

# Sample Collection:

PAGE NO.:

DATE: / /

Q Order of draw: who, what, when, where, why

→ Who determines order of draw?

CLSI guideline H3-A6 → procedure for collection of diagnostic blood specimen by venipuncture

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Healthcare facilities should be following recommended guideline of draw.

→ What is order of draw?

order of draw is used for both <sup>①</sup> glass and plastic collection tubes

② Collection using syringes or evacuated tubes (collection tube and tube holder system)

It follows the order of sample collected in follows

- ① Blood culture tube
- ② Coagulation tube (citrate)
- ③ Serum tube (cont clot activator, cont gel)
- ④ Heparin tube (cont plasma separator gel)
- ⑤ EDTA tube (cont gel separator)
- ⑥ glycolytic inhibitor (fluoride).



<u>Order</u>	<u>Tube</u>	<u>stopper</u>	<u>Inventor</u>	<u>Adm</u>
①	Blood culture (sterile specimen)	Blood culture bottles : yellow	8	sodium polyanion sulfonate (SPS)
②	Coagulation tubes (citrali)	light blue	3-4	citrate thrombin
③	Serum tube (clot activator ±)	red / black yellow	5	-ve charge silicon-coated thrombin
④	Heparin tube (cell count gel sep) (CABER)	green / light green	8	heparin
⑤	EDTA (plasma separator) (chematological profile)	lavender	8	K <sub>2</sub> K <sub>3</sub> EDTA
⑥	glycolytic inhibitor (fluoride)	gray	8	fluoride
⑦	AED solution tube	yellow		

⇒ Why it is important :-

to prevent possible test result errors due to cross contamination by tube additives

- ① Fluoride in gray tubes disturb microscopic app. of cells so,  
lavender EDTA collected before fluoride



② potassium in EDTA vacuoles (K<sub>2</sub> / K<sub>3</sub> EDTA) falsely devalues potassium test results so SST must be collected before EDTA and fluoride vacuoles.

③ (not at activation) (Red) do not activate in interfere in coagulation test such as PT, APTT

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Should be collected after coagulation tube (Citrate tube)

④ Bacteria from non sterile tubes / stoppers can contaminate sterile tubes for blood culture.

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Blood culture tubes should be collected first.