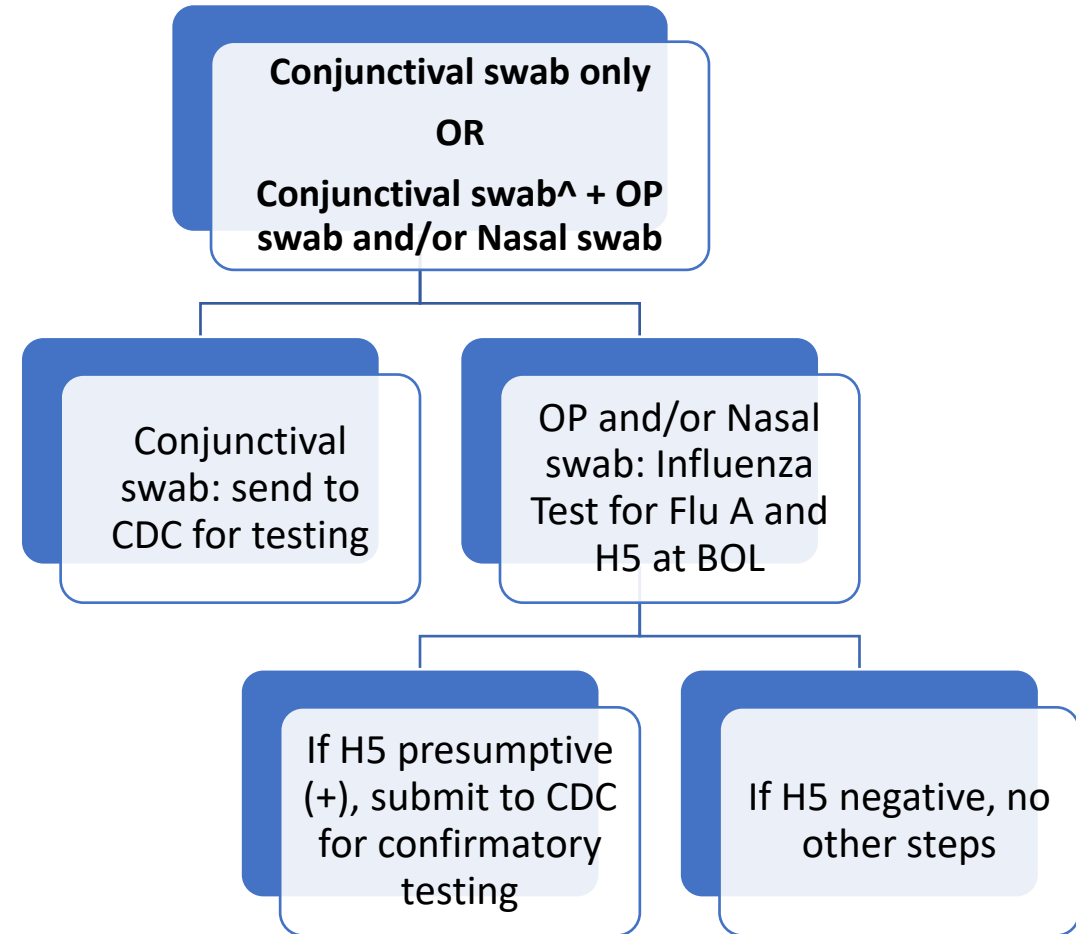
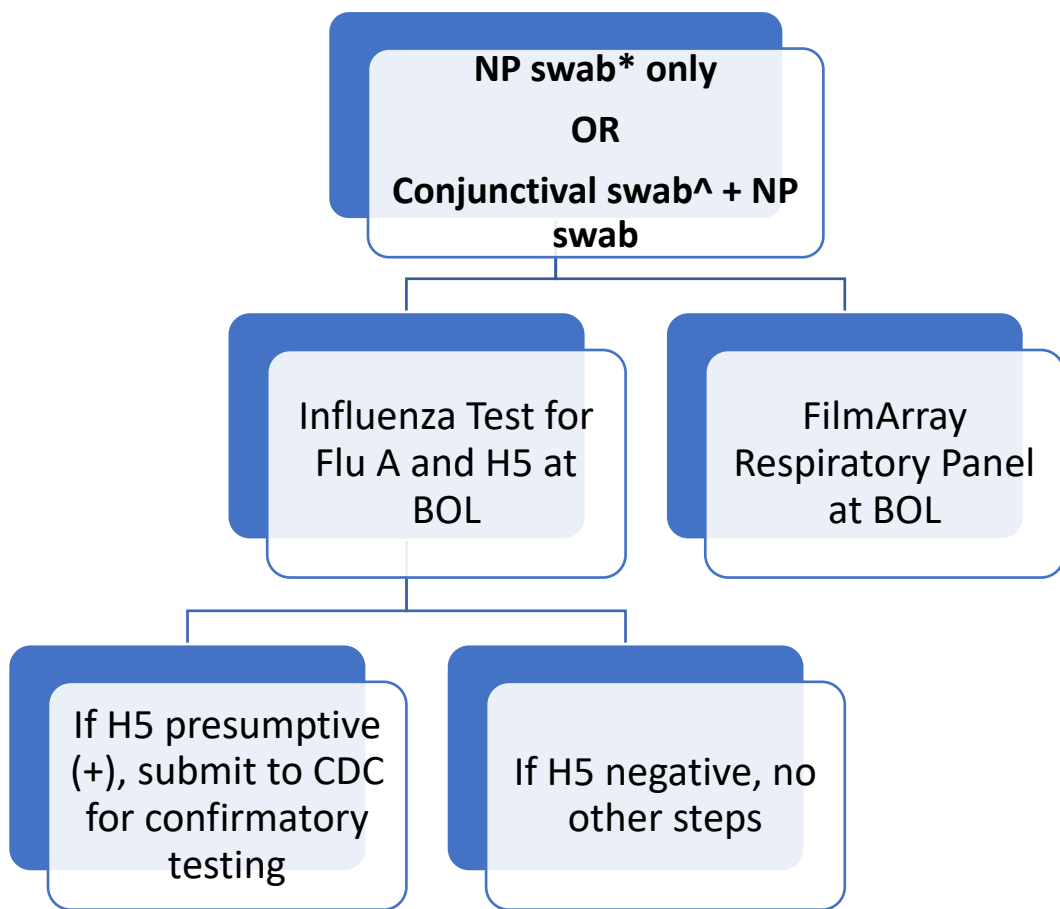
MDHHS Prior Approval should be coordinated via the Local Health Department. Approval can be obtained from MDHHS Respiratory Unit, Regional Epidemiologist, or MDHHS On-Call.

SECTION 8 – FOR OUTBREAK INVESTIGATION COMPLETE THIS SECTION	
Onset Date (MM/DD/YYYY) [Redacted]	Organism Suspected (if applicable) Influenza A H5
Outbreak Identifier [Redacted]	HPAI Outbreak Identifiers: "HPAI H5N1 Poultry-2024 STATEWIDE" or "HPAI H5N1 Cattle-2024 STATEWIDE" or "HPAI-H5N1 Feline-2024 STATEWIDE"
MDHHS Prior Approval Name For example: Regional Epi name or Sue Kim	Date [Redacted]
SECTION 9 – FOR INFLUENZA PCR TESTING COMPLETE THIS SECTION	
Patient Status <input checked="" type="checkbox"/> Outpatient <input type="checkbox"/> Inpatient <input type="checkbox"/> Unknown	
Results of Influenza Testing Performed [Redacted]	Test/Assay Used [Redacted]
Date of Last Influenza Vaccination (MM/DD/YYYY) [Redacted]	Type of Last Influenza Vaccination <input type="checkbox"/> Flu Mist <input type="checkbox"/> Quadravalent (Shot) <input type="checkbox"/> Other [Redacted]
SECTION 10 – ADDITIONAL INFORMATION	
Reflex to FilmArray Respiratory Panel 	

Packaging and Shipping

- After collections, specimens should be sent to BOL on frozen cold packs to MDHHS BOL.
- If specimens will not arrive to MDHHS BOL within 72 hours of collection, specimens should be frozen and sent on dry ice.
- Detailed information on specimen collections, packaging, and shipping of specimens can be found in the Virus Isolation Specimen Submission Instructions, [DCH-0772](#)
- Weekend and holiday considerations:
 - Discuss with MDHHS to determine risk-based testing urgency and BOL capacity.
 - If specimens will not arrive to BOL within 72 hours of collection, freeze and then send on dry ice, as permitted.

Testing Workflow



- *If a NP and OP swab are combined in the same tube of VTM, Biofire FilmArray Respiratory Panel can be run, but not reported out or used for clinical purposes. NP and OP swabs should be submitted in their own individual tube of VTM.
- ^Do not combine conjunctival swabs with any other swabs in VTM. Each conjunctival swab should have its own individual tube of VTM.
- Once an individual is confirmed as Influenza A (H5) by CDC, BOL cannot perform any further testing. All specimens must be sent to CDC.