Guidance for Clinicians

Check List: Managing Patients Suspected of Having Measles

The purpose of this checklist is to provide clinicians with step-by-step guidance for evaluating patients suspected to have measles to reduce the spread of measles and facilitating Public Health investigations.

Step 1. Immediately isolate patients with an acute febrile rash, using Airborne Transmissible Diseases precautions.[1, 2]

☐ 1a. Airborne precautions should be followed in healthcare settings.

☐ 1b. Regardless of prior immunity status, all healthcare staff entering the room should use respiratory protection consistent with airborne infection control precautions (use of an N95 respirator or a respirator with similar effectiveness in preventing airborne transmission).

★ *Note*: The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room (AIIR) or negative air pressure room. To prevent possible exposure of measles, the patient should remain completely isolated from other patients, and the exam room should not be used for 2 hours after the patient has departed.

Step 2. Determine if the patient has measles-like symptoms.

☐ 2a. Assess if patient has had any of the following symptoms and obtain onset and resolution dates:

- Prodrome of fever, cough, coryza (runny nose), conjunctivitis.
- Fever AND maculopapular rash: determine location of rash onset and progression on body. If patient is unvaccinated, fever and rash on face, hairline, or behind ears are typically present concurrently.

★ *Note*: If patient is vaccinated or immunocompromised, symptoms of fever and rash can vary in presentation and timing. See CDC Pink Book Measles for information on presentations.

Common differential diagnoses

★ Kawasaki, rubella, scarlet fever, enteroviruses and other febrile rash exanthems.

Step 3. Assess for measles immunity and ask about exposure risk-factors.[2]

☐ 3a. Determine whether patient has one of the following to indicate probable measles immunity:

- At least 2 documented MMR doses that were administered in the U.S. at ≥12 months of age.
- Documented IgG (+) test for measles.

☐ 3b. Ask about exposure risk-factors. Have they had, in the past 4 weeks:

- Contact to a known measles case or with an ill international visitor
- Traveled internationally or through an international airport
- Visited an outbreak community or venues where a confirmed measles exposure occurred.

Step 4. Immediately call and report suspect measles to Public Health while the patient is still at the facility. Public Health will advise which of steps 5-8 are indicated.[2]

☐ 4a. Suspect measles if during the illness the patient has had BOTH:

- Fever (subjective or documented)
- Rash, especially if started on face/hairline/neck/behind ears.

The following factors increase the probability of measles:

- Reporting an exposure risk-factor for measles (see 3b)
- Lacking immunity: unvaccinated or unknown vaccination, immunocompromised, IgG negative.

See Public Health contact information in box on page 2.

Step 5. Collect appropriate measles specimen(s).[2]

☐ 5a.Obtain **all** the following three specimens for measles laboratory testing:
- **Throat or nasopharyngeal (NP) for PCR**: Use sterile synthetic swab and place into liquid viral/universal transport media
- **Urine for PCR**: 10 – 50 ml midstream, clean-catch
- **Serum for IgM/IgG**: 7 - 10 ml in gold top serum separator tube. Capillary blood, finger or heel stick, can be used for pediatric patients with at least 3-5 non-glass capillary blood collection tubes needed.

☐ 5b. Follow specimen collection, labeling and storage instructions, and complete the laboratory forms in the above links.

☐ 5c. Store specimens at 4°C until pick-up and ship cold (do not place specimens directly against ice packs to avoid freezing during transport)

★ *Note:* If unable to ship within 48 hours and if feasible, freeze specimen immediately at -70°C (except for urine – centrifuge if feasible, store 4°C).

☐ 5d. Upon approval by Public Health (VPDC or AOD), the Public Health Laboratory (PHL) will advise and assist with specimen handling and courier pick up including holding specimen(s) at your facility when practical. Specimens that arrive at PHL without prior VPDC or AOD approval may experience significant delays in testing. Do not send urine and throat specimens to a non-Public Health lab for testing.

☐ 5e. **If specimens cannot be collected at the clinic, do not refer the patient to another facility to obtain specimens** (i.e., commercial lab, other medical clinic)**. Notify Public Health.**

Step 6. Identify exposed persons at high risk of measles complications and any high-risk settings. [2]

☐ 6a. Ask patient if s/he works or has had contact with any of the following in the 5 days before rash onset:
- Infants <12 months of age
- Persons known to be unimmunized for measles
- Pregnant women
- Healthcare workers (including staff at facility)

Who is considered exposed to measles in a healthcare facility?

★ Anyone present at facility upon case's arrival and 2 hours after case's departure

Step 7. Instruct patient to remain isolated until 4 days after rash onset.

☐ 7a. The case-patient should immediately not be allowed to attend school/work, participate in any social or academic activities or attend large public gatherings/venues for 4 days after rash onset. Medical providers should follow-up with the case-patient to verify any changes in clinical status.

☐ 7b. Inform the case-patient that Public Health may be in contact to provide measles-related assistance to them and their family/friends.

Step 8. Fax documentation to Public Health at (213) 351-2782.

☐ 8a. Send visit notes, face sheet, immunization record, and any test results.

Do not wait for laboratory confirmation, report immediately by telephone for both confirmed & suspected cases upon suspicion of measles. Consultation is required before sending specimens to the Public Health Laboratory:
- **Weekdays 7:30 am – 5:00 pm: Call 213-351-7800 - Epidemiologist on Duty**
- **Non-business hours/weekends: Call 213-974-1234 - Administrative Officer on Duty**

References:

1. Title 8 California Code of Regulations: ATD Standards. CDPH.
2. Measles. For Healthcare Professionals. CDC.
3. Title 17, California Code of Regulations (CCR) §2500, §2593, §2641.5- 2643.20, and §2800-2812 Reportable Diseases and Conditions. CDPH.