

**Communicable Disease Epidemiology
and Immunization Section**

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Health Alert: Local Measles Case, King County – 24 December 2009

Action requested:

- Clinicians should review the following information about measles and be alert to the potential for measles cases among patients with a compatible clinical syndrome.
- Contact Public Health promptly by calling (206) 296-4774 to report a suspected case (do not wait for serological confirmation to report) and for assistance with diagnostic testing through the Public Health Laboratory (serology, urine and nasopharyngeal secretion specimens for culture). When measles is suspected, laboratory specimens should not be sent to commercial labs but routed through Public Health.
- Clinicians should assess measles immunity in their patients and vaccinate if necessary (assuring two doses in all students and persons who travel internationally).

Background: An unvaccinated adult female King County resident was exposed to measles during international travel and became symptomatic on December 12th after return to King County. The patient was not contagious during travel but did have several health care visits and community exposures subsequently; her communicable period is estimated to be DEC 11th through DEC 20th. Secondary cases would be expected to develop rash onset between DEC 18th and January 10th. Affected healthcare facilities have been notified and community exposure locations are being notified (community exposure locations will be posted later today at www.kingcounty.gov/health and updated as necessary).

Transmission and case definition: Measles is a highly contagious disease that is transmitted by respiratory droplets and airborne spread. The disease can result in severe complications, including pneumonia and encephalitis. Measles cases are contagious from 1-2 days before onset of symptoms (typically 4-5 days before rash onset) through 4 days after rash onset. The incubation period is approximately 10 days (14 days to rash onset; range 7-21 days). **The diagnosis of measles should be considered in any person with a generalized maculopapular rash lasting \geq 3 days, a temperature \geq 101°F (38.3°C), and cough, coryza, or conjunctivitis. Immunocompromised patients may not exhibit rash or may exhibit an atypical rash.**

Recommendations: Control activities include isolation of known and suspected case-patients and administration of vaccine (preferentially within 72 hours of exposure) or immune globulin (within 6 days of exposure, particularly contacts \leq 6 months of age, pregnant women, and immunocompromised people, for whom the risk of complications is highest) to susceptible contacts.

Contacts who remain unvaccinated should be excluded from day care, school, or work and adhere to voluntary home quarantine from 7 to 21 days following exposure. Persons who are known contacts of measles patients and who develop fever and/or rash should be considered suspected measles case-patients and be appropriately evaluated by a healthcare provider. **If healthcare providers are aware of the need to assess a suspected measles case, they should schedule the patient at the end of the day after other patients have left the office and inform clinics or emergency rooms if they are referring a suspected measles patient for evaluation so that airborne infection control precautions can be implemented prior to their arrival.**

Healthcare providers should maintain vigilance for measles importations and have a high index of suspicion for measles in persons with a clinically compatible illness including persons who have traveled abroad or who have been in contact with travelers. Assess measles immunity in U.S. residents who travel abroad and

vaccinate if necessary. Measles is endemic in many countries, including popular travel destinations, such as Japan and India.

Preventing transmission in healthcare settings: To prevent transmission of measles in healthcare settings, use strict airborne infection control precautions (http://www.cdc.gov/ncidod/dhqp/gl_isolation.html). **Suspected measles patients (i.e., persons with febrile rash illness) should be removed from emergency department and clinic waiting areas as soon as they are identified, placed in a private room with the door closed, and asked to wear a surgical mask, if tolerated. In hospital settings, patients with suspected measles should be placed immediately in an airborne infection (negative-pressure) isolation room if one is available and, if possible, should not be sent to other parts of the hospital for examination or testing purposes.**

All healthcare personnel should have documented evidence of measles immunity on file at their work location. Having high levels of measles immunity among healthcare personnel and such documentation on file minimizes the work needed in response to measles exposures, which cannot be anticipated. Recent measles exposures in hospital settings in three states necessitated verifying records of measles immunity for hundreds or thousands of hospital staff, drawing blood samples for serologic evidence of immunity when documentation was not on file at the work site, and vaccinating personnel without evidence of immunity.

Recommendations for vaccination: Measles is preventable by vaccination. MMR vaccine is routinely recommended for all children at 12–15 months of age, with a second dose recommended at age 4–6 years. **Two doses of MMR vaccine are recommended for all school students and for the following groups of persons without evidence of measles immunity: students in post–high school educational facilities, healthcare personnel, and international travelers who are ≥ 12 months of age.** Other adults without evidence of measles immunity should routinely receive one dose of MMR vaccine. To prevent acquiring measles during travel, U.S. residents aged ≥ 6 months traveling abroad should be vaccinated or have documentation of measles immunity before travel. Infants 6–11 months of age should receive one dose of monovalent measles vaccine (or MMR vaccine if monovalent vaccine is not available) prior to travel.

Additional information on measles including diagnosis, control measures and vaccination is available from CDC at <http://www.cdc.gov/vaccines/vpd-vac/measles/default.htm>.