

Lab Investigation

Colours Matter The Most

- Utmost care should be exercised in the preanalytical phase of blood tests for accurate results.
- **Preanalytical phase:** Is the time starting from collection of blood from the patient till the time it reaches the laboratory.

Tube	Color	Name	Additive	Test used for
	Blood Culture Bottle	Culture Bottle	Sodium Polyanethol sulfonate (anticoagulant) and Growth media for microorganisms	Two bottles are typically collected, in one blood draw; one for aerobic organisms and one for anaerobic organisms.
	Light Blue	Sodium Citrate	3.2% Sodium citrate (anticoagulant)	Coagulation tests
	Red	Red or plain	No additive, No Anticoagulant	Immunology, Serological examination
	Gold	Serum Separating Tube	Serum Separating Gel and clot activator	All Biochemistry test
	Light Green	Heparin Tube	Sodium heparin or Lithium heparin (anticoagulant)	prevent clotting, Chromosome testing, HLA typing, ammonia, lactate
	Purple/Lavender	EDTA	Ethylene diamine tetra acetic acid (EDTA) (Anticoagulant)	Hematological examination like complete Hemogram
	Pink		Ethylene diamine tetra acetic acid (EDTA) (Anticoagulant) Used only for Whole Blood sample being send to transfusion lab	Blood typing and cross-matching, direct Coombs test for autoimmune haemolytic anemia, HIV viral load, Group and save (G & S) These tubes are preferred for blood bank tests.
	Grey	Sodium fluoride	Sodium fluoride (glycolysis inhibitor) Potassium oxalate (anticoagulant)	Glucose, lactate testing
	Yellow	Acid-citrate-dextrose (anticoagulant)		Tissue typing, DNA studies, HIV cultures



The Medical **Bulletin**

- **Factors affecting the preanalytical phase are:**
 - Precise blood collection,
 - Blood volume collected,
 - Colour of the tubes used for different types of blood tests,
 - Time taken to transport blood samples to the laboratory.
- **Process of blood collection:** Needs to be collected by a trained technician who knows the entire process.
- Blood collection should not be done from IV cannula / arm in which IV infusion is being given.
- Proper mixing of anticoagulant and blood should be done.
- **Blood volume collected** till the mark on the respective tubes.
- Time taken to transport samples to the laboratory – should be within half an hour of collection.

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