

# FLETCHER ALLEN HEALTH CARE

## PATHOLOGY & LABORATORY MEDICINE

### ***TEST UPDATE: VIRAL CULTURE, RESPIRATORY IN IMMUNOSUPPRESSED PATIENTS***

#### **ASSAY INFORMATION:**

The most effective method for diagnosis of respiratory viral infections is polymerase chain reaction; a test for detection of influenza A & B viruses and respiratory syncytial virus (RSV) is now available at Fletcher Allen Health Care. These viruses are by far the most important causes of morbidity and mortality in immunocompromised patients, however, other viruses may on occasion cause disease. Conventional viral culture is available in those situations. It is important to specify the viruses suspected, so that we can inoculate the most appropriate cell lines, or notify you if we are not able to isolate the virus(es) you suspect with available cell lines.

#### **CLINICAL APPLICATION:**

Respiratory viral infections may be associated with a variety of clinical symptoms, including rhinorrhea, sore throat, cough, and fever. In the immunosuppressed population, lower respiratory infection, bronchiolitis, and pneumonia are more common and may be severe. It is important to recognize that rhinovirus and herpes simplex virus inhabit the upper airways; when they are recovered from the lower respiratory tract, it may indicate an etiologic role in the pulmonary disease or contamination of the specimen with upper airway secretions. Cytomegalovirus may be present in the lung without being associated with active disease.

Specimens should be carefully collected and sent to the laboratory as quickly as possible. Nasal aspirates or washings are preferred, but posterior nasopharyngeal swabs are acceptable in adults. The swab should be inserted into the posterior nasopharynx and kept in place for 15-30 seconds if possible. Place the swab in VCT medium and break off or cut the swab. VCT medium can be obtained from Laboratory Customer Service (847-5121) and should be refrigerated until used. Refrigerate the inoculated medium if immediate transport to the laboratory cannot be accomplished. Bronchoalveolar lavage is also an acceptable specimen.

#### **METHOD:**

Virus culture is performed by conventional methods in monolayers of cells on glass. The cell lines inoculated will be targeted based on the viruses indicated in the request. If cytopathic effect is observed, additional tests (with attendant charges) will be necessary to establish the identification of the isolate.

#### **ORDERING INFORMATION:**

**Test Name:** Viral Culture, Respiratory in Immunosuppressed Patients

**Test Code:** RESVC

**Bracket Code:** 5418

**Sample Requirements:** Nasal washing or aspirate (1 mL minimum)  
Bronchoalveolar lavage fluid (1 mL minimum)  
Nasopharyngeal swab in VCT broth

**Testing Performed:** Daily

**Analytical Time:** When positive or 14 days.

**Expected Value:** No Virus Isolated

**Price:** Please contact Laboratory Customer Service for pricing information (847-5121 or 1-800 991-2799). **CPT**

**Code:** 87252

**Effective Date:** Monday, December 15, 2008