



## Collection Guidance for Measles Specimens

In accordance with NJAC 8:57, measles is an **immediately reportable** disease. Suspected or confirmed cases of measles infection should be reported to the local health department in the jurisdiction in which the patient resides. If unable to reach the local health department, please contact the New Jersey Department of Health at 609-826-5964 or 609-826-4861 during regular business hours and 609-392-2020 off-hours. Public health authorities can provide testing guidance and facilitate testing at the Public Health and Environmental Laboratories (PHEL) and/or Centers for Disease Control and Prevention (CDC) if appropriate. Blood specimens as well as specimens appropriate for viral isolation (nasopharyngeal or throat swabs and urine) are requested for suspected measles cases.

### **Specimens should be collected as soon as possible after rash onset.**

However, 30% of serum samples obtained in the first 72 hours after rash onset may give false-negative results. Negative results from serum collected in the first 72 hours after rash onset should be confirmed with a second serum obtained 72 hours or longer after rash onset, if clinically indicated. IgM is detectable for at least 30 days after rash onset and frequently longer. **Serology may be difficult to interpret in an individual who has been previously vaccinated or who received post-exposure vaccination or immunoglobulin which is why viral isolation is critical in these individuals.** Blood for serologic testing is collected by venipuncture. Centrifuge the tube to separate serum from clot.

Throat or nasopharyngeal swabs are generally the preferred sample for virus isolation or RT-PCR detection. Urine samples may also contain virus and when feasible to do so, collection of both respiratory and urine samples can increase the likelihood of detecting virus. Collect samples as soon after rash as possible. The samples should be collected at the first contact with a suspected case of measles when the serum sample for diagnosis is drawn. Measles virus isolation is most successful when samples are collected on the first day of rash through 3 days following onset of rash; however, it is possible to detect virus up to day 7 following rash onset.

Synthetic swabs (dacron) are preferred over cotton swabs, which may contain substances that are inhibitory to enzymes used in RT-PCR. Flocked synthetic swabs appear to be more absorbent and elute samples more efficiently. Wooden swabs and calcium alginate swabs should be avoided. Swabs should be placed in 2 ml of standard, commercially available viral transport medium (VTM). <http://www.cdc.gov/mumps/lab/specimen-collect.html> - 1 Cell culture medium (minimal essential medium or Hanks' balanced salt solution) can be used. If VTM is not available, use sterile isotonic solution (e.g. phosphate buffered saline). Place the swab in 1 - 3 ml of sterile saline in a sterile container for transport. You can use a blood collection tube that contains no gels or other agents for transport or a sterile urine collection container. Place the specimens in the refrigerator until ready for transport. Instructions for transport will be provided by public health authorities.