NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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To: NC Veterinarians
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Memo: Testing domestic cats and wild felids for highly pathogenic avian influenza (HPAI) H5N1 in North Carolina

Update: This memo clarifies the testing algorithm and specimen collection and submission guidelines

Background

Since 2022, HPAI H5N1 has caused widespread outbreaks among domestic poultry in the United States, and since 2024, the virus has been detected in dairy cattle in numerous states. HPAI H5N1 infections have been identified in domestic cats that have had contact with infected dairy cattle or birds,[1] consumed unpasteurized milk from infected dairy cattle,[1,2] or consumed raw meat products .[2] Indirect transmission of HPAI to cats owned by dairy workers that worked with infected herds has been documented.[3] Wild felids have also been affected after suspected contact with wild birds or consumption of contaminated meat.[4] HPAI H5N1-infected cats can present with subclinical infections or develop rapidly progressive, severe disease.[1,5,6]

Clinical signs in infected cats may include

- Inappetence
- Lethargy
- Fever
- Depression
- Neurologic signs (e.g., ataxia, circling, tremors, seizures, blindness), and
- Respiratory signs (e.g., oculonasal discharge, sneezing, coughing, tachypnea, and dyspnea).[7]

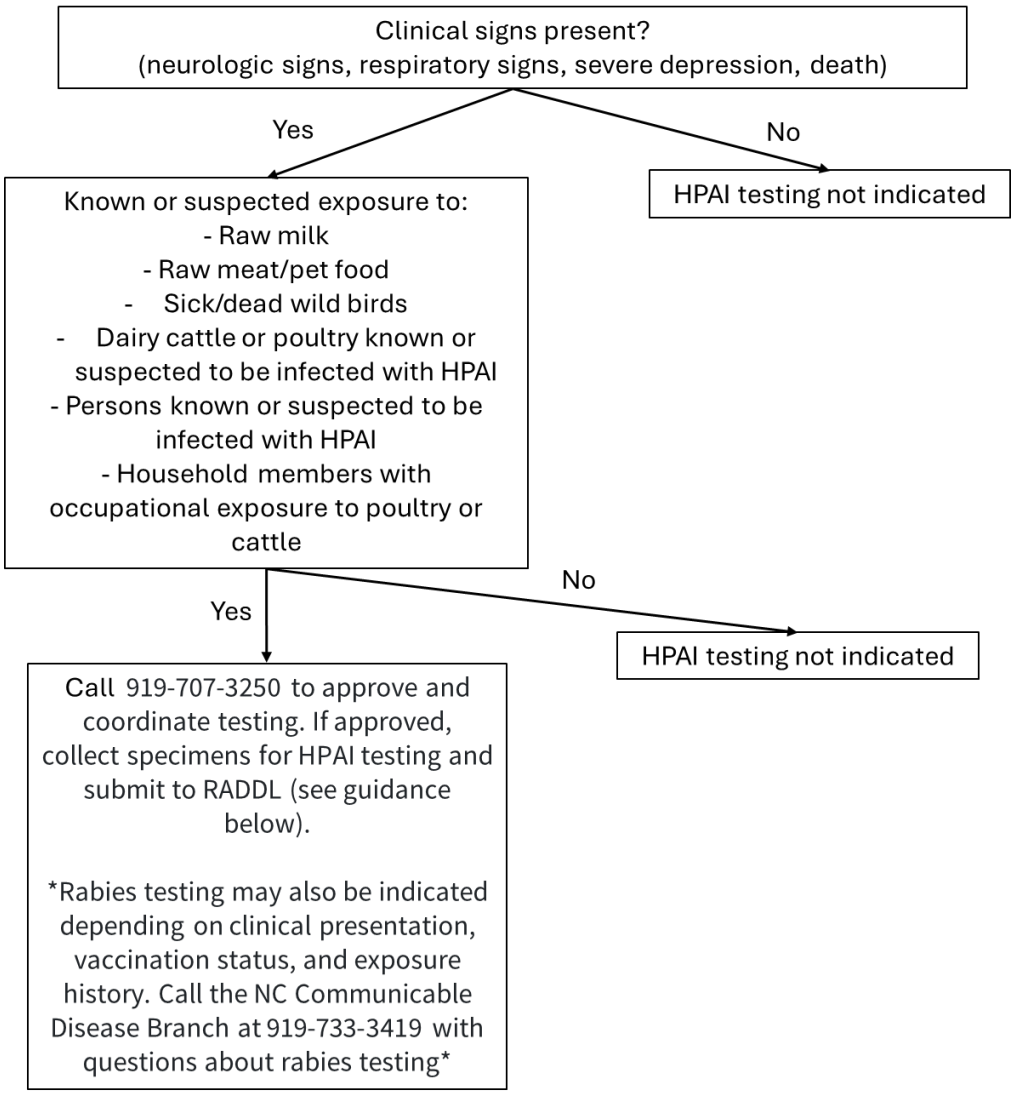
Guidelines for evaluation and testing

PCR testing of live or deceased domestic and wild felids for HPAI can be performed at the Rollins Animal Disease Diagnostic Laboratory (RADDL) **with prior approval**. Testing of cats for HPAI will only be performed when there is clinical suspicion of infection based on clinical signs of disease and potential exposure. **The general domestic cat population is at low risk for**

infection with HPAI. Other causes of respiratory illness (e.g., feline herpes virus, calicivirus) and neurologic disease (e.g., rabies) are much more likely. For cats presenting with respiratory or neurologic illness, obtain a thorough history to evaluate the likelihood of HPAI exposure. High risk exposures include consumption of raw meat or unpasteurized dairy products, recent exposure to sick or dead wild birds, recent exposure to HPAI suspect/positive dairy cattle or domestic poultry, and direct contact with household members working on HPAI suspect/infected poultry or dairy farms.

Follow the algorithm below to determine if testing may be indicated and call the NC Department of Agriculture (NCDA) at 919-707-3250 for approval and further instructions.

If testing at RADDL is not approved, you may pursue other testing options at commercial or university veterinary diagnostic laboratories. Any positive test results obtained through a commercial laboratory must be reported to NCDA at 919-707-3250 as per state regulations.



Sample collection and submission for HPAI testing

Collect one oropharyngeal swab from each animal to be tested using a swab with a synthetic tip and plastic shaft. Do not use swabs with wooden shafts or cotton tips, or calcium alginate swabs. Place swabs into a sterile tube containing 2-3 ml of sterile nutrient broth (e.g., brain

heart infusion broth). If an oropharyngeal swab is not able to be collected, or sterile nutrient broth is not available, other sample types and media may be acceptable. Keep samples refrigerated, but not frozen, until shipping. Call RADDL at 919-733-3986 for additional guidance on sample collection and handling. Complete a specimen submission form. Ship to RADDL via FedEx or UPS overnight express delivery with cold packs.

Management of HPAI-positive cats in veterinary clinics and shelters

Cats known or suspected to be infected with HPAI should be isolated from other animals and people. These cats should be housed in an isolation unit if one is available in your facility. Otherwise, they should be examined, housed, and treated in a location that prevents direct contact with other animals. **Cats should remain isolated for 5 days after symptom resolution or until negative HPAI PCR results are obtained**. Potentially contaminated surfaces and equipment should be scrubbed with a detergent, then disinfected with an EPA-registered disinfectant that is effective against HPAI and appropriate for use in companion animal settings. Follow the label instructions to ensure efficacy.

Veterinary and shelter personnel handling cats or other animals known or suspected to be infected with HPAI should take precautions to protect themselves against exposure. CDC-recommended personal protective equipment (PPE) includes fluid-resistant coveralls or gown, a NIOSH Approved® particulate respirator (e.g., N95®), safety goggles or face shield, rubber boots or boot covers, head or hair cover, and gloves. Veterinary staff handling HPAI-infected cats should be fit-tested for a NIOSH Approved® particulate respirator, as indicated in the NC Department of Labor standards for veterinary services.

Individuals who have handled HPAI-positive cats will need to be monitored for symptoms for 10 days following their most recent exposure. Please make note of all personnel who have come into contact with cats suspected of having HPAI, and if a cat is confirmed HPAI-positive, call the NC Communicable Disease Branch at 919-733-3419 to initiate symptom monitoring and receive guidance on testing and treatment.

Additional resources for veterinary and shelter personnel:

- CDC guidance: https://www.cdc.gov/bird-flu/hcp/animals/index.html
- Shelter Medicine Academic Collaborative recommendations: https://docs.google.com/document/d/e/2PACX-1vTlPL2hF3RrDVecqLsF0Viztp38eJEUSZpsJDNAYG1Rfun8pJuafOxXRLJZy5QiK0GZkrP18gbBeBr4/pub

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