DIAGNOSTIC SERVICES / CLINICAL BIOCHEMISTRY

Quantitative Urine Protein Test Changes – Rural Labs

Date issued: May 22, 2019
Effective data: May 27, 2019

Clinical Testing Change:

We are standardizing quantitative urine protein testing to a single analytical method instead of the two procedures currently used throughout the province.

- The complexity of proteins in urine makes standardization of urine total protein measurement extremely difficult. The use of a single method will prevent between lab variability in patient results.
- Specimens will be analyzed using the Roche Diagnostics turbidimetric assay available at Westman, Health Sciences and St. Boniface laboratories.
- The Ortho Diagnostics Vitros colorimetric assay used at a number of rural sites is discontinued effective May 27, 2019. Specimens will be forwarded to Brandon or Winnipeg laboratories for analysis.
- Random urinary protein to creatinine ratio is overestimated in dilute urine specimens by most assays (creatinine <3 mmol/L). The Roche method has improved accuracy in dilute urine samples compared to colorimetric assays.
- As dilute urine is a common occurrence in pregnancy, an elevated protein to creatinine ratio should be confirmed in a more concentrated urine sample. First morning specimens are preferred, but random specimens are acceptable if first morning specimens are not available.

References/Resources:

- SOGC Clinical Practice Guideline – Diagnosis, Evaluation, and Management of the Hypertensive Disorders of Pregnancy. J Obstet Gynaecol Can 2014, 36(5): 416-438
- Preeclampsia Screening: Evidence Report and Systematic Review for the US Preventative Task Force. JAMA 2017, 317 (16); 1668-1683
- National Kidney Foundation Kidney Disease Outcomes Quality Initiative (NKF KDOQI) 2002 Clinical Practice Guidelines for Chronic Kidney Disease.

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