

This alert contains information on investigations in progress and/or diagnoses that may not yet be confirmed.

The Physician Alert is intended primarily for the use of local health care providers, should be considered privileged, and should NOT be distributed further.

ARE YOU READY FOR MEASLES?

Whereas Ebola Virus Disease was the disease of greatest public health interest in 2014, measles is rapidly becoming the crisis of the day in 2015. The United States is experiencing a large multi-state measles outbreak that started in California in December 2014 and has spread to six additional states and Mexico. This highly contagious airborne disease does not respect jurisdictional boundaries, and sooner or later; it may arrive in Washoe County. The objectives of this issue are as follows:



- ◆ To raise awareness of current measles outbreaks in the nation
- ◆ To provide historical measles data from a national and local perspective
- ◆ To raise healthcare provider's familiarity with this rare disease and how it is diagnosed
- ◆ To review measles prevention and control measures

Background and Current Measles Outbreak

Measles is a highly contagious, acute viral illness. It begins with a prodrome of fever, cough, coryza (runny nose), conjunctivitis (pink eye), lasting 2-4 days prior to rash onset. Measles can cause severe health complications, including pneumonia, encephalitis, and death. Measles is transmitted by contact with an infected person through coughing and sneezing; infected people are contagious from 4 days before their rash starts through 4 days afterwards. After an infected person leaves a location, the virus remains viable for up to 2 hours on surfaces and in the air.

Here are some facts from the current outbreak:

- ◆ Initial confirmed case-patients reported visiting Disneyland Resort Theme Parks in California from December 17 through December 20, 2014. At this time, no source case for the outbreak has been identified, but it is likely that a traveler (or more than one traveler) who was infected with measles overseas visited one or both of the Disney parks in December during their infectious period.

- ◆ Are You Ready for Measles?

- ◆ From December 28, 2014 through January 21, 2015, 51 confirmed cases of measles linked to this outbreak have been reported to CDC, 42 from California and 9 from six other states (UT, WA, OR, CO, NE, AZ). One case was reported from Mexico. From January 1 to January 23, 2015, 68 people from 11 states were reported to have measles. Nevada is one of 11 states.
- ◆ The median age of reported cases was 16.5 years (range: 10 months-57 years).
- ◆ Of reported cases, 15% were hospitalized; 55% were unvaccinated, 31% had unknown vaccination status, and 12% were vaccinated.
- ◆ Nine (9) cases with genotype information were genotype B3 and all sequences linked to this outbreak are identical. The sequences are also identical to the genotype B3 virus that caused a large outbreak in the Philippines in 2014.

National Perspective

Measles was declared eliminated (i.e., interruption of year-round endemic transmission) in the United States in 2000, as a result of a high level of population immunity achieved through wide vaccine coverage with a highly effective 2-dose measles vaccine (99% effectiveness for 2-dose vaccination). The following graph shows a provisional data reported to CDC during 2001-2014.

Measles Cases and Outbreaks

During 2014*

644

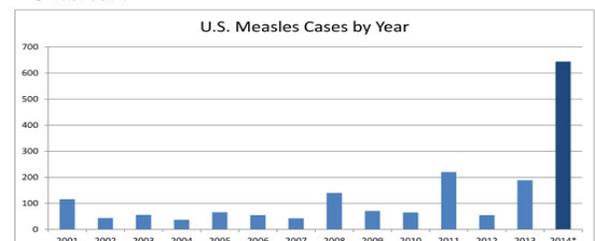
Cases

23

Outbreaks

reported in 27 states: Alabama, California, Colorado, Connecticut, Hawaii, Illinois, Indiana, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin

representing 89% of reported cases this year



*Provisional data reported to CDC's National Center for Immunization and Respiratory Diseases



Please share this document with all physicians/staff in your office/facility.

Measles is still endemic in many parts of the world, and outbreaks can occur in the U.S. when unvaccinated groups are exposed to imported measles virus. In 2014, nearly half of importations in the U.S. were linked to travel to the Philippines during the large measles outbreak in that country. Disney and other theme parks are international attractions, and visitors come from many parts of the world, including locations where measles is endemic.

Local and Statewide Perspective

In Washoe County, no cases have been reported during the past 15 years. The last case was reported in 1999 in a 15-month old unvaccinated child. Prior to 1999, 2 cases were reported in 1997 and 1 case was reported in 1992. All of them were international travelers. Four cases were reported in Nevada from 2003 to 2012 in Clark County.

Measles, Mumps, Rubella (MMR) Vaccination Coverage Rate

Recently published National Immunization Survey (NIS) data show that the estimated vaccination coverage rate for MMR (≥ 1 dose) among children aged 19-35 months was 91.9% and 90.4% in the nation and Nevada, respectively, in 2013. One local study (unpublished data) performed in 2011 showed that the estimated MMR (≥ 1 dose) vaccination coverage rate among children aged 19-35 months seen at Washoe County Health District (WCHD) clinics was 98.4%.

Recommendations for Health Care Providers

- ◆ Ensure all patients are up to date on MMR vaccine and other vaccines.
- ◆ For those who travel abroad, CDC recommends that all U.S. residents older than 6 months be protected from measles and receive MMR vaccine, if needed, prior to departure.
 - Infants 6 through 11 months old should receive 1 dose of MMR vaccine before departure.
 - Children 12 months of age or older should have documentation of 2 doses of MMR vaccine (separated by at least 28 days).
 - Teenagers and adults without evidence of measles immunity should have

documentation of 2 appropriately spaced doses of MMR vaccine.

- ◆ Consider measles as a diagnosis in anyone with a febrile rash illness and clinically compatible symptoms (cough, coryza, and/or conjunctivitis) who has recently traveled abroad or who has had contact with someone with a febrile rash illness. Immunocompromised patients may not exhibit rash or may exhibit an atypical rash. The incubation period for measles from exposure to fever is usually about 10 days (range, 7 to 12 days) and from exposure to rash onset is usually 14 days (range, 7 to 21 days). The following pictures are typical ones from measles cases.



*Left: Day 3 with measles rash;
Middle: Eyes of a child with measles
Right: Koplik's spots, day 3 of the illness*

- ◆ Isolate suspect measles case-patients and immediately report cases to local health departments to ensure a prompt public health response. **To report, please call Washoe County Health District (WCHD) reporting line at 775-328-2447 (24/7).**
- ◆ Obtain specimens for testing, including viral specimens for confirmation and genotyping. Contact WCHD for assistance with submitting specimens for testing. Diagnostic laboratory tests can include serological tests or PCR. Therefore, a serum specimen and a respiratory sample (nasopharyngeal swab or aspirate or throat swab) should be collected. Serological tests and viral culture are available at commercial labs and PCR is available at the Nevada State Public Health Laboratory.

For more information, please check CDC's website <http://www.cdc.gov/measles/index.html>.

References

1. CDC Health Advisory. U.S. Multi-state Measles Outbreak, December 2014-January 2015. 01/23/2015. <http://emergency.cdc.gov/han/han00376.asp>
2. <http://www.cdc.gov/measles/cases-outbreaks.html>
3. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6334a1.htm?s_cid=mm6334a1_w