

DATE:	13 April 2026
TO:	Central, Edmonton and North Zones – All Healthcare Providers
FROM:	Clinical Biochemistry, Alberta Precision Laboratories (APL)
RE:	Plasma/Serum Cortisol Changes to Method, Interpretation and Reporting at Edmonton Base Lab

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Key Message

- Effective **April 28, 2026**, the method used to test plasma/serum Cortisol in the North Sector will be changed.

Background

- There will be **no changes**:
 - to Connect Care test codes for ordering serum/plasma Cortisol tests
 - to Urine Cortisol and Salivary Cortisol tests provincially and to plasma/serum Cortisol results in the South Sector
- There **will be a change** in reference intervals and appended comments for some tests (Appendix, Table 1).
- Serum/plasma Cortisol in the North Sector is only performed at Edmonton Base Lab and is on a different testing method (Siemens Atellica) from the rest of the province (Roche cobas).
- A comparison study demonstrated that results between the two methods are not comparable and therefore require different interpretive cut-offs.
- Stakeholder input was obtained from the Divisions of Endocrinology (University of Alberta and University of Calgary).

Why this is important

- Changing the North Sector method to Roche cobas will align methods, reference intervals, and reporting comments with the rest of the province.

Action Required

- Be aware of changes to reference intervals and interpretive cut-offs for serum/plasma cortisol and associated stimulation/suppression testing performed in the North Sector.

Questions/Concerns

- Edmonton Base Laboratory Clinical Chemists, Edmonton EBL, APL | APL.BLClinicalChemists@aplabs.ca

Approved by

- Dr. Mathew Estey, Medical Lead, Clinical Biochemistry, Hub Lab, North Sector, APL
- Dr. Michael Mengel, Medical Director, North Sector, APL



Appendix 1.

Table 1. Plasma/serum cortisol reporting changes to reference intervals and appended comments

Serum/Plasma Tests	Current	New - effective April 28, 2026	
	Reference Interval	Reference Interval	Appended Interpretive Comment
Cortisol, Random	85-620 nmol/L	None – See comment	Adrenal insufficiency is unlikely if a peak or random cortisol exceeds 350 nmol/L on the Roche method used for this test; endocrinology consultation is advised if uncertainty remains.
Cortisol AM	120-620 nmol/L	170-500 nmol/L	None
Cortisol PM	85-460 nmol/L	75-285 nmol/L	None
ACTH Stimulation (1 and 250 µg) Cortisol (baseline, 30 min and 60 min)	None	None – See comment	A 30 min cortisol level >300-350 nmol/L rules out chronic adrenal insufficiency in most cases.
Dexamethasone Suppression Test and other cortisol tests	No changes		