

SAN ANTONIO METROPOLITAN HEALTH DISTRICT



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Dear Health Provider:

Included are the most recent guidelines for clinicians regarding appropriate specimen collection, storage, and processing for patients with suspected swine influenza A (H1N1) virus infection.

Suspected Cases of swine influenza A (H1N1)

Swine influenza A (H1N1) should be suspected in patients with:

- Influenza-like illness (temperature >100 °F **with** cough and/or sore throat)

OR

- Acute respiratory illness (recent onset of at least **two** of the following: rhinorrhea or nasal congestion, sore throat, cough, with or without fever or chills)

AND

- History of recent travel to Mexico (within 7 days), **OR**
- Contact with a person who has been diagnosed with Influenza A.

Testing recommendations for swine influenza A (H1N1) virus

All suspected cases of swine influenza A (H1N1) should have upper respiratory specimens collected to test for swine influenza A (H1N1) virus, whenever possible.

The San Antonio Metropolitan Health District will be distributing viral transport media (VTM) to specific sentinel clinics and hospitals throughout Bexar County. This VTM is being supplied by the state through the Department of State Health Services. Because of finite supply, we are unable to provide additional VTM to other clinician offices at this time.

However, health care providers who have their own viral transport media **AND** have a suspect case of swine influenza A (H1N1) **AND** have performed a rapid influenza test that is **positive** for influenza A, we request that respiratory samples be collected and sent to the San Antonio Metropolitan Health District's (SAMHD) Laboratory Response Network (LRN) as per the instructions below.

Preferred respiratory specimens:

The following should be collected as soon as possible after illness onset: **nasopharyngeal swab/aspirate or nasal wash/aspirate**. If these specimens cannot be collected, a combined nasal swab with an oropharyngeal swab is acceptable. For patients who are intubated, an endotracheal aspirate should also be collected. Specimens should be placed into sterile viral transport media (VTM) and immediately placed

on ice or cold packs or at 4°C (refrigerator) for transport to the laboratory. Recommended infection control guidance is available for persons collecting clinical specimens:

http://www.cdc.gov/swineflu/guidelines_infection_control.htm and for laboratory personnel:

http://www.cdc.gov/swineflu/guidelines_labworkers.htm

Swabs:

Ideally, swab specimens should be collected using swabs with a synthetic tip (e.g. polyester or Dacron®) and an aluminum or plastic shaft. Swabs with cotton tips and wooden shafts are not recommended. Specimens collected with swabs made of calcium alginate are not acceptable. The swab specimen collection vials should contain 3 mL of viral transport medium (e.g. containing, protein stabilizer, antibiotics to discourage bacterial and fungal growth, and buffer solution), such M4RT or the BD Universal Viral Transport System (<http://www.bd.com/ds/productCenter/220240.asp>)

Storing Clinical Specimens:

All respiratory specimens should be kept at 4°C until they can be placed at -70°C. If a -70°C freezer is not available, specimens should be kept at 4°C, preferably no longer than 1 week.

Shipping clinical specimens:

Clinical specimens should be shipped on dry ice in appropriate packaging. See “**Local and Regional Instructions for Specimen Submission**” below for specific information on where to send specimens.

Recommended Tests

Real-time RT-PCR for influenza A, B, H1, H3 at a state or local health department laboratory is recommended. Currently, swine influenza A (H1N1) virus will test positive for influenza A and negative for H1 and H3 by real-time RT-PCR. If reactivity of real-time RT-PCR for influenza A is strong (e.g. Ct ≤30) it is more suggestive of a novel influenza A virus. Confirmation as swine influenza A (H1N1) virus is performed at CDC.

Other influenza tests:

Rapid influenza antigen test: Caution should be exercised in interpretation of results of rapid antigen testing. These tests have unknown sensitivity and specificity to detect human infection with swine influenza A (H1N1) virus in clinical specimens, and have suboptimal sensitivity to detect seasonal influenza viruses. Therefore, at this time, the use of these tests is not recommended for diagnosis of swine influenza A (H1N1) virus.

Immunofluorescence: Caution should be exercised in interpretation of results of immunofluorescence. Immunofluorescence depends upon the quality of a clinical specimen, operator skills, and has unknown sensitivity and specificity to detect human infection with swine influenza A (H1N1) virus in clinical specimens. Therefore, at this time, the use of these tests is not recommended for diagnosis of swine influenza A (H1N1) virus.

Viral culture: Isolation of swine influenza A (H1N1) virus is diagnostic of infection, but may not yield timely results for clinical management. A negative viral culture does not exclude infection with swine influenza A (H1N1) virus.

Local Instructions for Specimen Submission

Below are required instructions for all **local** and **regional** submissions to the San Antonio Metropolitan Health District's (SAMHD) Laboratory Response Network (LRN).

1. The laboratory will accept surveillance samples from 08:00 am to 5:00 pm daily.
2. Sample results will be available 24 to 36 hours from time of receipt.
3. VTM and blood samples taken in the field after hours will have to be refrigerated overnight and transported to the lab at the earliest available time the following day.
 - a. Blood samples must be centrifuged and serum removed from the cells within 18 hours of collection.
4. The SAMHD Incident Command will **ONLY** provide a courier/runner to obtain samples shipped to locations other than the laboratory such as a bus depots, helipads, etc.
 - a. The shipment of these samples **must** be coordinated with the SAMHD LRN Laboratory in advance of shipment by the submitter.
 - b. Submitter will need to contact the primary number at 210-207-5883.
5. Original sample containers must be appropriately labeled in accordance with CDC guidelines.
6. Overall, shipping courier recommendation for field surveillance samples outside of our region is to use either FEDEX or UPS.
7. Location of the SAMHD LRN Laboratory: 2509 Kennedy Circle, Building 125; Brooks City-Base, TX 78235.

For questions regarding testing recommendations for suspected swine influenza A (H1N1) virus infection, please call Roger Sanchez at 210-854-2595 or Roger Pollok at 210-219-7396.

For questions regarding specimen submission or laboratory testing, please call Patricia Blevins at 210-854-2594 or Mark Wade at 210-389-7699.



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