Created 04/14/2025

NCDHD North Central District Health Department

Check List: Managing Patients Suspected of Having Measles

For use in the event of a suspect or confirmed measles case within your facility and NCDHD district. Provides clinicians with guidance for evaluating patients and reducing the spread of measles and facilitate Public Health investigations.

Step 1. Immediately isolate patients with an acute febrile rash, using Airborne Transmissible Diseases (ATD) precautions.

□ 1a. Mask patient and limit exposures to all staff and others.

□ 1b. Airborne precautions should be followed in healthcare settings.

□ 1c. Regardless of prior immunity status, all healthcare staff entering the room should use respiratory protection consistent with airborne infection control precautions (use of an N95 respirator or a respirator with similar effectiveness in preventing airborne transmission).

- ❖ **Note:** The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room (AIIR) or negative air pressure room. To prevent measles exposure, keep the patient fully isolated, and do not use the exam room for 2 hours after they leave.

Step 2. Determine if the patient has measles-like symptoms.

□ 2a. Assess if patient has had any of the following symptoms and obtain onset and resolution dates:

- Prodrome of fever, cough, coryza (runny nose), conjunctivitis.
- Fever AND maculopapular rash: determine location of rash onset and progression on body. If a patient is unvaccinated, fever and rash on face, hairline, or behind ears are typically present concurrently.

Common differential diagnoses:

★ Kawasaki, rubella, scarlet fever, enteroviruses, and other febrile rash exanthems

The following factors increase the probability of measles:

- Reporting an exposure risk-factor for measles (see 3b)
- Lacking immunity: unvaccinated or unknown vaccination, immunocompromised, IgG negative.
- ❖ **Note**: If patient is vaccinated or immunocompromised, symptoms of fever and rash can vary in presentation and time. Follow this link for additional information:
- ❖ https://www.cdc.gov/measles/hcp/clinical-overview/?CDC_AAref_Val=https://www.cdc.gov/measles/hcp/index.html#cdc_clinical_overview_comp-complications

Step 3: Assess for measles immunity and ask about exposure risk factors.

☐ 3a. Determine whether patient has one of the following to indicate probable measles immunity.

- At least 2 documented MMR doses that were administered in the U.S. at ≥ 12 months of age.
- Documented IgG (+) test for measles.

☐ 3b. Ask about exposure risk factors. Have they had in the past 4 weeks:

- Contact to a known measles case or with an ill international visitor.
- Traveled internationally or through an international airport.
- Domestically, visited an outbreak community or venues where a confirmed measles exposure occurred. (Current states with outbreaks in April 2025: Texas, New Mexico, Oklahoma, Kansas, Indiana and Ohio).

Step 4: Immediately call and report suspect measles to the North Central District Health Department (NCDHD) while the patient is still at the facility. Public Health will advise which steps 5-8 are indicated.

☐ Report immediately by telephone for both confirmed and suspected cases upon suspicion of measles. Consultation is required before sending specimens to the Nebraska Public Health Laboratory.

- Weekdays 8:00 am – 4:30 PM: Call **402-336-2406** and ask for Elizabeth Parks, Danielle Roessler or Jennifer Booker.
- Non-business hours/weekends: Call **402-961-1718** – 24/7 number

Step 5. Collect appropriate measles specimens

☐ 5a. Confirm on-hand supply of:

- Viral Transport Media (VTM) kits
- Serology tubes
- Urine Containers

☐ 5b. Obtain **all** the following three specimens for measles laboratory testing:

- Throat or nasopharyngeal (NP) for PCR: use sterile synthetic swab and place into liquid viral/universal transport media.
- Urine for PCR: 10-50 ml midstream, clean catch.
- Serum for IgM/IgG: 7-10 ml in gold/tiger top serum separator tube. Capillary blood, finger or heel stick, can be used for pediatric patients with at least 3-5 non-glass capillary blood collection tubes needed (confirm this with your reference lab).

□ 5c. Follow proper specimen collection, labeling and storage instructions, and complete the laboratory forms per your reference lab. If sending to NPHL, lab sheet will be attached to this checklist.

□ 5d. Store specimens at 4°C until pick-up and ship cold (do not place specimens directly against ice packs to avoid freezing during transport).

- ❖ **Note**: If unable to ship within 48 hours and if feasible, freeze specimen immediately at -70°C (except for urine-centrifuge if feasible, store 4°C).

□ 5e. Upon approval by NPHL, they will advise and assist with specimen handling and courier pick up including holding specimens at your facility when needed. If not sending to NPHL, contact your reference laboratory for next steps. Specimens that arrive without prior approval to NPHL may experience significant delays in testing.

□ 5f. **If specimens cannot be collected at your facility, do not refer the patient to another facility to obtain specimens (i.e., commercial lab, other facility). Notify NCDHD.**

Step 6: Identify exposed persons at high risk of measles complications and any high-risk settings.

□ 6a. Ask patient if he/she works or has had contact with any of the following 5 days before rash onset:

- Infants < 12 months of age
- People known to be unimmunized for measles
- Pregnant women
- Healthcare workers (including staff at facility)

Step 7: See if exposed persons are eligible for MMR and/or Immunoglobulin

☐ 7a. Confirm MMR vaccine availability for post-exposure prophylaxis (PEP)

- MMR should be administered within 72 hours of exposure to prevent disease

☐ 7b. Immunoglobulin (IG) Access

- High-risk groups: <12 months, pregnant woman, immunocompromised individuals.
- NCDHD will provide you with the IG Dispensing Spreadsheet once a case is confirmed. You will then be able to contact current suppliers (hospitals within our district) to access this treatment.

Step 8: Instruct patient to remain isolated until 4 days after rash onset.

☐ 8a. The patient should immediately not be allowed to attend school/work, participate in any social or academic activities, or attend large public gatherings/venues for 4 days after rash onset. Medical providers should follow-up with the case to verify any changes in clinical status.

☐ 8b. Inform the patient that NCDHD may be in contact to provide measles-related assistance to perform appropriate contact tracing of family/friends/colleagues.

Step 9: Fax documentation to NCDHD at 402-336-1768

☐ 9a. Send visit notes, face sheet/patient's demographic information, immunization record, and any test results.

Do not wait for laboratory confirmation. Report immediately by telephone for both confirmed and suspected cases upon suspicion of measles. Consultation is required before sending specimens to NPHL.

Office Phone: 402-336-2406, 24/7: 402-961-1718

Centers for Disease Control and Prevention (CDC)-Measles
Nebraska Reportable Diseases Title 173 Regulations: https://dhhs.ne.gov/epi%20docs/ReportableDiseaseChart.pdf
Nebraska Department of Health and Human Services-Measles: https://dhhs.ne.gov/Pages/Measles.aspx
CDC Laboratory Testing for Measles: https://www.cdc.gov/measles/php/laboratories/index.html