

## SPECIMEN COLLECTION: PHLEBOTOMY ORDER OF DRAW

Blood samples must be drawn in a specific order to avoid cross-contamination of the sample by additives found in different collection tubes. Phlebotomy order of draw is the same for specimens collected by syringe, tube holder, or into tubes pre-evacuated at the time of collection. The correct order of draw follows:

1. Blood culture tube or bottle
2. Sodium citrate tube (eg, blue top)
3. Serum tubes, including those with clot activator and gels (eg, red, red-speckled, gold top)
4. Heparin tube with or without gel (eg, dark green, light green, speckled green top)
5. EDTA tube with or without gel separator (eg, lavender, pearl, pink top)
6. Sodium fluoride/potassium oxalate glycolytic inhibitor (eg, gray top)

# Order of Draw

- 1**  
  
**blood cultures**  
**Blood cultures**  
First in the order of draw to prevent needle contamination when contact is made with stoppers from other tubes, which are not sterile. A second set of blood cultures requires a separate collection.
- 2**  
  
**citrate**  
**Citrate**  
Second in the order of draw to prevent carryover of anticoagulant from other tubes that could alter the results of coagulation studies.
- 3**  
  
**serum**  
**Serum**  
Third in the order of draw to prevent anticoagulants known to affect potassium and other chemistry results from carrying over into this tube.
- 4**  
  
**heparin**  
**Heparin**  
Fourth in the order of draw to prevent anticoagulants known to affect potassium and other chemistry results from carrying over into this tube.
- 5**  
  
**EDTA**  
**EDTA**  
Fifth in the order of draw so that this potassium-rich anticoagulant doesn't carry over into other tubes that are tested for analytes adversely affected by this additive (e.g., potassium, calcium).
- 6**  
  
**oxalate**  
**Glycolytic inhibitor**  
(e.g., Oxalate, sodium fluoride, etc.)  
Last in the order of draw to prevent the impact this anticoagulant has on RBC morphology, potassium levels, coagulation studies and other analytes.

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