

Blood collection tubes must be filled in a specific order to minimize contamination of sterile specimens and avoid possible test result error due to cross contamination from tube additives. Refer to the [APL Test Directory](#) for specific information on the collection and handling of laboratory tests.

Use this document for evacuated tube systems and when transferring syringe collected blood into evacuated tube systems. For skin puncture and microcollection tubes refer to *PA03-010 Skin Puncture Order of Collection*.

Order	Tube or Container	Invert	Notes
	Blood culture bottles, both adult and pediatric, e.g.: 	Invert gently to mix	The aerobic bottle should be collected before the anaerobic bottle.
	Pale yellow SPS tubes with clear label 	8 to 10 times	Tube used for Mycobacteria (AFB) blood culture.
	Sodium citrate tubes, e.g. light blue, black Excyte 	3 to 4 times	
	ACDA tubes, e.g. yellow with yellow band trisodium citrate 	8 to 10 times	
	Serum tubes, including those with clot activators and gel, e.g. red, gold, orange RST 	8 to 10 times	
	Heparin tubes, including those with gel, e.g. green, mint, lime 	8 to 10 times	
	EDTA tubes, e.g. lavender, pink, clear PPT, catecholamine tubes 	8 to 10 times	
	Streck Cell-Free BCT tubes, black and brown 	8 to 10 times	
	Sodium fluoride/potassium oxalate glycolytic inhibitor tubes, e.g. grey 	8 to 10 times	
	Other additive tubes	8 to 10 times	Refer to manufacturer's instructions for order of draw for other additive tubes. If no instructions are provided, collect after other tubes.
Always last	Paxgene tubes 	8 to 10 times	

NOTE: When an anticoagulated syringe collection (example PICO syringe) is requested in addition to evacuated tubes, collect the evacuated tubes first, then a discard tube is required before collecting the anticoagulated syringe when the order of draw cannot be maintained.

Trace Element Testing



- A separate venipuncture is recommended for trace elements to assure there is no trace metal contamination on the needle from puncturing other tube stoppers.
- The non-additive trace element tube is collected first.

Trace elements non additive tube, royal blue with no additive 	8 to 10 times	When blood cultures are ordered a separate venipuncture for trace metals is always required.
Trace elements additive tube, royal blue with sodium heparin 	8 to 10 times	Other tubes may be collected after trace element tubes with restrictions . Non additive trace element tube will always be collected first. <ul style="list-style-type: none"> • When a trace element tube royal blue with sodium heparin tube is required, other heparin tubes can be collected after this tube, and also any subsequent tubes types as per the order of draw.

REFERENCES

1. CLSI. *Collection of Diagnostic Venous Blood Specimens*, 7th ed. CLSI standard GP41. Wayne, Pennsylvania: Clinical and Laboratory Standards Institute, 2017.
2. Becton, Dickinson and Company, *BD Vacutainer Order of Draw for Multiple Tube Collections*, document VS5729-6. Franklin Lakes, NJ, January 2010.
3. National Center for Competency Testing, *Phlebotomy Order of Draw*, Rev 7.0 August 2013 Becton, Dickinson and Company. *BD Vacutainer Evacuated Blood Collection System*. Package Insert. VDP40161-WEB-09. 06/2019 (and other package inserts for blood collection tubes, as appropriate).