Chapter 8: Venipuncture Procedures

Objectives

1. Define the key terms and abbreviations listed at the beginning of this chapter.
2. Describe the test request process, identify the types of requisitions used, and list the required requisition information.
3. List and define test status designations, identify status priorities, and describe the procedure to follow for each status designation.
4. Describe proper “bedside manner” and how to handle special situations associated with patient contact.

Objectives (cont’d)

5. Explain the importance of proper patient identification and describe what information is verified, how to handle discrepancies, and what to do if a patient’s ID band is missing.
6. Describe how to prepare patients for testing, how to answer inquiries concerning tests, and what to do if a patient objects to a test.
7. Describe how to verify fasting and other diet requirements and what to do when diet requirements have not been met.

Objectives (cont’d)

8. Describe each step in the venipuncture procedure, list necessary information found on specimen tube labels, and list the acceptable reasons for inability to collect a specimen.
9. Describe collection procedures when using a butterfly or syringe and the proper way to safely dispense blood into tubes following a syringe collection.
10. Describe unique requirements associated with drawing from special populations including pediatric, geriatric, and long-term care patients.
Overview

Venipuncture

- The process of collecting or “drawing” blood from a vein
- Covered in this chapter:
  • How to correctly identify all types of patients
  • How to safely obtain high-quality blood specimens
  • Venipuncture procedures: ETS, butterfly, & syringe procedures on arm & hand veins
  • Challenges & issues unique to pediatric, geriatric, dialysis, long-term care, home care, & hospice patients

Venipuncture Steps

1. Review & accession test request
2. Approach, identify, & prepare patient
3. Verify diet restrictions & latex sensitivity
4. Sanitize hands
5. Position patient, apply tourniquet, & ask patient to make a fist
6. Select vein, release tourniquet, & ask patient to open fist
7. Clean & air-dry the site
8. Prepare equipment & put on gloves
9. Reapply tourniquet, uncap & inspect needle
10. Ask patient to remake a fist, anchor vein, & insert needle
11. Establish blood flow, release tourniquet, & ask patient to open fist
12. Fill, remove, & mix tubes in order of draw or fill syringe
13. Place gauze, remove needle, activate safety feature, & apply pressure
14. Discard collection unit, syringe needle, or transfer device
15. Label tubes
16. Observe special handling instructions
17. Check patient’s arm & apply bandage
18. Dispose of contaminated materials
19. Thank patient, remove gloves, & sanitize hands
20. Transport specimen to lab
Venipuncture Steps (cont’d)
• Step 1: Review & Accession Test Request
  - Types
    • Manual requisitions
    • Computer requisitions
    • Bar-code requisitions
  - Phlebotomist must:
    • Check to see that all required info is present & complete
    • Verify tests to be collected & time & date of collection
    • Identify diet restrictions or other special circumstances
    • Accession or record the order received

Venipuncture Steps (cont’d)
• Step 2: Approach, Identify, & Prepare Patient
  - Approaching the patient
    • Be organized & prepared w. paperwork
    • Look for signs containing patient info. (e.g., DNR, DNAR)
    • Knock lightly on door
    • Ask visitors to step out
    • Identify yourself
    • Obtain consent for procedure
    • Put patient at ease, using professional bedside manner

Venipuncture Steps (cont’d)
• Step 2: Approach, Identify, & Prepare Patient
  - Patient identification
    • Verify name & date of birth
    • Check ID bracelet
    • Notify nurse of ID discrepancies
    • Search for missing IDs
    • Wake sleeping patients
    • Ask a relative or nurse to identify a patient who is unconscious, young, mentally incompetent, or non-English speaking

Venipuncture Steps (cont’d)
• Step 2: Approach, Identify, & Prepare Patient
  - Preparing the patient
    • Explain the procedure
    • Look for signs for restrictions such as not able to use an arm due to fistula or breast surgery
    • Knock before entering: let them know your coming in
    • Physician or clergy present: ask if ok to proceed
    • Unavailable patient: patient may be out for other testing
    • Identify yourself
    • Bedside manner: always be at your best
Cont step 2:
• PATIENT IDENTIFICATION: Most important thing you will do!!!!!!
  - Inpatient: Name, DOB, MR# from arm band
  - Never draw pt that does not have arm band on!
  - You are NEVER allowed to put arm band on!
  - Never use info from arm band NOT attached to pt
  - Outpatient: Name and DOB
  - If there is any discrepancy in info it must be corrected before you draw!

Unconscious Patient: Ask relative or pt nurse to identify. They may be able to still feel pain so have someone hold for you when you draw for safety sake.
  - Identification of young, mentally impaired or non-english speaking
  - Do not badger pt into cooperating
  - Needle Phobia

Venipuncture Steps (cont’d)
• Step 3: Verify Diet restrictions (fasting) and latex sensitivity

Latex Precautions

Venipuncture Steps (cont’d)
• Step 4: Sanitize Hands

Venipuncture Steps (cont’d)
• Step 5: Position Patient, Apply Tourniquet, and Ask Patient to Make a Fist and hold it...NO PUMPING!
  - Positioning patient
    - Inpatients: typically are lying down in bed. Raise bed up to you, but ALWAYS lower it back and put rails up before you leave!!!
    - Outpatients: sitting in blood-drawing chair
    - Patients prone to fainting: reclining chair, sofa, or bed
    - Support hand or arm that is to be site of venipuncture
Venipuncture Steps (cont'd)

• Step 5: Position Patient, Apply Tourniquet, and Ask Patient to Make a Fist

  - Tourniquet application & fist clenching
    • Apply tourniquet snugly 3 to 4 in. above intended site
    • Never apply over open sore
    • Apply over a dry washcloth or gauze if patient has sensitive skin

Venipuncture Steps (cont'd)

• Step 6: Select Vein, Release Tourniquet, and Ask Patient to Open Fist

  - Preferred site is antecubital area of arm
  - First choices are median cubital & median veins
  - Palpate patient’s dominant arm with index finger
  - Roll finger side to side while pressing against vein to judge size
  - Avoid veins that feel hard & cord-like or lack resilience
  - Release tourniquet & have patient open fist
  - Don’t use veins on underside of wrist
Venipuncture Steps (cont’d)

- Step 7: Clean and Air-Dry the Site
  - Clean site using with an antiseptic to avoid infection or contamination
  - Use 70% isopropyl alcohol
  - Use circular motion, moving outward in widening concentric circles
  - Clean an area about 2 to 3 in. in diameter
  - Allow area to dry 30 seconds to 1 minute
  - Don’t dry alcohol with unsterile gauze or fan or blow on site…let air dry
  - Don’t touch site after cleaning it

Venipuncture Steps (cont’d)

- Step 8: Prepare Equipment and Put on Gloves
  - ETS equipment preparation
  - Preparation of a winged infusion set (butterfly)
  - Preparation of syringe equipment
  - Positioning equipment for use
- Step 9: Reapply Tourniquet, Uncap and Inspect Needle

Venipuncture Steps (cont’d)

- Step 7: Clean and Air-Dry the Site

Venipuncture Steps (cont’d)

- Steps 8 & 9: Prepare Equipment and Reapply Tourniquet
Venipuncture Steps (cont’d)

- Step 10: Ask Patient to Remake a Fist, Anchor Vein, and Insert Needle
  - **Anchoring**
    - Use nondominant hand to anchor (secure firmly) the vein
    - Place thumb at least 1 to 2 in. below & slightly to side of site
    - Pull skin toward wrist
  - **Needle insertion**
    - Never switch hands!!!!!!!
    - Hold collection device or butterfly needle in dominant hand
    - With bevel facing up, position needle above insertion site
    - Insert at 30-degree angle or less in smooth, steady forward motion

Venipuncture Steps (cont’d)

- Step 11: Establish Blood Flow, Release Tourniquet, and Ask Patient to Open Fist
  - Advance collection tube into tube holder until stopper is completely penetrated by needle
  - Push tube with thumb while index & middle fingers straddle & grasp flanges of tube holder, pulling back slightly
  - Blood will begin to flow into tube
  - Release tourniquet as soon as blood flow is established
  - Have patient release fist
  - Maintain needle position, DO NOT lift up tip!
  - Let tube fill from bottom to prevent reflux
**Venipuncture Steps (cont’d)**

- **Step 12:** Fill, Remove, and Invert Tubes in Order of Draw or Fill Syringe

- **Step 13:** Place Gauze, Remove Needle, Activate Safety Feature, and Apply Pressure. Have pt hold pressure while you finish up. Do not let pt bend arm.

- **Step 14:** Discard Collection Unit, Syringe Needle, or Transfer Device

- **Step 15:** Label Tubes
  - Patient’s first & last names
  - Patient’s identification number (if applicable) or date of birth
  - Date & time of collection
  - Phlebotomist’s initials
  - Pertinent additional information, such as “fasting”
Venipuncture Steps (cont’d)

• Step 15: Label Tubes using sharpie marker, print all info very neatly.

• Step 16: Observe Special Handling Instructions
  • Such as put on ice, protect from light etc………

Venipuncture Steps (cont’d)

• Step 17: Check Patient’s Arm and Apply Bandage
• Step 18: Dispose of Contaminated Materials
• Step 19: Thank Patient, Remove Gloves, and Sanitize Hands
• Step 20: Transport Specimen to the Lab

Pediatric Venipuncture

• Overview
  – Children <2 years: limit to superficial veins
• Challenges
  – Small, undeveloped veins
  – Considerable risk of permanent damage
  – Smaller blood volume in body; risk for anemia
• Dealing With Parents or Guardians
  – Earn trust by being warm, friendly, calm, confident, & caring
  – Ask about child’s past experiences with blood collection
  – Allow to stay in room, if desired
Pediatric Venipuncture (cont’ d)

- **Dealing With the Child**
  - Gain trust; approach slowly & determine level of anxiety
  - Explain procedure in terms a child can understand
  - Emphasize importance of remaining still
  - Offer a reward for cooperating (stickers work great)
  - **NEVER** tell a child it won’t hurt

- **Pain Interventions**
  - Eutectic mixture of local anesthetics (EMLA)
  - Available in a cream & in oral solution
  - Takes about 1 hour to anesthetize area

Pediatric Venipuncture (cont’ d)

- **Selecting a Method of Restraint**
  - Infants: wrap in a blanket
  - Toddlers: have parent hold on lap
  - Have 2nd person lean over child who is lying down

- **Equipment Selection**
  - 23-gauge butterfly needle attached to an evacuated tube or syringe

- **Procedures**
  - Collect minimum amount of blood required for testing

Geriatric Venipuncture

- **Challenges**
  - Skin changes
  - Hearing impairment
  - Visual impairment
  - Mental impairment
  - Effects of disease
    - Arthritis (can’t usually make a tight fist)
    - Diabetes (bad circulation)
    - Parkinson’s & stroke (affects strength and ability to hold hand/arm still)
    - Pulmonary function

- **Safety Issues**
  - More space need for wheelchairs & walkers
  - Non-slip & clutter-free floors

- **Patients in Wheelchairs**
  - Lock wheels when drawing blood, assisting from chair

Geriatric Venipuncture (cont’ d)

- **Blood-Collection Procedures**
  - **Patient identification**: don’t rely on nods of agreement; verify patient information with a relative or attendant. Let them give you the info, don’t say “is your name ______?”
  - **Equipment selection**: choose equipment best suited for patient and situation
  - **Tourniquet application**: loose enough to not damage skin. Apply over sleeve when possible.
  - **Site selection**: avoid bruised areas from previous venipunctures
  - **Cleaning the site**: don’t rub too vigorously
  - **Performing the venipuncture**: anchor vein firmly to avoid rolling
  - **Holding pressure**: bleeding may take longer to stop
Patients on Dialysis and Those in Other Settings

- Dialysis Patients
  - Most common reason for dialysis is end stage renal disease (ESRD)
    - Do not use arm with AV fistula for venipuncture!!
- Long-Term Care Patients
  - Adult daycare
  - Assisted living
  - Rehabilitation facilities
  - Private homes

Patients on Dialysis and Those in Other Settings (cont’d)

- Home Care Patients
  - Home care phlebotomists must have:
    - Exceptional phlebotomy, interpersonal, & organizational skills
    - Ability to function independently
    - Ability to be comfortable working in varied & unusual circumstances
    - Ability to carry all equipment with them
- Hospice Patients
  - Require extra care, kindness, & respect

Chapter 8/9 test info at the end of chapter 9 slides