

Urine Chemistry Testing and Requisition

Change Effective: March 1, 2021

Background Information:

Shared Health Diagnostic Services (Lab) have established new testing protocols to reflect best practice and testing algorithms. This Urine Chemistry Requisition has been revised to enable these changes.

Clinical Practice Change:

Urine dipstick can be ordered without reflex to microscopy. The urine dipstick provides a rapid semi quantitative assessment of urine for: Glucose, Bilirubin, Ketone, Specific Gravity, blood, pH, Protein, Urobilinogen, Nitrite and Leukocytes.

Urine microscopy will only be performed when Urinalysis Renal Workup is ordered. Renal workup is dipstick plus reflex to microscopy only if positive for blood, protein or leukocyte esterase. The Urine Renal Workup will provide information on the presence of casts, cells and other formed elements. Urinary Crystals will no longer be reported as part of the urine microscopic examination.

It is important to accurately record time of void (collection time), and that samples are transported to the lab for processing in less than 2 hours from collection time to ensure accurate results and reporting. Microbial contamination of urine samples is common. Delay in urine processing and prolonged exposure at room temperature may result in microbial growth with changes in the pH (shift to alkaline), which may cause false positive protein and blood results. Also, urine glucose may decrease as growing microorganisms utilize the sugar.

No laboratory testing is required for healthy adult pre-menopausal, non-pregnant women presenting with symptoms and signs consistent with acute uncomplicated cystitis without a history of UTI or other infection. The presence of pyuria (defined here as a positive urine dipstick for leukocyte esterase) should not be used to support a need for antimicrobial therapy in the absence of UTI symptoms.

Please refer to Clinical Practice Change issued regarding UTI (<https://sharedhealthmb.ca/health-providers/diagnostic-services/clinical-practice-changes/#38-328-clinical-biochemistry>).

To ease the transition, urinalysis ordered on the old forms will have microscopy included (minus reporting on crystals) until June 30, 2021. After this time, urinalysis ordered on old forms will only include urine dipstick.

References/Resources:

- <https://apps.sbgf.mb.ca/labmanual/document/requisitions>

Patient Impact:

- Improve appropriateness of Urinalysis investigations.

System Improvements:

- Reduce testing that does not add diagnostic value
- Reduce form completion and registration errors
- Provide clarity of services available to patients across the province

Contact Information:

Dr. Laurel Thorlacius, Medical Director, Clinical Biochemistry Shared Health

lthorlacius@sharedhealthmb.ca

Dr. Hana Klassen Vakili, Clinical Biochemist, Clinical Biochemistry Shared Health

hvakili@sharedhealthmb.ca