

MEASLES

IDENTIFICATION, TESTING, AND MANAGEMENT OF SUSPECTED CASES

NEBRASKA

Good Life. Great Mission.

DEPT. OF HEALTH AND HUMAN SERVICES

Triage febrile rash illnesses by phone, or immediately upon arrival, assess the need for control measures

PATIENT MUST MEET BOTH CRITERIA

- Prodrome: fever (100.4°F or higher) / cough / runny nose (coryza) / red, watery eyes (conjunctivitis)
 - Followed in 2-4 days by: generalized descending maculopapular rash beginning at hairline / face lasting for usually 5-6 days
Koplik spots inside cheeks (may / may not be present prior to rash)
- AND**
- Risk factors for measles (history of international travel, contact with travelers, links to known outbreak or case, or local transmission), or no/unknown immunity status

No to any of the criteria

Consider other viral/bacterial differential diagnoses and manage as clinically indicated.

YES to BOTH Criteria

MINIMIZE RISK OF TRANSMISSION AS SOON AS POSSIBLE

- Measles is highly airborne infectious: Identify febrile rash illnesses prior to, or immediately upon arrival to expedite evaluation in a negative pressure room, when possible, or a private room to minimize congregate exposures
 - Conduct exam in room that can be left vacant with the door closed for at least 2 hours after patient departure
- Avoid waiting room (use side / back entrance)
- Staff evaluating patient should have presumptive evidence of measles immunity and should wear N-95 masks
- Contact infection control preventionist, if available
- Request patient wear surgical mask

IMMEDIATELY CALL (24/7) upon suspicion for public health reporting and follow-up guidance
Your Local Health Department

Testing

PREFERRED SPECIMENS to be collected as soon as possible

- Within 3 days of Rash Onset- Nasopharyngeal (NP) or throat swab in universal viral transport media and Urine in a sterile cup, (if able to self void), for RT-PCR
- Within 4-10 days of Rash Onset- Urine in sterile cup (*catheterize, if necessary*) for RT-PCR; ideally with a Nasopharyngeal (NP) or throat swab in universal viral transport media for RT-PCR

[OPTIONAL] SERUM SPECIMENS consider collecting if > 72 hours AFTER rash onset

- Measles specific IgM (*Caution: clinical interpretation of IgM*)

***Measles IgG testing should only be considered when testing for PRIOR measles immunity (natural or vaccination) and should NOT be used for active infection**

Measles RT-PCR available at certain commercial labs or through NE Public Health Laboratory after prior authorization by NE-DHHS Public Health

Suspect Case Management:





- Isolate patient immediately
- Exclude from childcare/school/workforce for at least 4 days after rash onset
- Reassess isolation based on diagnosis and provide supportive treatment

If POSITIVE: Measles PCR test OR High Suspicion for ACTIVE INFECTION (after Public Health consultation)

- Notify receiving facilities of diagnosis
- Identify patients/visitors/staff that shared congregate space exposure and review measles immunity status
- Exclude all health care staff without immunity evidence from day 5 through day 21 following exposure
- Recommend vaccine within 3 days, or immunoglobulin within 6 days of exposure as indicated
- Clean surfaces that may be contaminated with an EPA-registered disinfectant for health care settings

Measles Tests

When to Collect?

Acute Disease	PCR	Nasopharyngeal (NP) or Throat (OP) Swab		As soon as possible upon suspicion of measles: ideally 3 days after rash onset and within 4-10 days.
	PCR	Urine		Within 10 days of rash onset. *Collecting a urine specimen along with an NP/OP swab may improve test sensitivity, especially if at the end of the PCR detection window.
	IgM	Serum		OPTIONAL: Collect with specimen for PCR. Can be negative up to 3 days after rash onset. IgM can be detected for 6-8 weeks after acute measles.
Immunity	IgG	Serum		IgG testing is used when assessing evidence of immunity, can be detected ~2 weeks after MMR vaccination.