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## Revised Lactate Sample requirements

### Situation:

As a result of physician concerns, and literature review, the laboratory of Children's Hospital has revised sample collection requirements for the Blood Lactate test performed on whole blood.

### Background:

The current practice has been to accept lactates collected by arterial puncture (preferred method) and venous puncture without a tourniquet. We also accept capillary samples. Recommended storage and transport were ambient temperature.

### Assessment:

Lactate is the end product of carbohydrate metabolism. Lactate results are influenced by a number of factors including muscle contraction due to exercise or fist clenching during phlebotomy. Lactate is not stable in the sample due to the effects of glycolysis. With many variables affecting test results for lactate, our lab has revised the sample requirements for this test to be consistent with guidelines found in references universally available.

### Recommendation:

Effective June 1, 2015 the lab will accept samples from a free flowing venous puncture, collected without a tourniquet, or arterial puncture, or central line. Samples should be transported immediately to the lab in ice slurry. Additional tests frequently collected in a blood gas syringe may be performed on the same specimen.

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