Avian Influenza Information for Animal Healthcare Providers: Cats

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The purpose of this document is to provide Virginia veterinarians information about what to do if you suspect that a cat might be infected with H5N1, including:

- Who to contact to report your concerns and discuss the situation;
- How to arrange for testing, when needed; and
- Ways to protect your health when working with animals.

Feline cases of H5N1 have been detected in several states in the United States since the arrival of the virus in 2022. Historically, exposure of cats to avian influenza has been through contact with wild birds and poultry. More recently, affected states have reported detections in barn cats associated with infected dairy premises with the B3.13 genotype. There have also been reports of fomite transmission occurring in indoor cats owned by dairy workers. In addition, some cats have been infected from consuming contaminated raw meat diets and unpasteurized milk.

Domestic cats with infection of H5N1 can display the following clinical signs:

- General systemic illness (inappetence, lethargy, fever)
- Neurologic signs (depressed mental state, stiff body movements, ataxia, blindness, circling, tremors, seizures, etc.)
- Respiratory signs (upper respiratory signs such as ocular discharge, nasal discharge, sneezing, increased respiratory rate/effort etc.)
- Affected cats display an acute onset of disease that progressively worsens
- May cause severe illness resulting in death

The H5N1 virus has a high degree of neurotropism in domestic cats and typically concentrates in the central nervous system. Treatment for cats mainly involves supportive care, at this time. To date, the prognosis is thought to be poor for clinically affected cats.

H5N1 exposure risk factors for cats include:

- Residing in or near dairy operations
- Having owners who work for dairy operations
- Consuming raw cow’s milk or colostrum
- Hunting and/or consuming wild birds/rodents
- Consuming raw meat or pet food that contains raw meat

Can you or your veterinary staff get H5N1 from a feline patient?

- The risk of H5N1 transmission from a cat to a person is low, but not fully understood at this time. To date, there have not been any reports of cat to human transmission.
- People who are exposed to a feline patient with H5N1, with or without appropriate PPE should contact their local health department so they can discuss health monitoring.
- If a person who was exposed to a suspected or confirmed H5N1-infected animal develops any flu-like symptoms or conjunctivitis, they should contact their local health department and healthcare provider for further guidance regarding testing and treatment. CDC provides additional information for people exposed to avian influenza.

What should you do if you suspect a feline patient has H5N1?

- **If H5N1 is a differential diagnosis for your feline patient, then rabies should also be considered.**
    - Veterinarians should always contact their local health department or animal control authorities if they have questions or concerns about rabies, including inquiries about testing cats for rabies.
    - Any cat that is submitted for H5N1 testing post-mortem, must first undergo rabies testing.
    - Call your local health department so that rabies risk assessments can be conducted for exposed people and health monitoring can be discussed.

- If a veterinarian is concerned about H5N1 infection in addition to rabies, this should be discussed with Dr. Julia Murphy, State Public Health Veterinarian julia.murphy@vdh.virginia.gov or Dr. Tracy Woodall, Veterinary Epidemiologist tracy.woodall@vdh.virginia.gov.
- Use appropriate personal protective equipment when handling a cat suspected of or confirmed with H5N1 infection, including: an N95 face mask (ideally fit-tested), disposable fluid-resistant gown/coveralls, boot/shoe covers, nitrile gloves, surgical head cover, and goggles.
- Isolate suspected or confirmed H5N1-infected cats from other animals and people.
- Clean with commonly used disinfectants to inactivate H5N1, following label instructions and contact times. The Michigan Department of Agriculture and Rural Development provides additional tips for cleaning and disinfecting for H5N1
- Change your clothing and shoes after interacting with any feline patients that are suspected of or confirmed with H5N1 infection before going home to your own pets and family. Prevent pets, other animals, and people from having access to used clothing and shoes by placing them in a tightly closed plastic bag until they can be laundered or disinfected.
- Wash your hands with soap and water for at least 20 seconds after handling a cat that is suspected of or confirmed with H5N1-infection and after removing contaminated clothing and shoes. If soap and water are not available, an alcohol-based hand sanitizer can be used.

Testing Cats for H5N1

- **Any cat that is submitted for H5N1 testing post-mortem must first undergo rabies testing.**
- Call your local health department so that rabies risk assessments can be conducted for exposed people and health monitoring can be discussed.
- If a veterinarian is concerned about H5N1 infection, in addition to rabies, this should be discussed with Dr. Julia Murphy, State Public Health Veterinarian julia.murphy@vdh.virginia.gov or Dr. Tracy Woodall, Veterinary Epidemiologist tracy.woodall@vdh.virginia.gov
- Antemortem testing for cats with suspected H5N1 infection can be done through the Animal Health Diagnostic Center (AHDC) at Cornell University College of Veterinary Medicine.
    - Recommended samples for H5N1 PCR include ***all*** of the following:
        - Oropharyngeal swab or nasal swab placed in sterile container (red top tube or viral transport media);
        - EDTA whole blood in purple top tube;
        - Urine in sterile container;
        - Fecal swab in plain container.
- Postmortem testing can be supported through your local health department and Virginia Maryland College of Veterinary Medicine.

Additional Information:

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2. American Veterinary Medical Association. Avian influenza in pets and backyard flocks. Published 2024. Accessed March 17, 2025. https://www.avma.org/resources-tools/animal-health-and-welfare/animal-health/avian-influenza/avian-influenza-companion-animals
3. CDC. Highly Pathogenic Avian Influenza A(H5N1) Virus: Interim Recommendations for Prevention, Monitoring, and Public Health Investigations. Avian Influenza (Bird Flu). Published February 28, 2025. Accessed March 17, 2025. https://www.cdc.gov/bird-flu/prevention/hpai-interim-recommendations.html
4. CDC. Bird Flu in Pets and Other Animals. Avian Influenza (Bird Flu). Published March 7, 2025. Accessed March 17, 2025. https://www.cdc.gov/bird-flu/risk-factors/bird-flu-in-pets.html?CDC_AAref_Val=https://www.cdc.gov/bird-flu/virus-transmission/avian-in-other-animals.html
5. CDC. Considerations for Veterinarians: Evaluating and Handling of Cats Potentially Exposed to Highly Pathogenic Avian Influenza A(H5N1) Virus. Avian Influenza (Bird Flu). Published November 6, 2024. Accessed March 17, 2025. https://www.cdc.gov/bird-flu/hcp/animals/index.html
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8. Minnesota Board of Animal Health and Department of Health. Influenza A(H5N1) Infection in Companion Animals: Guidance for Veterinary Clinics. Accessed March 17, 2025. https://www.health.state.mn.us/diseases/flu/current/factsheetforfetclinics.pdf

9. USDA Animal and Plant Health Inspection Service. Detections of Highly Pathogenic Avian Influenza in Mammals. Published 2020. Accessed March 17, 2025. https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/mammals

Additional H5N1 references:

1. Burrough ER, Magstadt DR, Petersen B, et al. Highly Pathogenic Avian Influenza A(H5N1) Clade 2.3.4.4b Virus Infection in Domestic Dairy Cattle and Cats, United States. *Emerging Infectious Diseases.* 2024;30(7). doi:https://doi.org/10.3201/eid3007.240508
2. Chothe SK., Srinivas S, Misra S, et al. Marked neurotropism and potential adaptation of H5N1 clade 2.3.4.4.b virus in naturally infected domestic cats. *Emerging Microbes & Infections.*2024;14(1). Published online 2025. doi:https://doi.org/10.1080/22221751.2024.2440498
3. Naraharisetti R, Weinberg M, Stoddard B, et al. Highly Pathogenic Avian Influenza A(H5N1) Virus Infection of Indoor Domestic Cats Within Dairy Industry Worker Households — Michigan, May 2024. *MMWR Morbidity and Mortality Weekly Report*. 2025;74(5):61-65. doi:https://doi.org/10.15585/mmwr.mm7405a2
4. Sillman SJ, Drozd M, Loy D, Harris SP. Naturally occurring highly pathogenic avian influenza virus H5N1 clade 2.3.4.4b infection in three domestic cats in North America during 2023. *Journal of Comparative Pathology.* 2023; 205:17-23. doi:https://doi.org/10.1016/j.jcpa.2023.07.001