# Laboratory Medicine Update

## August 3, 2018

### Discontinuation of Quantitative Bronchoalveolar Lavage (BAL) Cultures

In order to remain consistent with current ATS/IDSA guidelines for management of hospital-acquired and ventilator-associated pneumonia (HAP, VAP), as well as maintain consensus with a broncoscopy working group at University of Virginia, the Clinical Microbiology Laboratory will discontinue the use of quantitative Bronchoalveolar Lavage (BAL) cultures on August 1, 2018. Quantitative cultures have been shown to offer no additional information beyond standard semi-quantitative BAL cultures. Instead, please order routine Bacterial, Fungal or Mycobacterial cultures as appropriate. Questions may be directed to the Clinical Microbiology Director on call at PIC 1221.

IDSA guidelines for management of HAP and VAP can be found at:
http://www.idsociety.org/Guidelines/Patient_Care/IDSA_Practice_Guidelines/Infections_by_Organ_System/Lower/Upper_Respiratory/Hospital-Acquired___Ventilator_-_Associated_Pneumonia_(HAP/VAP)/

### Changes to PCR for Respiratory Syncytial Virus (RSV)

As of August 1, 2018, the Clinical Microbiology and Molecular Diagnostics Laboratory will implement a new PCR method for detection of RSV and Influenza from Nasopharyngeal (NP) swabs. This new PCR method can be completed within 30 minutes of receipt in the Clinical Microbiology Laboratory, as opposed to 2.5 hours, as was the case with the previous RSV PCR. While PCR for Influenza A/B alone will remain orderable, PCR for RSV alone will no longer be available as a result of this new test addition. Instead, please order the Influenza A/B/RSV by PCR test. Samples *other than NP swabs* will continue to be tested using the Respiratory Virus Panel (RVP) by PCR, providing a full range of viral targets that include RSV. Questions may be directed to the Clinical Microbiology Director on call at PIC 1221.

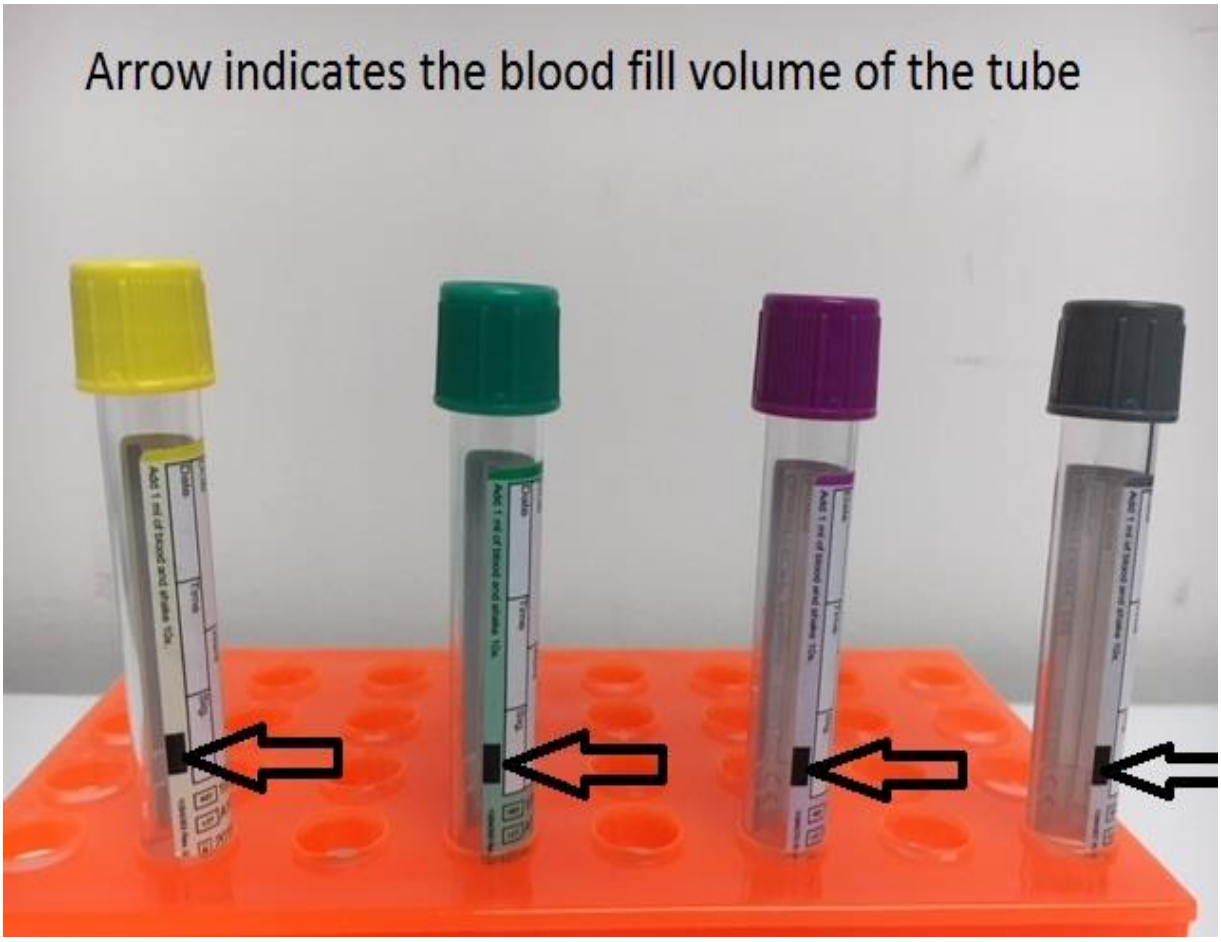
### Now available for ordering: Adenovirus detection by PCR

Adenovirus detection in blood (plasma) and other body fluids is now available as orderable send-outs to Mayo Medical Laboratories. For plasma testing, select "*Adenovirus, Plasma*" (LAB6169). For other specimen types such as body fluids, respiratory, spinal fluid, stool, urine, or fresh tissue, select "*Adenovirus, PCR*" (LAB6168)

**Quantiferon TB Blood Test Collection Change**

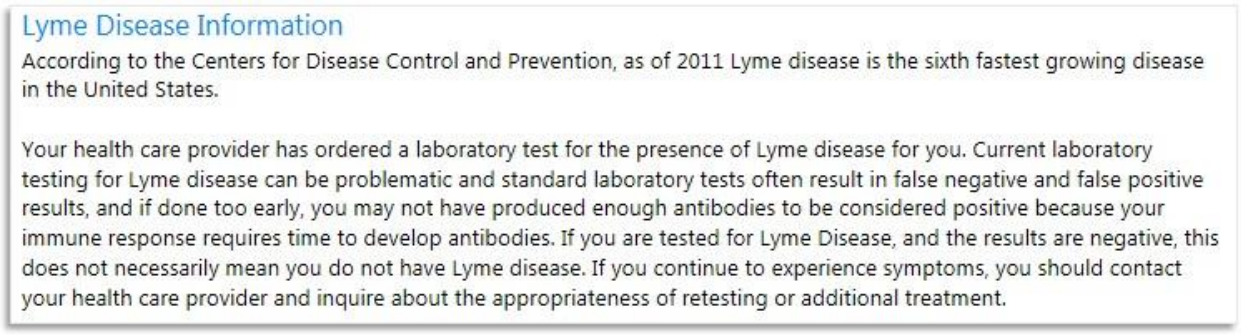
The vendor for our interferon gamma release assay (IGRA) for the detection of exposure to Mycobacterium tuberculosis in blood has changed the collection process in order to increase sensitivity. Instead of obtaining 3 unique tubes of blood the new assay requires 4 unique tubes to be collected. The Medical Labs is in the process of replacing inventory in clinics throughout the UVA Health System. Epic collection instructions have been updated as of 7/24/18 to reflect this new requirement. During this conversion period we can accept either set of tubes with the goal of changing the inventory by August. If you need the new 4 tube collection kit please contact Client Services at 434 924 5227.

**Proper fill volume is critical**; each tube has a black line indicating the required volume of blood (1mL per tube, acceptable range 0.8 – 1.2). Samples with improper volume will be cancelled as inappropriate for testing. After collection, the tubes need to be well mixed to ensure the interior surface of the tube is coated with blood to dissolve antigens on the wall. Label the tubes so the blood sample can be visualized without having to peel back the label.



**Change to what will display when ordering Lyme testing**

The Virginia statute that mandated distribution of specific information to patients when Lyme testing is ordered has expired and has not been renewed. Therefore, the information below will no longer appear.



Lyme Disease Information

According to the Centers for Disease Control and Prevention, as of 2011 Lyme disease is the sixth fastest growing disease in the United States.

Your health care provider has ordered a laboratory test for the presence of Lyme disease for you. Current laboratory testing for Lyme disease can be problematic and standard laboratory tests often result in false negative and false positive results, and if done too early, you may not have produced enough antibodies to be considered positive because your immune response requires time to develop antibodies. If you are tested for Lyme Disease, and the results are negative, this does not necessarily mean you do not have Lyme disease. If you continue to experience symptoms, you should contact your health care provider and inquire about the appropriateness of retesting or additional treatment.

**Interference with Whole Blood Cooximetry Testing**

Siemens Healthcare Diagnostics, manufacturer of the whole blood ABG and electrolyte analyzers used throughout the hospital and in the Core Lab, has announced an interference by therapeutic doses of Hydroxocobalamin with cooximetry on this analyzer. This drug is on the restricted formulary for UVAHS (Medical Toxicology use only) but is available as an over-the-web vitamin supplement sold as a "long-acting" Vitamin B12 supplement. The effects of a circulating level of 1 mg/mL and 2 mg/mL are in the table below. *These circulating levels represent an approximate 5 to 6 log higher concentration than would be expected from supplement use.*

| Analyte | Expected Result | Percent Recovery with a single dose of 1 mg/mL (measured) | Percent Recovery with a single dose of 2 mg/mL (measured) |
|---|---|---|---|
| fCOHb | 20% | 75% (15%) | 50% (10%) |
| fMetHb | 20% | 85% (17%) | 65% (13%) |
| tHb | 12 g/dL | 95% (11.4 g/dL) | 90% (10.8 g/dL) |
| fO2Hb | 8% | 105% (84%) | 1.10% (88%) |
| fHHb | 0.95% | 28% (0.27%) | Below measurement range |