Department of Pathology & Laboratory Medicine

UNIVERSITY of ROCHESTER MEDICAL CENTER

MEDICINE of THE HIGHEST ORDER

To: Clients of URMC Labs

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Re: ***P2Y12 PLATELET INHIBITION TEST VENDOR MANDATED CHANGE IN REPORTING RESULTS***

Date: 8/31/2012

Effective 9/1/2012, a vendor mandated software upgrade to the Accumetrics instrument will modify the test result for the VerifyNow P2Y12 Platelet Inhibition Assay.

The VerifyNow P2Y12 test will only be reported in PRUs (P2Y12 Reaction Units).
The platelet function baseline and % platelet inhibition values will no longer be reported.

Since the introduction of this test, literature and manufacturer's guidelines have evolved to recommend PRU reporting. PRU has become more accepted because it documents the ADP-mediated aggregation specific to the P2Y12 receptor. Because the baseline reference range for a patient NOT on a P2Y12 inhibitor is broad, calculations of % inhibition may present a misleading view of the patient's capacity to respond. Future guidelines for assessment of P2Y12 medical inhibition will be based on PRU, not % inhibition, as demonstrated in recent trials such as GRAVITAS and TRIGGER-PCI.

A PRU of **208 or less** is recommended for patients receiving P2Y12 anti-platelet therapy. A PRU of 237 or greater would suggest a return to baseline aggregation after the withdrawal of medication or would suggest medication resistance in a person recently initiating treatment.

Accumetrics has provided the following table identifying the expected % inhibition threshold at specific PRU levels. The results are taken from a 10,375 sample dataset (Price 2009). The data demonstrated a very high statistically significant ($p<0.001$) area under the ROC curve showing the PRU results have excellent ability to discriminate a % inhibition result above or below the specific threshold.

% Inhibition Threshold	PRU Threshold
10%	259
20%	237
30%	214
40%	187
50%	159
60%	131

For any further concerns, please feel free to contact the special coagulation laboratory at 275-5187.