Educational Requirements for Veni-Puncture in Exercise Physiology

Down-load MMC Phlebotomy Book 2nd Ed 2007 from Exercise Physiology Research Webpage

Watch 3 Films: These can be checked out from Ramona Harwell

- Basic Venipuncture
- Preventing Preanalytical Errors
- Avoiding Phlebotomy Related Lawsuits

Pass the Applied Phlebotomy Video Examination

Pass a Practical Examination Given by Your Major Professor
Applied Phlebotomy Video Exam

Please answer the following questions as you watch the Applied Phlebotomy videos (1 through 3). You must all the questions correctly to pass this exam.

**VIDEO 1 – BASIC VENIPUNCTURE**

1. What is the most commonly used site for blood collection?

2. What site should never be used when collecting blood?

3. Why is it best to apply tourniquets over the shirt sleeve of the subject?

4. What can you do to locate hard-to-find veins?

5. Which vein is close to the brachial artery and median nerve?

6. Release tourniquet after ______ minutes if you cannot find vein, and reapply tourniquet after _____ minutes.

7. What cleaning agent, when not fully dried, can hemolyze red blood cells as blood is obtained?

8. What does the term “additive carryover” mean in phlebotomy?

9. What should you not use to apply pressure to a puncture site?

10. What are five signs of loss of consciousness during or after a blood draw?

**VIDEO 2 – PREVENTING PREANALYTICAL ERRORS**

11. Give an example of a time of collection error.

12. How do IV’s alter blood samples?

13. What is a “vascular access device”?

14. List two errors associated with a vascular access draw.
15. The subject pumping their fist before and during a blood draw causes what error?

16. How does an upright posture (e.g., sitting up in bed) effect collected blood?

17. Define the term “hemolysis”?

18. How long can plasma or serum be stored in a refrigerator before freezing?

19. What is proper clotting time?

20. True or False? Unplugging a tube during centrifugation has no affect on values of the blood sample.

VIDEO 3 – AVOIDING LAWSUITS

21. Define the term “standard of care.”

22. What do you do if a subject experiences shooting pain during venipuncture?

23. What does it likely mean if a subject feels shooting pain during venipuncture?

24. If you nick an artery, how long should you apply pressure at the puncture site?

25. Describe what a mastectomy is and concern you should have with.

26. Why is it important to have a low angle of insertion?

27. What is a low angle of insertion?

28. What are the limits of needle manipulation?
Phlebotomy Practical Grading Criteria

Before beginning make sure all necessary supplies are organized: Make sure all necessary supplies are within reach before beginning venipuncture. Be sure to wear gloves and lab coat buttoned up.

Introduction: Introduce yourself

Explanation of procedure: Give a brief description of the procedure; inquire about any allergies such as iodine or latex. Make sure the patient does not have any questions before beginning.

Examination of arm for venipuncture site: Apply tourniquet and examine both arms to find an adequate venipuncture site. Release tourniquet while prepping venipuncture site and necessary supplies.

Disinfection of venipuncture site: Thorough cleansing of the venipuncture site. Allow site to air dry.

Tourniquet application: Apply tourniquet approximately 3 inches above the venipuncture site. Do not leave tourniquet on longer than one minute.

Venipuncture technique: This includes anchoring selected vein and angle of needle insertion.

Successful venipuncture: This is simply hitting or missing the vein.

Tube inversions: Know which tubes require mixing and do so accordingly.

Tourniquet release: Be sure to release tourniquet before withdrawing the needle.

Wound care: Applying adequate pressure to venipuncture site and applying bandage.

Correct disposal of sharps, biohazard, and trash: Correctly dispose of all waste materials.

You may use a syringe or vacutainer method for this exam. Remember that a syringe will not always be large to hold the amount of blood needed so plan accordingly. Each student will be given two attempts to locate a vein. If you miss the vein twice, you will be asked to perform the procedure without needle insertion and will have the points deducted for that task. Everyone has a bad day; you will not fail the exam for missing a vein twice.
SUMMARY OF VENIPUNCTURE TECHNIQUES FOR STUDENTS IN EXERCISE PHYSIOLOGY

- Have supplies and puncturing equipment ready before subject arrives.
- Greet the subject and identify yourself.
- Explain the procedure and reassure the subject.
- Wash hands and put on gloves.
- Apply the tourniquet (never keep a tourniquet on for more than 1 min).
- Select the venipuncture site (arm extended straight helps to anchor the vein).
- Release the tourniquet.
- Cleanse the site.
- Survey and assemble equipment.
- Reapply the tourniquet (never keep a tourniquet on for more than 1 min).
- Confirm the venipuncture site.
- Anchor the vein.
- Insert the needle (tell subject to make a tight fist or squeeze a ball).
- Push vacuum tube completely into adapter.
- Mix the specimens, as they are collected (inverting if needed).
- Remove last tube from the holder.
- Release the tourniquet.
- Place sterile gauze over the needle.
- Remove the needle and apply pressure.
- Dispose of the needle in sharps container.
- Perform appropriate specimen handling.
- Bandage the subject’s arm (have the subject hold the arm out straight applying pressure).
- Dispose of used supplies.
- Remove and dispose of gloves.
- Wash hands.
- Complete any required paperwork.
- Thank the subject.