



BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

	NAME	DESIGNATION	SIGNATURE	DATE
<b>Prepared by</b>	Ms. Preety Raheja	Quality Manager		30/06/2020
<b>Reviewed by</b>	Dr Bhagyashree Thakre	Deputy Lab Director		01/07/2020
<b>Approved by</b>	Dr Sally Abdulla Ibrahim	Lab Director		01/07/2020



**BIOGENIX**

# **POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE**

*Document Control: BG/ PP/ SAMP / 006*

**VERSION: 1.0**

**PAGE: 2 of 19**

**DATE OF EFFECTIVITY:  
01/07/2020**

**NEW REVIEW DATE: 30/06/2022**

## **TABLE OF CONTENT**

<b>TABLE OF CONTENT .....</b>	<b>2</b>
<b>1 REVISION HISTORY .....</b>	<b>3</b>
<b>2 REVIEW HISTORY .....</b>	<b>4</b>
<b>3 POLICY STATEMENT .....</b>	<b>5</b>
<b>4 PURPOSE .....</b>	<b>5</b>
<b>5 SCOPE.....</b>	<b>5</b>
<b>6 DEFINITIONS .....</b>	<b>5</b>
<b>7 ACRONYMS.....</b>	<b>5</b>
<b>8 RESPONSIBILITIES.....</b>	<b>5</b>
<b>9 PROCEDURE.....</b>	<b>6</b>
<b>10 CROSS REFERENCE .....</b>	<b>6</b>
<b>11 RELEVANT DOCUMENTS &amp; RECORDS .....</b>	<b>19</b>





**BIOGENIX**

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

*Document Control: BG/ PP/ SAMP / 006*

VERSION: 1.0

PAGE: 3 of 19

**DATE OF EFFECTIVITY:**  
**01/07/2020**

**NEW REVIEW DATE: 30/06/2022**

### 1. REVISION HISTORY

#	Version	Date	Changes Made by	Reason for Changes	Clause Changed
1	1.0				





**BIOGENIX**

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

*Document Control: BG/ PP/ SAMP / 006*

VERSION: 1.0

PAGE: 4 of 19

**DATE OF EFFECTIVITY:**  
**01/07/2020**

**NEW REVIEW DATE: 30/06/2022**

### 2. REVIEW HISTORY

#	Version	Date	Changes Made by	Reason for Changes	Clause Changed
1	1.0				





# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

*Document Control: BG/ PP/ SAMP / 006*

VERSION: 1.0

PAGE: 5 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

### 3. INTRODUCTION

- 3.1. Venipuncture is the process of obtaining a sample of venous blood. In many circumstances it will be done by a phlebotomist, although medical practitioners, medical technicians and technologists, paramedics, other nursing staff are also trained to take blood.
- 3.2. Venous blood specimens are necessary for the diagnosis and care of patients. The venipuncture procedure is the most common technique for collecting venous blood samples. During the procedure venous blood is collected into various evacuated (vacuum) tubes through various gauge needles. Venous blood may also be collected into a syringe and transferred into evacuated tubes. Evacuated tubes may or may not contain anticoagulants.

### 4. PURPOSE

- 4.1. This procedure is in accordance with ISO15189:2012 clause 5.4.4. Biogenix follows this procedure.
- 4.2. This procedure describes the process for the collection of blood specimens by Venipuncture method.
- 4.3. Recognition and observance of these guidelines ensures patient safety, specimen integrity and reliability of test results.

### 5. SCOPE

- 5.1. This document covers the following areas:
  - 5.1.1. Procedures for venipuncture.
  - 5.1.2. Specimen labeling procedure.
  - 5.1.3. Complications of venipuncture and dealing with the complications.
- 5.2. **TARGET AUDIENCE:**
  - 5.2.1. All laboratory personnel performing phlebotomy on patients.

### 6. DEFINITIONS

- 6.1. Customer: Self patient/referred patient/ referral clinician
- 6.2. Receiving: be given, be presented with, collect, accept.
- 6.3. Processing: Preparing the specimen for analysis

### 7. ACRONYMS

### 8. RESPONSIBILITIES



# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

PAGE: 6 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

- 8.1. Phlebotomy personnel are responsible for positive identification, safety, and comfort of each patient through proper and skillful phlebotomy techniques.
- 8.2. MATERIALS:
- 8.2.1 Evacuated blood collection tubes.
  - 8.2.2 Vacutainer needle or butterfly set (gauge 23 and 25)
  - 8.2.3 Needle Holder (Adapter).
  - 8.2.4 Syringe with needle – if collection needs to be done using syringe (gauge 21 and 23)
  - 8.2.5 Tourniquet.
  - 8.2.6 Alcohol pads.
  - 8.2.7 Band-aid.
  - 8.2.8 Sterile Gauge pad /Cotton.
  - 8.2.9 Gloves (latex or non-latex).
  - 8.2.10 Puncture-resistant sharps container
  - 8.2.11 Biohazard bag for specimen transport with outer pocket for requisition form.

**Note: All equipment and materials used for obtaining blood specimens are verified for their suitability (expiry date). It is not allowed and totally forbidden to use expired materials.**

### SAMPLE IMAGE FOR PHLEBOTOMY SUPPLY



## 9. PROCEDURE

### 9.1 Interact with the patient.

- 9.1.1. As soon as the patient enters the phlebotomy room, create a warm atmosphere by greeting the patient to alleviate fear.
- 9.1.2. Explain the procedure to be done (phlebotomy) to reassure the patient that you know what you are doing and that he/she is in good hands.



- 9.1.3. After accessioning print the barcode.
- 9.1.4. Match the information on the request form and the barcode
- 9.2 Verify the type of blood specimens required and the quantity of blood required for each order.**
- 9.3 Verify Diet Restrictions**
  - 9.3.1. Verify that the patient has not violated diet restrictions when ordered tests require restrictions. Some tests require the patient to fast and/or eliminate certain foods or liquids from their diet before blood specimens are collected. Such restrictions are necessary to ensure accurate test results. Time and diet restrictions vary according to the test ordered.
- 9.4 Decontaminate or wash hands.**
- 9.5 Assemble Supplies**
  - 9.5.1. Ensure that required phlebotomy supplies are organized and are placed within easy reach during the phlebotomy procedure.
  - 9.5.2. Select the appropriate blood collecting system according to the type of tests ordered and the patient's physical characteristics.
- 9.6 Position the patient.**
  - 9.6.1. Ensure that the patient is in a comfortable position.
  - 9.6.2. Position the patient's arm on the armrest and extend the arm to form a straight line from the shoulder to the wrist. The arm should be supported firmly by the armrest and should not be significantly bent at the elbow. A slight bend may be important in avoiding hyperextension of the arm.
- 9.7 Ensure Patient's hand is closed.**
  - 9.7.1. Ask the patient to close the hand of the arm from which blood will be collected.
  - 9.7.2. Do not allow the patient to "pump" their fist. Vigorous hand pumping can cause changes in the concentration of certain analytes in the blood.
- 9.8 Examine and select the best site for venipuncture.**
  - 9.8.1. Antecubital fossa (recommended site). Veins available on this site are the following, in order of preference:
    - Median vein.
    - Basilic vein.
    - Cephalic vein.



# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

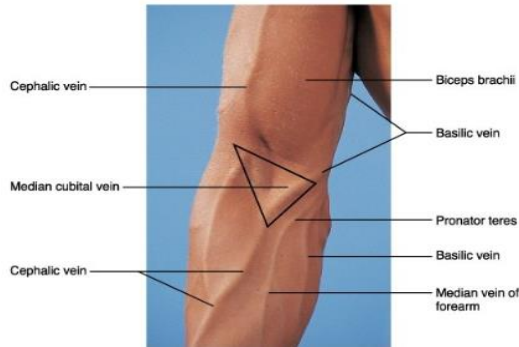
Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

PAGE: 8 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022



9.8.2. Wrist vein.

9.8.3. Dorsal hand vein.

9.8.4. Venipuncture sites to avoid:

9.8.4.1. Extensive Scarring - Avoid healed burn areas or other sites that contain

9.8.4.2. scar tissue.

9.8.4.3. Mastectomy - Because of potential harm to the patient due to lymphostasis, a physician must be consulted before drawing blood from the side on which a mastectomy was performed.

9.8.4.4. Hematoma - Specimens collected from an area with a hematoma may cause erroneous test results. Phlebotomy must not be performed on any size hematoma. If another vein site is not available, the specimen must be collected distal to the hematoma.

9.8.4.5. Cannula, Fistula, Vascular Graft, Dialysis - Do not draw blood from an arm that contains a cannula, fistula or vascular graft.

9.8.4.6. Avoid drawing blood from an arm from which a patient primarily utilizes for dialysis.

9.8.4.7. AV Shunt - Do not draw blood from an arm that contains an AV shunt.

9.8.5. Palpate the vein

9.8.6. Palpate and trace the path of veins several times with the index finger. Unlike veins, arteries pulsate, are more elastic, and have a thick wall. Thrombosed veins lack resilience, feel cord-like, and roll easily.

9.8.7. If superficial veins are not readily apparent, you can force blood into the vein by massaging the arm from wrist to elbow.

9.8.8. Tapping sharply at the vein site with index and second finger a few times will cause the vein to dilate. Applying a warm pack (about 40°C) to the proper site for 5 minutes may have the same result. Lowering the extremity of the bedside will allow the veins to fill to capacity

### 9.9 Performing the venipuncture:

9.9.1. ***Put on personal protective equipment (PPE) such as gloves and lab coat.***

9.9.2. ***Reassure the patient.***





- 9.9.2.1. Explain to the patient that the venipuncture may be slightly painful but will be of short duration. Never tell a patient that the procedure will not hurt.
- 9.9.3. **Cleanse the puncture site.**
  - 9.9.3.1. Use a sterile cotton pad, cotton swab, or gauze pad with 70% alcohol to disinfect the area to be punctured.
  - 9.9.3.2. Sterilize by applying the alcohol in a rotating motion starting from inside going outside.
  - 9.9.3.3. Allow the alcohol to dry to prevent hemolysis of the specimen and to prevent the patient from experiencing a burning sensation when the venipuncture is performed.
  - 9.9.3.4. When collecting a blood culture specimen, disinfect the site with 70% Isopropyl Alcohol and 10 % PVP Iodine if the patient is more than 2 years old. Alcohol swabs (70% alcohol) should be used for pediatric patients less than 2 years old.
- 9.9.4. **Apply the tourniquet.**
  - 9.9.4.1. Select appropriate tourniquet. Use a latex tourniquet on patients that are not sensitive to latex. Use a non-latex tourniquet on patient that are sensitive to latex.
  - 9.9.4.2. Wrap the tourniquet around the arm three to four inches above the venipuncture site.
  - 9.9.4.3. The tourniquet is applied no more than one minute before venipuncture is carried out. Leaving the tourniquet tied longer may cause erroneous test results.
- 9.9.5. **Inspect Needle And Other Equipment**
  - 9.9.5.1. Visually check the sterility seal of the needle. If the seal is broken, DO NOT USE.
  - 9.9.5.2. Inspect the tip of the needle to determine that it is free of hooks or barbs and that its opening is free of any small particles that could obstruct the flow of blood.
  - 9.9.5.3. If using a syringe, move the plunger of a syringe the entire length of the syringe barrel "break the seal" to ensure the functionality of the unit and to ensure smooth movement of the plunger during the collection of the blood specimen.
- 9.9.6. **Insert the needle.**
  - 9.9.6.1. Grasp the skin one to two inches below the puncture site by pulling the skin tight with your thumb.
  - 9.9.6.2. Hold the Vacutainer needle and holder assembly (or the syringe) with your opposite hand between the thumb and last three fingers.
  - 9.9.6.3. Rest index finger against the hub of the needle to serve as guide.
  - 9.9.6.4. Insert the needle in a bevel-up position pointing in the same direction as the vein, making an approximate 15 degree angle of the needle with the arm.
- 9.9.7. **Draw the blood sample.**



9.9.7.1. **If using an Evacuated Tube set:**

- a. As soon as the needle is in the vein, push the tube firmly but carefully into the holder as far as it will go.
- b. Make sure that the needle is in the vein and kept in position.
- c. Do not push the tube beyond the guideline because a premature loss of vacuum may result. The tube will retract slightly. Leave it in this position
- d. As soon as blood begins to flow, remove the tourniquet.
- e. The following is the **order of draw** for Vacutainer® blood tubes:

Blood culture bottle (10 mL Adult and 5 ml Pediatric)



Sodium Citrate Tube for Coagulation tests (Blue top)



Serum Separating Tube (Yellow top)



Sodium Heparin /Lithium heparin Tube (Green top)



EDTA Tube (Lavender top)



Sodium Citrate Tube for ESR (Black top)



Sodium Fluoride Tube (Gray top)

- f. Maintain slight pressure on the bottom of each tube until it is filled.
- g. To prevent backflow: Since some evacuated blood collection tubes contain chemical additives, it is important to avoid possible backflow from the tube, with the possibility of adverse patient reactions. To guard against backflow, observe the following precautions:
  - Place patient's arm in a downward position.
  - Hold tube with the stopper uppermost.
  - Release tourniquet as soon as blood starts to flow into tube.





# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

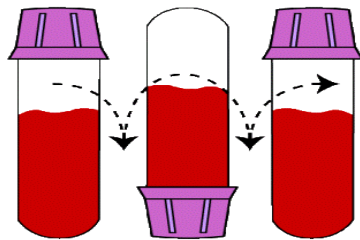
PAGE: 11 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

- Make sure tube contents do not touch stopper or end of the needle during venipuncture.
- h. Invert the blood collection tube(s) 5 to 6 times except citrate (3 to 4 times) to ensure adequate mixing.  
**DO NOT SHAKE.** Vigorous shaking may cause hemolysis.
- i. To obtain additional specimens, insert next tube into holder and repeat procedure.

The following is the **order of tubes and inversion**





# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

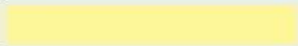











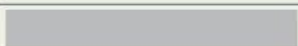
Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

PAGE: 12 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

	• Blood Cultures - SPS	8 to 10 times
	• Citrate Tube*	3 to 4 times
 or 	• BD Vacutainer® SST™ Gel Separator Tube	5 times
	• Serum Tube (glass or plastic)	5 times (plastic) none (glass)
	• BD Vacutainer® Rapid Serum Tube (RST)	5 to 6 times
 or 	• BD Vacutainer® PST™ Gel Separator Tube With Heparin	8 to 10 times
	• Heparin Tube	8 to 10 times
 or 	• EDTA Tube	8 to 10 times
	• BD Vacutainer® PPT™ Separator Tube K <sub>2</sub> EDTA with Gel	8 to 10 times
	• Fluoride (glucose) Tube	8 to 10 times

9.9.7.2. **If using a syringe:**

- a. A small amount of blood will flow into the neck of the syringe as the needle enters the vein.
- b. Gently pull the plunger until the required volume of blood is drawn.

9.9.8. ***Release the tourniquet.***

- 9.9.8.1. Loosen the tourniquet as soon as the blood enters the tube or syringe.
- 9.9.8.2. Make sure that the tourniquet is not left in the arm for more than a minute to avoid hemo concentration.
- 9.9.8.3. Release the tourniquet before withdrawing the needle.

9.9.9. ***Withdraw the needle.***

- 9.9.9.1. Apply a clean and dry cotton or gauze to the puncture area.
- 9.9.9.2. Quickly but smoothly withdraw the used needle or puncture unit and dispose directly to the sharps container to avoid accidental injury or reuse.

**DO NOT RECAP THE NEEDLE.**

- 9.9.9.3. Apply pressure on the site of puncture.
- 9.9.9.4. Apply a gentle pressure on the site of puncture.
- 9.9.9.5. Have the patient continue doing it with his/her opposite his/her other hand for several minutes until bleeding stops.
- 9.9.9.6. Instruct the patient also to keep his/her arm raised in a vertical position for several minutes to decrease pressure in the blood vessel.
- 9.9.9.7. Band-aid may be applied on the puncture after bleeding has stopped.

9.9.10. **Transfer the blood sample (only if using a syringe).**

- 9.9.10.1. As soon as the syringe is filled, remove the stopper or cap of the tube.



# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

PAGE: 13 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

9.9.10.2. Quickly but gently transfer the blood into the tube by making it flow along the inner side of the tube to avoid hemolysis.

9.9.10.3. Invert the blood collection tube(s) 5 to 6 times except citrate (3 to 4 times) to ensure adequate mixing.

9.9.11. **Filling tubes from a syringe draw should be in the following order:** Order of draw is same as mentioned in 10.9.7.1.

### 9.10 Blood Collection System Disposal

9.10.1. Dispose of needles and holder promptly in an appropriately labeled sharp box, to prevent their reuse or accidental injury.

9.10.2. Paper wrappers may be discarded in the room's wastebasket if they are NOT visibly contaminated with blood.

9.10.3. BLOOD-SOAKED gauze or cotton balls must be discarded in biohazard containers

9.10.4. Do not re-seal any used or unused needles into their plastic covers.

9.10.5. Do not remove the used needle from the holder with your fingers.

9.10.6. Do not shear, bend, or break the needle. The entire assembly must be discarded as a unit into a puncture-resistant sharps container.

9.10.7. Always drop the discarded item gently into the container; never use force. Never reach into a sharps container.

**NOTE: Visually inspect the sharps container. If it is more than 3/4 full, discard it and replace with a clean sharps container and lid. Always make certain the lid is closed.**

### 9.11 Label the specimen

9.11.1. Manually label the tube with following information

9.11.1.1. Full name of the patient – First name, Middle Name, and Surname.

9.11.1.2. Date of Birth / Age.

9.11.1.3. Unique file number assigned by the health facility.

9.11.1.4. Date and time of collection.

9.11.1.5. Signature of the phlebotomist.

9.11.2. Stick the Barcode label. (Make sure the barcode label is not covering the written identification).

9.11.3. Check and make sure that the label information matches that on the requisition.

This validation step is documented by a second initial after the time initials.



# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

Document Control: BG/ PP/ SAMP / 006

VERSION: 1.0

PAGE: 14 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

9.11.4. The phlebotomist signs the request form with his/her name plus the date& time the sample was collected.

9.11.5. Tell the patient that the procedure has finished and thank him for his Cooperation.

### 9.12 Special Blood Test Considerations

#### 9.12.1. Blood Cultures:

- 9.12.1.1. When taking blood cultures, use a butterfly set attached to adapters that will accommodate the blood culture bottles.
- 9.12.1.2. Ask the patient if he/she is allergic to iodine. If the answer is "yes", then follow the alternate procedure below. If the answer is "No", then proceed with the following procedure:
  - a. Prepare an area at least one and one half inches' radius for the intended venipuncture site.
  - b. Apply 10% PVP-iodine solution using concentric circles from the intended venipuncture site outwards. Do not go back to the center of the area with the prep. The solution need not to be removed prior to venipuncture.
  - c. Allow the site to dry completely before continuing.
- 9.12.1.3. Alternate procedure:
  - a. Scrub the area of the intended venipuncture site for 30 seconds over a one and one-half inches area with soap.
  - b. Remove the excess soap with sterile "2X2" gauze
  - c. Apply the 70 % alcohol on the scrubbed site and allow to air dry
  - d. Apply a new 70% alcohol on the scrubbed site using concentric circles; allow to air dry.
  - e. If not ready to perform venipuncture immediately, cover the area with dry, sterile "2X2" gauze.

**Note: after the skin has been prepared, it must not be touched again. Do not re-palpate the vein at the venipuncture site**

- 9.12.1.4. Remove the colored flip-off caps from the blood culture vials and swab the rubber septum with 70% isopropyl alcohol pads ONLY. Use different pads for each vial.
- 9.12.1.5. Apply the tourniquet, visually relocate the intended venipuncture site, and perform the venipuncture. If a syringe is used, draw enough blood to inoculate each blood culture vial with sufficient quantity of blood according to the manufacture.
- 9.12.1.6. Once the puncture site has been disinfected, avoid touching the skin on that area.
- 9.12.1.7. Order of draw requires blood culture tubes to be drawn first.

#### 9.12.2. Coagulation tests:

- 9.12.2.1. It is important to follow the order of draw established by the laboratory when coagulation tests are collected as part of a multiple test order (see procedure titled: Order Of Draw). Coagulation test



results can be adversely affected by cross-contamination by tube additives.

- 9.12.2.2. If the blue-stoppered tube intended for coagulation testing is to be drawn (APTT and PT tests), never draw first because thromboplastin from the site of the venipuncture can invalidate coagulation assay result.
- 9.12.2.3. If a blue-stoppered tube is the only tube to be drawn, a 5 mL GLASS plain red top or second blue top tube should be filled first as the discard tube. Send the second blue top tube for testing.

NOTE: In the event the wrong tube was drawn, never pour or transfer blood from one tube into another.

- 9.12.2.4. Heparin or other substance contamination must be considered when blood is drawn through an indwelling catheter. The line must be flushed with saline and the first 5 ml of blood discarded. Suspicious results from a specimen drawn through an indwelling catheter will be recollected from a different phlebotomy site.
- 9.12.2.5. Tubes drawn for the prothrombin time, partial thromboplastin time, D-dimer and fibrinogen tests must be allowed to fill completely. A properly filled tube produces a 9:1 ratio of blood to anticoagulant. Under filling or overfilling tube will cause an erroneous ratio and test results.
- 9.12.2.6. The ideal needle gauge for coagulation tests range from 19 to 21. For the pediatric patient, a 23gauge needle or butterfly.
- 9.12.3. **Therapeutic Drug Monitoring (TDM):**
  - 9.12.3.1. Orders associated with the TDM program are classified as either a random level, trough level or peak level.
  - 9.12.3.2. Random Level - An order classified as a random level indicates that the specimen is to be collected at a random time.
  - 9.12.3.3. Trough Level - An order classified as a trough level indicates that the specimen must be collected BEFORE a specific drug is administered. A trough order is a timed order.
  - 9.12.3.4. Peak Level - An order classified as a peak level indicates that the specimen must be collected AFTER a specific drug is administered. A peak order is a timed order.





- 9.12.3.5. Trough and peak level orders are timed orders. The administration of TDM drugs are scheduled in reference to these timed orders. Before collecting blood for a trough or peak level the phlebotomist must confirm that the timing of the orders correspond to the schedule of drug administration.
- 9.12.3.6. If a trough level is ordered, the phlebotomist must confirm that the drug has not been administered and that the nurse is on schedule as to when the drug will be administered.
- 9.12.3.7. If a peak level is ordered, the phlebotomist must consult with nursing personnel to confirm that the drug has been administered and that the appropriate amount of time has passed since administration. The phlebotomist must record the time that the infusion of the drug was started and the time that the infusion of the drug was finished on the information label that prints with the barcode label.
- 9.12.3.8. It is the phlebotomist's responsibility to insure the accurate timing of these orders. It is important to communicate with the nursing staff in regards to the timing of these orders.
- 9.12.3.9. If a trough or peak level specimen cannot be collected at the ordered time, notify the patient's nurse or the charge nurse.
- 9.12.3.10. If infusion of the drug is not complete by the time the peak level is due to be collected, then the peak level must be collected immediately after the completion of the infusion.

### **9.13 Troubleshooting difficulties in venipuncture ("Hard to stick" patients):**

#### **9.13.1. *If an incomplete collection or no blood is obtained:***

- 9.13.1.1. Change the position of the needle. Move it forward (it may not be in the lumen) or move it backward (it may have penetrated too far).
- 9.13.1.2. Adjust the angle (the bevel may be against the vein wall).
- 9.13.1.3. Loosen the tourniquet. It may be obstructing blood flow.
- 9.13.1.4. Try another tube. There may be no vacuum in the evacuated tube being used.
- 9.13.1.5. Re-anchor the vein. Veins sometimes roll away from the point of the needle and puncture site.

#### **9.13.2. *If blood stops flowing into the tube:***

- 9.13.2.1. The vein may have collapsed; re-secure the tourniquet to increase venous filling.
- 9.13.2.2. The needle may have pulled out of the vein when switching tubes. Hold equipment firmly and place fingers against patient's arm, using the flange for leverage when withdrawing and inserting tubes.
- 9.13.2.3. If still unsuccessful, remove the needle, take care of the puncture site, and redraw.

#### **9.13.3. *Special Techniques For Locating A Vein That Is Not Readily Apparent***







- 9.13.3.1. Tighten the tourniquet. Do not tighten to point where the patient is uncomfortable.
- 9.13.3.2. Ensure that the patient's hand is closed.
- 9.13.3.3. Tap sharply at the vein site with index and second finger a few times. Tapping will vein to dilate.
- 9.13.3.4. Lower the extremity over the bedside. Gravity may help veins to fill. Massage the arm from wrist to elbow. Massaging in this manner can force blood into a vein.
- 9.13.3.5. Apply a warm, damp washcloth (about 40°C) to the proposed phlebotomy site for five minutes. Alternatively, commercial warming devices may be used following the manufacturer's instructions.

**9.13.4. Blood That Can Not Be Obtained (Missed After Puncture)**

- 9.13.4.1. Change the position of the needle. If the needle has penetrated too far into the vein, pull it back slightly. If it has not penetrated far enough, advance it farther into the vein slightly. Rotate the needle half a turn. Manipulation other than that recommended above is considered probing. Probing is not recommended. Probing is painful to the patient. In most cases another puncture in a site below the first site, or use of another vein on the other arm or hand, is advisable.
- 9.13.4.2. Try another tube. The tube being used may not have had sufficient vacuum.
- 9.13.4.3. Loosen the tourniquet. The tourniquet may have been applied too tightly, thereby reducing blood flow. Reapply the tourniquet loosely.
- 9.13.4.4. **DO NOT ATTEMPT A VENIPUNCTURE ON A PATIENT MORE THAN TWICE.** ask another person attempt to draw the specimen. Relate any relevant information about the unsuccessful attempts to the next individual that will attempt to collect blood. If the next individual is unsuccessful after two attempts, notify the patient's nurse or the patient's physician that blood has not been collected after four unsuccessful attempts and that the laboratory will wait for further instructions. Any further attempts should be made only after being directed to do so by a or the patient's physician.
- 9.13.4.5. If the tests ordered allow the specimen to be collected by skin puncture, it is permissible to perform a skin puncture after two unsuccessful venipuncture attempts.

**9.13.5. Geriatric Patients**

- 9.13.5.1. Arteries and veins change drastically with age. Blood vessels become less Elastic straighten and fray with aging and can be easily injured during a phlebotomy procedure.





- 9.13.5.2. Due to muscle loss in the elderly the antecubital fossa may not be the best area to consider for a venipuncture. Look at the hands, digital veins, thumb veins or forearm.
- 9.13.5.3. Veins in the elderly must be well anchored before the venipuncture. Holding the skin alongside the vein instead of directly over the vein will help prevent obstructing it and causing it to collapse.
- 9.13.5.4. Aging skin is fragile and bruises easily. Do not tap the phlebotomy site to vigorously in an attempt to cause the vein to dilate. This could cause bruising.
- 9.13.5.5. The use of smaller gauge needles helps reduce trauma to the vein and patient.

#### 9.13.6. **Children and infants**

- 9.13.6.1. Examine the antecubital fossa area. If the child or infant is of sufficient size and a vein is apparent attempt a venipuncture with a Vacutainer Push Button Collection Set (butterfly).
- 9.13.6.2. If the child or infant is small or a vein is not apparent, perform a skin puncture on the heel. If a test is ordered that requires a venipuncture (blood culture, etc.) attempt a venipuncture with a Vacutainer Push Button Collection Set (butterfly).
- 9.13.6.3. Infants less than one-year-old generally have blood collected from their heel.
- 9.13.6.4. For additional information regarding the skin puncture procedure as it applies to children or infants see the procedure titled "Blood Specimen Collections by Skin Puncture"

#### 9.14 **Phlebotomist Problems:**

##### 9.14.1. **Needle Stick**

- 9.14.1.1. Remove gloves.
- 9.14.1.2. Force bleed wound for a couple of minutes under running water.
- 9.14.1.3. Clean wound with soap and water.
- 9.14.1.4. Report the incident and ask the responding phlebotomist to cover you or arrange coverage.

**NOTE:** Fill incident report form.

#### 9.15 **Blood Splash**

- 9.15.1. Remove all contaminated clothing as soon as possible.
- 9.15.2. Wash any exposed areas of skin (skin that came in contact with contaminated clothing with soap and water.)



# BIOGENIX

## POLICY PROCEDURE FOR BLOOD SAMPLE COLLECTION BY VENIPUNCTURE

*Document Control: BG/ PP/ SAMP / 006*

VERSION: 1.0

PAGE: 19 of 19

DATE OF EFFECTIVITY:  
01/07/2020

NEW REVIEW DATE: 30/06/2022

9.15.3. If eyes nose or mouth are exposed flush them with lots of water or saline.

9.15.4. Call the laboratory safety officer.

9.15.5. If on the premises, call other phlebotomist and ask to cover you or arrange coverage while you go to fill incident report and take to Employee Health, for treatment.

## 10. CROSS REFERENCE

- 10.1. NCCLS: H18-A3, Procedures for the Handling and Processing of Blood Specimens; Approved Guideline – Third ed.; Nov. 2004
- 10.2. Guide Notes in Hematology, Part I by Nova Aida C. Cajucom- Rabor, RMT
- 10.3. BD Vacutainer: Order of Draw and Mixing Guidelines 2007.
- 10.4. Iredell Memorial Hospital, Statesville, NC. "Collection and Handling of Laboratory Specimens".
- 10.5. CAP General Laboratory Checklist 2018
- 10.6. Health Authority of Abu Dhabi -HAAD Clinical Laboratory Standard.

## 11. RELEVANT DOCUMENTS & RECORDS

- 11.1. **BG/PP/INF/001** Policy and Procedure of PPE
- 11.2. **BG/REC/SAMP/003** Sample Rejection Log sheet
- 11.3. **BG/REC/GEN/002** Incident report form