New hematology tests available May 1

WHAT’S NEW?
Effective Sun., May 1, PeaceHealth Laboratories in Vancouver and Longview will begin offering three new hematology tests.

PLATELET COUNT, CTAD (LAB6268)
▪ For use in patients with chronic platelet clumping on previous CBC orders.
▪ Involves collection into a targeted anti-platelet anticoagulant highly effective at preventing platelet clumping, allowing an accurate platelet count.

SCHISTOCYTE COUNT, BLOOD (LAB6267)
▪ Allows schistocyte quantitation to be ordered for evaluation of microangiopathic hemolytic anemias (TTP, HUS, DIC, etc).
▪ Schistocytes reported as percentage of RBCs, based on 1000 cell count.

IMMATURE PLATELET FRACTION (LAB2088)
▪ Used to evaluate low platelet counts.
▪ IPF differentiates increased platelet consumption from bone marrow failure/suppression.
▪ Available at low cost with rapid turnaround time.
▪ May eliminate the need for bone marrow examination in some patients such as younger patients with high immature platelet fraction (IPF) and clinical presentations suggesting idiopathic thrombocytopenic purpura (ITP)

SUMMARY OF NEW TESTS:
PLATELET COUNT, CTAD specifies collection into a special tube containing multiple anti-platelet agents: citrate, theophylline, adenosine, and dipyridamole. This tube is highly effective at preventing platelet clumping in patients with a prior pattern of clumping when collected into EDTA. This is a common problem attributed in many cases to clinically trivial antibodies active in EDTA which can prevent accurate reporting of the platelet count. This phenomenon can be particularly problematic in patients with real or apparent (artifactual) concurrent thrombocytopenia, where an accurate platelet count is important. Preliminary studies at PeaceHealth Laboratories (PHL) have confirmed that platelet clumping occurring in EDTA and citrate anticoagulants is prevented in most cases using CTAD tubes. PHL and published studies¹ both show that equivalent platelet count results are obtained with EDTA vs. CTAD tubes in normal patients.

SCHISTOCYTE COUNT, BLOOD allows physicians to easily order a microscopic quantitation of schistocytes following established consensus guidelines for enumeration.³ Schistocytes are a non-specific finding which can be seen with many disorders including kidney disease, burns, and heart valves; however, at levels >1.0% this finding is strongly suggestive of microangiopathic hemolytic anemia, including TTP in clinically compatible patients.⁴ TTP is an acute diagnosis with high mortality untreated and good survival with appropriate therapy. ADAMTS13 testing may be

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useful in diagnosis but is neither specific nor sensitive for TTP. Schistocyte quantitation provides a rapid and inexpensive method for initial evaluation.

**IMMATURE PLATELET FRACTION** test is an inexpensive rapid assessment of immature platelet fraction (IPF) and may be useful to evaluate patients with thrombocytopenia. IPF is the platelet equivalent of the red blood cells reticulocyte count and is typically elevated in disorders of platelet destruction such as idiopathic thrombocytopenic purpura (ITP), thrombotic thrombocytopenic purpura (TTP) and disseminated intravascular coagulation (DIC). It is also an early indicator of marrow recovery in patients post-chemotherapy and stem cell transplant. IPF is normal or minimally elevated in marrow suppression disorders such as aplastic anemia and in liver failure. IPF can be elevated in a subset (24%) of myelodysplasia patients.

**References:**

Platelet Count, CTAD

Immature Platelet Fraction

**QUESTIONS?**

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