Evaluating a patient presenting with rash when there is no local measles transmission[1]

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

START HERE

Needs ALL 3:
- ❑ Fever[2]
- ❑ Generalized, maculopapular rash
- ❑ No vesicular lesions / vesicles[3]

No → **Measles unlikely. If vesicular rash, consider varicella or alternative cause of rash.**

Yes

Epidemiologic risk for measles in the 21 days before rash?
ANY of the following:
- ❑ International travel in last 21 days
- ❑ Domestic travel in last 21 days to an area with known measles transmission
- ❑ Known exposure to measles

No →

Measles clinical criteria?[4]
- ❑ Fever[2] and rash
  AND
- ❑ At least 1 of: cough, runny nose, conjunctivitis

No → **Measles unlikely. If measles still suspected, contact state or local health department for guidance.**

Yes

Received MMR vaccine in the last 21 days?

Yes → **Likely a reaction to MMR vaccination[5]**

No

Prior measles vaccination?
- ❑ Age ≤6 years: 1 dose MMR*
- ❑ Age >6 years: 2+ doses MMR

*or other measles-containing vaccine

Yes → **Measles uncommon among people with age-appropriate vaccination. Measles can occur among vaccinated people, but generally during intense exposure (e.g., daycare or household exposure).**

If measles suspected based on clinical presentation or severity of illness, contact state or local health department for guidance.

No → **Suspect measles. Immediately contact local or state health department to discuss testing options. See Testing Recommendations.**

Yes

Epidemiologic risk for measles in the 21 days before rash?
ANY of the following:
- ❑ International travel in last 21 days
- ❑ Domestic travel in last 21 days to an area with known measles transmission
- ❑ Known exposure to measles

Yes

Suspect measles. Immediately contact local or state health department to discuss testing options. See Testing Recommendations.

Notes

1. This testing algorithm is intended to be used by bedside providers in settings where there is not local measles transmission. This assumes that the pre-test probability for most people without known epidemiologic risk for measles and who do not meet case criteria will be low. In settings with active measles transmission, the threshold at which to pursue testing may be lower, and a more permissive algorithm could be considered.
2. Either a measured or patient/family-reported fever is adequate; fever may not be measured at the time of healthcare evaluation due to normal fluctuation or to use of antipyretics (e.g., ibuprofen).
3. A vesicular rash is not consistent with measles, and should prompt consideration for other causes of rash (e.g., varicella/chickenpox)
4. Measles clinical criteria (per CSTE* case definition) include ALL of the following:
   - ❑ Generalized maculopapular rash
   - ❑ Fever
   - ❑ Cough, coryza (runny nose), or conjunctivitis (also known as the “3 C’s”)
5. Up to 5% of MMR recipients will get a short-lived, mild febrile rash. This is more common with the first dose of MMR. People who experience this vaccine reaction are not contagious to others around them. If a person has received MMR within 21 days before rash onset, but also has epidemiologic risk for measles, then specialized testing may be required and should be discussed with local or state public health authorities.

*CSTE: Council of State and Territorial Epidemiologists: https://ndc.services.cdc.gov/case-definitions/measles-2013/