



Lab Update



LABORATORY PHONE 585-LABS

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In this issue:**Molecular Diagnostics**

- Summer Influenza A

Specimen Collection

- Red Top Tube Conversion

Immunology

- HIV testing using 4th generation assay

Chemistry/Toxicology/Blood Gases

- Cord Blood Gas test codes
- Dr. Chris Crutchfield, PhD, joins Laboratory

LabUpdate is a periodic publication of the Clinical Laboratory of UC Health. By way of this publication, lab users are provided: 1) updated operational information relevant to the practice of laboratory medicine within UC Health facilities, and 2) didactic material generally applicable to laboratory medicine.

Molecular Diagnostics***Summer Influenza A***

The Ohio Department of Health (ODH) has asked all hospitals to be on the look-out for patients testing positive for influenza A this summer. Seasonal influenza is seen very infrequently in the United States in the summer; the season runs from October through March. But there are two novel strains of influenza A that are being seen this summer. The first is the H3N2 variant (swine) influenza that circulated in our region two years ago. Acquisition of this virus was associated with contact with swine, usually at county fairs. The second novel influenza A virus is the H5N1 virus (avian), also called Highly Pathogenic Influenza A (avian). This second virus has not been detected in Ohio, so far, but a related virus has been responsible for widespread die off among poultry flocks in 20 states, mostly in the west. UC Health Laboratories will be sending any positive specimens that we identify to ODH for subtyping through September 30.

There are two molecular tests for influenza A that are run in UC Health:

- 1) The rapid FLU PCR test, which is run at both UCMC

and WCH, will detect both of these novel influenza viruses. Positives with either of the strains will be called *Influenza A Detected*; there will be no further subtyping.

2) The Respiratory Viral Panel (RVP) is the multiplexed viral panel that is performed at UCMC for all sites. This test will also detect both of the novel influenza strains. It will call the swine influenza: *Influenza A Detected*, *Influenza A H3 Detected*. For the avian influenza, there will be a call of *Influenza A Detected*, with no further subtyping. Any further subtyping information that the lab receives from ODH will be added to the patient chart.

If you have any questions about influenza testing, please call Dr. Rhodes at 584-3923.

Specimen Collection***Red Top Tube Conversion***

The Laboratory is converting red top specimen collection tubes from a 10 ml rubber stopper tube to a 5ml hemoguard stopper tube. This collection tube will reduce blood draw volumes and enhance automation performance within the Clinical Laboratory.

The 10ml tube will be replaced with the new 5ml tube as current inventory levels are depleted. Please work with your site resource for inventory questions:

- UCMC: Scott Moubray and Kim Oden
- West Chester: Mark Poland
- Drake: Paul Sprague



New tube (Lawson # 339465): 5ml

Discontinued tube (Lawson # 339468): 10 ml



Please note that both tube types will be accepted for appropriate blood collections.

Immunology

HIV ALGORITHM

UC Health Laboratory offers a 4th generation HIV assay that simultaneously test for antibodies to HIV-1 and HIV-2 and for the presence of p24 antigen in patient’s blood. The addition of the testing for p24 antigenemia improves the ability of the test to detect acute HIV infection. Although p24 antigenemia is transient, it is usually positive before anti-HIV antibodies are present. In fact, the rise in antibodies usually coincides with the decrease in p24, making p24 the earliest detectable serological marker.

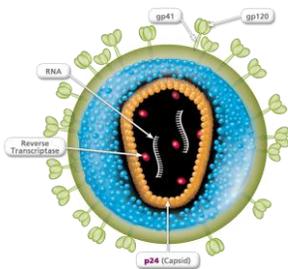
Testing will be performed on the Abbott Architect and the results will be reported out as REACTIVE or NONREACTIVE. Samples that are reported as NONREACTIVE indicate that there is no evidence of HIV infection in the patient. Samples reported as REACTIVE indicate that p24 antigen and/or antibodies to HIV-1 or HIV-2 were detected. These samples will be reflexed to the second tier Multispot test.

Should the sample be REACTIVE on the fourth generation assay and Negative or Indeterminate on the Multispot test, further testing using a nucleic acid amplification test will be recommended.

The HIV Reflex Testing Algorithm is attached to the LabUpdate, but can also be found as a Reference Link in EPIC when placing the order, as well as on the Laboratory homepage on Sharepoint.

EPIC Test Information

- LAB473 HIV 1+2 Antibody/Antigen with Reflex
- LAB5338 HIV-1 RNA Qual PCR, Confirm only



Chemistry/Toxicology
New Cord Blood Gas Test Codes

Two new Cord Blood test codes have been created to better help differentiate results for Arterial Cord Blood samples and Venous Cord Blood samples.

Venous Cordblood Blood Gas
EPIC Test: LAB1984

Arterial Cordblood Blood Gas
EPIC Test: LAB1398

There are no changes to reference ranges or critical values associated with a Cord Blood Gas sample. If you have any questions regarding this change please contact the Lab Customer Service at 585-LABS

Chris Crutchfield, PhD
joins Clinical Laboratory



Dr. Chris Crutchfield, PhD has joined the UC Health Clinical Laboratory as the new director for clinical chemistry and toxicology. Dr. Crutchfield completed his PhD in chemistry at Princeton in 2011 as a NSF GRFP fellow. After completing his PhD, Dr. Crutchfield was an IRTA fellow at the NIH, where he developed analytical and computational approaches to screen for steroid hormone biomarkers in endocrine patients using LC-MS/MS. Following his time at the NIH, Dr. Crutchfield completed a two year clinical chemistry fellowship at the Johns Hopkins University. At JHU, Dr. Crutchfield’s research focused on optimizing the efficiency of LC-MS/MS based clinical tests. He also streamlined an analytical workflow for identifying QA issues pertaining to test cancellations; an abstract submitted on this work will be presented as a podium presentation at the 2015 AACC conference in Atlanta.

Dr. Crutchfield looks forward to helping with the continued revitalization of the chemistry and toxicology labs, including the addition of the automated chemistry line as well as improving the toxicology test menu and throughput.

TESTING ALGORITHM

Initial HIV Test

