

Provincial Laboratory Bulletin

March 15, 2021

Serum creatinine results determined using specific reagent lots resulted in **artificially increased serum creatinine levels** (values may be higher by 9 $\mu\text{mol/L}$ (median)). This problem started in early November, 2020, impacting results from LifeLabs, Valley Medical Laboratories and some collections from Northern Health laboratories. The issue has been resolved, as of March 12, 2020, and the investigation into this event is ongoing.

Background

Serum (but not plasma) creatinine results determined using Roche chemistry analyzers and specific lots of enzymatic creatinine reagent resulted in serum creatinine levels being higher than expected and eGFR values being lower than expected. This problem started in early November, 2020, and impacted results from LifeLabs, Valley Medical Laboratories and some collections from Northern Health laboratories.

According to analysis of affected results by Provincial Lab Medicine Service, we determined that – during this period – the serum creatinine values may have been higher by 9 $\mu\text{mol/L}$ on average (confidence limits – 7 $\mu\text{mol/L}$ to + 26 $\mu\text{mol/L}$, for a given patient). This also impacted eGFR calculations, causing a drop of on average 8 $\text{mL/min}/1.73^2$ (confidence limits of -3 to 23 $\text{mL/min}/1.73\text{m}^2$).

This problem was reported in other jurisdictions internationally, and has been resolved by changing the reagent batch used to run the serum creatinine on the analyzers. B.C. labs have made the switch, with assistance from the manufacturer.

We appreciate that this may have impacted your clinical care decisions, or referral patterns. We are continuing to investigate the issue.

Sent on behalf of Dr. Blake Gilks, Chief Medical Lab Officer, Provincial Lab Medicine Services
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