VACUCARE Blood Collection

Tubes, Micro Tubes and Blood Collection Accessories

Vacucare Tubes Additives and Colour Cap by Type

Category	Item	Additive	Cap Color	Tube material	Tube cap	Tube Size (mm)	Test Item
Serum Blood Collection Tube	Plain Tube	Plain	Red	PET		13*75 13*100 16*100	Clinical Biochemistry, Immunology and Serology Test
						16*100	
	Pro-coagulation Tube	Clot Activator	Red	PET		13*75 13*100 16*100	
						16*100	
	Gel & Clot Activator Tube	Gel & Coagulant	Yellow	PET		13*75 13*100 16*100	
						16*100	
Whole Blood Collection Tube	EDTA Tube	Sprayed K2EDTA Liquid K3EDTA	Purple	PET		13*75 13*100 16*100	Haematology Test (Blood Routine Examination)
						16*100	
	ESR Tube	3.8%Sodium Citrate Buffer(0.129mol/L)	Black	PET		13*75	Erythrocyte Sedimentation Rate Test
				Glass		8*120	

Category	Item	Additive	Cap Color	Tube material	Tube cap	Tube Size (mm)	Test Item
Plasma Blood Collection Tube	Coagulation Tube	3.2%Sodium Citrate Buffer(0.109mol/L)	Blue	PET		13*75 13*100	Coagulation Function Test
						10.25*64	
	Heparin Tube	Sodium Heparin/ Lithium Heparin	Green	PET		13*75 13*100 16*100	Clinical Chemistry for Emergency Treatment,Blood Rheology Test
						16*100	
	Gel & Heparin Tube	Gel & Sodium Heparin/ Gel & Lithium Heparin	Green	PET		13*75 13*100 16*100	
	Glucose Tube	Sodium Fluoride & Sodium Heparin/ Sodium Fluoride & EDTA/ Sodium Fluoride & Potassium Oxalate	Grey	PET		13*75 13*100	Glucose and Lactate Test
	EDTA & Gel Tube	Gel & Sprayed K2EDTA/ Gel & Sprayed K3EDTA	Silver	PET		13*75 13*100 16*100	Molecular Biology Test (Such as PCR)

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Serum Blood Collection Tubes

Vacucare™ serum blood collection tubes provide non-contaminated and non-differential original blood specimens for medical test. After centrifugation, serum can be separated from blood cells and fibrin effectively. Serum tubes includes 3 kinds of tubes: Plain Tube with red cap, Pro-coagulation Tube with red cap and Gel & Clot Activator Tube with yellow cap.

Plain Tube aims to obtain serum specimen for biochemistry, immunology and serology tests in clinical inspection. Its main merit is that serum separate out of blood cells and fibrin naturally, so its physico-chemical properties are keeping nonpolluted. The intact serum is suita ble for a wide range of la boratory operation, routine clinical chemistry, immunology and serology.

Item	Specification	Qty/Cs
GD020A	Red cap, Plain 13*75mm, 2ml	1200
GD030A	Red cap, Plain 13*75mm, 3ml	1200
GD040A	Red cap, Plain 13*75mm, 4ml	1200
GD050A	Red cap, Plain 13*75mm, 5ml	1200
GD060A	Red cap, Plain 13*100mm, 6ml	1200
GD070A	Red cap, Plain 13*100mm, 7ml	1200
GD090A	Red cap, Plain 16*100mm, 9ml	1200
GD0100A	Red cap, Plain 16*100mm, 10ml	1200
GD090AR	Rubber stopper, Plain 16*100mm, 9ml	1200
GD0100AR	Rubber stopper, Plain 16*100mm, 10ml	1200

Clot Activator Tube aims to obtain serum specimen, which is used for biochemistry and immunology tests. The interior wall is finely coated with coagulant which may promote the blood coagulation after collection. The appropriate amount of coagulant make blood coagulation in a relatively short time, avoiding potential hemolysis problem which caused by too rapid clotting. Finally, transparent serum can be separated after centrifugation.

Item	Specification	Qty/Cs
GD020CA	Red cap, Clot Activator 13*75mm, 2ml	1200
GD030CA	Red cap, Clot Activator 13*75mm, 3ml	1200
GD040CA	Red cap, Clot Activator 13*75mm, 4ml	1200
GD050CA	Red cap, Clot Activator 13*75mm, 5ml	1200
GD060CA	Red cap, Clot Activator 13*100mm, 6ml	1200
GD070CA	Red cap, Clot Activator 13*100mm, 7ml	1200
GD090CA	Red cap, Clot Activator 16*100mm, 9ml	1200
GD0100CA	Red cap, Clot Activator 16*100mm, 10ml	1200
GD090CAR	Rubber stopper, Clot Activator 16*100mm, 9ml	1200
GD0100CAR	Rubber stopper. Clot Activator 16*100mm. 10ml	1200

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Serum Separator Tube (SST)

Gel& Clot Activator (SST) Tube aims to obtain high quality serum specimen for biochemistry,immunology and serology tests in clinical inspection, Inside the tube there is some gel present at the bottom, which is a pure high grad and is very stable in physico-chemistry properties. Further, the gel can avoid high-temperature decomposition and small molecules precipitation, hence greatly reducing the risk of testing equipment clogging.

Gel & Clot Activator Tube

Item	Specification	Qty/Cs
GD040SGC	Yellow cap, Separate Gel+Clot Activator 13*75mm, 4ml	1200
GD040SGC2	Yellow cap, Separate Gel+Clot Activator 13*100mm, 4ml	1200
GD050SGC	Yellow cap, Separate Gel+Clot Activator 13*100mm, 5ml	1200
GD060SGC	Yellow cap, Separate Gel+Clot Activator 13*100mm, 6ml	1200
GD080SGC	Yellow cap, Sepearate Gel+Clot Activator 16*100mm, 8ml	1200
GD085SGC	Yellow cap, Sepearate Gel+Clot Activator 16*100mm, 8.5ml	1200
GD080SGCR	Rubber stopper, Separate Gel+Clot Activator 16*100mm, 8ml	1200
GD085SGCR	Rubber stopper, Separate Gel+Clot Activator 16*100mm, 8.5ml	1200

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EDTA Tube

Vacucare™ whole blood collection tube promises to provide non-contaminating and non-differential original blood specimen for medical test, doesn't require separation of plasma or cells. It includes 2 kinds of tubes: EDTA.K2 (solid additive) Tube and EDTA.K3 (liquid additive) Tube.

EDTA Tube is widely used for clinical haematology test, especially for routine blood examination. Our automatic sampling instrument finely and accurately spray additives onto the interior tube wall, to ensure the mixing speed and the anticoagulation effect. EDTA Tube is very convenient to use for it can be directly put on the analyzer to detect without openning the cap.

Item	Specification	Qty/Cs
GD020EK3	Purple cap, EDTA K3, 13*75mm, 2ml	1200
GD030EK3	Purple cap, EDTA K3, 13*75mm, 3ml	1200
GD040EK3	Purple cap, EDTA K3, 13*75mm, 4ml	1200
GD050EK3	Purple cap, EDTA K3, 13*75mm, 5ml	1200
GD060EK3	Purple cap, EDTA K3, 13*100mm, 6ml	1200
GD070EK3	Purple cap, EDTA K3, 13*100mm, 7ml	1200
GD080EK3	Purple cap, EDTA K3, 16*100mm, 8ml	1200
GD090EK3	Purple cap, EDTA K3, 16*100mm, 9ml	1200
GD0100EK3	Purple cap, EDTA K3, 16*100mm, 10ml	1200
GD080EK3R	Rubber stopper, EDTA K3, 16*100mm, 8ml	1200
GD090EK3R	Rubber stopper, EDTA K3, 16*100mm, 9ml	1200
GD0100EK3R	Rubber stopper, EDTA K3, 16*100mm, 10ml	1200
GD020EK2	Purple cap, EDTA K2, 13*75mm, 2ml	1200
GD030EK2	Purple cap, EDTA K2, 13*75mm, 3ml	1200
GD040EK2	Purple cap, EDTA K2, 13*75mm, 4ml	1200
GD050EK2	Purple cap, EDTA K2, 13*75mm, 5ml	1200
GD060EK2	Purple cap, EDTA K2, 13*100mm, 6ml	1200
GD070EK2	Purple cap, EDTA K2, 13*100mm, 7ml	1200
GD080EK2	Purple cap, EDTA K2, 16*100mm, 8ml	1200
GD090EK2	Purple cap, EDTA K2, 16*100mm, 9ml	1200
GD0100EK2	Purple cap, EDTA K2, 16*100mm, 10ml	1200
GD080EK2R	Rubber stopper, EDTA K2 16*100mm, 8ml	1200
GD090EK2R	Rubber stopper, EDTA K2 16*100mm, 9ml	1200
GD0100EK2R	Rubber stopper, EDTA K2, 16*100mm, 10ml	1200

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EDTA with Gel Tube (PPT)

VACUCARE EDTA.K_2/Gel - PPT (Plasma Preparation Tube)

VACUCARE PPT is an evacuated, sterile blood collection tube that contains an inert gel and spray-dried K_2EDTA anticoagulant for achieving plasma separation. When the sample-filled tube is subjected to centrifugation, the gel migrates and forms a physical barrier between the plasma and most of the cellular elements. Since the tube uses spray-dried K_2EDTA as opposed to liquid additives, the plasma obtained is undiluted.

It is intended for the purposes of molecular diagnostic testing, (such as but not limited to PCR - polymerase chain reaction and/or bDNA - branched DNA amplification techniques) or other procedures where an undiluted EDTA plasma specimen is required as determined by the laboratory.

VACUCARE PPT is a closed system allowing separation and storage of undiluted EDTA plasma in the primary blood collection tube.

PPT vs K_2EDTA tubes

Although both PPT and K_2EDTA tubes can be used for many similar applications and assays, there are some distinct advantages attributable to PPT use.

The PPT, unlike the EDTA tube, contains a gel plug that physically separates cells from plasma during centrifugation to facilitate easy handling, storage, and freezing. This differs from the EDTA tube.

Following centrifugation, plasma from the EDTA tube must be manually transferred to a storage tube by an aseptic technique using a sterile, disposable pipette and then frozen. Compared to the PPT, the EDTA tube requires additional labour and introduces a potential source of error in specimen labelling.

Item	Specification	Qty/Cs
GD035EKG	Silver cap, EDTA K2+Separate Gel, 13*75mm, 3.5ml	1200
GD050EKG	Silver cap, EDTA K2+Separate Gel, 13*100mm, 5ml	1200
GD085EKRG	Silver stopper, EDTA K2+Separate Gel, 16*100mm, 8ml	1200
GD085EKG	Silver cap, EDTA K2+Separate Gel, 16*100mm, 8ml	1200

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Sodium Citrate Tube (Coagulation)

Coagulation Tube aims to obtain plasma specimen for coagulation function test, it contains buffered Sodium Citrate solution with the concentration of 3.2%(0.109mol/L).The mixing ratio of blood to Sodium Citrate is 9:1. This anticoagulant is sustained and stable, it strictly control the microbial limit, Making sure the APTT test under the excellent Condition.

Item	Specification	Qty/Cs
GD018SC	Blue cap, Coagulation, 3.2% Sodium citrate 13*75mm, 1.8ml	1200
GD027SC	Blue cap, Coagulation, 3.2% Sodium citrate 13*75mm, 2.7ml	1200
GD036SC	Blue cap, Coagulation, 3.2% Sodium citrate 13*75mm, 3.6ml	1200
GD045SC	Blue cap, Coagulation, 3.2% Sodium citrate 13*75mm, 4.5ml	1200
GD018SCD	Blue cap, Coagulation, 3.2% Double wall 13*75mm, 1.8ml	1200
GD027SCD	Blue cap, Coagulation, 3.2% Double wall 13*75mm, 2.7ml	1200

Fluoride Oxalate Tube (Glucose)

Compound of Sodium Fluoride and Anticoagulant Tube aims to obtain highly stable plasma for blood glucose testing .Sodium Fluoride is a kind of inhibitor of glucose degradation ,it has the function of repressing glucose metabolism and degradation .Optional Anticoagulant are Potassium Oxalate ,EDTA and Heparin ,they could prevent blood coagulation and avoid blood hemolysis .This particular compound additive realise that blood glucose specimen could be cold storage for a long time.

Item	Specification	Qty/Cs
GD020SFH	Gray cap, Sodium Fluoride+Heparin Sodium, 13*75mm, 2ml	1200
GD030SFH	Gray cap, Sodium Fluoride+Heparin Sodium, 13*75mm, 3ml	1200
GD040SFH	Gray cap, Sodium Fluoride+Heparin Sodium, 13*75mm, 4ml	1200
GD050SFH	Gray cap, Sodium Fluoride+Heparin sodium, 13*75mm, 5ml	1200
GD020SNA	Gray cap, Sodium Fluoride+EDTA Na_2, 13*75mm, 2ml	1200
GD030SNA	Gray cap, Sodium Fluoride+EDTA Na_2, 13*75mm, 3ml	1200
GD050SNA	Gray cap, Sodium Fluoride+EDTA Na_2, 13*75mm, 5ml	1200
GD020SP	Gray cap, Sodium Fluoride+Potassium Oxalate, 13*75mm, 2ml	1200
GD030SP	Gray cap, Sodium Fluoride+Potassium Oxalate, 13*75mm, 3ml	1200
GD040SP	Gray cap, Sodium Fluoride+Potassium Oxalate, 13*75mm, 4ml	1200
GD050SP	Gray cap, Sodium Fluoride+Potassium Oxalate, 13*75mm, 5ml	1200

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Heparin Tubes

Heparin Tube aims to obtain plasma specimen, which is used not only for emergency biochemistry tests but also for blood rheology test. Inside the tube wall, where is well sprayed with lithium heparin or sodium heparin which is a kind of anticoagulant activating antithrombins to block the coagulation cascade reaction.

Item	Specification	Qty/Cs
GD030SH	Green cap, Heparin Sodium, 13*75mm, 3ml	1200
GD040SH	Green cap, Heparin Sodium, 13*75mm, 4ml	1200
GD050SH	Green cap, Heparin Sodium, 13*75mm, 5ml	1200
GD060SH	Green cap, Heparin Sodium, 13*100mm, 6ml	1200
GD070SH	Green cap, Heparin Sodium, 13*100mm, 7ml	1200
GD0100SH	Green cap, Heparin Sodium, 16*100mm, 10ml	1200
GD0100SHR	Rubber stopper, Heparin Sodium, 16*100mm, 10ml	1200
GD030LH	Green cap, Heparin Lithium, 13*75mm, 3ml	1200
GD040LH	Green cap, Heparin Lithium, 13*75mm, 4ml	1200
GD050LH	Green cap, Heparin Lithium, 13*75mm, 5ml	1200
GD060LH	Green cap, Heparin Lithium, 13*100mm, 6ml	1200
GD070LH	Green cap, Heparin Lithium, 13*100mm, 7ml	1200
GD0100LH	Green cap, Heparin Lithium, 16*100mm, 10ml	1200

Heparin with Gel Tubes

Gel & Heparin Tube is a kind of anticoagulation tube, aims to obtain high quality plasma specimen for fast emergency biochemistry test. Lying at the bottom of the tube, there is some gel for separating plasma and blood cells, preventing substance from exchanging and keeping the obtained plasma from being blood cell polluted, thus the accuracy of the results will be improved. Otherwise, the specimen could be put into the equipment directly without transferring and kept stable in cold storage for ٧٢hs, so that well meets the quality requirement of retest.

Item	Specification	Qty/Cs
GD030SHG	Green cap, Heparin Sodium+Gel, 13*75mm, 3ml	1200
GD040SHG	Green cap, Heparin Sodium+Gel, 13*75mm, 4ml	1200
GD050SHG	Green cap, Heparin Sodium+Gel, 13*100mm, 5ml	1200
GD085SHG	Green cap, Heparin Sodium+Gel, 16*100mm, 8.5ml	1200
GD030LHG	Green cap, Heparin Lithium+Gel, 13*75mm, 3ml	1200
GD040LHG	Green cap, Heparin Lithium+Gel, 13*75mm, 4ml	1200
GD050LHG	Green cap, Heparin Lithium+Gel, 13*100mm, 5ml	1200
GD085LHG	Green cap, Heparin Lithium+Gel, 16*100mm, 8.5ml	1200

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Micro Blood Collection Tubes

Micro Collection tube is mainly used for peripheral blood collection. It is specially suitable for small children and geriatric patient. The inner surface has an excellent hemorepellency where it is necessary for a good preparation of high quality blood sample.

Item	Specification	Qty/Cs
GD005A	Micro Collection tube, Plain, 0.5ml	1000
GD005CA	Micro Collection tube, Clot Activator 0.5ml	1000
GD005EK3	Micro Collection tube, EDTA K3, 0.5ml	1000
GD005EK2	Micro Collection tube, EDTA K2, 0.5ml	1000
GD005LH	Micro Collection tube, Heparin Lithium, 0.5ml	1000
GD005SH	Micro Collection tube, Heparin Sodium, 0.5ml	1000
GD005SFH	Micro Collection tube, Heparin Sodium +Sodim Fluoride, 0.5ml	1000
GD005SGC	Micro Collection tube, Gel+Clot Activator, 0.5ml	1000
GDNM005A	Micro tube (High Type) 0.5ml Plain 0.5ml	1000
GDNM005CA	Micro tube (High Type) 0.5ml Clot activator 0.5ml	1000
GDNM005EK3	Micro tube (High Type) 0.5ml EDTAK3 0.5ml	1000
GDNM005EK2	Micro tube (High Type) 0.5ml EDTAK2 0.5ml	1000
GDNM005LH	Micro tube (High Type) 0.5ml, Gel 0.5ml	1000
GDNM005SGC	Micro tube (High Type) 0.5ml, Gel 0.5ml	1000
GDNM005SFH	Micro tube (High Type) Glucose(Heparin sodium,/ Sodium Fluoride) 0.5ml	1000

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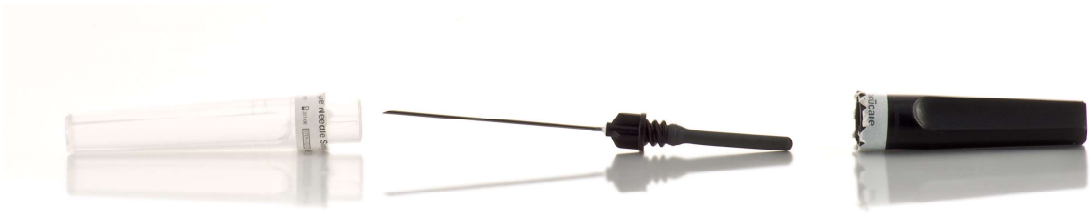
Multi-Sample Blood Collection Needles

VACUCARE Multi-Sample Blood Collection Needles are designed to be used with VACUCARE™ Blood Collection tubes and will fit most other brands.

Needles have triple-bevelled points ensuring smooth venous blood extraction.
Hubs and needle guards are colour coded to the needle gauge.



SPECIFICATION	HUB COLOUR	NEEDLE LENGTH	GAUGE	PACKING
Multi-Sample Blood Collection Needle	Pink	38mm or 31mm	18G	100
Multi-Sample Blood Collection Needle	Yellow	38mm or 31mm	20G	100
Multi-Sample Blood Collection Needle	Green	38mm or 31mm	21G	100
Multi-Sample Blood Collection Needle	Black	38mm or 31mm	22G	100
Multi-Sample Blood Collection Needle	Blue	38mm or 31mm	23G	100

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Safety Lock Blood Collection Needles

- Made from high-quality austenitic stainless steel
- The needle cannula features world-leading thin-wall design with large inner diameter and high flow rate
- The ultra-sharp tip design is of an accurate angle and appropriate length
- Appropriate for phlebotomy and ensuring fast insertion, reduced pain, and minimal tissue damage
- The transparent flexible connection tube allows intravenous blood return observation
- Convex and concave double-wing piece guarantees safer and more reliable grip and penetration

- The shielded blood collection needle is provided with a tip concealment cover. After phlebotomy is completed, the concealment cover is held with one hand and by pulling the tube with the other hand, the phlebotomist can lock the needle into the concealment cover, thereby preventing accidental injury from the contaminated needle tip

- Double-wing pieces and Tube Hub colour denote product size and specification

SPECIFICATIONS

Metric OD ⌀	Gauge	Colour Code	Needle length
0.6mm	23G	Blue	25mm
0.8mm	21G	Green	25mm

Multi-Sample needle with safety shroud

SPECIFICATIONS

Metric OD ⌀	Gauge	Colour Code	Needle length
0.6mm	21G	Green	31mm
0.7mm	22G	Black	31mm
0.8mm	23G	Blue	31mm

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Tube Handling, Mixing and Centrifugation

DRAW VOL	COLOR CODE	TUBE TYPE	DESCRIPTION	MIXING	CENTRIFUGE SPEED & TIME
1.8 ml /2.7 ml 4 ml		SODIUM CITRATE	COAGULATION TEST	3-4	2000-2500 g (RCF) 10 – 15 MIN
4 ml / 6 ml / 7 ml/9 ml/ 10 ml		CLOT ACTIVATOR	SERUM TEST	5-6	1300 g (RCF) 10 MIN
4 ml / 5 ml / 6 ml 8.5ml		CLOT ACTIVATOR + GEL	SERUM TEST	5-6	2000 g (RCF) 10 MIN
4 ml / 6 ml / 10 ml		LITHIUM HEPARIN SODIUM HEPARIN	PLASMA TEST	8-10	1300 g (RCF) 10 MIN
4 ml		LITHIUM HEPARIN & GEL	PLASMA TEST	8-10	1300-2000 g (RCF) 10 MIN
2 ml / 3 ml 4 ml / 6 ml / 10 ml		EDTAK2 & EDTAK3	HAEMATOLOGY TEST	8-10	1300 g (RCF) 10 MIN
5 ml / 8 ml		EDTA & GEL	MOLECULAR DIAGNOSTIC TESTS	8-10	1100-1500 g (RCF) 10 MIN
2 ml / 4 ml		Na-FLORIDE & K-OXALATE	GLUCOSE TEST	8-10	1300 g (RCF) 10 MIN

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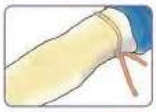
Phlebotomy Procedure

Suggested Procedure For Blood Collection

1. Apply the tourniquet 8-10cm above where venipunctures is to be made.



2. Select a site for venipuncture and clean it with the alcohol swab to keep sterile.
Instruct the patient to keep the arm straight and to from a loose fist. Place a cushion under the elbow, so the patient's arm won't move during venipuncture.

3. After alcohol is dry, hold the needle with its slanting surface facing upward and 15 degrees above the skin, and then penetrate the skin approx. 1cm deep.
--As the tissue or vein may contract due to the puncture made, it is recommended to use 21G needle, which had smooth surface and can prevent hemolysis.

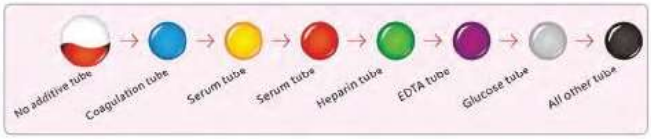
4. After the venipuncure, fix the needle in place by putting the left index finger under it.

5. When inserting a GYT vacuum tube into the holder, place the holder between the right index finger and middle finger and push the tube all the way into the holder using the right thumb.
--When drawing from a normal vein, remove the tourniquet as soon blood starts flowing into the tube. When drawing from a thinner vein, leave the tourniquet on and have the paient unclench the first.
--For each successive draw, it is important to remove the filled tube the holder without changing the angle and position of the needle. Gently press down the holder with thumb and pull out the tube carefully.
--Do not switch hands holding the holder in order to maintain the angel and position of the needle.

6. Mix Tubes by Inverting 5-8 times.
Immediately after drawing, Repeat movements as prescribed for each tube per the illustration.

Suggested Procedure For Blood Collection

In case of multiple tube collections, the following order of draw is recommended.
Generally, the tube without additive is used first, following by the coagulation tube.
The blood cultures are be drawn in accordance with the policies and regulations of the facility.



Based on CLSL (NCCLS) H3-A5th-Edition

NOTE: It is better to use a 'discard' tube before the blue tube and follow the above when use the buttferly needle.

Problem And Solutions

1. No blood seen or too little blood flow in the tube

Cause	Slutions
Needle may not be placed at the centre of the stopper blockage.	Remove and reposition the tube correctly.
Needle bevel may be flushed against the wall of the vein causing blockage.	Rotate the needle 1 / 4 turn clockwise.
Tourniquet applied too tightly or too long stopping blood flow.	Release pressure slowly.
Tube may have been previously punctured or tube may have previously been opened.	Replace tube.
The needle has transfixed the vein (going through the back wall of vein)	Release pressure slowly.
The needle is not completely in the vein or has reached the vein.	Advance the needle forward until you feel the give as needle penetrates the vein
The vein has collapsed	Remove tubes. Allow vein to recover. Reapply tourniquet. Reinsert same tube.
the tubes may be removed from the holder during the repositioning process. Re-insert the same tube in the holder when the needle is repositioned.	

2. No blood seen or too little blood flow in the tube

Cause	Solutions
Premature removal of tube.	Draw discared tube first to ensure accurate test results.
Dead space in tubing of winged collection set	Draw discard tube first to ensure accurate test results. Partially important with small draw (eg: 2.7ml&1.8ml sodium citrate tubes)

3. Blood stop flowing halfway during blood collection

Cause	Solutions
Vein may have collapsed	Remove the tube from holder for a few seconds to allow the vein to fill again. Replace tube to continue collection.
Needle may have been repositioned outside thevein during venipunctures	Repeat venipunctures at different site when haematoma occurs.

4. Concurrence of Haematoma

Cause	Solutions
Needle not completely in the vein needle trans fixed the vein excessive probing resulting in enlargement at the site of site of entry Tourniquet placed too near the venipunctures site.	Release tourniquet and remove the needle Apply firm pressure over swollen area (or elevate affected arm). Reassure patient that the buries will resolve Repeat venipunctures at a different site.

5. Volume Draw too large

Cause	Solutions
Some patient's blood is harder to draw, e.g. Pediatric patient.	Change to smaller tubes or use Micro tainerfor pediatric patient.

6. Possible Causes leading to haemolysed specimen

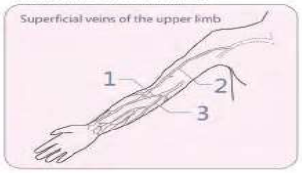
Cause	Solutions
Vigorous mixing of tubes.	Mix additive tubes by gentle invention.
Under filling of tubes.	Redraw specimen as indicated with trauma-free venipunctures.
Transferring from syringe & needle to evacuated tube.	Remove needle from syringe & remove stopper of tube before transferring specimen.
Alcohol contamination	Allow disinfected site to 'air-dry' before venipunctures procedure.
Prolonged tourniquet application(>2 minutes)	Release tourniquet, re-apply & do the appropriate palpation again.

Venipunctures Procedure

1. ID Confirmation
The most important step in the venipunctures procedure is patient identification notice for test should be checked again prior to theprocedure to ensure no discrepancies or duplicates in the test order.

2. Equipment Preparation
Prior to the blood collection
Process, alway assemble the basic equipment requires such as :
·All necessary Tubes, needle and holder
·Tourniquet.
·Alcohol swabs.
·Sharps disposal container Gloves and other materials necessary , in compliance with your institution's requirements .

3. Best Sites For Vein Puncture



A. Median cubital vein
First choice for venipunctures Large , well anchored , least painful , least likely to cause Haematoma

B. Cephalic vein
Second choice . Note that this may be poorly anchored.

C. Basilic vein
Third choice , whilst large and easy to palpate , lies near the brachial artery and the median nerve , either of which could be punctured accidentally, May also be poorly anchored . Use of the basilic vein should only be considered when median cubital and cephalic veins are unsuitable .

NOTE : Although the large and fuller median cubital and cephalic veins are used most frequently, dorsal hand veins are also acceptable for venipunctures
·Arm on side of mastectomy
·Edematous areas
·Hematomas
·Scarred areas
·Arms with cannulas , fistulas or vascular grafts
·Sites beyond (downstream) IV line of any kind.

Venipunctures Procedure

1. Make sure to wear gloves while collecting a blood sample.

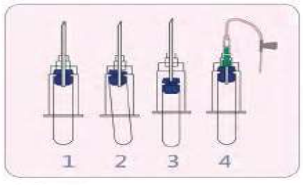
2. Discard the used sharps into a proper collector.

3. Remove gloves by pulling tops down over hand. turning the glove inside out dispose of them in a biohazard waste Containers.

4. After each collection. wash hands thoroughly with soap and water.

Handing all biologic samples and blood collection "sharp". Discard any blood collection "sharp" in biohazard containers approved for their disposal.

Troubleshooting Hints



1. Correct
Proper insertion of tube into holder.

2.Incorrect
Improper insertion resulting in an incomplete punctured stopper.

3. Incorrect
Partially punctured stopper

4. Correct
The right way to draw with butterfly needle.

Correct insertion Technique

Blood flows freely into needle.

Incorrect insertion Technique

Bevel on lower wall of vein does not allow blood to flow

Bevel on upper wall of vein does not allow blood to flow

Needle partially inserted causes blood leakage into tissue haematoma likely

Needle inserted through both vein walls (haematoma likely)

Collapsed