

Chemistry Testing Update

Effective September 7, 2023

Testing Update: Alanine Aminotransferase (ALT) and Aspartate Aminotransferase (AST) Assay Updates

WHO: All clients of Wisconsin Diagnostic Laboratories

WHAT: Wisconsin Diagnostic Laboratories is implementing ALT and AST assays that include pyridoxal-5-phosphate (P5P, vitamin B6) in the formulation, which is a cofactor for these enzymes. The addition of P5P increases the activity of the enzymes (by approximately 15%) and prevents falsely low enzyme activity in patients with vitamin B6 deficiency.

Additionally, reference intervals will be updated as follows:

Assay	Current reference interval	New reference interval
ALT	Males: 8-66 U/L Females: 6-37 U/L	Males: <42 U/L Females: <30 U/L
AST	Males: 13-44 U/L Females: 11-33 U/L	Males: <50 U/L Females: <35 U/L

Anticipated Impact on Patient Care:

- Patients' ALT and AST results will be higher compared to previous results.
- More ALT results will be flagged as abnormally high due to the decreased ALT upper reference limit.
- The new ALT reference intervals will allow for earlier detection of patients with liver disease, such as NAFLD, without triggering an unacceptable amount of unnecessary follow-up tests and investigations.

For additional details regarding the ALT reference intervals, please see Valenti et al. Hepatology Communications. 2021;5(11):1824-32.

WHEN: 09/07/2023

QUESTIONS:

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