

## Virus Identification Specimen Selection

Clinical Manifestation	Appropriate Specimen	Associated Virus
Pneumonia-immunocompetent	Nasopharyngeal-throat	Adenoviruses Influenza Parainfluenza Respiratory syncytial virus
Pneumonia-immunocompromised	Nasopharyngeal-throat	Adenoviruses Cytomegalovirus Herpes simplex Influenza Parainfluenza Respiratory syncytial virus
Pneumonia-geriatric patients	Nasopharyngeal-throat	Adenoviruses Influenza Parainfluenza Respiratory syncytial virus
Brochiolitis	Nasopharyngeal-throat	Adenoviruses Influenza Parainfluenza Respiratory syncytial virus
Bronchitis	Nasopharyngeal-throat	Adenoviruses Influenza Parainfluenza Respiratory syncytial virus
Croup, tracheitis	Nasopharyngeal-throat	Adenoviruses Influenza Parainfluenza Respiratory syncytial virus
Pharyngitis	Nasopharyngeal-throat	Adenoviruses Herpes simplex Influenza Parainfluenza Respiratory syncytial virus Rhinoviruses
Infectious mononucleosis syndrome	Serum for infectious mono screen (heterophile) or Epstein-Barr viral capsid antigen IgM	Epstein-Barr virus most common cause; also cytomegalovirus or <i>Toxoplasma gondii</i>
Rash-maculopapular	Nasopharyngeal-throat Rectal swab if enteroviruses considered Serum if rubella or parvovirus B19 considered Urine if measles considered	Adenoviruses Enteroviruses Measles Parvovirus B19 Rubella
Rash-vesicular	Lesion swab	Enteroviruses Herpes simplex Varicella-zoster

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Aseptic meningitis or encephalitis	Nasopharyngeal-throat Rectal swab Serum Spinal Fluid	<p>Most common in West Virginia:</p> <ul style="list-style-type: none"> <li>Adenovirus (nasopharyngeal-throat, rectal, and spinal fluid culture)</li> <li>Enteroviruses (nasopharyngeal-throat, rectal, and spinal fluid culture)</li> <li>LaCrosse virus (serum)</li> <li>Parainfluenza 3 (spinal fluid culture)</li> </ul> <p>Others that can be associated:</p> <ul style="list-style-type: none"> <li>Eastern equine encephalitis (serum)</li> <li>Epstein-Barr virus (serum or spinal fluid for polymerase chain reaction [PCR])</li> <li>Herpes simplex (spinal fluid for PCR)</li> <li>Mumps (culture)</li> <li>St. Louis encephalitis (serum)</li> <li>Varicella-zoster (spinal fluid for PCR)</li> <li>Western equine encephalitis (serum)</li> </ul>
Congenital infections	Nasopharyngeal-throat Rectal swab if enterovirus is suspected Serum Urine	<ul style="list-style-type: none"> <li>Cytomegalovirus (blood for antigenemia, nasopharyngeal-throat, and urine)</li> <li>Enteroviruses (nasopharyngeal-throat and rectal swab)</li> <li>Hepatitis B (serum for hepatitis B surface antigen)</li> <li>Herpes simplex (lesion if present, nasopharyngeal-throat)</li> <li>Parvovirus B19 (serum for IgM serology)</li> <li>Rubella (serum for IgM serology and urine)</li> </ul>
Ocular		<ul style="list-style-type: none"> <li>Adenovirus</li> <li>Enterovirus</li> <li>Herpes simplex</li> <li>Varicella-zoster</li> </ul>

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Gastroenteritis-diarrhea syndromes	Stool	Adenovirus 40/41 (endemic, year around) Rotavirus (primarily winter, spring) Other viruses, eg, calici, coronaviruses, and Norwalk agent may be associated, but are not readily diagnosed in the clinical laboratory
Immunosuppressed or immunodeficient	Nasopharyngeal-throat or bronchial lavage Blood for cytomegalovirus antigenemia; serum for possible serological testing	Cytomegalovirus (blood for antigenemia) Epstein-Barr Herpes simplex Varicella-zoster
Sepsis syndromes in infants	Nasopharyngeal-throat Rectal swab	Adenovirus Enteroviruses Herpes simplex if <30 days of age Respiratory viruses
Serum specimens for immune status testing may be submitted for the following: Measles Mumps Rubella Varicella-zoster (chickenpox)		