

## MEMO

**TO:** Regional Medical Laboratory Clients

**FROM:** Lawrence Johnson, MD, FCAP, FASCP, Chief of Hematology, Coagulation, Urinalysis, and Flow Cytometry  
Jennifer Starks, MT(ASCP), Section Manager

**DATE:** July 10, 2014

**SUBJECT:** Discontinuation of Leukocyte Alkaline Phosphatase Score

As of July 7, 2014, RML will discontinue the LAP score. The LAP score was developed as a way to evaluate the amount of leukocyte alkaline phosphatase enzyme present in polymorphonuclear leukocytes. A decreased LAP score was considered worrisome for the chronic myeloproliferative disorder, chronic myelogenous leukemia (CML), and an increased score was considered worrisome for polycythemia vera (PV). As our understanding of these and other chronic myeloproliferative disorders has grown, so too has our recognition that the LAP score is neither sensitive nor specific for CML, PV, or any other disease entity.

The most recent National Comprehensive Cancer Network (NCCN) guidelines, European Leukemia Net guidelines, and the 2008 World Health Organization (WHO) Classification of Tumors of Hematopoietic and Lymphoid Tissues do NOT recommend the use of the leukocyte alkaline phosphatase (LAP) score in the diagnosis or exclusion of CML or any other chronic myeloproliferative disorder. This includes PV, essential thrombocythemia (ET), or primary myelofibrosis (PMF). For these reasons, when there is a clinical concern for a chronic myeloproliferative disorder, RML recommends, as an initial first step, ordering a hematopathology consult, blood smear review. A hemepathology consultation includes a CBC with manual differential count, an absolute reticulocyte count, and an immature platelet fraction (IPF) along with a clinical pathologist's review of the peripheral blood smear, as well as any previous laboratory, radiologic, clinical, and pharmacologic history. The clinical pathologist will then issue an interpretive report that may include a recommendation for additional molecular testing or a bone marrow examination, as needed.

### Suggested Replacement Test

Test Name: Hematopathology Consult  
Order Mnemonic: PBS RML  
Test Number: 2904600  
CPT Codes: 85027, 85045, 85007, 80502, 85055

If you have any questions regarding this change, please contact Dr. Lawrence Johnson at (918) 744-2553 or Jennifer Starks, MT (ASCP) at (918) 744-2500 or 1-800-722-8077 or email [lrjohnson@sjmc.org](mailto:lrjohnson@sjmc.org) or [jennifer.starks@sjmc.org](mailto:jennifer.starks@sjmc.org).