

<b>Policy #:</b>	609 (PLH-609-03)	<b>Effective Date:</b>	9/30/2004	<b>Reviewed Date:</b>	2/5/2011
<b>Subject:</b>	COLLECTION GUIDELINE FOR LABORATORY DIAGNOSIS OF COMMON VIRAL INFECTIONS				
<b>Approved by:</b> Laboratory Executive Director, Ed Hughes (electronic signature)					
<b>Approved by:</b> Laboratory Medical Director, Mark P. Burton, MD (electronic signature)					

## COLLECTION GUIDELINE FOR LABORATORY DIAGNOSIS OF COMMON VIRAL INFECTIONS

Laboratory diagnosis of viral infections is dependent upon appropriate selection, collection, and transport of clinical specimens early in the course of the patient's illness. Specimens obtained within the first 3 days of onset of patient's symptoms will increase the likelihood of virus isolation. Collect specimens aseptically since bacterial contamination will interfere with testing. Following collection all specimens should be kept cold (except blood specimens). All specimens should be transported immediately to the Laboratory. For optimal specimen handling and processing a brief clinical history specifying the date of onset, type of infection (or virus) suspected, and the major clinical findings should be included on the Test Request Form.

Note: Specimen collection should be performed using Dacron or Rayon tipped swabs with plastic or aluminum shafts. DO NOT utilize cotton or calcium alginate tip swabs or swabs with wooden shafts.

Note: Herpes Simplex can be specifically requested on genital sources. Additionally, genital and throat sources processed specifically for Herpes Simplex will be typed as 1 or 2.

For further information regarding specimen collection please contact Microbiology at 731-541-7328.

DISEASE CATEGORY	ASSOCIATED VIRUSES	SPECIMENS TO COLLECT (IN ORDER OF PREFERENCE)	SPECIAL COMMENTS
<b>RESPIRATORY TRACT</b> URI, PHARYNGITIS, COMMON COLD	RHINO, PARAFLU 1-3, FLU A&B, ADENO, ENTERO, HSV, RSV, EBV, AND CORONA, CMV	FOR CHILDREN 2 YRS OR LEXX: NASOPHYNGEAL (NP) SECRETIONS, ASPIRATE OR SWAB OR THROAT SWAB. FOR ADULTS AND CHILD > 2 YRS OF AGE: TRACHEAL ASPIRATE, SPUTUM, NP SECRETIONS, THROAT SWAB OR WASH, BRONCHIAL WASHINGS OR BRONCHIAL LAVAGE.	IF CYTOMEGALOVIRUS IS SUSPECTED, SUBMIT URINE. SUBMIT SERUM/BLOOD FOR ACUTE PHASE SEROLOGY OR NEONATE.
CROUP	PARAFLU 1-4, RSV, ADENO, FLU A&B, MEASLES	SEE ABOVE	SEE ABOVE
BRONCHIOLITIS	PARAFLU 1-4, RSV, ADENO, FLU A&B, MEASLES	SEE ABOVE	SEE ABOVE
PNEUMONIA (CHILDREN)	RSV, PARAFLU 1-4, FLU A&B, ADENO, VZ, MEASLES, CMV, CHLAMYDIA PNEUMONIAE, CHLAMYDIA TRACHOMATIS IN INFANTS LESS THAN 6 MOS.	SEE ABOVE	SEE ABOVE
PNEUMONIA (ADULTS)	FLU A&B, ADENO, HSV, VZ, CMV, RSV	SEE ABOVE	SEE ABOVE
<b>EXANTHEM</b> VESICULAR RASH	HSV, VZ, ENTERO (COXSACKIE A&B, ECHO)	VESICULAR FLUID AND SCRAPINGS, THROAT SWAB OR WASH AND/OR STOOL.	IF CMV IS SUSPECTED, SUBMIT URINE. SUBMIT SERUM/BLOOD IF ACUTE PHASE SEROLOGY IS DESIRED. IF VZ IS SUSPECTED, INDICATE.  IF EBV, RUBELLA OR MEASLES IS SUSPECTED, SUBMIT SERUM FOR SEROLOGY. ACUTE AND CONV. SERA WILL BE REQUIRED.
MACULOPAPULAR RASH	MEASLES, RUBELLA, ENTERO, ADENO, CMV, EBV, HHV-6, PARVO B19	SEE ABOVE	SEE ABOVE
ACUTE HEMORRHAGIC	ADENOVIRUS	URINE. COLLECT 10 ML URINE	

DISEASE CATEGORY	ASSOCIATED VIRUSES	SPECIMENS TO COLLECT (IN ORDER OF PREFERENCE)	SPECIAL COMMENTS
<b><u>GENITOURINARY TRACT</u></b> VULVOVAGINITIS, CERVICITIS, PENILE LESIONS, URETHRITIS	HSV, C.TRACH, VZ (RARELY)	HSV/VZ: COLLECT SPECIMEN FLUID AND CELLS FROM BASE OF LESION, AND/OR ENDOCERVICAL CHLAMYDIA: ENDOURETHRAL SWAB (MALE) OR ENDOCERVICAL SWAB (FEMALE)	COLLECT CULTURES IN VTM. CHLAM SMEARS: AIR DRIED SLIDE CHLAM DNA PROBE: SPECIAL DNA TRANSPORT REQUIRED
<b><u>CENTRAL NERVOUS SYSTEM</u></b> ASEPTIC MENINGITIS	ENTERO (COXSACKIE A&B, ECHO), HSV 2, VZ, MUMPS, LCM	CSF, THROAT SWAB AND/OR STOOL. BLOOD (OPTIONAL)	IF MUMPS SUSPECTED SUBMIT URINE. IF LCM SUSPECTED, SUBMIT SERUM
ENCEPHALITIS	HSV I, VZ, ARBO, WEST NILE VIRUS, CMV, EBC, RABIES, MEASLES, JCV	CSF, BRAIN BIOPSY AND BLOOD (EDTA) AND SERUM FOR SEROLOGY	
<b><u>GASTROENTERITIS</u></b>	ROTA, NORWALK-LIKE AGENT, ADENOVIRUS 40/41, CALICI, ASTRO	STOOL: COLLECT 1-5 ML OR 1-5 GM	DIRECT EIA FOR ROTA & ADENO 40/41. ELECTRON MICROSCOPY FOR ASTRO, CALICI, AND NORWALK
<b><u>CONJUNCTIVITIS KERATITIS</u></b>	HSV, ADENO, VZ, ENTERO, C. TRACHOMATIS	CONJUNCTIVAL SWAB OR SCRAPINGS, CORNEAL SCRAPINGS	
<b><u>CONGENITAL, NEONATAL TERATOGENIC</u></b>	RUBELLA, CMV	URINE, THROAT, BLOOD	ACUTE PHASE SEROLOGY IS ALSO SUGGESTED
DISSEMINATED DISEASE	ENTERO (COXSACKIE, ECHO), CMV, HSV, VZ, HEP B	THROAT OR NASAL SWAB, EYE SWAB, URINE, BLOOD, SWAB OF LESIONS	SUSPECTED HEP.B MUST BE DIAGNOSED BY SEROLOGY, ACUTE PHASE SEROLOGY MAY BE PERFORMED FOR CMV, VZ, HSV, AND TOXO
<b><u>HERPANGINA, STOMATITIS</u></b>	ENTERO (COXSACKIE, ECHO), HSV	THROAT SWAB OR SWAB OF ORAL LESION	
<b><u>LYMPHADENOPATHY</u></b>	EBV, CMV, HIV	CMV: URINE OR THROAT SWAB, BLOOD	EBV AND HIV MUST BE DIAGNOSED BY SEROLOGY/PCR FOR HIV. ACUTE PHASE SEROLOGY FOR CMV
<b><u>HEPATITIS</u></b>	HEP A,B,C,D (DELTA), CMV, EBV, ADENO, HSV	HEPATITIS VIRUSES: SUBMIT SERUM HSV: SUBMIT SERUM FOR SEROLOGY, BLOOD FOR CULTURE ADENO: THROAT, STOOL, BLOOD	
<b><u>NON-SPECIFIC FEBRILE ILLNESS</u></b>	CMV, EBV, HIV, HTLV-1, HEPATITIS VIRUSES, Lyme	SERUM	HIV: PCR
<b><u>MISCELLANEOUS CARDITIS</u></b>	ENTERO (COXSACKIE B)	THROAT SWAB, STOOL, BLOOD SERUM FOR SEROLOGY	

DISEASE CATEGORY	ASSOCIATED VIRUSES	SPECIMENS TO COLLECT (IN ORDER OF PREFERENCE)	SPECIAL COMMENTS
MYOSIS	TOGA, ENTERO (COXSACKIE A&B, ECHO), FLU A&B	ENTERO: THROAT SWAB OR WASH, STOOL FLU: THROAT SWAB OR WASH TOGA: SERUM	
PAROTITIS, PANCREATITIS, ORCHITIS	MUMPS, ENTERO (COXSACKIE)	MUMPS: 5-10 ML URINE, SERUM FOR SEROLOGY ENTERO: THROAT, STOOL	
ARTHRITIS	RUBELLA, HEP B, FLU (RARE)	SERUM, THROAT SWAB FOR FLU	

SOURCE: Tillman, R., A. Ballows, C. Hohnadel, and R. Reisse (editors). Textbook of Clinical Laboratory Medicine, C.V. Mosby, St. Louis, Mo., 1992. Virology Chapter, Mark A. Neuman, Ph.D.

#### ABBREVIATIONS USED BELOW:

\*HSV = HERPES SIMPLEX VIRUS

\*ADENO = ADENOVIRUS

\*PARA = PARAINFLUENZA VIRUS (1, 2, 3)

\*CMV = CYTOMEGALOVIRUS

\*RSV = RESP. SYNCYTIAL VIRUS

\*VZ = VARICELLA ZOSTER VIRUS

\*ROTA = ROTAVIRUS

\*FLU = INFLUENZA VIRUS (A/B)

EBV = EPSTEIN BARR VIRUS

CORONA = CORONAVIRUS

ENTERO = ENTEROVIRUS

CALICI = CALICIVIRUS

\*These viruses can be tested in house.