

Frequently Asked Questions on Swine Flu (H1N1) from the Laboratories

1. What specimens are acceptable for the recovery of swine flu?

The preferred respiratory specimens include: 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.

2. If swabs are used to collect a specimen, which ones are acceptable?

There are a variety of swabs with a synthetic tip shown to have superior recovery of viruses, such as the flocked swabs. Avoid cotton tipped swabs, calcium-alginate swabs and those with a wooden shaft, which would inhibit the recovery of the virus, and may not be approved for use with the rapid testing kits.

3. If I receive a swab for rapid testing, I have nothing left to send for confirmation. What should I do?

You may ask your clinicians to collect two swabs. If your rapid test is positive for influenza A, then send the second swab to the public health lab for testing. Ideally the second swab should be immersed in viral transport media during transport. If only one swab is received, you may have leftover diluent where the cells from the swab were extracted that could be suitable for further testing. It is unknown at this time if these diluents or saline are compatible with the confirmatory tests.

4. I don't have access to dry ice, how can I ship specimens to my public health lab?

It is acceptable to place the specimens in appropriately sealed shipping container (Styrofoam box) with cold packs if the specimens will be delivered within 24 hr. These specimens should be shipped according to category B packing since these are primary diagnostic specimens and do not contain known biothreat agents.

5. Will my rapid flu test detect swine flu?

The sensitivity and specificity of rapid influenza kits for the novel Swine H1N1 virus is not known. CDC is evaluating capabilities of rapid test methods to detect the swine flu strains. Until that evaluation is complete, interpretation of results from the rapid flu

tests may be unreliable. If there is clinical evidence of disease and strong suspicion of a "suspected case" with a negative test result, a specimen should be sent to the state public health lab. Contact your public health lab for what specimen criteria must be met before shipping to them.

6. Will my rapid shell vial tissue culture recover swine flu?

The sensitivity of the cell lines and mixed cell lines in shell vials and the immunofluorescent antisera used to detect swine flu H1N1 is not known. Contact the provider of your cells for documentation of the performance of their product. If there is clinical evidence of disease and strong suspicion of a "suspected case" with a negative test result, the specimen may be sent to the state public health lab. Contact your public health lab for what specimen criteria must be met before shipping to them.

7. Can rapid flu testing be done in our point of care labs?

Wherever possible manipulation of the specimen for testing should take place in a BSL-2 laboratory in a biosafety cabinet. Where that is not possible, such as a physician's office lab, then appropriate personal protective equipment (lab coat, gloves, masks, eye protection) should be worn when performing the test.

8. What precautions must be used in my viral lab?

CDC safety guidelines for labworkers states that diagnostic work for culture and typing of clinical samples from patients suspected to have swine flu virus should be conducted in a BSL-2 laboratory and testing performed in a biosafety cabinet. Similar precautions should be observed when preparing the specimen for diagnostic molecular testing.

9. Do all laboratory personnel need to wear enhanced personal protective equipment?

Personal protective equipment (PPE) is recommended based on risk. It would be prudent for laboratorians to wear the recommended respiratory protection, shoe covers, gown, eye protection and gloves if they are manipulating these specimens for diagnostic testing where aerosols may be created. Other personnel in the laboratory who are not handling these specimens would not require this level of PPE unless they are performing high risk activities such as mycobacterial culture.

