

DATE:	2022 February 22
TO:	All Healthcare Providers, All Zones
FROM:	Alberta Precision Laboratories (APL), University of Alberta Hospital Lab, Edmonton
RE:	Vitamin C: Changes to Patient Preparation, Specimen Collection/Handling, and Reporting

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Key Message

- **Effective immediately**, community vitamin C blood collections occur at specific sites in Alberta and some sites require appointment booking.
- Patients should NOT consume alcohol, foods or supplements containing vitamin C within 24h of collection.
- Fasting times for vitamin collections, and specimen collection/handling, and reporting for vitamin C are standardized. Refer to the APL Test Directory for details.

Background

- Clinical indication for vitamin C analysis is diagnosis of deficiency NOT routine screening.
- The laboratory is frequently receiving poor quality specimens. Current practice is contributing to frequent test cancellations, blood recollections, and delay in reporting results.

How this will impact you

- Urban and regional hospitals will continue doing inpatient vitamin C blood collections.
- Collection, shipping and handling alerts have been added to the APL Test Directory for vitamin C.
- Vitamin C samples not received acidified, on ice, frozen or protected from light will be rejected.
- A new reporting comment will be appended with vitamin C results:

Current Reporting Comment*	New Reporting Comment°
Reference Interval 35-95 µmol/L	Severe deficiency <11 µmol/L Sufficient levels 23-85 µmol/L

*Derived from a fasting population, J of Biological Chemistry 1955

°Tietz Textbook of Clinical Chemistry 2006 and Canadian Health Measures Survey, 2012/2013

Action Required

- Prepare patient by recommending a 10h fast prior to blood collection.
- Collect pediatric blood samples prior to next feed.
- Check the APL Test Directory at time of order and provide community patients with appointment booking and collection site information.
- Be aware of Test Directory and reporting comment changes for vitamin C.

Questions/Concerns

- Dr. Kareena Schnabl, Clinical Biochemist, (780) 407-3186, kareena.schnabl@aplabs.ca

Approved by

- Dr. Hossein Sadrzadeh, Section Chief, Biochemistry, APL, South Sector
- Dr. Mathew Estey, Director of Chemistry, DynaLIFE Medical Labs
- Dr. Michael Mengel, Medical Director, APL, North Sector
- Dr. Dylan Pillai, Medical Director, APL, South Sector