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TO: Medical Staff, House Staff, Patient Care Centers,
Outpatient Clinics and UC Med Labs Clients

FROM: Krzysztof Mikrut, B.S. MT (ASCP)
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DATE: 5/16/2019

RE: Discontinuation of Euglobulin Clot Lysis Time and FXIII screen
(urea solubility assay)

The UCM Coagulation Laboratory currently performs a functional assay for fibrinolysis (Euglobulin Clot Lysis Time) and a screening assay for FXIII activity (Urea Solubility Assay). These assays are slow and lack precision. The FXIII activity screen shows low sensitivity. The utilization of these assays has been very low for several years.

The turn-around time for the Euglobulin Clot Lysis Time is 20 hours. Many clinical laboratories have discontinued the euglobulin clot lysis time.

The FXIII screen (urea solubility assay) is a qualitative assay and can only determine if the patient has <1% or >1% Factor XIII activity. Patients can have bleeding related to FXIII deficiency despite having activity >1%; for that reason, the International Society for Thrombosis and Haemostasis (ISTH) recommends performing quantitative FXIII assays.

Therefore, as of 5/22/2019, these two functional assays will be discontinued.

For investigation of fibrinolysis, the UCM Coagulation Laboratory recommends replacement with a panel that includes thromboelastography (TEG1 orderable test), D-dimer, fibrin(ogen) degradation products (FDP), and fibrinogen level. Additional send-out testing is available for quantitation of PAI-1 and α 2-antiplasmin. Please contact the Coagulation Laboratory pathologist on-call for additional guidance and consultation.

For investigation of FXIII deficiency, a quantitative send-out assay has been orderable in EPIC for over a year. For patients needing a rapid rule-out of FXIII deficiency (such as for pre-operative clearance), the UCM Coagulation Laboratory recommends TEG1 (severe FXIII deficiency prolongs K-time and increases clot lysis). We recommend contacting the Coagulation Laboratory pathologist on-call for additional guidance and consultation in these cases.

For questions, please contact Krzysztof Mikrut, Laboratory Manager, at 773-702-1315, or Geoffrey Wool, MD PhD, Medical Director, at 773-926-1455.

References

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Zia AN, Chitlur M, Rajpurkar M, Ozgonenel B, Lusher J, Callaghan JH, Callaghan MU. Thromboelastography identifies children with rare bleeding disorders and predicts bleeding phenotype. *Haemophilia.* 2015 Jan;21(1):124-32.