TEXAS Health and Human Services | Texas Department of State Health Services

Highly Pathogenic Avian Influenza A (H5N1) Case Investigation Form

For use by health departments to investigate human infection with avian influenza virus (H5N1) associated with the Dairy Cattle Emerging Health Event in the U.S in March 2024.

Local health departments should email/fax the completed form to their Public Health Region (PHR).

DSHS PHRs should send completed forms through secure email to DSHS EAIDU at flutexas@dshs.texas.gov.

DEMOGRAPHIC INFORMATION

Reporting health department:	**Investigator** (last, first)**:**			**Investigator phone:**
Case Name (last, first):	**Date of birth:**	**Age:**	**Sex:**	**Case Phone:**
Address (street address, city, zip)**:**	**County of residence:**			**Case Email:**
Race ☐ Asian ☐ American Indian/Alaskan Native ☐ Black or African American ☐ Native Hawaiian/Pacific Islander ☐ White ☐ Unknown ☐ Other: ____________________	**Ethnicity** ☐ Hispanic ☐ Not Hispanic ☐ Unknown			**Case Status** ☐ **Suspect** ☐ **Probable** ☐ **Confirmed** ☐ **Not a Case**
Date of report: (mm/dd/yyyy): ___/___/_____	☐ **New report** ☐ **Update to previous report**			**Unique ID:**

CLINICAL INFORMATION

1. **Date of illness onset (mm/dd/yyyy):**___/___/_____
2. **Was person hospitalized for this illness?**

   ☐ Yes ☐ No ☐ Unknown

   2a. Date of admission: (mm/dd/yyyy):___/___/_____

   2b. Facility name/location: ____________________

   2c. Discharge Date:___/___/_____
3. **Did patient seek care in an outpatient (e.g., primary care physician, ER, urgent care) setting?**

   ☐ Yes ☐ No ☐ Unknown

   3a. Provider Name: ____________________

   3b. Provider Phone Number: ____________________
4. **Did patient die?**

   ☐ Yes ☐ No ☐ Unknown

   4a. If yes, died on: (mm/dd/yyyy):___/___/_____

   4b. Did patient die from HPAI (H5N1)?

   ☐ Yes ☐ No ☐ Unknown
5. **Was the patient vaccinated against influenza in the past year?**

   ☐ Yes ☐ No ☐ Unknown
6. **Has the patient been isolated since diagnosis?**

   ☐ Yes ☐ No ☐ Unknown

   6a. If yes, type of isolation:

   ☐ Self-isolation at home (including the use of a face mask at home, when around others)

   ☐ Isolated at hospital (ensure infection control precautions: https://www.cdc.gov/flu/avianflu/novel-flu-infection-control.htm)

   ☐ Other: ____________________

   6b. Isolation Start Date:___/___/_____

   6c. Isolation End Date:___/___/_____

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CLINICAL INFORMATION (CONTINUED)

7. Symptoms:

Symptom	Response
7a. Fever (≥100°F)/feverish	☐ Yes ☐ No ☐ Unknown
7b. Highest temp recorded	________________
7c. Date of Onset of fever:	___/___/_____ **(mm/dd/yyyy)**
7d. Time of Onset of fever:	________________
7e. Duration of fever:	________________
7f. Diarrhea	☐ Yes ☐ No ☐ Unknown
7g. Cough	☐ Yes ☐ No ☐ Unknown
7h. Nausea	☐ Yes ☐ No ☐ Unknown
7i. Sore Throat	☐ Yes ☐ No ☐ Unknown
7j. Vomiting	☐ Yes ☐ No ☐ Unknown
7k. Runny Nose	☐ Yes ☐ No ☐ Unknown
7l. Muscle/body ache	☐ Yes ☐ No ☐ Unknown
7m. Rash	☐ Yes ☐ No ☐ Unknown
7n. Headache	☐ Yes ☐ No ☐ Unknown
7o. Eye infection/redness	☐ Yes ☐ No ☐ Unknown
7p. Shortness of Breath	☐ Yes ☐ No ☐ Unknown
7q. Fatigue	☐ Yes ☐ No ☐ Unknown
7r. Seizures	☐ Yes ☐ No ☐ Unknown
7s. Other	☐ Yes ☐ No ☐ Unknown
7t. What was the first symptom?	________________
7u. Date of Illness Recovery:	________________
7v. Time of Illness Recovery:	________________

MEDICAL HISTORY

8. Does the patient have any chronic medical conditions?

☐ Yes ☐ No ☐ Unknown

If no, skip to question 10 -

Condition	Response	
8a. Asthma/reactive airway disease	☐ Yes ☐ No ☐ Unknown	
8b. Other chronic lung disease	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8c. Chronic heart or circulatory disease	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8d. Diabetes mellitus	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8e. Kidney or renal disease	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8f. Non-cancer immunosuppressive condition	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8g. Cancer chemotherapy in past 12 months	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8h. Neurologic/ neurodevelopmental disorder	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________
8i. Other chronic diseases	☐ Yes ☐ No ☐ Unknown	**If YES, specify:** ________________

9. Was patient pregnant or ≤ 6 weeks postpartum at illness onset?

☐ Yes ☐ No ☐ Unknown ☐ Not applicable

9a. If yes (pregnant), weeks pregnant at onset? ______

9b. If yes (postpartum), delivery date? (mm/dd/yyyy):___/___/_____

LAB INFORMATION

10. Specimen ID: ________________

11. Specimen Collection Date (mm/dd/yyyy):___/___/_____

12. Was this patient tested for influenza? ☐ Yes ☐ No ☐ Unknown

13. Test type: ☐ Rapid antigen (not recommended) ☐ RT-PCR ☐ Other:______________________ ☐ Unknown

14. Where was test performed? ☐ State public health laboratory ☐ Other:______________________ ☐ Unknown

15. Test result: ☐ Positive ☐ Negative ☐ Equivocal ☐ Unsatisfactory/Not tested

15a. If positive, please indicate virus identified:

☐ Influenza A ☐ Influenza B ☐ Influenza A/B (type not distinguished) ☐ Influenza A (unsubtypeable)

☐ Influenza A (H5 Unknown N) ☐ Influenza A (H5N1) ☐ Negative ☐ Other:______________________ ☐ Unknown

16. Subtype/Lineage/Clade/Sub-Clade: ______________________

TREATMENT INFORMATION

17. Did this patient take influenza antiviral chemoprophylaxis due prior to onset?

☐ Yes ☐ No ☐ Unknown

17a. If yes, date started (mm/dd/yyyy):___/___/_____

17b. If yes, was chemoprophylaxis completed?

☐ Yes ☐ No, became ill before course was completed

☐ No, nonadherent ☐ Unknown

17c. If yes, what chemoprophylaxis was taken? ____

18. Has this patient started influenza antiviral treatment (for symptoms)?

☐ Yes ☐ No ☐ Unknown

18a. Oseltamivir (Tamiflu) ☐ Yes ☐ No ☐ Unknown

18b. If yes, date started (mm/dd/yyyy):___/___/_____

18c. Zanamivir (Relenza) ☐ Yes ☐ No ☐ Unknown

18d. If yes, date started (mm/dd/yyyy):___/___/_____

18e. Other influenza antiviral ☐ Yes ☐ No ☐ Unknown

18f. If yes, name:________________________________

18g. If yes, date started: (mm/dd/yyyy):___/___/_____

EPIDEMIOLOGY INFORMATION

Travel:

19. Did the patient travel outside of their county of residence in the 10 days before onset?

☐ Yes ☐ No ☐ Unknown

19a. If yes, specify: ____

20. In the 10 days prior to illness onset, did the patient consume, touch, or handle any raw milk or raw milk products?

☐ Yes ☐ No ☐ Unknown

20a. If yes, where was the raw milk/product obtained: ____

EPIDEMIOLOGY SECTION (CONTINUED) *Exposure: Contact with livestock animals (DIRECT or CLOSE, as defined), including but not limited to cows, poultry, or pigs.* Onset date:___/___/______ ⟶ 10 Days Prior:___/___/______	DIRECT Contact (e.g., touch or handle animals)			CLOSE Contact (e.g., within 6 feet of animals for a combined total of 15 minutes or more)		
	Yes	No	Unk	Yes	No	Unk
21. In the 10 days before becoming ill, did that patient have contact (DIRECT or CLOSE) with any livestock animals? *If no, skip to question 26*						
If yes, check all that apply for animal(s) in each exposure level:						
Cows						
Poultry						
Sheep						
Goats						
Pigs						
Other Animals: ___________						
22. In what type of setting did contact (DIRECT or CLOSE) with livestock animals occur? (For any area other than patient's home, write business name and address or city.)	Yes	No	Unk	Yes	No	Unk
Patient's Home						
Work (Go to 22a): _________________						
Agriculture Fair: _________________						
Live Animal Market: _________________						
Petting Zoo: _________________						
Other: _________________						
22a. If contact occurred at work, describe your job duties in your own words:						
23. Did contact (DIRECT or CLOSE) occur in any of the following areas? (Note: *indicates areas with direct milk contact)	Yes	No	Unk	Yes	No	Unk
*Milking Parlor**						
*Milk House**						
*Hospital/Sick Pens**						
*Calf Milk Handling/Feeding Facilities/Pens**						
*Lab Testing/Sampling**						
*Milk Load Outs from the dairy into milk tanker**						
*On Farm Milk Tank Washing Facilities**						
Reproductive Pens						
Maternity Pens						
Animal Yard/Open Pen						
Feed Handling						
Other ______________________________						

24. Did the patient have contact (DIRECT or CLOSE) with animals exhibiting signs of illness?

☐ Yes ☐ No ☐ Unknown

24a. If yes, please describe below the type of contact, animals contacted, and exposure date(s):

25. Did the patient wear PPE during the contact?

☐ Yes ☐ No ☐ Unknown

25a. If yes, what PPE was worn (select all):

☐ Goggles ☐ Gloves ☐ Boots/boot covers ☐ Respirator (e.g. N95) ☐ Disposable Coveralls

☐ Disposable hair/head cover ☐ Other: ___________________

26. In the 10 days prior to becoming ill, did the patient have close contact with anyone who works on a farm and/or who routinely handles livestock?

☐ Yes ☐ No ☐ Unknown

If yes, please provide the following:

26a. Farm contact information: ____ _________________

26b. Close contact information: ____ _________________

27. Is the patient a contact of a confirmed or probable case of novel influenza virus A infection?

☐ Yes ☐ No ☐ Unknown **If yes, complete the table below:**

Relationship to Patient	Unique ID	State Lab ID	Case Status	Sex (M/F)	Age	Date of Illness Onset (MM/DD/YYYY)
			☐ Confirmed ☐ Probable ☐ Unknown			___/___/_____
			☐ Confirmed ☐ Probable ☐ Unknown			___/___/_____
			☐ Confirmed ☐ Probable ☐ Unknown			___/___/_____

28. Is the patient a contact of someone who was sick with a similar illness within 10 days of onset?

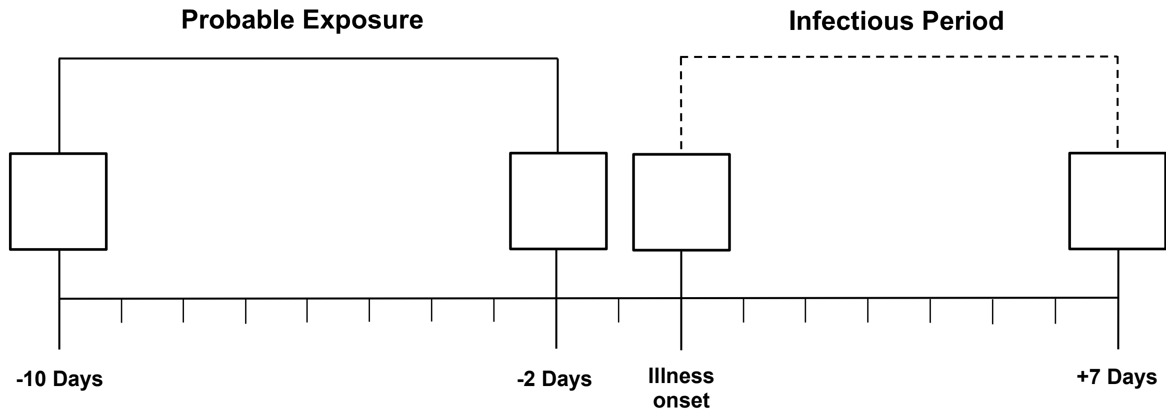
☐ Yes ☐ No ☐ Unknown

If yes, please provide the following:

28b. Contact information: ____ _________________

29. INFECTION TIMELINE:

Enter onset of illness. Count backwards and forwards to enter dates to probable exposure and infectious periods.



While the patient was infectious (see diagram above), who did they encounter?

Initials	Relationship	Sex (M/F)	Age	Symptomatic (Y/N)	Illness Onset	Did They Have Animal Exposure (Y/N)	PEP Recommended (Y/N)	PEP Started (Y/N)

Notes/Comments: Add additional information or contact information –

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Local health departments should email/fax the completed form to their Public Health Region (PHR).

DSHS PHRs should send completed forms through secure email to DSHS EAIDU at flutexas@dshs.texas.gov.

- For PUIs, arrange for nasopharyngeal (NP) swab collection and RT-PCR testing at a Texas public health laboratory.
- Antiviral treatment should be given to all patients with possible infection with novel influenza A viruses. Local health departments should encourage all PUIs to discuss antiviral treatment with their healthcare provider.
- Healthcare facilities should use appropriate isolation precautions for PUIs for infection with novel influenza A viruses. Non-hospitalized PUIs should stay home from school, work, and social gatherings until cleared by public health.

V10_041824

Instructions to Complete the Highly Pathogenic Avian Influenza A (H5N1) Case Investigation Form

- Submit form electronically via **secure email** to the appropriate DSHS Public Health Region (PHR).
- DSHS PHRs should send completed forms through secure email to DSHS EAIDU at flutexas@dshs.texas.gov.
- Record all information accurately and as completely as possible in the appropriate spaces. Use the Continuation Page if needed.
- Use a separate form for each individual subject and illness.

DEMOGRAPHIC INFORMATION

- **Reporting health department**: write in the jurisdiction responsible for investigating this case. This should be the health department that DSHS should contact if there are questions regarding this investigation.
- **Investigator:** enter the official name (last and first) of the person investigating and reporting the case. This should be the person that DSHS should contact if there are questions regarding this investigation.
- **Investigator phone:** write in the contact number of the person investigating the case. This should be the person that DSHS should contact if there are questions regarding this investigation.
- **Case name:** write in the case's official name (last and first).
- **Date of Birth:** write in the case's official date of birth (mm/dd/yyyy).
- **Age:** enter the case's age at time of illness onset and age unit, (e.g. years, months, weeks, or days). For subjects aged >24 months, it is preferable for age to be calculated in years.
- **Sex:** enter the case's sex. Write in one choice (Male, Female, or Unknown).
- **Case phone:** enter the contact number for the case.
- **Address:** enter the case's home address (primary residence), state and zip code.

- **County of residence:** write in the case's primary county of residence. Please follow the Council for State and Territorial Epidemiologist guidelines for reporting this data element.
- **Case email:** write in the email address for the case.
- **Race:** select the case's self-identified race. 'Unknown' should be selected for choices including: 'Unknown', 'Asked but unknown', 'No Information', 'Not asked', or 'Refused to answer'. If 'Other' is selected, then please specify in the text box provided.
- **Ethnicity:** select the case's self-identified ethnicity. 'Unknown' should be selected for choices including: 'Unknown', 'Asked but unknown', 'No Information', 'Not asked', or 'Refused to answer'.
- **Case Status:** select the case's classification as defined below:
    - Confirmed: A case meeting the clinical criteria with a CDC laboratory confirmed novel/variant influenza A virus result.
    - Probable: A case meeting the clinical criteria and epidemiologically linked to a confirmed case or animal presumed to be infected with novel/variant influenza with LRN testing that has resulted in 'unsubtypable' or influenza A H5 AND is pending CDC confirmatory testing and/or CDC results that are inconclusive or negative for a novel/variant influenza A virus infection.
    - Suspect: A case meeting the clinical criteria and epidemiologically linked to a confirmed case or animal presumed to be infected with novel/variant influenza, but is pending initial laboratory testing for influenza.
- **Date of report:** write in the date the case was first reported to public health. Select the box that appropriately reflects whether this report is a new report or an update to a previous report.
- **Unique ID**: enter the state generated identification number that is unique to the person assigned upon entry into the system.

CLINICAL INFORMATION

1. **Date of illness onset:** write in the date of acute symptom onset (mm/dd/yyyy). Reporting partial dates is acceptable (e.g., month and year).
2. **Hospitalization**: select "yes" if the case was admitted as an inpatient and enter the hospitalization details including the subject's admission and discharge dates for this illness, hospital name and location. If the case was hospitalized more than once for this illness (including hospitalizations at the same hospital or transfers/referrals) then include additional details on the notes page.
3. **Outpatient setting:** select "yes" if the case was seen in an outpatient setting and enter the details including the case's provider name, location and phone number. If there are more than one, then additional information can be added on the notes page.
4. **Death:** check the appropriate box to indicate if the case died (yes, no unknown). If yes, write the date of death (mm/dd/yyyy). For the next question, only select "yes" if the case died because of the highly pathogenic avian influenza infection as documented by a death certificate or hospital discharge summary. Select "no" if avian influenza is not listed as the cause or contributor to the death on the death certificate or hospital discharge summary. Select "unknown" if the death certificate or hospital discharge summary is unavailable.
5. **Influenza Vaccination:** check the appropriate box to indicate if the case was vaccinated against influenza in the past year (yes, no, unknown). If yes, write the date of the last vaccination (mm/dd/yyyy).
6. **Isolation:** check the appropriate box to indicate whether the case has been in isolation since diagnosis. If yes, check the box to select the appropriate type of isolation and write in the isolation start and end dates (mm/dd/yyyy).

7. **Symptoms:** check the appropriate boxes to indicate which symptoms were present as part of this illness. If fever is noted, write in the highest temperature recorded, date and time of the fever onset (mm/dd/yyyy) and the duration of fever (in days). Write in the first symptom associated with the illness and date of first symptom occurred (mm/dd/yyyy). In the date of illness recovery, indicate the date and time that symptoms resolved.

MEDICAL HISTORY

8. **Chronic medical questions:** select "yes" if the case has one or more chronic medical conditions. Check the appropriate box(es) to indicate the case's chronic medical conditions. If there are no chronic medical conditions, skip to the following question about pregnancy status. If a case is a male, skip to the lab section.

9. **Pregnancy:** indicate whether the subject is pregnant or within 6 weeks post-partum at the time of the event. If "yes", indicate week pregnant at onset OR if post-partum, enter the delivery date. Note: avian influenza infection in a pregnant woman may be more severe than in a non-pregnant woman. In addition, treatment recommendations are different.

LAB INFORMATION

If influenza testing was done, enter the type of test, result, laboratory name and contact phone number for each test reported on the case. Include specimen ID, specimen collection date and the reporting laboratory name and phone number ***(questions 10-16).***

- **Test type:** test(s) performed for this case. If more than two tests were done, then additional results may be included on the notes page.
- **Result**: indicate the result of the test performed and any subtype/lineage/clade and sub-clade information reported.

TREATMENT INFORMATION

17. **Chemoprophylaxis:** select "yes" if chemoprophylaxis medication was taken due to an exposure to influenza. Enter medication(s) and the date (mm/dd/yyyy) it was started.

18. Antiviral treatment: select "yes" if an antiviral drug was taken after the influenza diagnosis to mitigate symptoms. Choose (Y/N/U) for all antiviral choice(s) and date started (mm/dd/yyyy).

EPIDEMIOLOGY INFORMATION

19. Travel: select "yes" if the case traveled outside of their county of residence in the 10 days prior to onset. List travel dates (mm/dd/yyyy) and locations.

20. Raw Milk: select "yes" if the case consumed, touched or handled raw milk or raw milk products in the 10 days prior to illness. If yes, write down information about the raw milk/product and where it was obtained.

21. Exposure to animals: select "yes" if the case had direct (touch or handle an animal) and/or close contact (come within 6 feet for 15 minutes or more with animals confirmed to be infected for avian influenza A(H5N1)). Indicate date of onset and 10 days prior to that date. Select all animals the case was exposed to and indicate the type of contact that occurred. If there was no direct or close contact, select "no" and proceed to question 26 (close contact with farm or livestock workers).

22. Exposure setting: select the setting(s) where the direct and/or close contact with the animals occurred. For any setting other than the case's home address, write the business name, address, city and contact information. If contact occurred at work, ask the patient to describe their work duties in their own words and write down the response.

23. Exposure contact areas: select the area of the setting and indicate where the direct and/or close contact occurred.

24. Exposure to sick animals: if the case indicates they had contact (direct or close) with a sick animal, describe the type of contact, animals contacted, and exposure dates. Additional information can be added on the notes page.

25. Personal Protective Equipment (PPE): select "yes" if the case wore PPE during the direct or close contact. If yes, select all PPE worn during the contact.

26. Close contact with someone who works at a farm or handles livestock: select "yes" if the case had close contact with anyone who works on and/or who handles livestock in the 10 days prior to illness onset. If yes, write in the information (including name, address, number) for the farm contact(s) and the close contact(s).

27. Contact of novel influenza A case: select "yes" if the case was a contact of confirmed or probable case of novel influenza A. Write in the relationship to the case, unique identifiers (including case ID in NEDSS and or the Lab ID), status of the case (confirmed/probable/suspect/NAC), sex (M/F/U), age (in years) and date of illness onset (mm/dd/yyyy).

28. Contact of person with similar illness: select "yes" if the case was a contact of someone who was sick with a similar illness within 10 days of illness onset. Write in the name, address, and phone number for the contact.

29. Infection Timeline/Exposures: use the infection timeline to identify the case's exposure and infectious periods. Enter onset of illness, count backwards enter dates into the exposure period and forwards to enter dates into the infectious period. Use the timeline to identify when the case may have exposed others to the virus (infectious period). Enter information about the persons who may be exposed in the table, including contact information (name, phone number), sex (M/F), symptomatic (Y/N), date of illness onset (if symptomatic), any direct or close contact with animals, PEP recommended (Y/N) and PEP started (Y/N).