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HEALTH ALERT
APRIL 27, 2009
Swine Influenza

ACTIONS REQUESTED OF CLINICIANS

Current Situation

- As of today, 11 California residents have been diagnosed with confirmed swine influenza A (H1N1) virus infection, in San Diego, Imperial, and Sacramento counties. All but two patients have had self-limited ILI; two patients with underlying conditions were hospitalized. All have recovered.
- Definitions:
  - o <u>Probable</u> 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).
  - o <u>Influenza-like illness (ILI)</u>: fever >37.8°C (100°F) and a cough and/or sore throat.

Influenza Surveillance Recommendations

It is essential that local providers assist in enhanced surveillance in our community. At this time, testing should be focused on:

- Hospitalized patients with ILI.
- Outpatients with ILI in the following categories:
  - o Patient is a contact of a confirmed swine influenza A (H1N1) case
  - o Patient is in a high-risk setting for transmission (e.g., school, prison)
  - o Patient is part of a cluster of people with ILI (only one patient needs laboratory confirmation)
  - o Patient returned from Mexico within 7 days of illness onset or cared for ill household members with this travel history

Influenza <u>sentinel surveillance providers</u> should continue submitting specimens according to protocol to the CDPH Viral and Rickettsial Disease Laboratory (VRDL). Any influenza A non-subtypeable results will be reported to the LHD immediately.

A laboratory submittal form is attached and is available on the CDPH swine influenza website at:
http://www.cdph.ca.gov/HealthInfo/discond/Pages/SwineInfluenza.aspx

Specimen collection

- <u>Specimen collection</u>: 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.
- <u>Specimen storage</u>: The specimens should be kept refrigerated at 4ºC and sent on cold packs if they can be received by the Alameda County Public Health Laboratory within 5 days of the collection date. If the samples will be received by the laboratory in five or more days, they should be frozen at –70 degrees or below and shipped on dry ice.
- Ship specimens to Alameda County Public Health Laboratory at 499 – 5th St, Oakland, California 94607, Monday through Friday 8:30AM – 5:00PM. Please call (510) 268-2700 if you have any questions regarding specimen handling/processing. PCR testing will be performed by the State Viral Rickettsial Disease Lab (VRDL).

- Since swine flu cannot be diagnosed using rapid flu tests, specimens on all patients meeting above criteria should be forwarded to the Alameda County Public Health Laboratory for PCR testing by the State Laboratory.
- Important: Use appropriate infection control precautions:
    1. Healthcare workers providing care for **patients with ILI who are not known contacts of a laboratory confirmed swine flu case** should use droplet precautions (i.e. surgical mask for close contact), in addition to standard precautions. Standard precautions include hand hygiene and the use of eye protection since splashing or spraying of body fluids may be anticipated when collecting a nasopharyngeal swab.
    2. Healthcare workers providing care for an **ill close contact of a laboratory-confirmed swine flu case** should wear a fit-tested N95 respirator, disposable gloves, gown, and eye protection. The patient should be asked to put on a surgical mask and should be roomed promptly in an airborne infection isolation room, if available, or in a single room with a door that closes.
- Nasopharyngeal swab collection materials:
    o Dacron-tipped nasopharyngeal swab with flexible wire handle*
    o Viral transport media
    o 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 demonstration of NP swab collection, please see:
http://video.cdc.gov/asxgen/nip/isd/swabdemo.wmv

ADDITIONAL RESOURCES – Information at these sites include Guidelines for Infection Control, Use of Antivirals, Home Care for Influenza and frequently updated reports and resources that will be useful for you and your staff. This situation is very dynamic. We anticipate that guidelines will change as the situation evolves.

- California Department of Public Health Website www.cdph.ca.gov/ <http://www.cdph.ca.gov/>
- City of Berkeley Public Health Department www.ci.berkeley.ca.us <http://www.ci.berkeley.ca.us>
- CDC website: <http://www.cdc.gov/swineflu/>

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.

California Department of Public Health Viral and Rickettsial Disease Laboratory
Swine Influenza Specimen Submittal Form

Specimen Collection and Submittal Instructions
Specimens should be collected within the first 24-72 hours of onset of symptoms and no later than 5 days after onset of symptoms.
Personnel collecting clinical specimens should wear an N95 respirator, goggles, disposable gown, and disposable gloves.
Respiratory Specimens:
- Each specimen should be labeled with: **date of collection, specimen type, and patient name**.
- At a minimum, collect a nasopharyngeal swab (nasopharyngeal wash or nasopharyngeal aspirate are also acceptable).
- Orophayrngeal (throat) swabs are acceptable, but may not have as high yield. If oropharyngeal specimens are collected, they should
- be accompanied by a specimen from the nasopharynx. Place the swabs in a standard container with 2-3 ml of viral transport media (VTM).
- If the patient is hospitalized with pneumonia, specimens from the lower respiratory tract (e.g., tracheal aspirate, bronchoalveolar lavage) should also be obtained.

Sera:
For cases or contacts of cases with confirmed swine influenza, collect as much blood as possible (recommended volumes 3- 10 cc from children and 10-20 cc from adults) in a serum separator tube (red top or tiger top). If possible, spin to separate sera before packaging.

Specimen Storage and Shipment:
The specimens should be kept refrigerated at $4^{o}C$ and sent on cold packs if they can be received by the laboratory within five days of the date collected. If samples cannot be received by the laboratory within five days, they should be frozen at $-70 \,^{o}C$ or below and shipped on dry ice. Specimens should be shipped per usual protocol to either your local public health laboratory or to:

California Department of Public Health - VRDL   Specimen Receiving / Swine Influenza
850 Marina Bay Parkway   Richmond, CA 94804   (510) 307-8585

---Please do not send specimens on a Friday or weekends unless special arrangements have been made with the laboratory--

Patient's last name, first name				Patient's mailing address (including Zip code)	Route to:
					[PCR
Age	**DOB:**	**Sex (circle):** M F	**Onset Date:**		[ ] ISOL
					[ ] FA
				COUNTY: _____	

Disease suspected <u>or</u> test requested - <u>Check one</u>:   [ ] Influenza   [ ] other rhespiratory virus

	Specimen type and/or specimen source	Date Collected	
1st			**1st**
2nd	Specimen type and/or specimen source	Date Collected	**2nd**

Type or print submitter's complete mailing address	Carol Glaser, DVM, MD, Chief Viral and Rickettsial Disease Laboratory 850 Marina Bay Parkway Richmond, CA 94804 Phone (510) 307-8585 Fax (510) 307-8578

Local Laboratory Results:
Was this specimen tested by a rapid antigen test?   [ ] Yes   [ ] No   If yes, result: [ ] Pos   [ ] Neg
Was this specimen typed as Influenza A? [   ]Yes   [   ]No If yes, was subtype identified? [   ]Yes [ ] No
If this sample can not be subtyped, please alert VRDL by sending an e-mail to cynthia.jean@cdph.ca.gov and david.cottam@cdph.ca.gov providing the ETA and Tracking # for the package.

Epidemiologic and Clinical Information (Please attach clinic/hospital notes and laboratory data)
Travel to Mexico in past 30 days?   [ ] Yes   [ ] No
Contact with pigs?   [ ] Yes   [ ] No
Contact of lab-confirmed swine flu case? [ ] Yes [ ] No
    If yes, what type of contact?
    Household [ ]   HCW [ ]   Other close contact [ ]
Outbreak setting? [ ] Yes   [ ] No
    If yes, type of setting (school, LTCF etc):

[ ] Fever to _____ ^{0}F   [ ] Cough
[ ] Sore throat   [ ] Nausea/vomiting/diarrhea
[ ] Altered Mental Status   [ ] Shortness of breath
[ ] Other, please describe:
Is patient hospitalized? [ ] Yes   [ ] No
Is patient in the ICU?   [ ] Yes   [ ] No
Antiviral treatment?   [ ] Yes   [ ] No
    If yes, list drug and start date:

Submitting Physician: _____   Phone# (_____) _____
Submitting Facility: _____   Fax# (_____) _____