

## I. Purpose

To define potential sources of error when performing venipuncture

### A. Venipuncture - Sources of Error

1. Diet influences: certain tests which require fasting prior to specimen collection. Prolonged fasting will influence certain test results as well. Blood drawn immediately after a meal may have different levels of potassium, phosphorus, glucose, triglycerides, and alkaline phosphatase than specimens taken 4 hours after eating.

**NOTE:** Refer to Lab Handbook for test specific information.

2. Tourniquets left on for more than 1 minute or vigorous hand exercise will elevate potassium and lactic acid levels and decrease blood ph.
3. Anti-coagulated specimens containing clots should be discarded.

Hemolysis causes increased levels of bilirubin, Creatine phosphokinase(CPK), Lactate dehydrogenase(LDH), magnesium, potassium, Aspartate transaminase(AST) and Alanine aminotransferase(ALT) and shortened coagulation studies: (Prothrombin time(PT), Activated Partial thromboplastin time(APTT)).

4. Serum in prolonged contact with the clot will result in changes in glucose, iron, LDH, and potassium levels.
5. No specimens are accepted with attached needles except for specific anaerobic specimens for microbiologic workup. The potential for transmission of blood-borne diseases is greatest when needles and sharp instruments are used in direct patient care or in a clinical laboratory setting away from the patient environment. Use universal precautions in handling sharp objects of any kind.