

## The Collection of Diagnostic Blood Specimens by Venipuncture

### I. Preparing an Accession

#### Accessioning

- Patient's name and age and/or ID number
- Date and time specimen is obtained
- Identification of phlebotomist
- Doctor's name
- Tests ordered
- Other information as needed (fasting, type of specimen)

#### Evacuated Collection Tubes

- Select the proper evacuated tubes and ensure that they are within their expiration date and that they had been stored properly.
- Label each tube immediately after specimen is drawn with patient's name, date and other ID information (DOB, SSN, etc.)

### II. Identify the Patient

Ask patient to give full name, address and birth date

- Compare to information given on request form that has been given by the doctor ordering the blood work
- Report any discrepancies to the ordering doctor to make the decision whether to proceed with the blood draw

### III. Verify Patient Diet Restrictions

There are no tests performed presently at RDL that require diet restrictions

- If drawing blood that will be referred out, check for diet restrictions first

### IV. Assemble Supplies and Put On Gloves

- Phlebotomist must prepare supplies
- Blood collection tubes
- Tourniquet
- Alcohol prep pads
- Gauze pads
- Gloves
- Band-Aid

#### A. Needle

Select the appropriate type of needle based on the patient's physical characteristics and the amount of blood to be drawn

#### B. Gloves

Phlebotomist must put on gloves prior to the venipuncture procedure

### V. Approaching the Patient

- A. Assure the patient that although venipuncture may be slightly painful, it will be of short duration.
- B. If the patient objects to the tests ordered, do not proceed to draw blood against the patient's wishes. Instead, report to the physician.

**VI. Position the Patient**

A. Seating

- Ask the patient to be seated comfortably in the chair.
- Have the patient extend an arm on the armrest to form a straight line from shoulder to wrist; a slight bend in the arm may be important in avoiding hyperextension of the arm.

B. No food or chewing gum should be in the patient's mouth at the time the specimen is drawn.

**VII. Verify Paperwork and Selection of Blood Collection Tubes**

A. Make sure the patient's name matches the name on the orders

B. Make sure collection tubes are appropriate kinds and sizes

**VIII. Make Sure Patient's Hand Is Closed**

Veins become more prominent and easier to enter.

**IX. Select Vein Site**

A. Preferred Veins

- Median cubital and cephalic veins are used most frequently.
- Dorsal wrist and hand veins are acceptable.

B. Vein Selection

- Locate by palpating and tracing the path of the vein with the index finger.
- A tourniquet may be used to aid in the selection. (release and reapply after two minutes)
- Blood can be forced into superficial veins by massaging the arm from wrist to elbow. Tap sharply at vein site with index and second finger to cause vein to dilate. Apply warm, damp cloth for 5 minutes.
- Alternative site, e.g., opposite arm or dorsal wrist or hand

**X. Cleanse the Venipuncture Site**

A. Use a prepared alcohol pad.

B. Cleanse site with circular motion from center to periphery.

C. Allow area to air dry.

- Prevents hemolysis
- Prevents burning sensation with puncture

D. If vein must be drawn again, the site must be cleansed again.

**XI. Apply Tourniquet**

A. Applying a tourniquet makes veins more prominent and easier to enter.

B. Release after no more than one minute to prevent hemoconcentration or possible hematoma.

C. Wrap tourniquet around the arm 3-4 inches above the venipuncture site.

**XII. Inspect Needle and Equipment**

Inspect tip of needle to determine that it is free of hooks at the end of the point and that the opening is free of any obstructions

**XIII. Perform Venipuncture**

A. Evacuated Tube Procedure

- Thread appropriate needle into the holder.
- Before using, tap all tubes that contain additives to ensure they are dislodged from

the stopper and wall of the tube. Use sterile tubes.

- Insert blood collection tube into the holder and onto the needle up to the recessed guideline on the holder. Do not push tube beyond guideline; this may result in premature loss of vacuum.
- Make sure the site is in a downward position to prevent reflux or “backflow”.
- Grasp the arm firmly. Use thumb to draw the skin taut (anchoring vein). Thumb should be 1-2 inches below the site.
- Line up needle with vein, bevel up and puncture the vein. Grasp the flange of the needle holder and push tube forward until the needle punctures the stopper
- Release tourniquet as soon as the blood begins to flow. Do not change position of tube until it is withdrawn from the needle. During the procedure, do not allow the contents to contact the stopper (prevent reflux).
- Keep constant, forward pressure on the end of the tube. This prevents release of shut-off valve and stopping of blood flow.
- Fill tube until vacuum is exhausted and blood flow ceases. This ensures correct ratio of anticoagulant to blood.
- When blood flow ceases, remove the tube from the holder. When multiple tubes are collected, remove the last tube from the holder prior to withdrawing the needle from the patient’s arm.
- Gently mix immediately after drawing each tube containing additive. Invert 5-10 times. Do not mix vigorously to avoid hemolysis.
- Insert next tube into holder and repeat procedure from step 6.

**A. Multiple Specimen Collection**

The following is the recommended order of draw when drawing several specimens during a single venipuncture. The purpose is to avoid test result errors due to cross contamination from tube additives.

- Blood culture tubes
- Plain tube, nonadditive (red top)
- Coagulation tubes (blue top)
- Additive tubes: gel separator, heparin, EDTA, oxalate/fluoride

**B. Blood Sample That Cannot Be Obtained**

- Change position of needle (pull back, push forward, rotate)
- Try another tube (bad vacuum)
- Loosen tourniquet (if too tight it might stop blood flow)
- Probing is not recommended. It can be painful. Try another puncture.
- Do not attempt a venipuncture more than twice. (Have another person try, or notify the physician.)

**XIV. Release the Tourniquet**

Release the tourniquet after no more than 1 minute. This should reduce bleeding at the site.

**XV. Ensure Patient’s Hand Is Open**

Reduced the amount of venous pressure as muscles relax.

**XVI. Place Gauze Pad Over The Venipuncture Site**

**XVII. Remove The Needle**

A. Slight pressure should be applied to the pad. Remove the needle slowly keeping the bevel upward.

### **XVIII. Bandage the Arm**

#### **A. Normal**

- Apply mild pressure to gauze pad.
- Place bandage over the site after stasis is complete.
- Tell patient to leave bandage on for at least 15 minutes.

#### **B. Continued Bleeding**

- Apply pressure with gauze until bleeding stops.
- Wrap a gauze bandage tightly around the arm over a pad.
- Tell the patient to leave the bandage on for at least 15 minutes.

#### **C. Excess Bleeding**

If bleeding persists longer than 5 minutes, the doctor should be notified. Pressure must continue until bleeding has stopped.

### **XIX. Dispose of Puncturing Unit**

A. Dispose of needles promptly in a puncture resistant container to prevent reuse or accidental injury.

B. **DO NOT** re-sheath, bend, break or cut needles!

### **XX. Label Blood Collection Tube with Patient Name, DOB, or Other Personal Information and Record Time of Collection**

### **XXI. Give Specimens and Accession to Specimen Processor**

### **XXII. Exposure**

Immediately report an accidental needle-stick or contamination of a break in the skin by blood to a supervisor.

### **XXIII. Emergency Situations**

#### **A. Fainting or non responsiveness**

- Notify designated first aid trained personnel.
- Lay patient flat or lower head and arms if sitting.
- Loosen tight clothing.

#### **B. Nausea**

- Make patient as comfortable as possible.
- Instruct patient to breathe deeply and slowly.
- Apply cold compresses to patient's forehead.
- Notify designated first aid trained personnel.

#### **C. Vomiting**

- Give patient a basin or carton, and have tissue ready,
- Give patient water to rinse mouth
- Notify designated first aid trained personnel.
- Convulsions: Prevent patient from injuring himself.