Guidelines for Measles (Rubeola) Outbreaks in Healthy Populations and Congregate Settings

(Schools, Daycares, Dormitories, Shelters, Healthcare Facilities, Etc.)

Define the outbreak: One case of Measles should be reported as an outbreak.

Clinical Definition:	Case Definitions:	
	Probable:	**Confirmed:**
An acute illness characterized by: • Generalized, maculopapular rash lasting > 3 days; AND • Temperature >101◦F or 38.3◦C; AND • Cough, coryza, or conjunctivitis.	In the absence of a more likely diagnosis, an illness that meets the clinical description with: ● No epidemiological linkage to a lab-confirmed measles case; AND ● No measles lab testing.	An acute febrile rash illness with: ● Isolation of measles virus from a clinical specimen; **OR** ● detection of measles virus using PCR; **OR** ● IgG seroconversion or a significant rise in measles immunoglobulin G antibody; **OR** ● a positive serological test for measles immunoglobulin M antibody; **OR** ● direct epidemiological linkage to a case confirmed by one of the methods above.

Incubation Period: 8 to 12 days. The average interval from exposure to onset of rash is 14 days (range of 7 to21 days).

Communicability: four days before to four days after rash onset.

Transmission: Droplet, airborne transmission (measles can remain airborne for up to two hours), and direct contact with contaminated surfaces**.**

When you have an outbreak:

1. Immediately report all suspected cases of measles to your local health department by phone. The local health department should consult OEPS immediately.
2. Confirmed or suspected cases should be excluded from congregate settings and isolated at home until four days after rash onset. If the individual needs to seek medical attention they should notify the healthcare providers office ahead of time so they can take proper precautions.
3. Identify persons exposed (contacts) during the case's infectious period (four days before and four days after the onset of rash). Sharing the same airspace with a person infectious with measles e.g., same classroom, home, clinic waiting room, etc., or being in these areas up to two hours after the infectious person has left the area is considered to be a measles exposure.
4. Establish presumptive evidence of immunity* for contacts (see below).
5. Vaccinate susceptible individuals within 72 hours of exposure to the patient with measles (absent contraindications).
    - MMR vaccines are available through the Immunization Services Division (ISD) during outbreaks. Local health departments can contact ISD at (304) 558-2188 to coordinate getting these vaccines.

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6. Monitor/track exposed susceptible individuals for symptoms suggestive of measles until 21 days after their last exposure.
    - Line list templates to track positive cases and exposed individuals are available at: https://oeps.wv.gov/toolkits
7. Exclude persons without evidence of immunity* until they have received one dose of measles containing vaccine as part of an outbreak control program. Persons who refuse vaccination should be excluded until 21 days after their last exposure.
8. Conduct active (enhanced) surveillance for measles for at least two incubation periods (24 days or two times the maximum incubation period) following onset of rash in the last case, in all affected areas for persons with measles.
9. Increase cleaning and disinfection, especially high touch surfaces. Standard cleaning and disinfection procedure are adequate for measles virus environmental control.
10. Practice respiratory hygiene and cough etiquette. This includes increasing hand hygiene, using alcohol-based hand sanitizers, and covering coughs/sneezes with tissue or elbow if tissue is not readily available.
11. See measles protocol for additional recommendations, including information on contact tracing and monitoring of exposed individuals. Protocol can be found at: https://oeps.wv.gov/measles

***Evidence of immunity:**

- Received two doses of measles-containing vaccine, and are a school-aged child (grades k-12) or an adult who will be in a setting that poses a high risk for measles transmission (healthcare workers, attending college, international travel)
- Received one dose of measles-containing vaccine, and are a preschool-aged child or an adult who will not be in a high-risk setting
- Laboratory confirmation of disease
- Laboratory evidence of immunity
- Birth before 1957 (birth before 1957 is NOT considered evidence of immunity for healthcare workers)

Additional recommendations for Healthcare Facilities:

Prior to outbreak:

1. Ensure healthcare personnel (HCP) have presumptive evidence of immunity to measles.
2. Rapidly identify and isolate patients with known or suspected measles.
3. Routinely promote respiratory hygiene and cough etiquette.
4. Minimize potential measles exposures when scheduling appointments by phone:
    - For persons with signs or symptoms of measles, provide instructions for arrival, including which entrance to use and the precautions to take (e.g., how to notify hospital staff, don a facemask upon entry, follow triage procedures).
5. If there are persons with measles in your community, consider screening visitors for signs and symptoms of measles before entering the facility.

In addition to the above recommendations, when you have an outbreak:

1. Confirmed or suspected cases should be isolated immediately in an airborne infection isolation room (AIIR). Patients should remain isolated until four days after rash onset.
2. Collect blood, urine, throat or NP secretions and coordinate testing through OEPS and WV OLS. Testing Guidance can be found at: https://oeps.wv.gov/measles/pages/default.aspx
3. In healthcare settings, persons potentially exposed to measles include patients, visitors, and HCP who are not wearing recommended respiratory protection who are: In a shared air space with an infectious measles patient at the same time OR within the prior two hours.
4. Increase hand hygiene and PPE audits during outbreaks.

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