UC HEALTH LABORATORY

Lab Update

UC Health

LABORATORY PHONE 585-LABS

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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.

Immunology

HIT Testing Cutoff Value

The cutoff value for our HIT Assay (LAB766) has been adjusted from 0.4 to 0.6 OD to reflect institutionally-optimized diagnostic sensitivity and specificity. Using the new cutoff value of 0.6, diagnostic sensitivity is 94% and specificity is 76%. As always, calculation of pre-test probability using a "4T" scoring system is recommended. The laboratory is working with Pharmacy, Cardiology, and IT to implement a tiered cutoff that utilizes the patient's 4T score. This change in cutoff value applies to the automatic reflex order of the Serotonin Release Assay (SRA). Please contact Dr. Crutchfield (chris.crutchfield@uc.edu) if your patient's 4T score indicates high risk for HIT but their assay result is below the 0.6 OD cutoff.

Toxicology

Buprenorphine Testing

Buprenorphine is a prescription medication for people addicted to heroin or other opiates that acts by relieving the symptoms of opiate withdrawal such as agitation, nausea and insomnia. Buprenorphine is more weakly addictive and has a lower risk of overdose than methadone. The effects last for about three days. Buprenorphine has been added to the EDS and OBEDSR screens.

The cutoff concentration is 5 ng/mL reflecting the total concentration of buprenorphine and buprenorphine glucuronide, but not the concentration of nonbuprenorphine and norbuprenorphine glucuronide.

Test Name	EPIC Code
Emergent Drug Screen	LAB3379
OB Emergent Drug Screen with Reflex to Confirmation	LAB1933

Chemistry

Testosterone Resulting Unit change

The units for total testosterone (LAB124) are being changed from ng/mL to ng/dL to match The Endocrine Society Clinical Guidelines. The new reference range for adult males will be 175-781 ng/dL and the new reference range for adult females will be <75 ng/dL. To convert an old ng/mL value to a ng/dL value, multiply it by 100. Please contact Dr. Crutchfield (chris.crutchfield@uc.edu) if you have any questions or concerns about testing.

Molecular Diagnostics

Influenza Season 2015-2016

October 1 marks the beginning of new influenza season. Although it is impossible to predict "how bad" this year's flu season will be, we know that every year there is a seasonal epidemic of influenza. That is why it is so important to get a flu shot every year. This year's flu vaccine contains three or four different strains of flu. The strains are selected based on what was circulating at the end of last year and what was seen in the southern hemisphere. All of this year's vaccines contain two strains of influenza A and one of influenza. The quadrivalent vaccines contain an additional strain of influenza B. The virus in all of the injectable vaccines is inactivated, so getting your flu shot will not cause influenza.

As in previous years, UC Health laboratories will offer a rapid PCR-based test to detect influenza in nasopharyngeal swabs or nasal washes. Test results are usually available within a few hours after receipt in the lab. The Microbiology and Molecular Diagnostic Laboratory also will a more comprehensive Respiratory Viral Panel. The RVP can also be performed on nasopharygeal swabs, but it has also been validated for performance on bronchoalveolar lavage fluid. This test is run M, W, and F during influenza season, based on demand.

Specimen Collection

Port-A-Cult Collection Kit Change

The Port-A-Cult specimen collection container has been changed to a new vial due to a backorder on our traditional collection kits. You will notice the new Jars are much smaller and somewhat fragile. To prevent breakage, we are recommending that the containers either be hand delivered or padded for transport within the pneumatic tube carrier.

If this product isn't available samples transported in sterile containers need to be placed 2ml of saline for transport to the lab. The organisms in the samples/tissue cultures are not viable for testing if sent dry.

No specific date for product availability/re-entry into the tissue transport container market has been established. The replacement product is # AS-915 Anaerobe Systems, Vendor # 100000302.

Blood Culture Collection from a CVC

1. Clamp the catheter between the injection hub and patient.
2. Discard the used needleless connector.
3. Scrub the connection between the discarded needleless connector and the hub for 15 seconds with alcohol wipe and allow to air dry.

4. Apply a new sterile needleless connector
5. Attach empty 10 mL syringe directly to the hub.
6. Withdraw 5 mL of blood and discard
7. Attach a sterile 10 mL syringe and withdraw blood into syringe (continue to connect additional syringes, as needed, until appropriate amount of blood is withdrawn – 10 mL is recommended in each vial/bottle for Blood Cultures, however 5 mL may be used if unable to obtain 10mL).
8. If blood does not flow into the tube or syringe:
   a. Attempt to have patient cough, deep breath, and position arm above head or change position.
   b. Attempt to flush catheter with 0.9% sterile sodium chloride and withdraw blood again.
   c. Change needleless connector and reattempt aspiration.
   d. If not successful, contact the physician.
9. Flush line using 20 mL of 0.9% sterile sodium chloride (two 10 mL syringes) with the push stop method.

10. Connect and resume infusion, if applicable.
11. Cleanse the collection bottle caps with an alcohol swab prior to transferring blood; use a new blood culture transfer device for each syringe of blood sampled.
    a. To transfer blood using the blood transfer device, remove the inner piece from the outer piece of the blood transfer device.
    b. Attach syringe to the end of the outer piece of the blood transfer device
    c. Insert the outer piece of the blood transfer device with the syringe attached over the top of the blood culture bottle to allow the blood to flow into the bottle.