



LINCOLN COMMUNITY HEALTH CENTER, INC.

1301 Fayetteville Street • P.O. Box 52119
Durham, North Carolina 27717 – 2119

SUBJECT: Measles Outbreak Response Guidelines

APPROVAL DATE: 2/2020

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REVIEWED DATE:

Appendix A: **Contacts at Durham County Health Department**

Appendix B: **Measles Clinical Presentation**

Appendix C: **Measles Immunity and Vaccination Recommendations**

RATIONALE: Measles cases and outbreaks still occur every year in the United States because measles is still commonly transmitted in many parts of the world, including countries in Europe, the Middle East, Asia, the Americas, and Africa. Patients who are not immune to measles (through prior infection or vaccination) may develop infection after coming in contact with another person with measles.

- Measles is a highly contagious viral infection that spreads through the air when an infected person coughs or sneezes. The virus can cause serious health complications, such as pneumonia or encephalitis, and even death (1-2/1000 cases).
- Consider measles in patients presenting with febrile rash illness and clinically compatible measles symptoms (new onset of cough, runny nose, and conjunctivitis).
- Ask patients about recent international travel, travel to cities or theme parks frequented by international travelers, and history of measles exposures in their communities.
- Illness can begin 7-21 days after exposure to measles, however, virus can be spread up to 4 days **before** rash is noted
- Consider scheduling patients who call in with potential measles in the last urgent care slot of the day:
 - 1) To try to minimize exposure to other patients; and
 - 2) Because the exam room will be closed for 2 hours after the suspect patient leaves.

I. Calls from patients, parents or guardians during a measles outbreak (defined as three or more confirmed cases in the same geographic area in a month- will be under local Health Department guidance):

- A. When a patient, parent or guardian calls Lincoln Community Health Center (LCHC), requesting an appointment for evaluation of illness, the staff person taking the call should ask the following questions:
1. Do they have a rash?
 2. Temperature $\geq 101^{\circ}\text{F}$?
 3. At least one of the following: cough, runny nose, red eyes?



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B. If the answer is “yes” to the above questions 1, 2 AND 3, the staff person will do the following:

1. Schedule patient for 3:40 urgent care slot. **Note:** If patient is two years of age or under and ill, they must be assessed as soon as possible.
2. **Document patient phone number in appointment notes and write “Measles?/WAITING IN CAR/[Phone #]”**
 - **If patient does not have a cell phone OR a car to wait in, patient should be asked to wait at front desk during check in. Staff should give patient and parent a mask to wear. Front desk staff should walk back and alert a CMA immediately to bring patient back.**
3. **At appointment time, CMA will call patient, confirm they have arrived in parking lot, give mask, and escort patient to private exam room when available**

II. **Unexpected patients/walk-ins during a measles outbreak (defined as three or more confirmed cases in the same geographic area in a month- will be under local Health Department guidance):**

- A. When an unexpected patient/walk-in, asks to be seen, front desk staff will ask the questions in I. A.
- B. If the walk-in answers “yes” to the above questions 1, 2 AND 3, the staff person will:
 1. Provide the patient with a surgical mask
 2. Notify scheduled provider/MA to isolate the patient in a private room

III. **Caring for Any Patient with Suspected Measles:**

A. **Clinic Staff**

1. Place the patient in an unoccupied private room
2. Instruct the patient to wear their mask the entire time they are in the healthcare facility and that a provider will come to assess them shortly
3. Close the door

B. **Healthcare Providers**

1. Healthcare personnel with documentation of 2 doses of live measles vaccine or laboratory evidence of immunity (measles IgG positive) may enter the patient’s room
2. Regardless of immune status, all healthcare personnel entering the patient room should use respiratory protection (mask)
3. Assess the patient to ascertain the following additional information:
 - MMR vaccination status/immunity. **Note:** If patient is a child, provider may be able to confirm immunization status.
 - Time course of febrile and rash illness with dates of onset Exposure to individuals with febrile rash illness within the last 21 days
 - Travel within the last 21 days
4. If there is still concern for measles infection after the above review, contact the LCHC Infection Control nurse. If they are not available, contact the Durham Country Health Department (see Contacts, Appendix A)



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- 5. If testing is indicated, Call 919-733-3419, the NC State Epidemiologist on-call to obtain approval to send measles testing
- 6. Order Rubeola IgM (Measles)- Serological Test to State Lab- LAB6819

C. Equipment and Environmental Decontamination

- 1. Do not use the examination room for at least 2 hours after a suspected measles patient has been discharged (even if a HEPA filter was on)
- 2. After 2 hours have elapsed, clean the room and equipment in the standard fashion

D. Exposure Investigation If the patient spent time in the waiting room or was evaluated by healthcare workers before being isolated in an examination room, the clinic manager or designee should:

- 1. Assemble a list of all patients who may have been in the waiting room with the patient or up to 2 hours after the patient was last in the waiting room
- 2. Assemble a list of all healthcare workers who spent time in the same room with the patient prior to the patient donning a mask
- 3. Follow instructions provided by Infection Control

PREPARED BY: April Buscher, MD DATE: 6/1/22
April Buscher, MD Chief, Adult Medicine

APPROVED BY: Kristin Ito DATE: 5/13/22
Kristin Ito, MD, MPH, Chief Medical Officer

APPROVED BY: _____ DATE: 06/06/2022
Juliana Hodges, DNP, RN, CPNP-PC, Quality Improvement & Risk Management Director



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Appendix A: Contacts at Durham Country Health Department

- Cathi Hines (919) 560-7896
- Shenell Little (919) 560-7474.
- Or the NC State Epidemiologist On-Call 919-733-3419

Appendix B: Measles Clinical Presentation**Symptoms of measles include:**

- Fever (as high as 105°F)
- Malaise
- Cough
- Coryza
- Conjunctivitis
- Koplik spots
- Maculopapular rash



Koplik spots



Measles Rash

Typical course of illness:

- The first symptoms of measles are fever, cough, coryza and are not distinguishable from other respiratory viral illnesses.
- The rash typically appears a few days after the onset of illness and spreads from the head to the trunk to the lower extremities.

Transmission:

- **Measles is one of the most contagious of all infectious diseases; approximately 9 out of 10 susceptible persons with close contact to a measles patient will develop measles.** The virus is 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.
- **Patients are considered to be contagious from 4 days before to 4 days after the rash appears.**
- Patients who are exposed typically develop symptoms around 14 days after exposure. However, the incubation period is 7 to 21 days.



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Appendix C: Measles Immunity and Vaccination Recommendations

Who is considered immune to Measles?

*One dose of MMR vaccine is approximately 93% effective at preventing measles;
Two doses are approximately 97% effective.*

Public health authorities consider individuals immune to measles if they have written documentation showing at least one of the following:

1. Birth before 1957 (but see healthcare personnel guidance below)
2. Laboratory-confirmed disease
3. Laboratory evidence of immunity (protective antibody titers); or
4. Documentation of vaccination with MMR or MMRV as follows:
 - Pre-school children: 1 dose
 - Children in grades K–12: 2 doses
 - Students in post-high-school educational institutions: 2 doses
 - Women of childbearing age: 1 dose
 - Healthcare personnel: 2 doses
 - International travelers ≥ 12 months of age: 2 doses
 - Other adults: 1 dose

Who should not receive the MMR vaccine?

- Pregnant women
- Those with known severe immunodeficiencies (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy, or patients with HIV infection who are severely immunocompromised)
- History of severe allergic reaction after previous dose or to a vaccine component
- Infants less than 6 months

A single dose of MMR can be administered to infants aged 6-11 months if there is an ongoing risk of exposure. Infants who receive MMR prior to 12 months will still need two doses after they are 12 months old. Administering MMR between 6-11 months may blunt response to subsequent doses of MMR.

What are the side effects of MMR vaccine?

There are very few side effects of MMR vaccine. The MMR vaccine has a long record of safety and serious adverse reactions from MMR are extremely rare. Mild problems include fever (1/6 people), mild rash (1/20), and swelling of the glands in the cheeks or neck (rare). Moderate problems include seizure caused by fever (1/3,000), and temporary low platelet count, which rarely can cause a bleeding disorder (1/30,000). Severe problems are rare. Severe allergic reaction happens less than 1 time per 1,000,000 vaccine doses. Importantly, all reputable scientific studies have found no relationship between the MMR vaccine and autism.