



Measles

Investigation checklist for Local Health Departments

Local health department staff should follow these steps, not necessarily in order, when investigating measles reports. For more detailed information, refer to the measles disease webpage which can be accessed at: <https://www.nj.gov/health/measles>

- Obtain/assess clinical and epidemiologic information
 - Interview diagnosing medical provider(s), obtain:
 - Clinical presentation, specifically measles-like symptoms including onsets
 - Picture of rash if available (no eyes/genitals)
 - Alternate diagnoses (e.g. possible drug reactions, influenza, other illnesses)
 - Recent medications or vaccinations?
 - Pending laboratory tests?
 - Immune status (is measles immunity documented for the patient?)
 - Any potential exposures to measles within the last month (including travel to or visitors from other countries or areas known to have recent cases)
 - Level of measles suspicion (high vs low on differential)
 - Reason(s) provider specifically considering measles diagnosis
 - Determine whether case was evaluated by a different provider at a different time; interview alternate provider for additional clinical information
 - Interview case/guardian/proxy, obtain:
 - Timeline and description of symptoms, be as detailed as possible (e.g., rash progression and specific description)
 - Request pictures if not already obtained (no eyes/genitals)
 - Any new products or medications recently used (e.g., antibiotics)
 - Assess immune status, attempt to obtain documentation/dates of measles-containing vaccine – review [NJIS](#) registry (for case and household contacts)
 - Inquire about other state(s) born/lived, maiden or different names, etc
 - Any travel or visitors within the last month – include dates and locations
- Ensure case remains in isolation throughout infectious period (unless measles is ruled out)
- Provide [specimen collection guidance](#) to medical provider. If measles is highly suspected, provider may collect and hold viral specimens, **pending NJDOH approval** for submission (following assessment of epidemiologic information).
 - While PCR testing is available commercially, results will not be received in a timely manner and is NOT recommended when there is a high index of suspicion.
 - If provider refers case to another medical facility for collection, provider must call ahead so arrangements can be made to prevent additional exposures (e.g., seen as last appointment or specimen collected outside)



- Provide [measles exposure guidance](#) to medical provider and request they begin to assess all staff present in office during exposure period for documented proof of measles immunity. Exposure period = time suspect case arrived in office plus two hours after leaving office (or being placed in negative pressure room).
- Assess potential exposures
 - Calculate infectious period based on rash onset date (4 days before rash onset through 4 days after rash onset, a total of 9 days)
 - Obtain a detailed [timeline](#) of potential exposures during case's infectious period (dates, times, locations, method of transportation, persons in attendance)
 - If traveled via flight during infectious period, collect the following information: airline, flight number, seat, date, departure and arrival airports
 - Inquire about exposure setting type (e.g., private home vs apartment building, stand-alone building vs multi-office building)
- Report
 - Ensure case has been created and updated in the Communicable Disease Reporting and Surveillance System ([CDRSS](#)).
 - If additional guidance or specimen approval is needed, contact NJDOH by calling (609) 826-5964 during regular business hours or (609) 392-2020 after business hours or on the weekend.

Please consult with NJDOH before proceeding with further public health response (additional actions may depend on level of suspicion)

- Notify exposed contacts of measles exposure
 - Educate on signs/symptoms of measles
 - Assess [evidence of immunity](#) of exposed contacts, attempt to obtain documentation of measles-containing vaccine dates
 - Recommend PEP, as appropriate
 - Quarantine, when necessary
 - Provide [Exposed to Measles](#) document
 - Follow up with exposed individual at the end of a full incubation period to ensure they remained asymptomatic
- Finalize CDRSS data entry, assign appropriate [case classification](#), and LHD Close case when investigation is complete.

Transmission: Airborne
Incubation period: 5-21 days (average: 8-12 days)
Infectious period: 4 days before rash onset through 4 days after rash onset (total of 9 days)

1) Assessment of Likelihood:

Collect the following clinical and epidemiologic information from medical provider. If case was evaluated by a different provider at a different time, interview alternate provider for additional clinical information. Interview case/guardian/proxy to complete and verify symptoms, immunity, and risk factor information.

a) Symptoms:

Fever: <input type="checkbox"/> Yes <input type="checkbox"/> No	Onset Date: ___ / ___ / ___	Highest temperature ($\geq 101^\circ\text{F}$): _____
Rash: <input type="checkbox"/> Yes* <input type="checkbox"/> No	Onset Date: ___ / ___ / ___ Duration of rash: _____ *Request pictures of rash <i>(no eyes/genitals)</i>	Description: _____ Itchy? <input type="checkbox"/> Yes <input type="checkbox"/> No Progression (where did rash start and how did it spread): _____ <i>(measles generally starts at head and spreads downward & outward)</i>
Cough: <input type="checkbox"/> Yes <input type="checkbox"/> No	Onset Date: ___ / ___ / ___	
Coryza (runny nose): <input type="checkbox"/> Yes <input type="checkbox"/> No	Onset Date: ___ / ___ / ___	
Conjunctivitis (red, watery eyes): <input type="checkbox"/> Yes <input type="checkbox"/> No	Onset Date: ___ / ___ / ___	
Does patient report feeling very sick or appear very uncomfortable? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Patients with measles generally report feeling "very sick")</i>		

Clinically compatible case: fever (≥ 101), rash, and at least one of the following: cough, coryza, or conjunctivitis

b) Clinical Assessment:

Level of measles suspicion? Reason(s) considering measles?	<input type="checkbox"/> High suspicion; explain: _____ _____ <input type="checkbox"/> Medium suspicion <input type="checkbox"/> Low suspicion
Differential diagnosis: what other potential causes are being considered, such as antibiotics or new medicine, recent vaccination, or other rash illness? <i>Common differential diagnoses: Kawasaki, scarlet fever, parvovirus, enterovirus, allergic reaction, other respiratory illnesses</i>	<input type="checkbox"/> List: _____ _____ _____ <input type="checkbox"/> None
Laboratory tests: Any completed or pending laboratory tests for other organisms (e.g. influenza, strep)?	<input type="checkbox"/> Results: _____ _____ <input type="checkbox"/> Pending tests: _____ _____ <input type="checkbox"/> None

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MEASLES EXPOSURE TIMELINE | CDRSS ID _____

DATE	DAY OF WEEK	LOCATION NAME AND ADDRESS	PHONE NUMBER	ARRIVAL TIME	DEPARTURE TIME	MODE OF TRANSPORTATION	COMMENTS (ADDITIONAL CONTACTS, TYPE OF EVENT, ETC.)
Day -4							
Day -3							
Day -2							
Day -1							
Onset Date							
Day +1							
Day +2							
Day +3							
Day +4							