Clinical Guideline

Measles

Pediatric Emergency Medicine

This guideline serves as a guide and does not replace clinical judgment.

Patient with Confirmed Measles OR Symptoms Suspicious for Measles

- Level 3 Mask for patient and family (e.g. caregivers, siblings)
- N95 mask for providers and staff
- Isolate in an airborne isolation room (negative pressure) and close the door. If negative pressure not available, isolate in private room with door closed; patient (+others) should remain masked
- Order Airborne Precautions

Obtain History and Physical Exam

- **History:** vaccine status (specifically MMR), contacts/exposures; travel history
- **Signs / Symptoms:** including date of rash onset, date of fever onset
- **Physical:** assess vital signs, hydration status, respiratory status; Consider alternate etiologies for illness
- **Ongoing concern for Measles:**
  - Notify Infection Prevention (Pager 4085)
  - Consider Peds ID Consult; Vitamin A *only* if ID recommends
- **Assess status of illness: Mild or Moderate/Severe**

Moderate/Severe

Signs or symptoms requiring hospital admission

- **Referring provider to notify ED; Staff member to meet patient at ED ground entrance for masking/wayfinding**
- Contact VDH/Consolidated Labs for permission to order labs (see box)
- Consider ID consult if questions about clinical management and other specialists if indicated (Ophthalmology if significant eye findings beyond conjunctivitis)
- Obtain labs – RPP and other labs as clinically indicated
- Consider Vitamin A with approval from Peds ID
- Hydrate with IV fluids if indicated and consider NG if oral lesions preventing PO intake
- 2-view CXR if respiratory symptoms
- Evaluate and treat suspected co-infections per symptoms / antibiotics if concern for sepsis.
  - Admit preferentially to negative pressure room on ACP 10

Mild

Symptomatic but not needing hospitalization for support

- **Avoid sending to ED or clinic to reduce exposure, if possible**
- Contact VDH/Consolidated Labs for permission to order labs (see box)
- **If patient stable, VDH will do testing at patient's home next day**
- Consider Vitamin A with approval from Peds ID
- Evaluate and treat suspected co-infections based on symptoms

Measles Signs/Symptoms

- Prodrome (~2- 4 days): fever, malaise, anorexia, followed by conjunctivitis, coryza (nasal discharge, sneezing, and nasal blockage), and cough
- Enanthem (~48 hr before rash, not seen in all patients): Koplik spots which are 1-3 mm white/gray/bluish elevations with an erythematous base ("grains of salt on a red background") on buccal mucosa or palate
- Exanthem (2-4 days after fever): erythematous, maculopapular blanching rash, which classically begins on the face and spreads down. Begin as blanching then don't blanch. Rash may not appear in immunocompromised patients.
- Fever beyond the 3rd to 4th day of rash may signal a measles-related complication.

Virginia Contact Numbers

Approval: *Call VDH to request permission for testing*

- Normal business hours contact: Okey Utah 804-382-4363
- After hours and weekends: 1-866-531-3068

Division of Consolidated Laboratory Svs

- Normal business hours: 804-648-4480; extension 281 or cell: 804-385-8057
- After Hours and weekends: 804-335-4617

**Complete VDH DCLS Clinical Microbiology/Virology Request form*

Lab Testing for Measles (use EPIC orderset, search "Measles")

1. Measles Serum Serology IgM: Ref Type in for Measles IgM (collect 2 mL in gold top SST - serum separator tube)
2. Measles Serum Serology IgG: Rubeola IgG (2 mL in SST)
3. Ref Type in: Measles PCR (NP) – swab collected in viral transport media (VTM red top), deliver on ice
4. Ref Type in: Measles throat swab – swab collected in viral transport media (VTM red top), deliver on ice
5. Ref Type in: Measles PCR (urine) (min 50 mL in sterile container)

Executive Summary

Measles

Pediatric Emergency Medicine

Children's Hospital of Richmond at VCU: Measles Workgroup

Pediatric Infectious Diseases Owner: Suzanne Lavoie, MD
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Approved (June 2025)

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References

Centers for Disease Control and Prevention. (2025, May 23). Measles (rubeola). Centers for Disease Control and Prevention. https://www.cdc.gov/measles/index.html

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Date: **June 2025**

Retrieval website: **https://www.chrichmond.org/health-care-professionals/chor-clinical-guidelines**

Example:
Children's Hospital of Richmond at VCU, Lavoie S, Silverman J, Cooper K. Williams D, Saccoccio F, Friedel D, Koch W. Measles Guideline. Available from: https://www.chrichmond.org/health-care-professionals/chor-clinical-guidelines