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Diagnos^tics

The Diagnostic Newsletter for Healthcare Providers

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LifeLabs[®]

New Chemistry & Immunochemistry Analyzers

LifeLabs is introducing new instrumentation for routine Chemistry and Immunochemistry testing. This is part of the continued integration of the LifeLabs and CML laboratories and will result in the standardization of major components of routine chemistry lab methods and reporting.

- Transition to the new line of instruments will begin in mid-August, 2016, occurring in phases across the province and will be completed by summer 2017. At the appropriate time, a message will appear on lab reports to indicate that the change has taken place.
- The reference intervals will change for some tests. Reference intervals accompanying the patient report are deemed to be correct and should be used to interpret results. During the transition period, reference intervals will be removed from our on-line Test Information Directory (<http://www.lifelabs.com>).
- A complete list of tests being converted will be posted on our website at the time of implementation in August 2016.
- **If your EMR does not use the reference intervals from the lab you may need to update your EMR.**

By Peter Catomeris PhD FCACB
Clinical Biochemist

Changes to Serum Protein Electrophoresis and Urine Immunofixation Electrophoresis Tests

Effective June 27, 2016, LifeLabs implemented changes to the Serum Protein Electrophoresis and Urine Immunofixation Electrophoresis tests at legacy LifeLabs. Over the next few months, we will continue to integrate the LifeLabs laboratories and standardize our reporting for these tests.

- The serum protein electrophoresis method was changed resulting in changes to reference intervals and reporting format. Further details were provided in the Client Notice posted on LifeLabs website on June 24, 2016 (<http://www.lifelabs.com> under Healthcare Providers News ON).
- **With the change to Urine Immunofixation method, the type of the heavy chain (G, A, M) associated with an intact monoclonal band in urine is no longer identified.**

By Peter Catomeris PhD FCACB
Clinical Biochemist

Testing Update

New Urine Broad Spectrum Toxicology (BST) Screen

In May 2016 LifeLabs implemented new urine broad spectrum toxicology (BST) screen.

- The testing is performed by high-pressure liquid chromatography/tandem mass spectrometry (LC-MS/MS) instruments.
- The new method includes an expanded menu of 150 psychoactive compounds from seven categories of drugs including Opioids, Amphetamines, Benzodiazepines, Anti-Depressants, Anti-Psychotics, Cannabinoids, and Other.
- A complete list of drugs, detection cut-offs, and other information about this test can be found in LifeLabs Test

Information Directory: http://tests.lifelabs.com/Laboratory_Test_Information/Search.aspx. Search for: Broad Spectrum Tox Screen (BST)

- To order BST: On OHIP requisition under 'Other' category enter 'Broad Spectrum Tox Screen'. It is not necessary to list any specific drugs with the order; all drugs included in the menu will be tested for.
- Urine ethanol and barbiturates are not included in the BST screen and can be ordered separately.

By Danijela Konforte PhD FCACB
Clinical Biochemist

Urine Cultures For The Diagnosis Of Urinary Tract Infections

Background

Bacterial infections of urinary tract are a very common reason to seek health care services. Urine specimens are the most common specimen type to be received in the microbiology laboratory. Infections are very common in young females, and are quite uncommon in males under age 50.

Common causative organisms

- *Escherichia coli* causes the vast majority of community acquired infections (70-90% uncomplicated community urinary tract infections)
- *Staphylococcus saprophyticus* causes 10 - 15% and is common in uncomplicated infections in young females
- *Enterococcus* species are common especially in the elderly
- Catheter-associated UTIs are often caused by gram-negative bacteria
- Normal flora in the vagina and distal urethra can also cause infection in some circumstances and these include coagulase negative *Staphylococcus* species and *Streptococcus* species
- Gram negative bacilli (including *Proteus*, *Klebsiella*, *Serratia*, *Pseudomonas*) cause infection in some hosts (eg elderly, diabetics, patients with catheter)

There are a variety of collection methods and SPECIMEN TYPES that may be encountered in the microbiology lab

- Mid-stream Urine (MSU) is the specimen of choice and most common type of urine specimen received.
- Suprapubic urine.
- Catheter urine (in & out catheter, or indwelling catheter from access port NOT FROM BAG).
- Other specimens encountered in the lab are from nephrostomy tubes and urine obtained during a diagnostic cystoscopy.

Urine Culture Contamination

Urine samples can be contaminated. Ensuring proper urine specimen collection, storage, and transport are critical steps to prevent bacterial contamination of the specimen submitted for culture. If correct procedure is not followed urine specimens will often yield inaccurate and misleading culture results, which ultimately may have negative implications for patient care.



Points to Remember

- Urine cultures can become easily contaminated with organisms found in the surrounding anatomical areas. This is often apparent once the culture is completed and indicates growth of three or more organisms.
- Although urine contamination may not be completely avoidable, proper specimen collection and refrigeration is associated with lower contamination rates.
- Cultures are not needed in most cases of initial uncomplicated cystitis but should be performed for all cases of upper and complicated UTIs
- The presence of bacteria does not always indicate infection, and urine cultures should only be ordered for symptomatic patients, with the exception of certain clinical scenarios (including pregnancy and prior to certain surgical procedures)
- Urine should not remain at room temperature for more than 30 minutes, and should be stored at refrigerator temperatures of 2°C to 8° to prevent bacterial overgrowth

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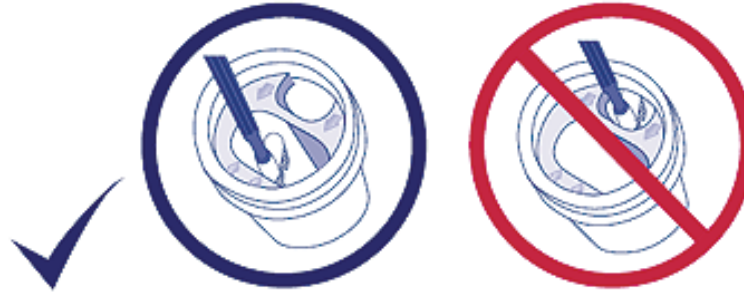
By Daniela Leto BSc MD FRCP
Medical Microbiologist

New BD Surepath PAP Collection Container

Starting in July you will begin to see a new version of the BD SurePath™ Collection container delivered to your office. The new container differs in that it will contain a plastic insert within the container.

Collection of the SurePath Pap remains unchanged. After collecting the Pap sample, you will deposit the collection device head (Cervex Brush or Cytobrush or spatula) into the larger opening in the collection container. It is important to always deposit the head(s) of the collection device into the **larger opening** of the collection container; DO NOT insert any of the collection device head(s) into the smaller opening.

BD SurePath™ Collection Vial



Any existing stock of the BD SurePath™ Collection container you may have does not need to be replaced (unless beyond the expiry date) and should be used.

Order procedures for the SurePath collection container remain unchanged.

For more information,
please visit our site at
www.lifelabs.com

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