

Measles

While only two cases of measles have been confirmed in Massachusetts during the current national outbreak, one was in a PPOC practice. We are taking this opportunity to review a general approach to measles management.

General precautions:

Measles is very infectious, and is sprayed into the air when an infected person coughs or talks. Infectious particles can remain airborne for up to two hours after a contagious person has left the room.

Vaccination is the most effective tool to prevent measles outbreaks, and your recommendation is the most important factor in a family's decision to vaccinate. Assess vaccination of all your staff and patients. A single dose of vaccine is 93% effective at preventing measles, and the second vaccine brings the number to 97% effectiveness.

Children should be vaccinated early if they are at high risk of exposure to measles. Children at high risk include children who will be traveling internationally and children exposed to a known case of measles.

- Children between 6 and 11 months in high-risk categories should be vaccinated. Because immune response is variable before 12 months, these children should receive the normal 2 dose series starting at 12 months.
- Children between 12 months to 4 years in high-risk categories should have a second dose of vaccine if at least 28 days have elapsed since their initial vaccine.

All providers and staff should demonstrate presumptive immunity to measles both for their own protection and to minimize their risk of transmission to patients.

- Presumptive evidence of immunity to measles for health care personnel include: Documentation of two-dose vaccination, lab evidence of immunity, lab-confirmed disease, or birth before 1957. For personnel born before 1957 who don't have other evidence of immunity, vaccination may still be considered.
- In an outbreak, **all** people working in healthcare should be vaccinated, even those born before the 1957 cutoff.
- Healthcare workers without presumptive evidence of immunity should not enter the room of patients with suspected or known measles if personnel with evidence of immunity are available. If practice staff without presumptive immunity have been exposed and have not received adequate prophylaxis, they should be excluded from work during the period when they may be contagious.

- All staff should wear protective respiratory protection when entering the room or caring for patient with known or suspected measles regardless of presumptive immunity.

When should you suspect clinical measles?

- Patients who present with febrile rash and symptoms of cough, runny nose, and conjunctivitis
- Patient who recently travelled internationally or were exposed to someone who recently travelled
- Patients who have not been vaccinated against measles

What should you do if you suspect a patient has measles?

- Promptly isolate the patient to minimize transmission. Put a mask on the patient, and escort him/her to an exam room. Keep the door closed at all times. Infective particles remain airborne and are contagious for up to 2 hours. After the patient leaves, use standard cleaning and disinfection procedures and do not use the room for two hours.
- Immediately report suspected cases to your local board of health and to the MDPH Division of Epidemiology and Immunization at 617-983-6800. Cases diagnosed in Boston should be reported to the Boston Public Health Commission at 617-534-5611. The DPH will advise on testing and exposure management.
- Obtain confirmatory testing of suspected cases. Testing usually consists of serum for measles IgM and nasopharyngeal or throat swab for measles PCR. Call 617-983-6800 to arrange testing at MA State Public Health Laboratory.
- If you are sending a patient to an outside lab or ER, please call ahead to arrange appropriate contagion precautions. Inform parents that the patient must wear a mask in public. A suspected patient should not wait in a public space in a crowded ER, office or outpatient lab.
- Contact the Patient safety team: 781-216-2138 including nights and weekends

Exposure management with confirmed cases

Patients with confirmed measles should remain on airborne precautions for 4 days after the onset of rash (with onset of rash considered to be day 0). Patients who are immunocompromised with confirmed measles should remain on airborne precautions for the duration of their illness.

In the event of a **confirmed** case of measles in your office you will need to inform exposed patients and persons accompanying them to identify who needs further interventions (immunizations, immunoglobulin, isolation). You will also need to let

other families in your practice know that you have addressed possible contagion issues and are available for questions.

1. Identify what patients/families may have been exposed. Prioritize those with closest known contact to the case (e.g., same household, same exam room, same waiting room at the same time as the case).
2. Make a timely, direct outreach to the patients/accompanying people at high risk who may have been exposed: not fully immunized, less than 1 year of age, pregnant, or immunocompromised.

See the attached detailed protocol from the DPH entitled Measles Alert Checklist Template. Here is a sample script for those calls:

Hi Mom/Dad/Caretaker

This is Dr. XX from YY Pediatrics. We are contacting you as there was a confirmed case of measles in our building on day/month. Our records show that you were in our office with xx at the same time. We are reviewing all of the patients seen during that time and are recommending that you have XYZ based on the recommendations of the Department of Public Health.

3. Offer recommended preventative treatment to exposed at risk patients in a timely window.
 - For children over a year of age who are not fully immunized and do not have medical contraindications offer MMR vaccine ideally within 72 hours of exposure.
 - For infants greater than 6 months, but less than 1 year, offer vaccine within 72 hours of exposure or immune globulin usually IM injection within 6 days of exposure.
 - Children less than six months of age should be offered immune globulin usually IM injection within 6 days of exposure.
 - Pregnant patients and patients with immunocompromised conditions need individualized recommendations as they may benefit from immunoglobulin given IV.
4. Educate about contagiousness/exclusion period.
 - Populations who are exposed to measles and cannot or do not receive adequate preventive treatment are required to be isolated during the period when they may be contagious to other people.
 - Measles is contagious from 4 days before until 4 days after the development of a rash. This period of possible contagiousness after

exposure is called the exclusion period and extends from the 5th through the 21st day after exposure.

- During the exclusion period the exposed person should stay home and avoid all public activities including daycare, school, shopping, and unnecessary medical visits.
- All patients under a year are subject to the exclusion period.

5. Use your practice's website and social media channels to post some general information.

- To inform everyone else but avoid causing a panic, post general information on your practice's website and social media channels to inform patients' families about the situation and follow up on any concerns:

Example:

"There was a confirmed case of measles in our building on date/month/year. We have notified all affected patients. If you were in the office that day and have questions or concerns, please call us at xxx-xxx. More information from the Massachusetts Department of Public Health can be found here: [https://www.mass.gov/service- details/measles](https://www.mass.gov/service-details/measles)

- Respond to comments on social media.

People who engage on social media like to know they are being heard so we encourage you to like the positive and address the negative. Should people engage with your Facebook post by leaving comments, it is OK to "like" any positive/encouraging posts. Should you find any negative or upset comments, you can respond by saying:

"We understand this can be scary and inconvenient. Please call us at XXX-XXX-XXXX and we would be happy to discuss this further and answer any questions. Thank you."