

Laboratory Testing Protocol: Influenza Surveillance

*These guidelines will be revised as needed.
Revised: 12-10-12*

Texas is following traditional influenza seasonal surveillance protocols for the identification of influenza cases and the emergence of novel or variant influenza strains using participants in the Texas Department of State Health Services (DSHS) Influenza Laboratory Surveillance Program. Public health laboratory testing for influenza conducted by the DSHS Austin Laboratory and Texas Laboratory Response Network laboratories is done primarily to:

- Detect the distribution and spread of the virus
- Detect new variants of the virus and
- Assist in outbreak investigations.

Lab testing for clinical disease management purposes in individual patients is not a primary function of public health laboratory testing. Such diagnostic testing, if desired, should be performed by commercial laboratories.

COLLECTION OF SPECIMENS

Specimens acceptable for influenza testing include:

- Nasopharyngeal swabs (Preferred)
- Nasal swabs
- Throat swabs
- Nasal aspirates
- Nasal washes
- Dual nasopharyngeal/throat swabs
- Bronchoalveolar lavage
- Bronchial wash
- Tracheal aspirate
- *Sputum
- *Lung tissue
- *Please call before submission.

Use sterile, polyester-tipped, plastic shaft swabs and viral transport media (VTM) for specimen collection. Any commercially available VTM is acceptable for specimen transport. Dacron or rayon-tipped swabs with a plastic shaft or any other commercially available sterile collection system intended for virus isolation may be used. **Calcium alginate swabs, cotton swabs or swabs with wooden shafts are *not acceptable* for specimen collection as they may inhibit recovery of the virus. Supplies used for Genprobe testing are not acceptable. Specimens submitted using these supplies will be rejected.**

Viral transport media (VTM) tubes should be stored at the specified temperature according to the product storage requirement(s) or product insert. If the viral transport media (VTM) tubes have been stored frozen, the media should be thawed (at either refrigeration or room temperature) completely before specimen collection. **Do not** heat, microwave, or incubate the media prior to use as this may cause inactivation of the virus. **Be sure to check the expiration date of the media prior to specimen collection. Specimens submitted in expired media will be rejected.**

After the specimen has been collected, insert the fiber tip of the swab immediately into the VTM and break off the shaft so that the swab fits completely within the tube. Please tighten the cap securely and place at 4°C immediately in an upright position. Ship specimen tubes to your local Laboratory Response Network (LRN) laboratory or to the DSHS Austin Laboratory, as appropriate, **as soon as possible after collection. Specimens not shipped to be received at the lab within 72 hours of collection should be frozen in an upright position at -70°C. Specimens must be received cold on ice packs at the laboratory within 72 hours of collection. If specimens are received greater than 72 hours after**

collection, they must be frozen on dry ice. Ensure that the patient name and date of birth are written on each specimen tube that is submitted. Please record the date and time of collection on the submission form.

SPECIMEN TESTING

Except in certain situations (Epidemiological investigations, other public health outbreaks, seasonal changes, etc.), influenza surveillance specimens will not initially receive viral isolation. Specimens submitted for influenza surveillance will be initially screened for Influenza A and Influenza B using the CDC real time RT-PCR assay for detection of influenza. All positive influenza A specimens will be subtyped for seasonal H1, seasonal H3, or 2009 Influenza H1N1. Viral Isolation will be performed during off peak influenza months (i.e., summer months or relevant to the timing of circulating influenza virus).

SPECIMEN LABELING AND SUBMISSION FORM COMPLETION:

Obtain a submission form from your LRN or DSHS Austin Laboratory, as appropriate. Submission forms must be **completely** filled in for each specimen; incomplete information may cause the specimen to be rejected. Ensure that the patient name and date of birth are written on each specimen tube that is submitted. ***The patient name and date of birth on the specimen tube must match the name and date on the corresponding laboratory form.***

PACKING AND SHIPMENT OF SPECIMENS TO LABORATORY:

Boxes containing clinical specimens must be labeled, "Biological Substance, Category B". Air shipments must display the UN3373 label with the adjoining words, "Biological Substance, Category B". The phone number and name of a contact person must be listed on the box or air bill for both the shipper and the recipient.

It is important to follow the triple container rules for all "Biological Substance, Category B" shipments. Components of the DSHS-supplied triple packing system include:

- Primary container = receptacle specimen tube containing the media in which the specimen swab is placed (e.g., viral transport media with swab)
- Secondary container = plastic liner with screw cap
- Outer shipping container = Styrofoam box placed inside of the cardboard shipping box

Note: Please refer to the detailed diagrams of packing and shipping instructions.

The primary container (the specimen) should be placed into the secondary container (the plastic liner with screw cap or biohazard bag) with enough absorbent material to absorb the entire contents if leakage or breakage occurs. Be certain that the specimen tube and the plastic liner with screw cap are securely sealed to prevent leaks. The secondary container must then be placed in the Styrofoam box or other suitable container for controlled-temperature shipment. If the specimen has been refrigerated at 4°C, place enough cold packs in the Styrofoam box to maintain that cold temperature until received at the laboratory. If the specimen has been frozen at -70°C, place enough dry ice in the Styrofoam box to maintain that frozen temperature until received at the laboratory. The Styrofoam box is then placed in a corrugated cardboard box, which is taped for shipping. (Please keep these two units together; do not separate the Styrofoam box from the outer cardboard box.). Place the laboratory submission form in a plastic bag on top of the Styrofoam box inside the cardboard box. ***You must submit a laboratory submission form for each specimen in the shipment.***

Note: To avoid specimen warm-up during packing and shipping, it is helpful if the plastic liner (secondary container) is cold before placing the specimen inside.

The recommended method of shipment is to use a carrier that will deliver the next day. Next day deliveries cannot be accepted on Saturday, Sunday or state holidays unless coordinated with the receiving laboratory.

Note: It is your responsibility as the shipper to make sure that all packaging and labeling meet the current criteria.

DSHS Austin Laboratory
Viral Isolation Team
Laboratory Services Section, MC 1947
Texas Department of State Health Services
1100 W. 49th Street
Austin, TX 78756-3199

For shipping to the DSHS Austin laboratory, use the G-2A Specimen Submission Form. If you wish to submit a specimen for flu surveillance testing, please contact the DSHS Emerging and Acute Infectious Diseases Branch (flutexas@dshs.state.tx.us) for approval and instructions regarding payor source.

DSHS LABORATORY FORMS

Go to www.dshs.state.tx.us/lab/MRS_forms.shtml to:

- Receive Test Request Form Samples and G-2A Form – Laboratory Services.
- Obtain Test Request Forms by e-mail.

LRN LABORATORIES

Please use the correct specimen submission form when submitting specimens to the LRN laboratories.

Corpus Christi
Corpus Christi Nueces Co Public Health Lab
Attn: Ashley Cox
1702 Horne Rd
Corpus Christi, TX 78416

Dallas
Dallas County Health & Human Services
Attn: Joey Stringer
2377 N Stemmons Freeway
Suite 003 Basement
Dallas, TX 75207

El Paso
City of El Paso Dept. of Public Health
Attn: Minerva Cutter
4505 Alberta Ave. 2nd Floor
El Paso, TX 79905

Houston
Houston Department of Health Laboratory
Attn: Meilan Beilby
1115 South Braeswood Blvd.
Houston, TX 77030

Tyler
UTHSCT/PHLET
Attn: Janine Yost
11949 US Highway 271
Tyler, TX 75708

Lubbock
TIEHH Bioterrorism Response Lab
Attn: Anna Gibson
1207 Gilbert Drive, Building 555
Lubbock TX 79416

San Antonio
San Antonio Metro Health District Lab – BT
Attn: Patricia Blevins
Bldg 125, B-Level
2509 Kennedy Circle
Brooks City-Base, TX 78235

South Texas Laboratory – Harlingen
South Texas Laboratory
Attn: Kristina Zamora
1301 S. Rangerville Road
Harlingen, TX 78552

Tarrant County
Tarrant County Public Health Department
Attn: Rebecca McMath
N Texas Regional Laboratory
1101 S. Main Street
Fort Worth, TX 76104