

**Sonoma County Public Health Laboratory
Guidelines for Swine Flu testing
Updated: April 28, 2009 1600h**

Definitions:

- **Probable case of swine influenza A (H1N1) virus infection:** a person with an acute respiratory illness with an influenza test that is positive for influenza A, but human H1 and H3 negative (i.e., unsubtypeable).
- **Influenza-like illness (ILI):** fever $>37.8^{\circ}\text{C}$ (100°F) and a cough and/or sore throat.

Influenza Surveillance Recommendations:

Because of the rapidly evolving situation and in an attempt to focus laboratory resources, revised enhanced surveillance guidance is being issued. At this time, testing at public health laboratories should be focused on:

- Hospitalized patients with ILI who do not have another diagnosis.
- Outpatients with ILI in one or more of the following categories:
 - Patient is a contact of a confirmed swine influenza A (H1N1) case
 - Patient is in a high-risk setting for transmission (e.g., school, prison)
 - Patient is part of a cluster of people with ILI (only one patient needs laboratory confirmation)
 - Patient returned from Mexico within 7 days of illness onset or cared for ill household members with this travel history.

Specimen collection and algorithm for testing in public health laboratories:

Due to a high number of false negative results, the rapid flu tests are not being recommended as screening tests for Swine Flu.

- **Specimen collection:** Please collect up to 2 respiratory samples from each patient with ILI. Nasopharyngeal swabs and nasal aspirates are preferable; throat swabs are acceptable if an NP swab or nasal aspirate cannot be obtained. The swabs should be placed in a standard container with 2-3 ml of viral transport media. If the patient is hospitalized with pneumonia, specimens from the lower respiratory tract (e.g., tracheal aspirate, bronchoalveolar lavage) should also be obtained.
- Specimens should be collected within the first 24-72 hours of onset of symptoms and no later than 5 days after onset of symptoms.

- Specimen storage: The specimens should be kept refrigerated at 4°C and sent on cold packs if they can be received by a public health laboratory within five days of the collection date. If samples will be received by the laboratory in five or more days from collection, they should be frozen at -70 °C or below and shipped on dry ice.

Nasopharyngeal swab collection materials:

- Dacron, Rayon or polyester fiber tipped nasopharyngeal swab with flexible wire handle*
- Viral transport media (acceptable alternatives: MEM base media with no other additives, Hank's buffered saline solution, sterile PBS)
- Mask and gloves
- *Cotton or calcium alginate swabs are **not** acceptable. PCR assays may be inhibited by residues present in these materials.

Procedure:

1. Put on mask and gloves.
2. Have patient sit with head against a wall as patients have a tendency to pull away during this procedure.
3. Insert swab into one nostril **straight back** (not upwards) and continue along the floor of the nasal passage for several centimeters until reaching the nasopharynx (resistance will be met). The distance from the nose to the ear gives an estimate of the distance the swab should be inserted. Do not force swab, if obstruction is encountered before reaching the nasopharynx, remove swab and try the other side.
4. Rotate the swab gently for 5-10 seconds to loosen the epithelial cells.
5. Remove swab and immediately inoculate viral transport media by inserting the swab at least ½ inch below the surface of the media. Bend or clip the wire swab handle to fit the transport medium tube and reattach the cap securely. A dry swab is acceptable for PCR testing.
6. Specimen should be transported at refrigerator temperature and received by laboratory as soon as possible and <3 days from time of collection.

For a video of NP swab collection, please see:

<http://video.cdc.gov/asxgen/nip/isd/swabdemo.wmv>

