City and County of San Francisco

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RESPONSE TO COMMUNICABLE DISEASES

A QUICK GUIDE FOR SAN FRANCISCO CLINICIANS

Measles (Rubeola)

SITUATION

This guide is pertinent if measles (Rubeola) is a suspected etiology of your patient's presentation. A classic presentation includes fever, malaise, **cough, coryza, conjunctivitis** preceding the rash. The rash is usually erythematous and maculopapular, begins on the face and upper neck, and progresses downward and outward. Pathognomonic oral lesions, Koplik spots (tiny white lesions on a red center usually on buccal mucosa (www.cmaj.ca/content.180/5/583) may be visible prior to rash onset. Consider measles in patients with: fever and maculopapular rash, especially if unvaccinated (but cases in vaccinated persons have also occurred) known exposure to a case of measles, recent international travel (including Europe), or exposure to a visitor from abroad. For a photograph of a measles-like rash, see below or http://www.sfcdcp.org/measles.html

CLINICIAN RESPONSE

Photo Courtesy of Heinz F Eichenwald, MD

Photos courtesy of CDC

1. ***IMMEDIATELY* REPORT THE SUSPECT CASE TO:**

   San Francisco Dept of Public Health Communicable Disease Control Unit (**CDCU**)
   24/7 telephone: 415-554-2830 (After hours, follow the prompts to page the on-call MD)
   AND Your Infection Control Professional (**ICP**—check your institution's directory).

   * Clinicians are requested by CDCU to ***immediately*** report all suspect cases of measles.
   * Immediate action will be taken by CDCU and ICPs to prevent additional cases.

2. **IMPLEMENT APPROPRIATE INFECTION CONTROL PRECAUTIONS**

   * Patients are **infectious 4 days before rash onset through 4 days after** rash onset.
   * Use **airborne precautions** immediately for all patients with **fever and measles-like (maculopapular or morbilliform) rash**.
   * **Isolate** and **provide a face mask** for the patient to wear
     - Put the patient in a private negative air pressure room; if not possible, mask patient and place in a private room with the door closed. Do not use any regular exam room for at least 2 hours after a suspected measles case has left the room. Routine room cleaning recommended.
     - Anybody entering the patient's room should wear a N95 respirator regardless of prior immunity.
     - Limit movement and transport of the patient; patients should not go to other areas of the facility for blood draws or other tests. If transport is essential, mask the patient.
     - Airborne precautions should be used for any patient with a fever and a measles-like or vesicular rash. Vesicular rash can be indicative of chickenpox or smallpox, both of which require airborne precautions.
   * Work with your ICP (check your institution's directory) to implement precautions. Consult with CDCU for guidance.

3. **COORDINATE DIAGNOSTIC TESTING WITH THE CDCU**

   * Pursue **testing** for all suspect cases **as soon as possible** via **Public Health Lab System** (not a commercial lab).
   * Measles can be diagnosed by serology (a positive IgM [collected 2-28 days after rash] or a significant rise in IgG), and by isolation and/or nucleic acid amplification testing from nasopharyngeal or urine specimens
   * Obtain **ALL** of the following: (1) **serum** in a serum separator tube, (2) a **nasopharyngeal swab** on a Dacron-tipped swab placed in **UNIVERSAL VIRAL TRANSPORT MEDIA** and (3) a **urine sample** in a sterile cup
     NOTE: DO NOT USE Stuarts/Amies/other bacterial transport media
   * After consultation with CDCU, send specimens to the **Public Health Lab**. The laboratory form can be downloaded at: http://www.sfcdcp.org/diseasereporting.html (write in request for measles testing).

4. **HOME ISOLATE SUSPECTED CASES**

   * In suspect measles cases, **isolate** at **home** until they are **non-infectious** (4 days after rash onset).

5. **HELP IDENTIFY EXPOSED SUSCEPTIBLE CONTACTS**

   * Clinicians may have knowledge of staff members and patient's family and friends who may be at risk, and may have their contact information. Clinicians should provide this information to CDCU and their ICPs.
   * **CDCU** and **ICPs** are responsible for identifying and managing **contacts** and for determining who should receive post-exposure prophylaxis (**PEP**) with MMR vaccine or Immune Globulin and who should be in **home quarantine**.
   * Clinicians may be asked to provide **PEP** if their patient is identified as an exposed susceptible contact, or provide **laboratory testing for measles immunity** if their patient is a contact unable to provide proof of immunity to measles, or who can't document receipt of 2 doses of measles vaccine.