

Summary and Action Items

- 1.) Provide awareness of a new measles case in DeKalb County, Illinois.
- 2.) Encourage health care providers to consider measles in the differential of clinically compatible cases, especially with appropriate exposure risks.
- 3.) Remind providers to immediately report any suspect cases at the time of clinical testing and outline appropriate steps for diagnosis and isolation.
- 4.) Recommend providers discuss vaccine recommendations and offer appropriate vaccine to patients traveling abroad, ideally 1-2 months before traveling.

Background

From January 1 to February 21, 2019, 159 individual cases of measles have been confirmed in ten states (<https://www.cdc.gov/measles/cases-outbreaks.html>), with many states experiencing outbreaks. In Illinois, five recent cases of measles have been diagnosed; four in Champaign County, and a new case in DeKalb County. This newest case is not linked to the Champaign cases, and was likely exposed during international travel to endemic areas. All five measles cases are no longer infectious. Individuals who are known to have been exposed during the contagious period have been directly contacted. However, exposures can also have occurred in public areas, where it is impossible to identify all potential contacts. Below is a list of locations where cases were known to have been while infectious and should still be considered exposure locations for patients with clinically compatible symptoms.

New Potential Exposures in Illinois

The following is a listing of known public exposures for the most recent case in DeKalb County. When considering whether a clinically compatible case may have been exposed to measles, please ask if the patient might have been exposed at any of the below locations. Patients presenting for measles evaluation should be assessed for potential exposure at these locations on the dates and times listed. A patient may develop symptoms up to 21 days after the exposure date. Unvaccinated persons who were exposed at any of these locations should be quarantined for 21 days after their most recent exposure; refer to your local health department for guidance.

Midway Airport, Concourse B, Gate B2	February 22, 2019; 9:00pm – Midnight
Delnor Northwestern Hospital ED	February 24, 2019; 11:45 am – 2:15 pm
Delnor Northwestern Hospital	February 24, 2019; 4:00 pm – 6:15 pm
	February 25, 2019; 10:00 am – 1:00 pm

Symptoms

Typically, measles starts with a fever, runny nose, cough, red eyes, and sore throat, and is followed by a rash that spreads all over the body, most often starting on the head. The symptoms of measles generally appear seven to 14 days after a person is exposed but can appear up to 21 days after exposure. Patients are considered contagious from four days before to four days after the rash appears.

Transmission

Measles is a highly contagious respiratory disease caused by a virus, transmitted by direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes. Measles virus can remain infectious on surfaces and in the air for up to two hours after an infected person leaves an area.

Diagnosis

Except in emergency situations, symptomatic persons are encouraged to CALL their providers first before presenting to the clinic or hospital. Providers should assess patients for measles risk during initial phone calls.

Vaccination status of patients should be determined. If patients arrive at your clinic or hospital without calling ahead, facilities should screen incoming patients for suspect measles and promptly mask suspect measles cases and place them in airborne isolation away from other patients in waiting rooms or treatment areas. If airborne isolation is not available, patients should be placed in a single patient room with the door closed. Any rooms where the patient was treated should remain empty for at least 2 hours after the patient has left. Any medical staff caring for a suspect case should be immune to measles.

Consider measles in any patient with febrile rash illness and clinically compatible measles symptoms who: a) has recently traveled abroad or to an area where measles is known to be of concern, or visited one of the above settings during the noted time periods, b) has not been vaccinated, and/or c) has had contact with someone with a febrile rash illness.

Immunocompromised people may not develop a rash or may exhibit an atypical rash. For additional information, click on IDPH's [Basic Measles Testing Decision Algorithm](#).

The preferred testing method is a nasopharyngeal specimen by PCR. Serum IgM antibody testing can also be performed. Health care providers and laboratories must first receive authorization to send specimens for testing at the IDPH lab and an authorization number must be obtained by the local health department. Contact your LHD with more specific questions.

We ask that health care providers be vigilant in identifying any suspect measles cases. Health care providers should not wait for laboratory results before contacting their [local health department](#) during or after work hours. Laboratories should also report to their local health department positive lab tests for measles as soon as possible, but within 24 hours.

Prevention

The measles vaccine is very effective. One dose of measles vaccine is about 93% effective at preventing measles if exposed to the virus. Two doses are about 97% effective. It is important for all individuals, especially those that work in the healthcare field, to have appropriate records on hand to verify immune status of any vaccine-preventable diseases (vaccination records, laboratory proof of prior disease or immunity). An individual can attempt to locate their vaccination records through their healthcare providers or through any educational facility they have attended (e.g. high school, college/university).

At this time, there are no changes to the national recommended MMR vaccine schedule for children living in, or visiting, Illinois. Continue to give MMR vaccine at 12-15 months of age, and 4-6 years of age. For children between 6-11 months of age who are travelling internationally to an area with known widespread measles transmission, vaccination can be considered.

Patients with upcoming international travel, especially to [countries with endemic measles](#) or experiencing outbreaks, should check their vaccine records to ensure they are up to date on any necessary vaccines.

IDPH and LHD Response

DeKalb County is working to identify and notify all persons who may have been exposed and determine if any are susceptible (non-immune). Immunity to measles is defined as:

- 1) Being born before 1957
- 2) Having documented two doses of measles-containing vaccine in K-12 or college students or adults in settings that pose a high risk for measles transmission (e.g. health care workers)
- 3) One dose of measles-containing vaccine preschool-aged children and adults not in high-risk settings for measles (e.g. professors)
- 4) Past laboratory-confirmed measles diagnoses
- 5) Laboratory evidence of measles immunity.

All susceptible contacts will be quarantined and monitored for 21 days from most recent exposure.

Providers may also print the measles educational flyer to post at their medical offices. The flyer can be found on the [IDPH website](#).

Contact

Contact your [local health department](#) during or after work hours.

Additional Resources

<https://www.cdc.gov/measles/hcp/index.html>

<http://www.dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/measles>

Target Audience

Local Health Departments, Infectious Disease Physicians, Hospital Emergency Departments, Infection Preventionists, Health Care Providers, and Laboratories

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