## Update to Health Advisory Issued March 8, 2024

## Summary and Action Items

1) Provide awareness about two confirmed measles cases from Chicago
2) Remind providers to immediately report to their local health departments any suspect measles cases at the time it is first suspected and prior to clinical testing, and to take appropriate steps for diagnosis and infection control and isolation.
3) Review current vaccine and isolation/quarantine guidance for children, adults, and healthcare personnel.
4) Review vaccination records prior to international travel due to global measles outbreaks and provide needed vaccinations as per recommendations.
5) Recommend that healthcare providers and facilities take steps to ensure that their patient populations are up to date on their measles vaccines.
6) Remind health-care facilities that all persons who work in their facilities should have presumptive evidence of immunity to measles.

## Background

The Chicago Department of Public Health (CDPH) has two confirmed cases of measles in the past two weeks. The source of the infection is unknown at this time for both cases. The infectious period for both cases has ended. The chart below Identifies exposure locations in public settings for which lists of exposed people cannot be obtained. If any of your patients were at the following locations on the days and times listed, they may have been exposed:

| Date and Time of Exposure | Location Name and Address |
| :--- | :--- |
| $2 / 27 / 24,8: 45 a \mathrm{~m}-11: 15 \mathrm{am}$ | Galter Medical Pavilion, Swedish Covenant Hospital, <br> 5140 N. California Ave. |
| $2 / 27 / 24,9: 15 a \mathrm{~m}-11: 30 \mathrm{am}$ | Bus \#92, Foster Avenue, Chicago Transit Authority |
| $2 / 22 / 24$ to present | New Arrival Shelter at 2241 S. Halsted St in Chicago |

Thus far in 2024, the CDC has already confirmed 41 cases of measles in the U.S., compared to 58 cases for all of 2023. Illinois has had seven cases of measles in the last six months, after not reporting any cases in the prior three years. This is reflective of a rise in global measles cases and a growing global threat from the disease.

The public health response to the Indiana case reported last month has ended with no secondary cases identified in Illinois.

## Diagnosis and Treatment

Healthcare providers and facilities should be alert for possible measles cases. The measles prodrome usually lasts for two to four days but may persist for as long as eight days. Symptoms typically include fever, malaise, and anorexia, followed by conjunctivitis, coryza, and cough. The prodromal symptoms typically intensify a few days before the rash appears. The measles rash is typically maculopapular and starts on the head or hairline and spreads down the body. Providers should also be suspicious in those that are ill and had recent travel to countries where there are
measles outbreaks. If you suspect measles, immediately place the patient in airborne isolation, and notify infection control. Non-immune (see below in Prevention section for definition of measles immunity) contacts of measles cases can be vaccinated within three days of exposure, or in some special situations given immune globulin within six days of exposure to prevent or ameliorate the illness. Providers should consider administering a second MMR to contacts over 12 months of age who were previously vaccinated with only one dose, as long as there are 28 or more days since the last dose of live vaccine.

## Reporting

Healthcare providers and facilities need to immediately report suspect measles cases to their local health department, or to IDPH. This means reporting at earliest clinical suspicion and at the point testing is requested; do not wait on laboratory confirmation or rely on laboratory reporting. Delays in reporting might result in avoidable exposures as well as missed prophylaxis options for nonimmune close contacts. If unable to reach their local health department after-hours, providers can call IEMA at 217-782-7860 to reach someone at IDPH.

## Testing

IDPH laboratory provides PCR testing of throat or nasopharyngeal swabs for measles at no cost to the patient or provider. It is recommended that testing of suspect measles cases by PCR be conducted at the state lab as testing at commercial laboratories can delay results which then delays a response if the case is positive (see instructions for submission). Commercial laboratories can also perform Measles testing by detecting measles-specific IgM antibodies from serum and measles RNA by real-time reverse transcriptase polymerase chain reaction (RT-PCR). Healthcare providers should obtain both a serum sample and a throat swab (or nasopharyngeal (NP) swab) from patients suspected to have measles. Swabs should be in placed in viral transport media (VTM). If oral or throat swabs are not obtainable, urine samples can also be used for PCR testing.

## Transmission

The measles virus spreads easily through contact with respiratory droplets and via airborne spread. The virus can remain airborne for up to two hours after an infectious person leaves an area. Measles is highly contagious. Up to $90 \%$ of susceptible people who have contact with someone with measles will develop measles.
Patients are contagious starting four days before through four days after rash onset (with rash onset date being day zero).
Anyone with measles should isolate during that time except to seek necessary medical care. If medical care is required, patients should call to notify the facility of their diagnosis in advance.

## Prevention

Vaccination is the best protection against measles. Those traveling internationally, especially to countries where there are known measles outbreaks, should ensure they are up to date on all of their vaccinations. MMR is a measles containing vaccine that is highly effective in providing measles immunity. It is recommended that facilities keep records of their employees' vaccinations to facilitate a prompt response to a measles exposure, should one occur.

Health care personnel should follow CDC's Interim Guidelines on Measles Infection Control in Healthcare settings when dealing with potential measles cases and determining degree of exposure (Appendix A in the guidance document).

Health care providers should ensure all patients are up to date on MMR vaccine.

1) Children: Continue to give MMR vaccine at 12-15 months of age, and 4-6 years of age.
2) Adults (non-high risk): Adults born during or after 1957 should have at least one dose of the MMR vaccine, or presumptive evidence of immunity. At this time, booster doses are not recommended for the general adult population, and there is no recommendation to give $2^{\text {nd }}$ doses for adults born before 1989.

Additional recommendations for certain at-risk populations include:

1) Students at post-high school educational institutions: Should have two doses of MMR, spaced out by at least 28 days, or evidence of immunity.
2) For individuals who are traveling internationally:
a) Infants 6 through 11 months of age should be given one dose of MMR vaccine. These children will still need their regularly scheduled MMR doses.
b) Individuals 12 months of age or older should have two doses of MMR, separated by at least 28 days.
3) Healthcare personnel (HCP) (all paid and unpaid persons working in health-care settings):

Should have presumptive evidence of immunity to measles. Presumptive evidence of immunity is defined as:
a) written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart,
b) laboratory evidence of immunity (positive serum $\lg G$ ),
c) laboratory confirmation of disease, or
d) birth before 1957. (According to CDC, although birth before 1957 is considered as presumptive evidence of immunity, for unvaccinated HCP born before 1957 that lack laboratory evidence of measles immunity or laboratory confirmation of disease, health care facilities should consider vaccinating personnel with two doses of MMR vaccine at the appropriate interval.)
e) Exposed healthcare personnel who are non-immune should be excluded from work from Day 5 of first day of exposure till day 21 from last (not first) day of exposure.

## Additional Resources \& References:

- CDC: Measles
- CDC: Measles Vaccination Information
- IDPH: Measles Testing Instructions
- CDC: Plan for Travel
- Infection Control Guidelines
- CDC Measles Factsheet
- Global Measles Outbreaks

Target Audience: Healthcare Providers, Hospital Infection Preventionists, Emergency Departments, Local Health Departments

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