



**SAN JOAQUIN COUNTY PUBLIC HEALTH LABORATORY (SJCPHL)**

**1601 EAST HAZLETON AVE. STOCKTON, CA 95205.**

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**AVIAN and NOVEL INFLUENZA LABORATORY TESTING GUIDANCE**

**Health care providers must contact the local public health department for Avian and Novel Influenza consultation and testing approval prior to sending them to SJCPHL.**

**Use the following procedure for collection and submission of clinical specimens for:  
 Avian and Novel Influenza testing.**

**I. Supplies needed for Avian and Novel Influenza NAAT Testing  
 (can be provided by SJCPHL):**

1. Sterile synthetic swab(s) (e.g., Dacron swab)/ Viral Transport Media)
2. Sterile container (If collecting lower respiratory specimens)
3. Biohazard labelled Zip lock bags with outer sleeve.
4. Requisition form (fill out all the fields) Please include Influenza vaccination status, exposure history (e.g. to infected animals, raw animal products, working with livestock or poultry, or close contact to infected persons) and date of initial antiviral treatment, if any.
5. For Web Portal users: Print out a copy of online submission. The patient's animal/human exposure history, workplace exposure history, vaccination status, and antiviral treatment information can be included in the additional notes section of the Clinical information section.

**1**



**2**



**3**



**4**




**II. Preferred Specimens for Avian and Novel Influenza NAAT:**

**Note: Specimen should be collected using swabs with synthetic tips (e.g. Polyester or Dacron) and aluminium or plastic shaft swabs in a standard container with 2-3 mL of viral transport media (VTM). Cotton swabs, calcium alginate swabs, and wooded shaft swabs are not acceptable. Patients must meet clinical and epidemiological criteria before submitting any of the following specimens to SJCPHL for Avian Influenza testing.**


**A. Respiratory Specimen:**

Respiratory specimens recommended for H5 subtype testing:


- Separate oropharyngeal and anterior nares swabs are preferred (combining both swabs into a single transport media tube is also acceptable).
- Nasopharyngeal swabs\* are acceptable, but to date have had a lower yield for positive test results than oropharyngeal or anterior nares swabs.

  
 OP Swab


AND

  
 Anterior Nares Swab

OR


  
 Combined Swab

OR


  
 NP Swab\*

**B. Conjunctival Swab:**


If the CDC H5 subtyping assay\* is used, conjunctival swabs alone may be tested in persons who have conjunctivitis and no other symptoms and a strong epidemiological reason to suspect H5N1 infection. Persons with conjunctivitis and respiratory and/or non-specific symptoms (e.g., fever, headache), should continue to have conjunctival and respiratory specimens collected.

  
 Conjunctival Swab / No Respiratory Symptoms

OR

  
 Conjunctival Swab

PLUS

  
 Respiratory Swab



**C. Lower Respiratory Tract Specimen:**

- Patients with severe respiratory disease also should have lower respiratory specimens collected including an endotracheal aspirate (EA), bronchoalveolar lavage (BAL), or sputum.

**D. Multiple Respiratory Tract Specimens:**

- For severely ill persons, multiple respiratory tract specimens from different sites should be obtained to increase the potential for HPAI (H5N1) virus detection.

**III. Specimen storage and handling:**

- Place specimen swab in specimen collection vial containing 2-3 mL of viral transport medium (VTM) and immediately place on ice or cold packs (2-8°C. /refrigerated condition) for transport to the laboratory. Please note that universal transport medium (UTM) has **NOT** been verified as an acceptable medium for avian influenza testing at SJCPHL. Specimens received in UTM will be forwarded to the California Department of Public Health for testing.
- Label the viral transport media with the **patient's name, date of birth, source of specimen, and date specimen collected**. Please make sure the caps are tight before transport.
- Refrigerate specimens at 2-8°C. for up to 3 days (72 hours) from collection. If samples cannot be received by the laboratory within 3 days, they should be frozen at -70°C. or below.
- Specimens must arrive at the Public Health Laboratory frozen or can be transported on ice/cold packs at 2-8°C. if collected within 3 days of testing.



**IV. Unacceptable specimens:**

- Calcium alginate swabs or swabs with wooden shafts are unacceptable as they may contain substances that inactivate some viruses and inhibit PCR testing.
- Leaking specimens.
- Specimens received at SJPHL not stored as directed.
- Requisition form incomplete.
- Specimens received without a test requisition form.
- Unlabeled or mislabeled specimen.
- Specimen submitted on outdated media or transport kits.
- Nasopharyngeal swab in combination with other types of swabs
- Swab specimens submitted using Universal Transport Media (UTM).
- No specimen received with test requisition form.



**Post-Collection:**

1. Place specimens **inside the zip lock** specimen bag. (Fig.1)



Seal the specimen in the specimen bag

Figure 1: Biohazard Bag

2. Complete all the required information on the laboratory requisition form. (Note: Web Portal users will use and print out a copy of the completed online submission for the laboratory form).
3. Place laboratory form **in the outer sleeve** of zip-lock bag to separate it from the specimen, in case of leakage. (Fig. 2)



Insert the laboratory form into the outer sleeve

Figure 2: Outer sleeve of Biohazardous Bag