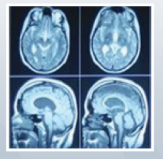
DIAGNOSTIC SERVICES MANITOBA SERVICES DIAGNOSTIC MANITOBA

Physician Alert


CLINICAL PRACTICE CHANGE

October 31, 2013 **Effective December11, 2013**

New Clinical Parameters for Hematology Analyzer at Westman Laboratory

Why the Change:
With our past upgrade of cell counter analyzers and software we are now able to add the following new parameters to further assist physicians with monitoring and treatment of patient's hematological conditions.

Immature Platelet Fraction (IPF):
Reticulated platelets are a measure of Immature Platelets. The Immature Platelet Fraction is an index of thrombopoiesis and can help to determine the mechanism of thrombocytopenia. An increased IPF in the presence of thrombocytopenia is indicative of a platelet destruction or consumption. Values at or below this range in combination with thrombocytopenia are indicative of decreased marrow production.

Reticulocyte Hemoglobin (RET-He):
"The measurement of reticulocyte hemoglobin content is a direct assessment of the incorporation of iron into erythrocyte hemoglobin and thus a direct estimate of the functional availability of iron into the erythron."[3] RET-He is a reliable marker of cellular hemoglobin content. A value below this range is indicative of a decreased amount of iron in the RBC or iron deficiency.

Immature Reticulocyte Fraction (IRF):
IRF is a direct cellular measurement of erythropoiesis that can be used to monitor erythropoietic activity. IRF is a useful aid in diagnosis & therapeutic management of anemia and in monitoring erythropoietic stimulating agent.

How to order / when new parameters will be reported:
The new parameters are related to reticulocytes will be reported in association with the reticulocyte count. *Retic count must be ordered.*
The IPF will be reported if instrument platelet measurements deviate from expected platelet characteristics.
Parameters are currently not available on our secondary analyzer; therefore results on these parameters would not be available when primary analyzer is down for extended maintenance or repairs.

DSM Contact Information:

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References:
1. Fernandes, B. and Hamaguchi, Y. (2007). Automated Enumeration of Immature Granulocytes. American Journal of Clinical Pathology, 128:454-463.
2. Fernandes, B. Identification and enumeration of nucleated red blood cells in peripheral blood. SJI 2002: 12(2):56.
3. Brugnara, C., Schiller, B., Moran, J. (2006). Reticulocyte hemoglobin equivalent (Ret-He) and assessment of irondeficient states, Clinical Laboratory Hematology, 18:303-308.
4. Kidney Dialysis Outcome Quality Indicator (KDOQI) Guidelines.

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