

## MEMORANDUM

TO: All Physicians, Nurse Practitioners, Nurse Managers, Directors of Nursing,  
Clinical Instructors/Educators, Laboratory Managers, Hematology Laboratories

FROM: Dr. Jennifer Fesser  
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Health PEI Provincial Laboratory Services

DATE: January 14, 2013

RE: **LAP (LEUKOCYTE ALKALINE PHOSPHATASE) SCORE  
TEST TO BE DISCONTINUED**

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Background: The Leukocyte Alkaline Phosphatase (LAP) score was developed in the 1950s to assist in the diagnosis of chronic myelogenous leukemia (CML) and polycythemia vera (PV). The test is essentially a subjective analysis of the intensity of neutrophil / band staining.

The LAP score is no longer included among the diagnostic criteria for either CML or PV. The pathognomonic finding for CML (in the appropriate context) is the presence of the BCR-ABL1 fusion protein. While PV may be associated with an elevated LAP score, this finding has poor specificity. Elevated LAP scores are associated with a variety of illnesses, including stress, infection / inflammation, autoimmune disease, chronic renal failure, medications, and pregnancy. In cases of suspected PV, JAK2 mutation analysis is recommended, as virtually all patients with PV carry this mutation, but it is not found in reactive conditions.

In 2007, the Mayo Clinic discontinued the test, after concluding it "had no current clinical value".

**Please note that the LAP score will be discontinued effective February 1, 2013.**

JF/mlm

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