

Health Care Provider Bulletin

LifeLabs Service Updates 10/25/2022

Update on Replacement of Chemistry Analyzers in British Columbia

Dear health care providers,

Following our earlier notes on our work to replace the Roche Cobas and Abbott Architect analyzers used nationally for chemistry testing, we'd like to share another update with you. In November, we will be moving to the Abbott Alinity testing platform at our Burnaby Reference Lab (BRL) and Victoria Reference Lab (VRL) by replacing Roche Cobas and Abbott Architect analyzers in a staggered approach. The testing performed on these analyzers includes clinical chemistry, immunoassays, and infectious disease (serology) assays.

Key dates in our implementation include **November 4-12 and November 26-28**. Please note there may be some delay in the turnaround time of test results during the downtime to complete this work. Any urgent or time-sensitive test results will be prioritized to ensure quality patient care – **please indicate STAT on the requisition**. During this work, our patient service centres will remain open, and we will continue to collect samples as normal

As a reminder, **Tables 1 - 3 on pages 2 - 5** provide a list of tests that will be moving to the new testing platform, along with a description of notable changes. A temporary notification will be included with all test results indicating a change in testing platform and highlighting any other significant changes (as applicable and described in **Tables 1 - 3 below**). This notification will be provided for 3 months from the date of implementation. Please note, minor updates to interpretive comments for some of the tests will also be implemented to align with current clinical guidelines and improve interpretation of laboratory results.

For any clinical or technical questions regarding this change please contact the following LifeLabs biochemists:

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Thank you,

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Table 1. Clinical chemistry and TDM tests that are undergoing changes with the transfer to the *Abbott Alinity c* platform in November 2022

Test	Description of test change
Chemistry tests	
Albumin (Urine)	Reported values may show up to 15% increase compared to the previous method. Reference intervals are unchanged.
Alpha-1-Antitrypsin	Reported values may show up to 12% increase compared to the previous method. Reference intervals are unchanged.
Aspartate Aminotransferase	Reported values may show up to 14% increase compared to the previous method. Reference intervals are unchanged.
Bicarbonate	Test name changed to Carbon Dioxide to align with other laboratories in BC.
Bilirubin, total	Reported values may show up to 13% increase compared to the previous platform. Reference intervals are unchanged.
Calcium (Urine)	Reported values may show up to 10% decrease compared to the previous method. Reference interval is unchanged.
Ceruloplasmin	Reference intervals has been adjusted as a result of the transfer to the new Abbott Alinity c platform.
Chloride (Serum)	Reference interval has been adjusted as a result of the transfer to the new Abbott Alinity c platform.
GGT	Reference intervals have been adjusted as a result of the transfer to the new Abbott Alinity c platform.
Haptoglobin	Reference interval has been adjusted as a result of the transfer to the new Abbott Alinity c platform.
Lipase	Reported values may show up to 13% decrease compared to the previous platform. Reference intervals are unchanged.
Lp(a)	Units, decision limits, and interpretive comments have been updated to reflect current BC guidelines, Canadian Society of Clinical Chemists (CSCC) recommendations, and 2021 Canadian Cardiovascular Society guidelines. Test will now be performed at Victoria and Burnaby Reference Laboratories.

Table 1. Clinical chemistry and TDM tests that are undergoing changes with the transfer to the *Abbott Alinity c* platform in November 2022

Test	Description of test change
RF (Rheumatoid Factor) (Serum)	Reported values may show an average of 29% increase compared to the previous method. Reference intervals have been adjusted.
Urine Total Protein	Reported values may show up to +15% increase compared to the previous method. Reference intervals are unchanged.
TDM tests	
Carbamazepine	Reported values may show a 5 umol/L increase compared to the previous method. Therapeutic range is unchanged.
Digoxin	Reported values may show a 0.2 nmol/L increase compared to the previous method. Therapeutic range is unchanged.
Lithium	Therapeutic ranges have been updated to reflect recent guidelines.
Phenobarbital	Therapeutic ranges for adults and children have been combined into a single range.
Phenytoin	Therapeutic range has been updated to reflect recent guidelines. There is no separate range for patients ≤ 3 months of age.
Valproic acid	Therapeutic range has been updated to reflect recent guidelines.

The following chemistry tests are also transferring to the *Abbott Alinity c* platform, but will not require any testing changes:

- Alanine Aminotransferase
- Albumin (Serum)
- Alkaline phosphatase
- Amylase (serum, urine),
- Apolipoprotein A1
- Apolipoprotein B
- Bilirubin direct
- C3, C4
- Calcium (serum)
- Chloride (urine)
- Cholesterol
- C-reactive protein
- Creatinine (serum, urine)
- Creatinine Kinase
- Glucose (serum)
- Glucose (plasma) (now also performed at PG)
- Haptoglobin
- HDL-C
- IgG, IgA, IgM
- Iron
- Lactate
- LDH
- Magnesium (now also performed at PG)
- Phosphorus (now also performed at PG)
- Potassium (serum)
- Potassium (plasma) (now also performed at PG)
- Sodium (urine, serum)
- Theophylline
- Total Protein
- Transferrin
- Triglycerides
- Urea,
- Uric Acid

Table 2. Immunoassay tests that are being transferred to the *Abbott Alinity i* platform at the Victoria site in November 2022:

Test	Description of test change
BNP	Interpretive comments have been updated to reflect current BC guidelines on chronic heart failure.
Cortisol	Reference intervals have been changed to reflect recent practice guidelines.
Estradiol	Reference intervals have changed. Values for patients ≤ 18 years old were adopted from CALIPER studies. Values for patients > 18 years old were adopted from Abbott Diagnostics package insert and verified by patient correlation studies. Reference intervals for Tanner stages have been removed. Pediatric samples will now be tested at LifeLabs
FSH	Age and gender specific reference intervals are provided. Reference intervals for Tanner stages have been removed.
LH	Age and gender specific reference intervals are provided. Reference intervals for Tanner stages have been removed
Progesterone	Change in reporting of reference intervals – low limit of reference interval has been removed for some age ranges, to align the reporting for all age ranges.
Prolactin	Age and gender specific reference intervals are provided. Reference intervals for Tanner stages have been removed.
Vit D	Test will now be performed at Victoria and Burnaby Reference Laboratories.

Please review Table 3 on the following page for details on Infectious disease serology tests that are being transferred to the *Abbott Alinity i* platform in November 2022.

Table 3. Infectious disease serology tests that are being transferred to the *Abbott Alinity i* platform in November 2022

Test	Description of test change
Anti-HAV IgM	No Change
Anti-HBc Total	No Change
HBeAg	No Change
Anti-HBs	<ul style="list-style-type: none"> - Compared to the previous platform, antibody titers may vary due to differences in assay standardization. - There is no impact on test interpretation - antibody titers ≥ 10 IU/L continue to indicate immunity towards Hepatitis B infection.
HBsAg	No Change
Anti-HCV	No Change