NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

JOSH STEIN • Governor
DEVDUTTA SANGVAI • Secretary
KELLY KIMPLE • Acting Director, Division of Public Health
SCOTT M. SHONE, PhD, HCLD (ABB) • Laboratory Director, State Laboratory of Public Health

Memo

To: North Carolina Clinical Laboratories

From: Scott M. Shone, PhD, HCLD (ABB), Director, State Laboratory of Public Health

Date: January 23, 2025

Re: Guidance for Accelerated Subtyping of Influenza A in Hospitalized Patients

Background
On January 16, 2025, the Centers for Disease Control and Prevention (CDC) issued a health advisory recommending subtyping for all influenza A positive specimens from hospitalized patients, particularly those in an intensive care unit (ICU), as soon as possible after admission and ideally within 24 hours. The following guidance is provided for North Carolina clinical laboratories to address the recommendations in the CDC health advisory.

Hospitalized Patients
As described in the advisory, CDC now recommends that influenza A positive respiratory specimens from hospitalized patients, especially from those in an intensive care unit (ICU), be subtyped for seasonal influenza A viruses [A(H1) and A(H3)] as soon as possible following admission. To address this guidance, the North Carolina State Laboratory of Public Health (NCSLPH) recommends hospital clinical laboratories:

1. Perform a subtyping diagnostic test in-house within 24 hours of hospital admission for patients who test positive for influenza A.
    a. Specimens that are negative for seasonal influenza A virus subtypes [i.e., negative for A(H1) and A(H3)] should be sent to NCSLPH as soon as possible for additional testing.
2. If an in-house subtyping test is unavailable, specimens can be sent to a commercial clinical laboratory for Influenza A virus subtyping.
    a. NCSLPH is working with commercial laboratories for submission of specimens that are negative for seasonal influenza A virus subtypes.
3. If influenza A virus subtyping is not available through one of these routes, hospital clinical laboratories should:
    a. Submit specimens from all influenza positive patients in the ICU to NCSLPH for subtyping.
    b. Additionally, submit up to the first 5 specimens from hospitalized (non-ICU) influenza positive patients to NCSLPH for subtyping each week.

RESP-Net sites should continue to follow RESP-Net guidance on submission of specimens for hospitalized patients within the catchment area.

Specimen Submission

Acceptable surveillance specimens include upper respiratory specimen (nasopharyngeal or nasal swabs) and oropharyngeal swabs in viral transport media (VTM) or universal transport media (UTM).

- NCSLPH recommends clinical laboratories store residual influenza specimens at ≤-70°C for enhanced surveillance purposes. These frozen specimens should be shipped to NCSLPH on dry ice.
    - Alternatively, frozen specimens may be shipped to NCSLPH on frozen ice packs for receipt and testing within 7 days of collection. Please write "Shipped Frozen" on the submission form.
- Enhanced surveillance specimens may also be stored at 2-8°C and shipped on frozen ice packs for receipt at NCSLPH <72 hours after collection.
- Each specimen must include a Virology submission form. Select "Influenza" and write "hospitalized" or "ICU" on the form, as appropriate.
    - Alternatively, NCSLPH has a spreadsheet template available for sites to utilize for this surveillance effort. Please contact rebecca.pelc@dhhs.nc.gov or austin.grant@dhhs.nc.gov for more information.

If specimens are submitted to NCSLPH using a commercial courier (FedEx or UPS), specimens must be packaged to meet UN3373 Category B packaging requirements. Specimen collection and shipping supplies may be ordered from the NCSLPH Online Supply Ordering System. Specimens can also be sent to NCSLPH using the NC DOA Medical Courier through coordination with the Local Health Department. If shipping via DOA Medical Courier, please note the specimens must meet DOA Medical Courier Packing and Shipping requirements.

NCSLPH will not return individual results to the submitter. Weekly aggregate subtyping results can be found on the NC DHHS respiratory dashboard under "Influenza Positive Tests". Novel influenza results will initiate a public health response including notification of the submitter by the NC Epidemiology Section.

Outpatient Populations

Submission of specimens from Influenza A positive outpatients is requested only from participating ILINet sites, and for patients with consistent symptoms and potential HPAI exposure. Clinicians should collect a thorough history from any patient with suspected or confirmed influenza. Contact the Epidemiologist on Call at 919-733-3419 to discuss a specific patient displaying clinically compatible symptoms. If your clinic is interested in becoming an ILINet site, please contact RespiratorySurveillance@dhhs.nc.gov.

Please contact NCSLPH Customer Service (919-733-3937) with any questions about specimen submission to NCSLPH.