

DATE:	2021 December 6
TO:	All Healthcare Professionals in Edmonton Zone and North Zone
FROM:	Alberta Precision Laboratories (APL), North Sector
RE:	Changes to 25-Hydroxy(OH) Vitamin D reporting

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Key Message

- Effective immediately, changes to reference intervals, cutoff comments, and reporting components will be implemented for 25OHvitamin D in Edmonton Zone (EZ) and North Zone (NZ). See Table 1 in Appendix.

Why this is important

- The new reference intervals and cutoff values align with a recent US Preventative Service Task Force evidence report and systematic review on screening for vitamin deficiency in adults (JAMA 2021, Vol 325, No 14).
- Specifically, the lower end of the reference interval (sufficient range) will drop from 80 to 50 nmol/L. This change reflects lack of evidence in published randomized clinical trials for benefit of vitamin D supplementation on fracture outcomes in patients with levels 50-80 who were previously classified as moderate to mild deficiency.
- Consultation with physician stakeholders indicated that interpretation of results is based primarily on total 25OHvitamin D levels and that ergocalciferol (D2) treatment is uncommon. Total levels reflect D3 stores in the majority of patients. Therefore, total calculated levels will be the only component reported to chart and is the sum of D2 and D3. D2 and D3 levels are still available if requested by contacting the laboratory.
- Strong evidence continues to support against population-based screening for vitamin D deficiency. Vitamin D orders will continue to be enforced with testing indications using the vitamin D requisition. Click [here](#) to view the requisition.

Action Required

- Be aware of changes to 25OHvitamin D reference intervals, comments, and reporting components indicated in Table 1.
- Some patients with levels 50-80 nmol/L previously classified with moderate to mild deficiency, will now be reclassified as sufficient.

Questions/Concerns

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This bulletin has been reviewed and approved by

- Dr. Kareena Schnabl, Section Chief Biochemistry, North Sector, APL
- Dr. Michael Mengel, North Sector Medical Director, APL



Appendix

Table 1. Summary of vitamin D reporting changes currently implemented in EZ and NZ.

	New state	Previous state
Reference interval (nmol/L)	50 – 200	80 – 200
Comments appended to results	Recommendations for interpreting levels based on bone disease risk: <25: severe deficiency possible 25-49: moderate to mild deficiency possible 50-200: sufficient levels >200: toxicity possible USPSTF recommendation statement: JAMA 2021, Vol 325, No 14	Therapy should be based on Total (OH)D results: <25: severe deficiency 25-80: moderate to mild deficiency 80-200: optimum levels >200: toxicity possible
Reporting components	Only Vitamin D total, calculated (sum of D2 and D3) will be reported.	Vitamin D2 Vitamin D3 Vitamin D total, calculated (sum of D2 and D3)