Billings Clinic

Laboratory Communiqué

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In This Issue

Department Updates

POC Test Updates

Influenza A&B, POC

Strep A, POC

OFD Cotinine (Nicotine screening)

Immunology Updates

Celiac Testing Review

Coagulation Department Alert

Blue top tube shortage

POC Test Updates

This issue will focus on the Point of Care Department which has added some new testing. Monica Kaufman is our POC Coordinator and Dr. Trudie Muir is the pathologist overseeing POC.

Influenza A & B, POC (Abbott)

The Abbott ID NOW™ Influenza A & B test allows for the rapid, molecular detection of nucleic acid from influenza A and influenza B viral nucleic acids using nasal swabs. The test is intended for use as an aid in the rapid diagnosis of acute phase of influenza A or influenza B infections only.

Specimen: For optimal performance, use one of the individually packaged sterile dry nasal swabs provided in the kit to collect a nasal sample.

Alternatively, one of the following may also be used: rayon, foam, HydraFlock Flocked swab (standard tip), HydraFlock Flocked swab (mini tip), Copan Mini Tip Flocked Swab, or Copan Standard Flocked swabs can be used.

Specimen Stability: Place the swab back into the original package or into a dry conical tube and run immediately. Specimens are stable for 2 hours at room temperature.

Limitations: The following can cause false negative and false positive results.

False Negatives:

- Presence of sequence variants in the viral targets of the assay due to virus mutations in the target regions.
- Improperly collected, transported, or handled specimens
- Inadequate levels of viruses in the specimen
- Mucoid specimens
- Respiratory Syncytial Virus (RSV) is present as a co-infection organism.

False Positives:

- Individuals who received nasally administered influenza A vaccine may test positive up to 3 days after vaccination.

Strep A POC (Abbott)

The Abbott ID Now™ Strep A test is a rapid, molecular *in vitro* diagnostic test utilizing isothermal nucleic acid amplification technology for the qualitative detection of *Streptococcus pyogenes,* Group A *Streptococcus*

bacterial nucleic acid in throat swab specimens obtained from patients with signs and symptoms of pharyngitis. It is intended to aid in the diagnosis of Groups A *Streptococcus* bacterial infections.

Specimen: For optimal performance, use one of the individually packaged sterile throat swabs provided in the kit to collect a throat sample. The posterior pharynx, tonsils and other inflamed areas should be swabbed. Avoid touching the tongue, cheeks, and teeth with the swab.

Alternatively, foam, polyester, HydraFlock Flocked and nylon flocked throat swabs can be used to collect throat swab samples. BBL CultureSwab Liquid Amies transport media system has been tested and is also acceptable. Rayon swabs and BBL CultureSwab Liquid Stuart transport media system are not suitable for use in this assay.

Specimen Stability: Place swab back into original package and test immediately. If immediate testing is not possible, place throat swab in a dry plastic tube at room temperature or refrigerated at 2-8°C for up to 72 hours prior to testing. Allow sample to warm up to room temperature prior to testing.

Limitations:

- The ID Now Group A Strep test does not distinguish between viable and non-viable organisms.
- Performance of the test has not been established for monitoring treatment of pharyngitis caused by Group A Strep.
- The assay will not differentiate asymptomatic carriers of Group A Strep from those exhibiting streptococcal infection.
- False results may occur if a Sample Receiver for an assay other than ID Now Strep A 2 is used.
- A false negative test may occur if the specimen is improperly collected, transported, or handled.
- A false negative may occur if inadequate levels of bacteria are present in the specimen.
- Additional follow-up testing using the culture method is required if the result is negative and clinical symptoms persist, or in the event of an acute rheumatic fever outbreak.

Saliva Cotinine Screening

The Alere iScreen® OFD Cotinine is a rapid, oral fluid screening test that utilizes antibodies to selectively detect cotinine in human oral fluid with a cut-off of 30 ng/mL. The test provides a preliminary analytical test result. Cotinine is the first-stage metabolite of nicotine and is found to be the best marker for smoking status due to longer high-life than nicotine. This test will be used for pre-op patients.

Specimen: Oral fluid collected with the Alere iScreen Collection Sponge

Specimen Stability: Testing is performed immediately.

Limitations: No food, drink, gum, or tobacco products should be placed in the mouth or used for at least 10 minutes prior to collection.

Sensitivity of Detection: This screening method will pick up cigarettes,

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vaping, chew, zin packs and Nicorette gum/lozenges. Detection of the effects of second hand smoke is unsure.

Immunology Department

Celiac Testing

It has been nearly three years since we implemented Celiac Testing in-house on the INOVA BioFlash Instrument. The assays are performed using a chemiluminescence technology which delivers exceptional clinical performance, precise quantification, and broad analytical measurements. The four individual assays offered are:

- Tissue Transglutaminase IgA (t-TG IgA)
- Tissue Transglutaminase IgG (t-TG IgG)
- Deaminated Gliadin Peptide IgA (DGP IgA)
- Deaminated Gliadin Peptide IgG (DGP IgG)

Although the tests can be ordered individually, our Gluten Sensitive Enteropathy Panel (GSE Panel) is an excellent choice for initial diagnosis and depending on the initial test results, reflex testing will be performed.

The initial tests are a serum IgA to establish the patient's IgA sufficiency or deficiency status and a serum tissue transglutaminase IgA. The tissue transglutaminase IgA is the preferred single test for the detection of a gluten sensitive enteropathy or celiac disease in individuals over the age of 2 years.

If the serum IgA is low or a selective IgA deficiency is present, the t-TG IgA may be negative and will reflex to the t-TG IgG and DGP IgG. Depending on the final test results, an interpretative GSE comment will be provided. The two interpretative comments available are:

- These results would be consistent with Gluten Sensitive Enteropathy. Clinical Correlation Recommended.
- These results suggest that a Gluten Sensitive Enteropathy is unlikely. Clinical Correlation Recommended.

Specimen: Serum from a Red Top SST

Testing Performed: Wednesday Dayshift

Assay Reactivity: Negative is < 20 CU
Weak Positive is 20-30 CU
Positive is > 30 CU

Coagulation Department

Critical Blue Top (Citrate Tube) Shortage

The following email was sent out by our Laboratory Director, Dr. Jeffrey Smith, addressing our blue top tube shortage.

Colleagues,

As many of you have heard, we have a critical, nationwide shortage of Coagulation (blue) blood collection tubes. We are on unsteady allocation due to manufacturing issues after heavy use during the pandemic. We expect these shortages to last another 60-90 days at minimum. Until resolved, our ability to perform the tests below will be compromised. Please be circumspect in ordering coagulation testing and do not draw "extra" blue top tubes or use the blue tops as waste tubes as that will put our supply at even greater risk. We will be limiting supplies severely. We will continue to share regular updates on the numbers of tubes available in the Lab (in addition to small stocks in the departments) and run rate, until we have a more reliable supply. St Vincent's and all the facilities with whom we work are struggling in the same way we are so there is no opportunity to borrow. We do have a very, very limited ability to perform some testing using smaller, point of care instruments, but not a significant capacity. If you have further questions, feel free to email Dr. Smith or Dr. Linfesty.

Tests Collected in Blue Top Tubes

Protime	aPTT	Heparin
Thrombin Time	Fibrinogen	D-Dimer
vWF Activity	Factor VIII	PLT Function (PFA)
Plavix Response	Aspirin Resistance	DRVVT
Lupus Anticoagulant Panel		Abnormal Bleeding Panel

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