

January 11, 2024

CLINICAL BIOCHEMISTRY

Provincial Standardization of ALT, AST, and GGT – Reference Intervals Update

Date effective: January 31, 2024

Background Information:

Alanine aminotransferase (ALT) and aspartate aminotransferase (AST) methodology will change to include pyridoxal phosphate (P-5-P or Vitamin B6), a cofactor required for enzyme activity. This change will affect Winnipeg and Brandon laboratories to standardize testing across all Shared Health laboratories. The primary advantage of new ALT and AST assays is improved accuracy in patients with low or deficient levels of vitamin B6, who with current tests may have falsely low results. The gamma glutamyl transferase (GGT) assay calibration is changing to the IFCC standardized material.

Change in Test Procedure:

- All Shared Health sites will be standardized for ALT, AST and GGT and have updated reference values. Interim comment will be added to the test reports.
- Winnipeg and Brandon sites will see shifts in results:
 - ALT results will increase by around 20%
 - AST results will increase by around 50%
 - GGT results will increase by around 12%

Patient Impact:

- Improved accuracy of ALT and AST testing in patients with low or deficient levels of vitamin B6, who with current tests may have falsely low results.

System Improvements:

- All Shared Health labs will have standardized results for ALT, AST and GGT
- Reference ranges for ALT, AST and GGT updated to improve clinical accuracy

Contact Information:

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