
Public Health Advisory

Influenza and other Respiratory Viruses

October 19, 2017

The Riverside University Health System - Public Health (RUHS - PH) provides this guidance based on current information. Updated guidance will be issued as new information becomes available.

SITUATION UPDATE

- Influenza activity in California and Riverside County is currently low. No influenza outbreaks or flu related fatalities have been reported thus far in Riverside County.
- Vaccination and effective infection control remain the best prevention strategies.
- Information on the 2017-2018 influenza vaccine composition is located at: <http://cdc.gov/flu/about/season/vaccine-selection.htm>
- Please note that FluMist® will not be available this year.

ACTIONS REQUESTED OF ALL CLINICIANS

- Report laboratory-confirmed cases of seasonal influenza that meet the specified criteria as well as outbreaks of undiagnosed influenza-like illness (ILI)* in residents of large groups or institutional settings to County of Riverside Disease Control by fax (951) 358-5102 or CalREDIE, for health care facilities participating in CalREDIE.
- Treat patients with suspected or confirmed influenza who are hospitalized for severe illness or who are at higher risk for influenza-related complications with oseltamivir or zanamivir. Treat early and empirically, without relying on lab test results.
- Influenza Antiviral Medication Summary for clinicians may be accessed at <http://www.cdc.gov/flu/antivirals/index.htm>. Advise persons with ILI* to stay at home until 24 hours after fever resolves, except patients that require medical evaluation and care.
- Encourage and facilitate influenza vaccination for all persons six months of age and older. An **algorithm** to determine which children younger than age nine years need two doses of vaccine is available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm#fig1>
- Pneumococcal vaccination is also recommended for those at increased risk of pneumococcal disease.

*ILI is defined as fever (>37.8°C or 100°F) and either cough or sore throat (in the absence of a known cause other than influenza)

INFLUENZA TESTING

- Laboratory testing with RT-PCR is the preferred testing method when there is strong clinical suspicion, even if the rapid test is negative. Testing is indicated for:
 - Hospitalized, intensive care unit (ICU) and/or fatal cases with ILI.
 - Acute respiratory outbreaks.
 - ILI in any person where history of travel or recent close contacts or exposures within 10 days of symptom onset suggests concern for variant or novel influenza infection (e.g., swine [H3N2v or H1N2v] influenza, influenza A/H7N9 or influenza A/H5).

SPECIMEN COLLECTION AND SUBMISSION

- Acceptable upper respiratory samples for submission to the Riverside County Public Health Laboratory are nasopharyngeal washes or swabs and oropharyngeal washes and swabs. If swabs are submitted, only Dacron-tipped swabs on an aluminum or plastic shaft should be placed in a standard container with 2-3 ml of viral transport medium. Calcium alginate swabs and cotton-tipped swabs with wooden shafts are unacceptable and will be rejected. Lower respiratory tract samples suitable for RT-PCR include bronchoalveolar lavages, bronchial wash, tracheal aspirate and lung tissue.
- Specimens should be collected within the first 24-72 hours of onset of symptoms and no later than five days after onset of symptoms. The closer the specimen is collected to the onset of symptoms, the better chance of isolating the influenza virus.
- Specimens should be kept refrigerated at 4°C until they can be transported to the lab. If the specimen cannot be transported on cold packs within three days of collection, it should be frozen at -70°C and shipped on dry ice.
- The Public Health Laboratory is able to receive specimens Monday through Friday. Please submit the laboratory form located at: <http://www.rivco-diseasecontrol.org/Programs/HealthCareProvidersSection.aspx> with all specimens. Specimens that do not have this form will cause delays in testing.

Please contact the Public Health Laboratory director at (951) 358-5070 for questions on specimen submission. Disease Control can be reached at (951) 358-5107 for questions on reporting influenza cases and outbreaks.

INFECTION CONTROL PRECAUTIONS FOR HEALTHCARE SETTINGS

All healthcare facilities should adopt standard and droplet precautions when caring for patients with ILI*, or suspected or confirmed influenza infection. Specifically:

- Strongly encourage all staff to receive annual flu vaccination.
- Request that all persons with fever and cough wear a face mask (if tolerated) in all health care settings.
- Isolate unmasked patients with ILI* as soon as possible, ideally in a private exam room or at a distance of at least three feet from others.
- Staff entering the exam room of any patient with ILI* should either ensure the patient is masked, or wear either a face mask or N-95 respirator pending diagnosis.
- N-95 respirators should be used when performing aerosol generating procedures – for additional information on the use of N-95 respirators visit <https://www.cdph.ca.gov/Programs/CCDC/PHP/DEODC/OHB/Pages/HCRRespLinks.aspx>
- Reinforce effective hand hygiene.
- Ensure the availability of materials for adhering to respiratory hygiene/cough etiquette in waiting areas for patients and visitors.
- Post signs/visual alerts to encourage infection control measures.

INFLUENZA SURVEILLANCE AND REPORTING

The California Department of Public Health (CDPH) has updated the Influenza Reporting Guidance for the 2017 - 2018 influenza season. The reporting requirements are outlined below:

- Mandatory reporting of laboratory-confirmed** influenza in fatal cases age 0-64 years.
 - Complete the Severe Influenza Case History Form (ICU and Fatal Cases age 0-64 years) located at <http://www.rivco-diseasecontrol.org/Services/ReportingGuidelines.aspx> and fax to Disease Control at (951) 358-5102, or through CalREDIE for participating health care facilities.
 - For reported cases of severe or fatal influenza it is recommended specimens be sent for further sub-typing/characterization. Specimen submission is also important for those cases with a history of recent exposure to swine or to a confirmed case of swine influenza (e.g. H3N2v or H1N2v). This will enable CDPH to closely monitor the strains of influenza viruses that may be causing severe disease or novel pandemic viruses and the emergence of antiviral resistance.
- Request for voluntary reporting of laboratory-confirmed** influenza cases age 0-64 years requiring intensive care.
 - Laboratory-confirmed** influenza cases age 0-64 years who were hospitalized in the intensive care unit remain reportable on voluntary basis. CDPH requests continuation of this enhanced surveillance. This information will assist in monitoring and characterizing populations at highest risk for severe disease.
 - Reported cases will be encouraged to have specimens sent for further sub-typing/characterization when indicated. This will enable CDPH to closely monitor the strains of influenza viruses that may be causing severe disease or novel pandemic viruses and the emergence of antiviral resistance.
- Mandatory reporting of *any* respiratory disease outbreaks:
 - Outbreaks in institutions (e.g. long term care facilities, prisons, sleepover camps) with at least **one** case of laboratory-confirmed influenza in the setting of a cluster (≥ 2 cases) of influenza like illness (ILI) within a 72 hour period.
 - Outbreaks associated with hospitalizations or fatalities.
 - Outbreaks assessed as having public health importance (e.g., case(s) have recent exposure to swine, recent travel to an area where novel influenza is circulating, or contact with a confirmed case of swine or novel influenza).

**Laboratory confirmation can include any positive test performed by any clinical, commercial or local public health laboratory, including by positive rapid antigen testing, direct fluorescence assay, culture or PCR. Since rapid antigen tests may yield a relatively high proportion of false positive results when influenza prevalence is low, it is recommended that a positive rapid antigen test result be followed up with confirmatory testing using one of the other indicated methods, such as direct fluorescence assay, culture or polymerase chain reaction (PCR). Please note, as part of enhanced surveillance, positive rapid antigen samples should be sent to the RUHS-Public Health Lab. The lab can be reached at 951-358-5070 for questions on specimen submission.

ENHANCED SURVEILLANCE FOR PREGNANT AND PEDIATRIC SEVERE CASES

- The CDPH Immunization Branch has requested Local Health Jurisdictions (LHJ) collect additional seasonal influenza vaccine information for pregnant/postpartum women and pediatric severe influenza cases who were not vaccinated or with unknown vaccination status. Two supplemental forms were created, one for pediatric cases ≥ 6 months and another for pregnant and postpartum women (also to be used for pediatric cases less than 6 months). These forms are provider questionnaires, to be completed by LHJs, and are designed to determine influenza vaccine status and/or reasons vaccine was not administered. This form is requested for all ICU and fatal pregnant/postpartum women and pediatric cases who were not vaccinated or with unknown vaccination status. Disease Control will contact the Infection Preventionist if additional information is needed to complete the form.

OTHER RESPIRATORY VIRUS TESTING AND REPORTING

RESPIRATORY SYNCYTIAL VIRUS ASSOCIATED FATAL CASES

- Health Care Facilities should report fatal cases of laboratory-confirmed RSV in children under 5 years of age to Disease Control using CalREDIE and either faxing the [Respiratory Syncytial Virus Death Form](#) to 951-358-5102 or uploading the form, medical records, laboratory results, and any other relevant materials to the electronic filing cabinet in CalREDIE when available.

MIDDLE EAST RESPIRATORY SYNDROME COV (MERS)

- An increase in requests for MERS testing of returning travelers from the Middle East with respiratory illness occurs each year following the Hajj pilgrimage. Two cases of MERS in the United States were reported in 2014. Both individuals were health care workers who were exposed while working in Saudi Arabia.
- Suspect MERS cases should be reported to Disease Control by telephone. Testing for MERS through the CDPH must be approved and will be coordinated by Disease Control staff. MERS case report is located at <https://www.cdc.gov/coronavirus/mers/data-collection.html>
- **INFECTION CONTROL – HOSPITAL ISOLATION**
 - Suspect or confirmed MERS cases who are ill enough to be hospitalized should be placed in an airborne infection (negative-pressure) isolation room with Airborne, Contact, and Standard precautions, including eye protection. Isolation should continue until PCR testing is negative for suspected cases or until 10 days after resolution of fever in laboratory-confirmed cases

ACUTE FLACCID MYELITIS (AFM)

- Since September 2016 there have been 37 confirmed or probable AFM cases in California. The clinical picture of these patients was similar to that of poliomyelitis, but they were not infected with poliovirus. Clinical symptoms included respiratory or gastrointestinal prodrome, fever, limb myalgia and pain or burning sensations in weak limbs and/or the back.

To better understand the potential causes of AFM, CDPH is conducting enhanced viral testing and surveillance for patients with AFM.

- **REPORTING AFM CASES**
 - Clinician should contact Disease Control at 951-358-5107 to report confirmed and probable cases irrespective of laboratory results, using the [AFM Patient Case Summary Form](#) and to obtain approval for laboratory testing before submitting specimens.
- **SPECIMEN COLLECTION AND SUBMITTAL**
 - Collect specimens on confirmed and probable cases of AFM as early as possible in the course of illness, preferably on the day of onset of limb weakness, to increase the chance of a diagnosis.
 - Contact the Public Health Laboratory at 951-358-5070 for questions on specimen submission.