Measles QuickTool

Questions to ask when evaluating suspected measles cases

Santa Clara County PUBLIC HEALTH

*First, mask and isolate the suspected measles patient in airborne isolation.
If this is not immediately available, mask patient and isolate in a private room with door closed.
Providers should don an N95 mask or equivalent before patient contact.

Fever *Measles is always accompanied by fever; even if only subjective	
When did the fever start?	
How high is the fever? Or is the fever subjective?	
Did the fever persist, or did it disappear? *If the fever disappears before rash onset without antipyretics, measles is unlikely	
Rash	
When did the rash start?	
What does the rash look like?	
Where is the rash located? *Measles rash should be at least on the head/face	
What was the progression of the rash? Did it begin on the head and spread down?	
Has the rash started disappearing? *In classic measles, rash does not begin to disappear until 4 days after onset. In vaccinated individuals, it may disappear faster, but it should still last 3-4 days.	
Does the rash itch? *Measles rashes typically do not itch; if itching occurs, it is mild and appears only after 4 days of rash	
Can photos be emailed to PHD or consulting specialty?	
Are there alternate explanations for the rash?	
Other symptoms	
Cough, coryza, conjunctivitis, or Koplik spots? *Typically have at least 2 of the above	
Is the patient miserable? *In classic measles, children are always miserable; adults may be less miserable especially if vaccinated	
Vaccine and epi questions	
How many MMRs, and when? * If the patient is <6 months old, ask if mom was vaccinated * If vaccine status unknown, ask for proxies for measles immunity (e.g. born before 1957, military service, born in 1970 or later and attended U.S. public elementary school, legally immigrated in 1996 or later, or had measles as a child)	
Any travel internationally or outside the county, visits to healthcare facilities or crowded locations, or contact with ill individuals in the 7-21 days before rash onset?	
Any high risk situations present? (e.g. child care, school, or healthcare worker)	

For more information, visit www.sccphd.org/diseases

Alternative diagnoses to consider for fever and rash

- **Drug eruption**: history of current or recent medication, especially an antibiotic
- **Other non-infectious rashes**: hives or atopic dermatitis with coincidental febrile illness
- **Varicella (chicken pox)**: vesicular lesions on erythematous base
- **Enteroviruses (e.g. hand-foot-and-mouth disease)**: oral ulcers, rash on hands, feet, buttocks
- **Mononucleosis syndrome (EBV, CMV, HIV)**: risk factors (young adulthood, MSM, IDU),sore throat or tonsillitis, prominent adenopathy, splenomegaly, atypical lymphocytosis
- **Parvovirus B-19 (also known as erythema infectiosum, or 5th disease)**: slapped cheek appearance in children, arthritis and diffuse rash in adults
- **HHV-6 (also known as roseola infantum, exanthem subitum, or 6th disease)**: disease of very young children (usually under 2 years of age), high fever followed by defervescence and the appearance of rash on trunk
- **Rubella (German measles)**: history of international travel; mild illness with low-grade fever; arthralgias prominent in adults; prominent postauricular, posterior cervical, and suboccipital adenopathy
- **Streptococcal infection (with scarlet fever rash)**: sore throat, "sandpaper" rash, circumoral pallor, strawberry tongue, positive strep test
- **Meningococcemia**: abrupt onset of flu-like illness with marked myalgias (especially the legs); skin evolves from pallid or mottled with cold hands to petechial then hemorrhagic rash, severe headache and mental status change if meningitis present
- **Kawasaki disease**: children < 5 years, fissured lips, strawberry tongue, erythema and edema of hands and feet, periungual desquamation, adenopathy
- **Travel-, animal-, and tick-related**: broad differential diagnosis of fever and rash

For more information, visit www.sccphd.org/diseases