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Technically Speaking

C.S. Guidess, Editor

Department of Pathology
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HSV-1 and HSV-2 PCR ASSAY and Varicella-Zoster Virus (VZV) PCR Assay

Tricia Cavallaro, MT (ASCP)

The Laboratory is pleased to announce the availability of the HSV-1/HSV-2 PCR Assay, a qualitative polymerase chain reaction (PCR) in-vitro diagnostic test for the rapid detection of HSV-1 and/or HSV-2 DNA in specimens from individuals with signs and symptoms of herpes. The Laboratory will also simultaneously implement the Varicella-Zoster Virus (VZV) PCR Assay, a qualitative polymerase chain reaction (PCR) in-vitro diagnostic test for the rapid detection of VZV DNA in specimens from individuals with signs and symptoms of Varicella Zoster. These assays are more sensitive than viral culture and will replace viral cultures currently offered by the Microbiology section. The tests will be run twice a week, Monday- Friday.

Specimen Collection and Transport:

Clinical specimens can be stored between 2°C and 8°C for up to 7 days after collection in Universal Transport Media (UTM).

Acceptable Sources:

HSV-1 and HSV-2 PCR ASSAY : CSF, genital, oral, and wound/skin

Varicella-Zoster Virus (VZV) PCR ASSAY: Wound and skin

Questions may be directed to the Molecular Pathology section at 203-739-7578.

Conversion from Viral Culture to PCR Methods

Laura Ross, MS, MT(ASCP)

Please refer to the following table for available testing that replaces traditional viral cell cultures. Molecular testing offers improved sensitivity and specificity while also reducing turn around time for both positive and negative results.

Questions may be directed to the Microbiology section of the laboratory at 203-739-7685 or the Molecular section at 203-739-7578.

Previous test offered	New test offered	Specimen requirements
Genital viral culture (vagina, cervix, urethral)	HSV-1/HSV-2 PCR	Swab of lesion submitted in Universal Transport Media (UTM). Stored between 2°C and 8°C for up to 7 days after collection
Wound/skin viral culture	HSV-1/HSV-2 PCR and/or VZV PCR	Same as above
Body fluid/tissue viral culture	HSV-1/HSV-2 PCR and/or VZV PCR	Piece of tissue or fluid submitted in Universal Transport Media (UTM). Stored between 2°C and 8°C for up to 7 days after collection
	CMV PCR- This test is available as a send out test only.	
CSF viral culture	HSV-1/HSV-2 PCR and/or Enterovirus PCR	CSF submitted in sterile tube. Must be delivered immediately.
Upper or lower respiratory viral culture	RVP PCR (respiratory viral panel) and/or HSV-1/HSV-2 PCR RSV EIA w/ or w/out reflex to RVP PCR Flu A/B PCR w/ or w/out reflex to RVP PCR	Swab of nasopharynx or bronchial washings submitted in Universal Transport Media (UTM). Stored between 2°C and 8°C for up to 7 days after collection
Urine viral culture	CMV PCR- This test is available as a send out test only.	Urine must be collected in a sterile cup and submitted to lab on ice immediately.
Stool viral culture	Rotavirus EIA	Stool in sterile container, refrigerate for up to 24 hours
	Norovirus, Enterovirus, Adenovirus- Available as send out tests only. MUST specify which virus requested.	Same as above

Instructions for Maintaining Nasopharyngeal Specimens for PCR for *Bordatella pertussis*

For best results, specimens should be taken early in the course of the disease, preferably during the first week and before the characteristic cough occurs.

Immobilize the patient's head and gently pass a minitip swab through one nostril until it reaches the posterior nares. Leave the swab in place for 15 to 20 seconds.

Return the swab to the tube of universal transport media and cut the shaft of the swab so that the cover can be screwed on tightly. Label the tube with the patient's name and date of birth or medical record number and date and time of collection. Complete a requisition with "pertussis PCR" indicated.

For the convenience of the patient, specimens should be collected by physicians at their offices. Once collected, the specimen may be refrigerated (up to 7 days) or kept at room temperature (up to 24 hours). Submit to the lab as soon as possible.

The PCR testing will be performed twice a week depending on seasonal volume. Questions may be directed to Microbiology at 203-739-7685 or to the Molecular section at 203-739-7578.

HCV Genotyping Assay

Stephen Majoros, MT (ASCP)

The Laboratory is pleased to announce the availability of the HCV Genotyping Assay, a test designed to genotype a panel of 8 HCV subtypes: 1a, 1b, 2a/c, 2b, 3, 4, 5, and 6a/b. Testing will only be performed on amplicon samples with a viral load >1000 IU/mL as required for a nested PCR followed by a direct analysis on the electrochemical eSensor® XT-8 detection system. This test will be performed once a week following the quantitative HCV PCR assay.

Specimen Collection and Transport:
Since a HCV amplicon is the specimen needed for the assay, this test will only be performed on the originally collected HCV quantitative PCR specimens (2 lavender stoppered tubes). Questions may be directed to the Molecular Pathology section at 203-739-7578.

Body Fluid Analysis

On 2/19/13, new CBC analyzers that include a body fluid specific mode were implemented. The body fluid mode provides a reportable RBC, WBC, 2-part auto WBC differential (polymorphonuclear and mononuclear) and a total count (TC-BF) for all common body fluid samples (CSF, synovial and serous). This improvement will decrease manual technical intervention thereby improving TAT. Questions may be directed to the Hematology section at 203-739-7922.

Lamellar Body Count

Effective 2/19/13, the L/S (Lecithin/Sphingomyelin) Ratio performed at Yale will be the sole assay for determining fetal lung maturity. Results will be reported the same day on amniotic fluid samples for L/S Ratio testing received by 10:00AM Monday through Friday. A study to validate the Lamellar Body Count on new hematology analyzers is in progress. The Lamellar Body Count will be reintroduced on completion of the validation.

Communication of Critical Results

Effective Friday, March 1, 2013, laboratory staff will request employee clock numbers as ID when communicating critical results to nursing units. When critical results are forwarded to physicians, the first and last name of the physician will be requested. For results being called to outpatient sites, the caller will request the first and last name of the individual taking the result. This change is a licensing agency requirement where complete identification of the person receiving critical laboratory results is required.

COMING SOON: New Patient Service Center Opening in Newtown

The laboratory is pleased to announce the opening of a new Patient Service Center to take place in April 2013. The Newtown Patient Service Center will be located at 14 Church Hill Road, Suite C-9 in Newtown, CT. Further details to follow.

Patient Service Center Phone & Address Pads are available for office use for distribution to their patients. Please contact, Sandi Smith at 203-739-7800 or E-mail: Sandra.smith@wchn.org