Effective June 22, 2013 the Clinical Laboratory began performing a Thromboelastography (TEG) test on citrated whole blood. TEG measures the viscoelastic properties of clotting blood. In our evaluation of the kaolin-activated TEG:

1. The TEG kaolin R time correlated poorly with PT or aPTT, and is relatively insensitive to factor deficiencies, and should not be relied upon to detect same. A normal TEG R time does not exclude factor deficiencies, with increased kaolin R times associated with factor levels of <20%.

2. The TEG k time and Angle correlated with fibrinogen levels, but increased k and decreased Angle associated with fibrinogen levels of <100mg%.

3. The TEG Angle and Maximum Amplitude (MA) correlate with traditional laboratory methods for assessing coagulation, including the PT, aPTT, FBG, platelet count, factor levels, and tests for assessing platelet function including PFA closure times and platelet aggregation studies. A normal TEG Angle and MA does not exclude the presence of anti-platelet drugs, or platelet function defects. The Angle and MA appear to be sensitive to thrombocytopenia (<100,000/mm$^3$).

4. The TEG Lysis30 and Lysis60 appear to detect increases in fibrinolytic activity, but the Euglobulin Lysis Time may be a more sensitive test for both increased and decreased fibrinolytic capacity.

5. The interpretation of the TEG should be used in concert with patient's clinical, laboratory and medication history.

This test is not intended to replace the current whole blood method used in the OR. This test will be available M-F 0800 - 1500.

**Sample Requirements**

**Collect:** 2.7 mL sodium citrate tube (blue top with liquid)

**Pediatric Collection Transportation:** 1.8 mL sodium citrate tube

**Storage/Transport:** Deliver at room temperature to the laboratory for immediate processing. Do not use pneumatic tube transport system.

**Stability:** 2 hours at room temperature.

**Unacceptable Conditions:** Sample type other than citrated plasma, samples older than 2 hours from collection.

**Reference Interval:** see report for reference intervals for R, k, Angle, MA, Lysis30 and Lysis60

For clinical and technical questions please contact Bob Gosselin at 916-734-2490. For other questions or additional information please contact Laboratory Client Services at 916-734-7373 or email pathologyclientservices@ucdmc.ucdavis.edu.