

Appendix 7: i-STAT System Specimen Requirements

CHEM8+ cartridge

Sample Type	Instructions
Capillary	DO NOT USE
Venous, Arterial	Use Dark Green Li-Heparin tube (no gel)* or balanced heparin blood gas syringe Invert 8-10 times in a figure-eight motion to mix before testing

Analytes reported	Test Timing
Ionized Calcium, Total CO ₂	Within 10 minutes after collection. Maintain anaerobic conditions until testing.
Sodium, Potassium, Chloride, Glucose, Urea, Creatinine	Within 30 minutes after collection.

CG4+, CREA, EC8+, and G cartridges

Sample	Instructions
Capillary	Collect sample using a balanced heparin capillary tube
Venous, Arterial	Use Dark Green Li-Heparin tube (no gel) or balanced heparin blood gas syringe Invert 8-10 times in a figure-eight motion to mix before testing

Analytes reported	Test Timing
Lactate	Immediately after collection. Any delay can falsely elevate results.
pH, pCO ₂ , pO ₂ , Total CO ₂ , HCO ₃ , Base Excess, sO ₂	Capillary: within 3 minutes after collection Venous/Arterial: Within 10 minutes after collection. Maintain anaerobic conditions until testing.
Sodium, Potassium, Chloride, Glucose, Urea, Creatinine	Capillary: Within 3 minutes after collection Venous/Arterial: Within 30 minutes after collection.

PT/INR Cartridge

Sample Type	Instructions
Capillary	Direct skin puncture to cartridge application Use first drop of blood (do not wipe away)
Venous	Use non-additive tube (no additives, no anticoagulant, no gel) or plain plastic syringe Do not mix sample prior to testing

Test Timing
Immediately after collection. Any delay can cause sample to clot before testing.

Troponin I cartridge

Sample Type	Instructions
Capillary	DO NOT USE
Venous, Arterial	Use Dark Green Li-Heparin tube (no gel)* or balanced heparin blood gas syringe Invert 8-10 times in a figure-eight motion to mix before testing

Analytes reported	Test Timing
Troponin I	Within 30 minutes after collection.

*Light Green Li-Heparin tubes with gel may be used for CHEM8+ and cTnI cartridges, only if necessary