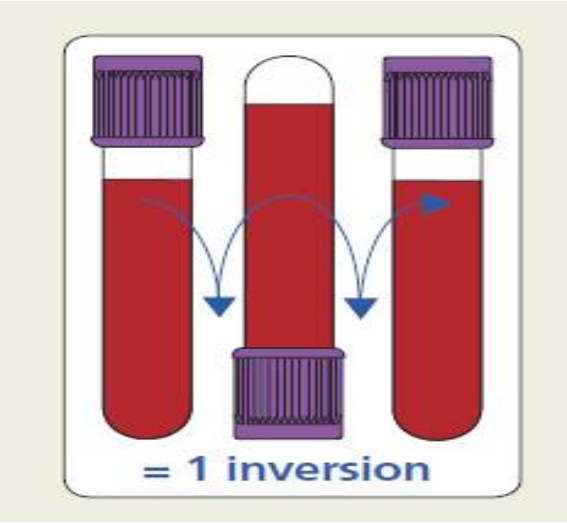
Blood Collection Basics

Order of draw

This table provides the CLSI standard for order of draw. Collection in this order avoids possible test result error due to additive carryover.

Cap Color	Description	Minimum Inversions
N/A	Blood cultures	8-10
Light Blue	Sodium Citrate	3-4
Red- no gel	Serum Clot Activator	5
Red Gel	Serum Separator, Clot Activator	5
Light Green	PST Gel Lithium Heparin	8-10
Green	Sodium Heparin	8-10
Lavender	EDTA	8-10

Correct Inversion – do NOT shake tubes



Tips

- Vacutainer tubes are manufactured to draw blood into the tube; do not remove the tops
- Transfer devices are the approved method to fill vacutainers when collection is from a line or syringe
- Vacuum may be lost if the tube is dropped or the top has already been pierced

Patients with a high hematocrit:
There is a higher cellular volume so we will not have as much liquid portion to work with if the tests use serum or plasma.

Anticoagulant tubes

Sodium citrate; Lithium heparin; Sodium heparin; EDTA; others. These can't have clots in them.

Whole blood: Lab uses the blood as it was collected
Plasma: Lab spins the tube in a centrifuge and uses the liquid portion (cells will be at the bottom)

PST: plasma separator tube (will have gel in it)

Serum or Clot tubes

Blood in these tubes must clot before the Lab can use them. This takes about 30 minutes.

Serum: Lab spins the tube in a centrifuge and uses the liquid portion (cells will be at the bottom)

SST: Serum separator tube (will have gel in it)