HEALTH ADVISORY
JANUARY 23, 2004

ENHANCED SURVEILLANCE FOR SARS AND AVIAN INFLUENZA

From: Susan Fernyak, MD, MPH, Director, Community Health Epidemiology & Disease Control Section

**ACTIONS REQUESTED OF CLINICIANS:**

1. Maintain a greater index of suspicion for SARS & Avian Influenza in patients hospitalized with pneumonia, ARDS or influenza, and pursue diagnostic work-up as described below.
2. If your patient meets the criteria described below:
   a. Contact your Infection Control Practitioner & implement appropriate isolation precautions.
   b. Immediately report to the **SFDPH Communicable Disease Control Unit** at (415) 554-2830 (24 hours a day/ 7 days a week).

This Alert and additional information including screening and specimen submission forms can be found on our SARS & Avian Influenza web page located by linking from the left hand column of the SFDPH webpage at http://www.dph.sf.ca.us.

**SEVERE ACUTE RESPIRATORY SYNDROME (SARS) – UPDATE**

SARS reappeared in Guangdong Province, China, in December 2003. The World Health Organization has confirmed 1 case of SARS-CoV infection, and identified 2 suspected SARS cases, all in adults. As yet, there is no known epidemiologic link between these patients and no documented person-to-person transmission of the virus.

In the continued absence of a vaccine, effective drugs, or natural immunity to SARS-CoV, the only available means to limit the spread of SARS are public health measures to rapidly identify infected persons and to activate the control methods that have proven effective in preventing transmission in other locales. These measures include:

- Surveillance for cases of SARS-CoV or suspicious clusters of pneumonia with appropriate diagnostic testing;
- Rapid isolation and strict adherence to infection control precautions;
- Prompt identification and careful monitoring of contacts;
- In some instances, quarantine to restrict the movement of potentially infected persons.

**AVIAN INFLUENZA - UPDATE**

Influenza A viruses (strain H5N1) that normally circulate among wild birds can infect poultry and, rarely, can infect humans and cause hospitalization and death. This year, large outbreaks of influenza A (H5N1) have been reported among poultry in Pacific Rim Asia. Authorities are currently investigating 14 human cases of severe pneumonia with 12 deaths in Hanoi, Vietnam. To date, 5 of these fatal human cases have been laboratory confirmed. In addition, 2 non-fatal human cases in Thailand have been identified and laboratory confirmed.

**Categories of urgency levels**

- **Health Alert:** conveys the highest level of importance; warrants immediate action or attention
- **Health Advisory:** provides important information for a specific incident or situation; may not require immediate action
- **Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action
### Surveillance, Reporting and Management
**of Patients Hospitalized with Pneumonia, ARDS, and Influenza**

#### Clinical Presentation:
- **IF:** Admitted to hospital with pneumonia or ARDS *

#### Risk Factors during 10 days before illness onset:
- **AND IF:**
  - Travel to Guangdong Province, China - OR -
  - Close contact with someone ill who has traveled to Guangdong Province, China

- **AND IF ANY OF THE FOLLOWING:**
  - Travel to mainland China (outside of Guangdong Province), Hong Kong or Taiwan - OR -
  - Close contact with someone ill who has traveled to mainland China (outside of Guangdong), Hong Kong, or Taiwan - OR -
  - Occupation is associated with risk of SARS, such as healthcare worker with direct patient contact, or work in lab handling SARS-CoV - OR -
  - Part of a cluster of cases of atypical pneumonia without an alternative diagnosis

#### Actions:
- **THEN:**
  - Suspect SARS
  - Immediately contact your Infection Control Practitioner & place in isolation with contact & airborne precautions
  - Immediately report to the SFDPH CDCU (415) 554-2830 and coordinate with SFDPH to evaluate close contacts of patient
  - Coordinate with SFDPH Public Health Lab (415) 554-2800 to include testing for SARS-CoV in the diagnostic work-up *

- **THEN:**
  - Consider SARS in differential diagnosis
  - Contact your Infection Control Practitioner, continue respiratory droplet precautions, and consider SARS isolation precautions
  - Report to the SFDPH CDCU (415) 554-2830
  - Coordinate with SFDPH Public Health Lab (415) 554-2800 to include testing for SARS-CoV in the diagnostic work-up * #

- **THEN:**
  - Consider Avian Influenza based on current world distribution of disease
  - Contact your Infection Control Practitioner
  - Report to the SFDPH CDCU (415) 554-2830
  - Include viral culture of nasopharyngeal and throat swabs in testing
  - Request that all influenza viruses be typed and subtyped
  - Submit any viruses that cannot be subtyped to SFDPH Public Health Lab for further evaluation (415) 554-2800 #

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* Work-up should include, at a minimum: blood cultures, sputum gram stain & culture, legionella and pneumococcal urinary antigen, and viral respiratory pathogens such as influenza A & B, parainfluenza, adenovirus, and RSV.

# See the appended SFDPH Specimen Collection Guidelines and Submittal Form
### Unexplained Pneumonia Screening Form

#### 1. Today’s Date

- **Today’s Date**
  - __  __ / __ __ / __ __ __ __
  - m    m      d    d        y    y    y    y

#### 2. Reporter

- **Last Name:**  
  - **First Name:**
- **Hospital or Clinic Name:**  
  - **Title (ICP, MD):**
- **Phone:** ( )  
  - **Pager:** ( )  
  - **Other:** ( )  
  - **Other Phone:** ( )  
  - **Other Fax:** ( )

#### 3. Patient Information

- **Last Name:**  
  - **First Name:**
- **Address, City, Zip:**
- **County:**  
  - **State:**
- **Date of Birth:**
  - __  __ / __ __ / __ __ __ __
  - m    m      d    d        y    y    y    y
- **Phone(s):**
  - ( )__________ ( )__________  
  - H/W/Cell  
  - Med. Record #

#### 4. Screening Criteria

**a. Hospitalized?**
- ☐ Yes  
- ☐ No  
- ☐ Don’t know

**b.**
- **i. Xray confirmed pneumonia?**
  - ☐ Yes  
  - ☐ No  
  - ☐ Pending  
  - ☐ Don’t know  
  - &/OR
- **ii. ARDS (Acute Respiratory Distress Syndrome)?**
  - ☐ Yes  
  - ☐ No  
  - ☐ Don’t know  
  - &/OR
- **iii. Influenza or unexplained severe respiratory illness?**
  - ☐ Yes  
  - ☐ No  
  - ☐ Don’t know

**c.**
- **Date of fever OR respiratory symptom onset:**
  - (If different dates, ask for date of FIRST symptom onset date)
  - __  __ / __ __ / __ __ __ __
  - m    m      d    d        y    y    y    y

**d.**
- **i. Travel to Guangdong Province, elsewhere in China, Hong Kong, or Taiwan (SARS exposure) within 10 days prior to illness onset (4c.)**
  - ☐ Yes  
  - ☐ No  
  - ☐ Don’t know  
  - IF YES, circle country(ies)/area  
  - OR
- **ii. Travel to Pacific Rim Asia (Avian Flu exposure) within 10 days prior to illness onset (4c.)**
  - ☐ Yes  
  - ☐ No  
  - ☐ Don’t know  
  - IF YES, name of country(ies)

**e.**
- **If Yes to either i or ii, last date in country(ies) listed above:**
  - __  __ / __ __ / __ __ __ __
  - m    m      d    d        y    y    y    y

**f. Was this patient a close contact of an ill person who recently traveled to Guangdong Province, China, elsewhere in China, Hong Kong, or Taiwan?**
- ☐ Yes  
- ☐ No  
- ☐ Don’t know

Close contact is defined as having cared for, lived with, or direct contact with respiratory secretions and/or body fluids.

**f. Is this patient employed in an occupation with a risk for SARS-CoV exposure? (e.g., health care worker or viral laboratory employee)**
- ☐ Yes  
- ☐ No  
- ☐ Don’t know

**g. Is this patient part of a cluster of cases of atypical pneumonia without alternative diagnosis?**
- ☐ Yes  
- ☐ No  
- ☐ Don’t know

#### 5. IF a or b = “Yes” Notify us at San Francisco Department of Public Health, CD Control Unit

- **Phone:** (415) 554-2830  
- **Fax:** (415) 554-2848

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If 4.a., 4b.i or ii, AND 4d.i., 4.e, f, or g = “Yes”  
- ☐ Yes  
- ☐ No

If 4a, 4b (i,ii, or iii), AND 4d.ii = “Yes”  
- ☐ Yes  
- ☐ No
San Francisco DPH Specimen Collection Guidelines and Submittal Form for Patients with suspected SARS or Avian Influenza (updated 01/23/04)

A. SPECIMENS REQUESTED FOR ACUTE AND CONVALESCENT CASES:

**UPPER RESPIRATORY TRACT:** (Required)
- **Nasopharyngeal swabs:** Collect 2 NP swabs; use Dacron swabs with a non-wooden shaft. Place each NP swab in a separate sterile vial containing 2 ml of viral transport media (VTM) **OR**
- **Nasopharyngeal wash/aspirate:** Collect 1-2 ml into sterile vial (preferred for children < 2 yrs of age)
- **TIMING:** Acute – within 7 days of onset of symptoms.
- **NOTE:** For hospitalized patients who are highly suspicious for SARS and additional NP swab or wash at 14 days after onset of symptoms.

**BLOOD:** (Required)
- **Serum:** (Acute and convalescent) Collect > 3 ml of serum or 5-10 ml of whole blood in serum separator tube. Allow blood to clot, centrifuge and aliquot resulting sera. If serum has already been frozen, ship on dry ice. If unfrozen, ship on wet ice or cold pack.
- **EDTA Blood (SARS only):** Collect 5-10 ml of whole blood in an EDTA(purple-top) tube. Transfer to vials with external caps and internal O-ring seals. If O-rings not available, cap securely and seal with parafilm.
- **TIMING:** Acute – within 7 days of onset of symptoms. Convalescent- > 28 days after onset of symptoms.

**STOOL:** (SARS ONLY)
- **Stool (10-50 cc)** should be placed in a sterile stool cup or urine container, securely capped, sealed with parafilm and bagged. Ship on wet ice or cold pack.
- **TIMING:** Acute – within 7 days of onset of symptoms and in convalescent phase (>28 days).

**LOWER RESPIRATORY TRACT:** (If patient is intubated or if sputum is not available)
- **Bronchoalveolar lavage (BAL), tracheal aspirate, or pleural tap:** Half of specimen centrifuged with cell pellet fixed in formalin. Remaining unspun specimen collected into sterile vials. If the patient is intubated and it is clinically indicated, consider a transbronchial, fine needle or open lung biopsy. Store and ship on wet ice or cold pack.
- **TIMING:** Acute – within 7 days of onset of symptoms or during 2nd/3rd week of illness.

B. NOTIFICATION, LABELING AND DOCUMENTATION
1. **Notification:** Please notify CD Control Unit at (415) 554-2830 AND Laboratory at (415) 554-2800 to submit specimens
2. **Specimen labeling:** Each specimen should be labeled with the patient name, ID number and date collected.
3. **Accompanying documentation:** The package should include a completed specimen submission form.

C. SHIPPING
1. All non-tissue specimens should be kept refrigerated and be shipped on wet ice or cold pack. Frozen tissues should be sent on dry ice. Fixed tissues should not be frozen.
2. Package according to Basic Packaging Method: Use leakproof specimen container and label specimen; Place specimen container in secondary container with absorbent and cushioning material; Place secondary container along with requisition in outer cardboard container.
3. Use a trained/contract carrier with a dedicated car and label outer container to meet the requirements of the carrier being used.
4. **DO NOT SEND SPECIMENS ON FRIDAY UNLESS APPROVED BY LABORATORY IN ADVANCE. REFRIGERATE SPECIMENS OVER THE WEEKEND AND SHIP MONDAY.**

**Please notify the laboratory by phone and complete the form below and submit with specimens**

<table>
<thead>
<tr>
<th>Patient’s last name, first name</th>
<th>Patient’s mailing address (including Zip code)</th>
<th>Route to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age or DOB</td>
<td>Sex (circle): M F</td>
<td>Onset Date:</td>
</tr>
<tr>
<td>Disease suspected or test requested:</td>
<td>Specimen type and/or specimen source</td>
<td>Date Collected</td>
</tr>
<tr>
<td>1st</td>
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<td>2nd</td>
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<td>3rd</td>
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<tr>
<td>Submitter’s complete mailing address</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This section for Virus Laboratory use only. Date received by VRDL and State Accession Number

Send to: San Francisco Public Health Laboratory, 101 Grove Street – Room 412, San Francisco, CA 94102 (415) 554-2800