



Date: October 5, 2020
To: All Zones – Physicians, Nurses, Laboratory Directors, and Managers
From: University of Alberta Hospital (UAH), Alberta Precision Labs (APL), North Sector
Re: Discontinuation of 24 hour urine N-terminal telopeptide (NTx) testing at UAH

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Key Message:

- Effective **October 5, 2020**, the University of Albert Hospital (UAH) Toxicology Laboratory in Edmonton will discontinue 24 hr urine NTx testing.
- Alternative bone turnover marker testing is available as serum C-terminal telopeptide (CTx) or mid-morning random urine NTx. These will be referred to the Diagnostic and Science Centre (DSC) Immunochemistry Laboratory in Calgary.
- Random urine NTx reference intervals for adult male and pre-menopausal women are 5.0 – 65.0 nmol/mmol creatinine.

Why this is important:

- Consultation with various physician stakeholders as well as current osteoporosis guidelines has determined serum CTx as being the preferred bone turnover marker for evaluation of patient adherence and drug responses to anti-resorption bone agents (*Pharmacological Management of Osteoporosis in Postmenopausal Women: An Endocrine Society Clinical Practice Guideline. Clin Endocrinol Metab, May 2019, 104(5):1595–1622*).
- As a result of serum CTx being more frequently ordered, declining 24 hour NTx testing volume has resulted in lengthy turnaround time and difficulty in maintaining assay quality assurance.

Action Required:

- Serum CTx is the preferred bone resorption marker for osteoporosis, and is available within the province, with testing currently referred to Calgary.
- Be aware 24 hour urine NTx will no longer be available at UAH.
- If NTx is required, it should be ordered as random urine. Reference intervals will change to reflect this sample type.
- If urine NTx is being serially monitored, new measurements will be required to re-establish baseline in random urine.
- Sample collection and transportation requirements can be found on the APL test directory.

Inquiries and feedback may be directed to:

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