TN Department of Health

4/18/2019

Tennessee Health Alert Network Message

Tennessee Department of Health has confirmed a case of measles in an Eastern Tennessee resident who recently returned from travel to an outbreak country. The patient returned to Tennessee on April 11, 2019. Rash onset was April 13, 2019.

Additional measles cases are expected to be confirmed. Public Health is working directly with involved healthcare facilities and known contacts; however, susceptible persons may develop (or may have developed) measles illness following an unrecognized exposure to this case. Susceptible contacts of the known case may develop rash up to approximately May 8, 2019.

Epidemiology: Cases are infectious four days before rash onset through four days after rash onset. Average incubation period is 14 days (range 7-21 days) between exposure and rash onset. Measles is transmitted via respiratory droplets and is highly infectious. The virus may linger in the air of a room for up to two hours after an infectious person has left the area.

Clinical Symptoms: Begins with a prodrome of fever (up to 105°F) and malaise, cough, conjunctivitis, and runny nose (coryza). Small bluish-white spots with red bases may be seen on the buccal mucosa (Koplik's spots). Rash onset is typically 3-7 days after onset of the prodromal symptoms, beginning on the face and spreading downward. Complications may include bacterial superinfections or encephalitis**. Consider the possibility of measles when evaluating susceptible patients with an acute febrile rash illness, especially if the person has been in Eastern Tennessee since April 11, 2019.**

Advice regarding locations of possible exposure will be updated as new information becomes available.

Isolate, call, and collect: Any patient with febrile rash illness or known to have been exposed to a confirmed case should be immediately masked and isolated in a room with a closed door or in an airborne infection isolation room; implement airborne precautions. State regulation requires that local public health be notified immediately by phone of *clinically* suspected measles. Do not wait for laboratory testing to report. When possible, advise patients with a febrile rash illness or fever and cough to **call** before arriving at a medical facility so they can enter and be evaluated without exposing other patients.

Laboratory Testing: A throat swab and serum sample should be obtained from any patient in whom measles is suspected. Throat swab should be collected and placed on viral transport media. Public health should be contacted immediately and labs sent to the State Public Health Laboratory. Commercial testing is reliable for IgG testing for *immunity* to measles. Testing of specimens involving suspect cases should be performed through the State Public Health Laboratory. IgM testing in acutely ill patients may remain negative up to three days after rash

onset. Throat swabs for PCR testing are preferred.

Prevention: Vaccination is extremely effective, with two doses of MMR vaccine providing immunity to >97% of recipients. Ensure all patients ages 12 months and older are appropriately immunized and administer measles-mumps-rubella (MMR) vaccine to anyone over age 12 months who has not received MMR vaccine in the past 28 days and who does not have documentation of having received 2 doses of the vaccine. Infants may receive MMR vaccine after age 6 month in the event of an outbreak; however, the child would still require two doses after the first birthday to be considered appropriately vaccinated.

Actions for all healthcare facilities:

1) Low index of suspicion for measles, especially in the Eastern Tennessee area. Ensure triage, patient registration and ED staff are aware of the possibility of acutely infectious patients presenting to the facility.
2) If you have airborne infection isolation rooms (AIIR) or negative pressure rooms, ensure they are in working order.
3) Identify the best route to transfer patients from point of entry or ED to AIIR to minimize exposure to other persons (staff, patients, visitors).
4) Review documentation of presumptive evidence immunity for all healthcare facility personnel who work in areas where there is potential for exposure to infectious patients.
Presumptive evidence of immunity to measles for health care personnel is limited to the following. Verbal reports of immunity are not acceptable.

- Written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart
- Laboratory evidence of immunity: serum measles IgG positive; equivocal results considered negative
- Laboratory confirmation of disease
- Birth before 1957 **DOES NOT** qualify for presumptive evidence of immunity in a community with an ongoing outbreak; such employees should have IgG+ confirmation or two doses of MMR.

Do not check IgG titers for any employees with two documented doses of MMR.

5) HCP without presumptive evidence of immunity should be offered the first dose of MMR vaccine unless contraindicated.

In the event that a patient with measles presents to a facility, any healthcare facility personnel who lack presumptive evidence of immunity to measles meeting the above-listed criteria will be furloughed for 21 days from the last contact.

Contact your local health department or the Tennessee Department of Health 615-741-7247(24/7) for assistance. For general information, visit the CDC website at http://www.cdc.gov/measles/ For specific information about measles outbreaks or healthcare facilities: http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.pdf