

DATE:	22 January 2024
TO:	All Zones: All Healthcare Professionals and Providers
FROM:	Clinical Biochemistry and Hematology, Alberta Precision Laboratories (APL)
RE:	Introduction of Fibrosis-4 (FIB-4) Score Ordering and Reporting in Alberta

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Key Message

- Effective February 1, 2024, Fibrosis-4 (FIB-4) score is available to be ordered and reported in Alberta.

Background

- FIB-4 is a calculated score based on age and a combination of lab tests (aspartate aminotransferase [AST], alanine aminotransferase [ALT], and platelet count)
- FIB-4 is a well-validated index used to risk stratify patients with non-alcoholic fatty liver disease (NAFLD) into high, intermediate and low risk of developing cirrhosis over the next 10 years.
 - It is a key step in [NAFLD Primary Care Pathway](#), [Hepatitis C Virus Primary Care Pathway](#), and [Alcohol Use Disorder Pathway](#).
- Currently FIB-4 score can only be obtained by individually ordering AST, ALT and platelet count (or CBC) followed by manual calculation by the clinicians.
- To encourage use and simplify the process, Alberta Precision Laboratories (APL), in collaboration with AHS Digestive Health Strategic Clinical Network, will introduce a single new orderable test panel to allow the FIB-4 score and associated test results to be reported in the patient's chart.
 - This eliminates the need to perform manual calculation and allows for result trending in the electronic health record.

Why this is important

- A new test, "Fibrosis-4" (LAB5191), is available in Connect Care and on the [APL General Laboratory Requisition](#). Manual calculation will no longer be required when it is ordered.
 - This orderable will report FIB-4 score, each of AST, ALT and platelet test results, as well as interpretive comments based on FIB-4 value (Appendix 1).

Action Required

- Use the most up to date APL General Laboratory Requisition and check the box for Fibrosis-4 (FIB-4).
- Refer to the relevant clinical pathway for the appropriate interpretation of FIB-4 values.
- Refer to APL test directory for additional information.
- Avoid duplicate order of FIB-4 with AST, ALT and/or platelet count (or CBC).



Inquiries and feedback may be directed to

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This bulletin has been reviewed and approved by

- Dr. Carolyn O'Hara, Chief Medical Laboratory Officer, APL



Appendix 1.

Table 1: Summary of interpretive comments for FIB-4 score

FIB-4 score	Interpretive comment
< 1.30	FIB-4 < 1.30 indicates low risk for significant liver fibrosis, if individual continues to be at risk for liver disease progression consider repeating in 2-3 years
1.30 – 2.67	FIB-4 ≥ 1.30 indicates at risk for significant liver fibrosis, consider requesting a second line liver stiffness measurement including shear wave elastography (SWE) or fibroscan, or refer for hepatology evaluation if SWE and fibroscan are not available.
> 2.67	FIB-4 > 2.67 indicates high risk of significant liver fibrosis, consider referral to liver specialist without performing a shear wave elastography (SWE) or fibroscan
Not reported if an individual test result is outside measurable range	Unable to calculate. At least one calculation component is outside the measurable range
Platelet not reported	Unable to calculate.

Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.