Laboratory Medicine Bulletin

Discontinuation of Urine Myoglobin Testing

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Key Messages:

- As of November 1, 2017, urine myoglobin testing will be discontinued in the laboratories of Vancouver Coastal Health and Providence Health Care.
- If rhabdomyolysis is clinically suspected, assessment should be made with serum creatine kinase (CK), creatinine and urine macroscopic (dipstick) analysis.

The reasons for this change are:

- Rhabdomyolysis can be diagnosed on the basis of serum CK levels alone. [1]
- Urine myoglobin does not show good specificity (~25%) for predicting AKI in rhabdomyolysis. [2]
- The methodology used for assessment of urine myoglobin is subject to both false positives and false negatives and so results may be clinically misleading.

Diagnostic assessment for rhabdomyolysis should be made with:

- Clinical signs of muscle damage or a history of crush injury or prolonged immobilization.
- Measurement of serum CK values and serum creatinine.
- Urine dipstick will be positive for blood if myoglobin is present in the urine, however this should not be the basis of diagnosis.

A diagnosis of rhabdomyolysis should be considered when:

- Serum CK levels are >5x the upper reference limit, or above 1000 U/L. Serum CK values above 5000 U/L are associated with the development of AKI. [3]

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