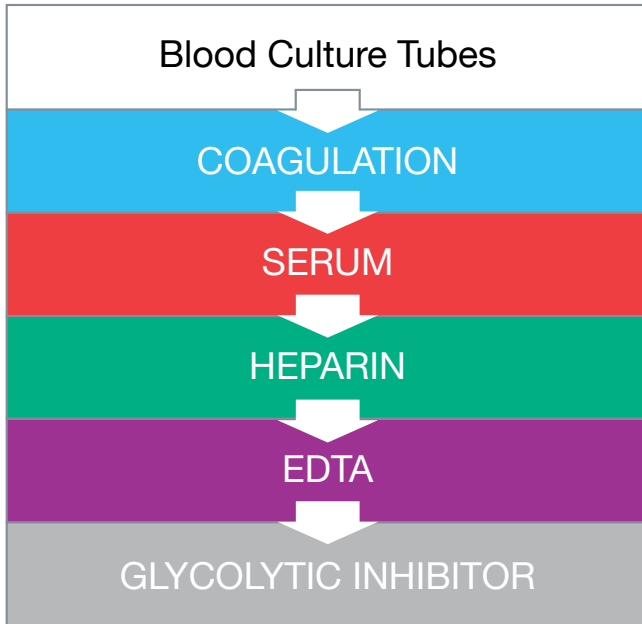


# Order of Draw

CLSI Recommended\*



**NOTE:** Always follow your facility's protocol for Order of Draw

If a winged blood collection set is used, the first tube in the series will be underfilled. Therefore, if a coagulation specimen is drawn first, a discard tube (a no additive or coagulation tube) is recommended to be drawn prior to this tube to ensure the proper anticoagulant-to-blood ratio.

Tube Type	Recommended g-force relative centrifugal force (rcf)	Recommended Time (Minutes)
VACUETTE® Serum Tubes (Clot Activator, No Additive)	Minimum 1500 g	10
VACUETTE® Serum Clot Activator w/ Gel Tubes	1800 g	10
VACUETTE® K <sub>2</sub> EDTA w/ Gel Tubes	1800 - 2200 g	10
VACUETTE® Plasma Tubes (Lithium Heparin, Sodium Heparin, PO/NaF)	2000 - 3000 g	15
VACUETTE® Lithium Heparin w/ Gel Tubes	1800 - 2200 g	10 - 15
VACUETTE® Coagulation Tubes (Sodium Citrate)		
Platelet tests (PRP)	150 g	5
Routine tests (PPP)	1500 - 2000 g	10
Preparation for deep freeze plasma (PFP)	2500 - 3000 g	20

\*Reproduced with permission from CLSI. H21-A5, Collection, Transport and Processing of Blood Specimens for Testing Plasma-Based Coagulation Assays; Approved Guideline-Sixth Edition; H03-A6, Procedures for the Collection of Diagnostic Blood Specimens by Venipuncture; Approved Standard - Sixth Edition. Copies of the current edition may be obtained from Clinical and Laboratory Standards Institute, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania 19087-1898, USA. Internet: [www.clsi.org](http://www.clsi.org).



# Specimen Handling

## Completing an Inversion

To achieve the proper mix of additive and blood, each tube must be gently inverted as it is removed from the holder.

### Importance of Mixing

- Insufficient or delayed mixing of serum tubes may result in delayed clotting
- Inadequate mixing of anticoagulant tubes may result in platelet clumping, clotting or incorrect test results

Cap Color	Tube Type	# of Inversions
Blue	Coagulation	4
Red	Serum	5 - 10
Green	Heparin	5 - 10
Lavender	EDTA	8 - 10
Grey	Glycolytic Inhibitor	5 - 10

### One complete inversion

- Turn the filled tube upside down and return it to an upright position
- Repeat required number of times for each tube type



1 Inversion



greiner bio-one