

DATE:	19 January 2026
TO:	All Healthcare Providers
FROM:	Clinical Biochemistry, Alberta Precision Labs (APL)
RE:	Estimated Glomerular Filtration Rate (eGFR) Calculation Update for Adult Patients

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Key Message

- **Effective January 20th, 2026**, Alberta Precision Laboratories (APL) will update the equation used to calculate estimated glomerular filtration rate (eGFR) to the 2021 Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation.

Background

- In Alberta, current serum creatinine (LAB383) laboratory reports for all adult patients (≥ 18 years) include a result for eGFR that is calculated using the modified 2009 CKD-EPI equation, which includes a race coefficient but assumes the race is White for all.
- The new 2021 CKD-EPI equation does not include a race coefficient, hence does not require an assumption about race.
- Implementation of the 2021 CKD-EPI equation is supported by the Alberta Kidney Disease Network and several national and international committees, including the Canadian Society of Nephrology, Kidney Disease Improving Global Outcomes (KDIGO) and the National Kidney Foundation–American Society of Nephrology Task Force (NKF-ASN) (1,2).

How this will impact you

- Due to differences in the 2009 and 2021 CKD-EPI equations, results using the new eGFR equation will differ from those calculated from the previous equation.
 - Overall, values of eGFR calculated with the 2021 CKD-EPI equation tend to be higher than those obtained from the 2009 equation.
 - In Alberta, about 12% of patients are likely to shift to a less severe GFR category based on APL validation data.
- A new field, “eGFRcr”, will be used in laboratory reports to denote eGFR results from the new equation when serum creatinine (LAB383) is ordered.
- A comment will be appended to eGFRcr results for 12 months denoting the equation change.
- There is no change to ordering, sample collection or routing processes for serum creatinine and the included eGFR calculation.

Reminders

- The 2021 CKD-EPI eGFR equation is not validated for use in children or pregnant women.
- Extremes in muscle mass, diet (low/high protein), and drugs that influence creatinine secretion are known to impact creatinine measurements, and therefore eGFR.



- Eighty to ninety percent of eGFR values fall within 30% of measured GFR, so it is important to interpret the results within the clinical context and in conjunction with the urine albumin to creatinine ratio.
- Be aware that KDIGO recommends testing the urine albumin to creatinine ratio in patients at risk of CKD. Urine albumin measurements are more sensitive than urine total protein measurements for the detection of proteinuria associated with glomerular pathology and are useful for classification of CKD patients, and monitoring the risk of disease progression.

Action Required

- Be aware that eGFR will now be calculated using the 2021 CKD-EPI creatinine equation.

Questions/Concerns

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- EBL Clinical Chemist Team, 825-394-1819, apl.clinicalchemists@aplabs.ca

Approved by

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

References

1. Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney Int.* 2024;105(4S): S117–S314. PMID:38490803.
2. Sanker et al. KDOQI US Commentary on the KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of CKD. *AJKD.* 2025;85(2): p135-176. PMID:39556063