Kleihaur-Betke Testing Changes Based on Clinical Indication.

John Lunde, MD
Medical Director
Hematology
Phone: 847-5135
EMail: John.Lunde@UVMHealth.org

Change is effective Monday June 12, 2017

The Hematology Laboratory performed an audit of Kleihauer-Betke (KB) testing over the last three years to determine the ordering habits, turnaround times, and clinical impact of this test. Based on these findings, a review of current Obstetrical literature/guidelines, and discussions with the Obstetrics and Gynecologic Department at the University of Vermont Medical Center, the following changes were made to optimize the utilization of KB testing:

1. Testing will no longer be offered or performed between 11pm and 7am. Testing will continue to be offered routinely 7am to 3:30pm Monday through Friday. All weekend and evening testing received after 3:30pm Monday through Friday will require pathology approval.

2. Maternal Rh status and testing indication should be provided with each order.

3. If the patient is Rh (-) a fetal screen should be initially ordered. A Kleihauer-Betke will automatically be reflexed and run on all positive fetal screens.

4. Any STAT orders or test requests on patients who are Rh (+) or Rh (-) without a fetal screen will be reviewed by a pathologist prior to running. Pathology may contact the ordering provider to discuss testing based on the following indications:

Recommended Indications

Definitely Indicated	Clinical Judgment	Not Indicated
RhIG (if positive fetal screen)	Maternal Trauma	External cephalic version
Fetal loss > 20wks	Neonatal Anemia	Non-traumatic abruption
Fetal hydrops	Cord blood sample	Vaginal bleeding
High clinical concern for massive fetal maternal hemorrhage with MCA dopplers		Fetal loss < 20 weeks

The Kleihauer-Betke (KB) test is designed to quantitate fetal red blood cells, but the results have been shown to be imprecise with a large coefficient of variation (CV). It is often utilized to quantitate large fetomaternal hemorrhages at the time of delivery in Rh (-) women for appropriate dosing of RhIG to prevent Rh alloimmunization. Although it can be used during pregnancy in both Rh (-) and Rh (+) women to detect fetomaternal hemorrhage, the evidence to support its utility are limited and results should be interpreted with caution.

Thank you for your attention and for your cooperation with these changes.

PATHOLOGY & LABORATORY MEDICINE
111 Colchester Avenue | Mail Stop: 233MP1
Burlington, Vermont 05401

PHONE LABORATORY CUSTOMER SERVICE
(802) 847-5121 | (800) 991-2799

THE University of Vermont MEDICAL CENTER