

Covenant HealthCare Laboratory Services

Important Update, New Laboratory Tests March 2006

Covenant HealthCare Laboratory Services is now offering new tests for the evaluation of platelet function response to Plavix® (clopidogrel) and Aspirin. The VerifyNow System uses the same principle as the reference standard, platelet aggregometry, for assessment of platelet function.

The instrument measures the change in light transmittance as activated platelets in the sample of whole blood bind and aggregate fibrinogen-coated beads in the assay device. Each type of assay contains different agonists that specifically stimulate one activation pathway for platelets.

VerifyNow Aspirin tests the ability of platelets inhibited by aspirin to convert arachidonic acid to thromboxane A₂. The **Aspirin Functional Assay**, is resulted in ARU (Aspirin Reaction Units). A value above 550 ARU indicates the patient is not responding to aspirin. A value below 550 ARU indicates the patient's aspirin is working effectively. Note: use of anti-platelet agents and NSAID's may alter the ARU value somewhat.

VerifyNow P2Y₁₂ measures the blockade of platelet P2Y₁₂ receptors. Plavix®, a major antiplatelet drug, acts specifically at the platelet's P2Y₁₂ receptor to inhibit platelet activation and reduce the risk of thrombus formation associated with heart attack and stroke. **Plavix Platelet Inhibition**, contains four results: 1) PRU (Platelet Resistant Units): PRU is the amount of P2Y₁₂ receptor mediated aggregation specific to the platelet and is calculated as a function of the rate and extent of platelet aggregation in the ADP channel; 2) Percent Inhibition: the percent change from the baseline aggregation, and is calculated from the PRU result and Base result, which is an independent measurement based on the rate and extent of platelet aggregation in the TRAP channel; 3) Platelet Count; and 4) Functional Platelets.

Please share this information with the appropriate staff members. Complete test requirements may be found in the Covenant HealthCare Laboratory online test directory at www.covenantlab.com. Refer questions regarding these tests to Daniel Warner, Core Laboratory Coordinator, 583-6746 or Dr. Nicholas Hruby, Laboratory Medical Director, 583-6703.

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