



Laboratory Communiqué

Volume 13, Number 2

April 2019

The Laboratory Communiqué is a quarterly publication released by Billings Clinic Laboratory Services as an informational tool for medical staff and laboratorians.

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Department Update

Microbiology

C.DIFF QUIK CHEK COMPLETE®

GDH antigen and Toxin A and B

Test Number: 6680

CPT Codes: 87324 & 87449

LOINC: 79177-2

Chemistry

NOVA 8

New Instrumentation Coming for Ionized Calcium

Lab Week

April 21 - 27

C. difficile GDH and Toxin Testing

C. DIFF QUIK CHEK COMPLETE®

Effective April 1, we changed our methodology for *C. difficile* testing. The C. DIFF QUIK CHEK COMPLETE® detects the *C. difficile* antigen glutamate dehydrogenase (GDH) as a screen for the presence of *C. difficile*. The test simultaneously confirms the presence of toxigenic *C. difficile* by detecting toxins A and B in fecal specimens. This will decrease the number of specimens requiring additional PCR testing to the rare occasions in which toxin is detected without the presence of GDH, in which case reflex PCR testing will be performed.

This new testing methodology is intended to decrease the number of false positives seen in colonized carriers with the previous testing methodology. As with other *C. difficile* tests, results should be considered in conjunction with the patient history and the potential of the patient to be a colonized carrier. The new test order can be found as C Diff. If there are any questions or concerns, please feel free to contact Dr. Kavron at 406-657-4069 or the Microbiology Department at 406-657-4074.

Specimen: Stool

Days Performed: Daily

Interpretation: 1. Toxigenic *C. diff* Positive
2. Toxigenic *C. diff* Negative
3. Toxigenic *C. diff* -See PCR Report (*Note: reflex to PCR will occur with the following result scenario: Negative GDH and Positive Toxin*)

Chemistry Department Update

Ionized Calcium, Serum - Coming Soon!

The NOVA 8 instrument was installed April 10th and soon will perform ionized calcium on serum samples. We have started staff training and will soon start our validation studies. The strict specimen stability requirements for the Ionized Calcium assay performed on the Abbott i-STAT instrument necessitated a change to a methodology with more stable specimen requirements.

Specimen Collection and Handling:

Collect blood for serum samples in a plain SST tube. Allow sample to clot for approximately 30 minutes. Following clot retraction, centrifuge at 1000 RCF for 10-15 minutes, uncap the tube and pipette serum to a transfer tube. Cap immediately to maintain anaerobic conditions. Samples may remain at room temperature for no longer than 8 hours. If assay will not be performed within 8 hours, serum sample should be stored at 2 to 8°C. If not completed within 48



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hours or if sample is to be stored beyond 48 hours, the sample is to be stored frozen at -20°C. This is very important for our reference clients.

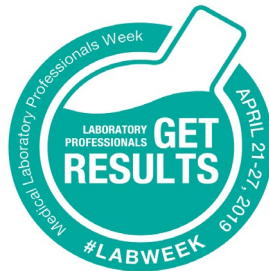
The activity and concentration of ionized calcium in serum is pH dependent. On standing, the pH of serum samples rises due to the loss of CO₂. Anaerobic samples are preferred but when samples are from outside reference clients the samples may not be anaerobic due to transport. In those cases, by measuring the actual pH of the sample at the same time as the ionized calcium is measured, a normalized ionized calcium can be calculated. The normalized ionized calcium represents what the ionized calcium concentration would have been if the initial pH was 7.4 (the midpoint of the pH reference range).

Results:

- Calcium Ionized, Serum
- Calcium Ionized pH 7.4

More Information will follow as we finish our validation studies and Go-Live.

MEDICAL LABORATORY PROFESSIONALS WEEK
APRIL 21-27, 2019



Medical Laboratory Professionals Week (MLPW) provides our profession with a unique opportunity to increase public understanding of and appreciation for clinical laboratory personnel.

MLPW, which takes place the last full week in April each year, is coordinated by a collaborative committee with representatives from **17 national clinical laboratory organizations.**

Our Laboratory is planning to celebrate MLPW with fun, food and games!

For more information about Billings Clinic Laboratory please call (406) 657-4060.
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