NHA Certified Phlebotomy Technician (CPT) Exam

Free Practice Test — 30 Real Exam-Style Questions

with full answer key & explanations

Practice Questions

Try all 30 first, then check the answer key at the back.

1. To calculate the blood volume of a newborn, which equation should you use?

A. 1 pound = 8 milliliters of blood volume
B. 10 kilograms of body weight = 8 liters of blood volume
C. 10 pounds of body weight = 8.1 liters of blood volume
D. 1 kilogram of body weight = 80 milliliters of blood volume

2. In an outpatient laboratory setting, phlebotomists must effectively communicate with patients and their families. Which of the following strategies would NOT hinder effective communication?

A. Using medical jargon
B. Ignoring non-verbal cues
C. Assuming the patient understands without asking for feedback
D. Using clear and simple language

3. During blood collection, it is crucial to avoid removing too much blood from a neonate. What amount of blood loss, relative to the neonate's total blood volume, can be life-threatening?

A. More than 10%
B. More than 50%
C. More than 25%
D. More than 5%

4. To ensure the safety of pediatric patients during blood draws, the clinic has a policy that limits the amount of blood that can be drawn to 3% of a child's total blood volume in a 14-day period. A 5-year-old male patient who weighs 40 pounds is scheduled for multiple blood tests. Which of the following is true about volume requirements for this high-risk patient? The average blood volume for a child is 80 mL per kilogram of body weight.

A. The total volume that can be drawn from this patient over 14 days is 1.45 L.
B. The total volume of blood that is drawn over 14 days should not exceed 44 mL.
C. The total blood volume requirements are not applicable for young children.
D. The total volume that is drawn over 14 days should not exceed 22 mL because the patient is a child.

5. Michael is in the laboratory attempting to collect a blood sample for arterial blood gas (ABG) analysis. He experiences difficulty obtaining a smooth and continuous blood flow from the arterial site. Which of the following should Michael do to improve the collection of the arterial blood sample?

A. Apply excessive pressure at the puncture site
B. Use a tourniquet
C. Use heparinized syringe
D. Use a larger needle

6. What is an advantage of using the microcollection container for capillary blood gases?

A. They eliminate the need for arterial puncture
B. They reduce the amount of oxygen present in the sample
C. They are less painful to adults
D. They are more precise than arterial blood gas measurements

7. When handling a biohazard spill in the lab, at what stage should a technician remove their gloves?

A. After leaving the lab
B. Before documenting the incident
C. After safely disposing of all contaminated materials
D. Before wiping down the spill area

8. Which of the following items should not be discarded in a red biohazard waste bag?

A. Used lancets
B. Unused gauze pads
C. Contaminated needles
D. Blood-soaked bandages

9. According to the Occupational Safety and Health Administration (OSHA) guidelines, proper handling of needlestick injuries involves:

A. Cleaning the injury with an alcohol wipe and continuing with the procedure
B. Bandaging the area without reporting and monitoring for signs of infection
C. Immediately washing the area with soap and water and reporting the injury
D. Applying antiseptic and waiting to report until symptoms appear

10. What is the primary purpose of implementing Standard Operating Procedures (SOPs) in a phlebotomy lab?

A. To meet the minimum legal requirements for lab practices
B. To assign specific roles to lab personnel
C. To evaluate the turnaround time for lab results
D. To ensure consistency and quality in sampling procedures

11. How many tubes are typically needed for a blood culture collection?

A. Four
B. Two
C. One
D. Three

12. What additive(s) are present in the lavender-top blood collection tube?

A. Potassium oxalate
B. Lithium heparin
C. EDTA (Ethylenediaminetetraacetic acid)
D. Sodium fluoride

13. After collecting a blood sample using venipuncture, the phlebotomist must follow the correct order of tube collection to ensure accurate results. What is the correct order?

A. Serum tubes, coagulation tubes, blood culture tubes, glycolytic inhibitor tubes, EDTA tubes, heparin tubes
B. Coagulation tubes, blood culture tubes, serum tubes, heparin tubes, EDTA tubes, glycolytic inhibitor tubes
C. EDTA tubes, serum tubes, heparin tubes, blood culture tubes, glycolytic inhibitor tubes, coagulation tubes
D. Blood culture tubes, coagulation tubes, serum tubes, heparin tubes, EDTA tubes, glycolytic inhibitor tubes

14. When performing a venipuncture, which of the following tubes is used to obtain a blood sample for glucose testing?

A. Blue top
B. Gray top
C. Red top
D. Green top

15. What is the appropriate method for cleaning a fingerstick site before collecting a capillary blood sample?

A. In a circular motion from the center moving outward
B. In a circular motion from the outside working inward
C. In a square shape around the site
D. A few swipes straight up and down over the site

16. Which of the following anticoagulants prevents the aggregation of platelets?

A. Sodium citrate
B. Potassium oxalate
C. EDTA
D. Heparin

17. Which additives are found in blood culture bottles used to identify bacteria in septicemia?

A. Sodium polyanethol sulfonate (SPS) and charcoal
B. Sodium fluoride and SPS
C. SPS and lithium heparin
D. Lithium heparin and charcoal

18. Which of the following actions should be taken if a patient experiences dizziness after a fingerstick procedure?

A. Dehydration is never a factor in causing dizziness
B. Incidents of dizziness must be reported and documented according to facility policy
C. Dizziness after a fingerstick is not serious and can be ignored
D. Patients will always experience dizziness after a fingerstick procedure occurred before

19. Where should the first drop of blood be placed when performing a fingerstick?

A. Directly on the test strip
B. On a microscope slide
C. Into the capillary tube
D. On the gauze pad to wipe it off

20. When entering patient information into an Electronic Health Record (EHR) system, which of the following must be selected to add a new patient record?

A. New Patient Button
B. Search Bar
C. Settings Menu
D. File Menu

21. What is the normal range for adult blood pressure?

A. 140/85 mmHg to 160/100 mmHg
B. 90/60 mmHg to 120/80 mmHg
C. 130/90 mmHg to 150/100 mmHg
D. 80/50 mmHg to 100/70 mmHg

22. How long does it typically take for a laboratory to process a routine blood culture test?

A. 48-72 hours
B. 24-36 hours
C. 12-24 hours
D. 4-8 hours

23. In a clinical setting, what is the term used to describe the process of blood collection throughout different times of the day to account for physiological variations?

A. 24-hour cycle
B. Circannual variations
C. Regular intervals
D. Diurnal variations

24. A phlebotomist working in a pediatric clinic receives an order for a blood draw. In which situation should the phlebotomist ask for a nurse's help?

A. The patient is a newborn requiring a heel stick blood collection.
B. The patient is a teenager requiring a cholesterol test and has not fasted.
C. The patient is a toddler requiring a capillary blood gas test.
D. The patient is an infant requiring a peripheral intravenous catheter (PIV) blood draw.

25. What is a primary disadvantage of using a centrifuge over manual separation when processing blood samples?

A. Centrifuges require a lot of physical space
B. Centrifuges are an untested science
C. Centrifuges can cause hemolysis if not used properly
D. Centrifuges are prohibitively expensive

26. When processing blood samples labeled as urgent or for critical conditions, what should be done with the results?

A. Given verbally only, and never followed by a hard copy
B. Confirmed for accuracy by 'read-back'
C. Reported to the patient right away
D. Redrawn before reporting results

27. Jon is a phlebotomist working at a mobile clinic that provides healthcare services at various community centers. He needs to collect and process blood specimens from multiple patients in one day. After drawing blood and labeling the samples, what is the most appropriate step Jon should take to ensure proper processing of the specimens?

A. Seal the specimens in biohazard bags and leave them at the reception desk of the nearest clinic
B. Hand over the samples to a local delivery service with no specific handling instructions
C. Place specimens in a labeled cooler and ask a colleague to drop it off at a hospital lab during lunch break
D. Contact a specialized lab courier service trained in handling biological samples to transport the specimens securely

28. What does the appearance of a flash of blood in the barrel of a syringe indicate during an arterial blood gas (ABG) draw?

A. That the artery has not been punctured
B. A collapsed artery
C. Entry into a vein
D. That the needle is in the artery

29. Which of the following is NOT an objective of the Health Insurance Portability and Accountability Act (HIPAA) of 1996?

A. To provide patients with greater control over their health information
B. To reduce healthcare fraud and abuse
C. To increase the accessibility of complete medical records to the general public
D. To ensure the privacy and security of patient health information

30. Before a 24-hour urine collection, what should the phlebotomist instruct the patient to do to ensure accurate results?

A. Collect every sample including the first-morning urine
B. Collect only the evening samples
C. Discard the first-morning urine sample
D. Drink a large amount of water

Answer Key & Explanations

1. D — 1 kilogram of body weight = 80 milliliters of blood volume
Answer: 1 kilogram of body weight = 80 milliliters of blood volume Calculating total blood volume may be necessary for certain patients at risk of iatrogenic anemia. Actual blood volume is based on weight and is calculated using the equation of 1 kilogram of body weight = 80 milliliters of blood volume.

2. D — Using clear and simple language
Answer: Using clear and simple language Using clear and simple language facilitates effective communication, as it ensures that patients and their families accurately understand the information being conveyed. In contrast, using medical jargon, ignoring non-verbal cues, and assuming understanding without feedback can create barriers to effective communication.

3. A — More than 10%
Answer: More than 10% More than 10% blood loss in a short period of time can be life-threatening for a neonate and may lead to cardiac arrest or death. Phlebotomists should be vigilant in monitoring blood volumes during collection, especially in vulnerable populations like neonates, to avoid critical blood loss.

4. B — The total volume of blood that is drawn over 14 days should not exceed 44 mL.
Answer: The total volume of blood that is drawn over 14 days should not exceed 44 mL. Convert the weight from pounds to kilograms (1 lb = 0.454 kg) 40 lbs = 18.16 kg Calculate the total blood volume (18.16 kg x 80 mL) = 1452.80 mL Calculate 3% of blood volume (0.03 x 1452.80 mL) = 43.584 mL The total blood that can be drawn from this patient during a 14-day period is 43.584 mL. The patient's age and weight dictate the blood volume requirements, while gender and specific conditions do not affect them.

5. C — Use heparinized syringe
Answer: Use heparinized syringe When collecting samples for arterial blood gas analyses, a heparinized syringe is used to prevent coagulation and to help maintain the integrity of the blood sample. Using a larger needle or applying excessive pressure can damage the arterial structure, while using a tourniquet is not appropriate for arterial blood sampling.

6. A — They eliminate the need for arterial puncture
Answer: They eliminate the need for arterial puncture Arterial puncture for blood gas analysis can be technically challenging and painful. Using a microcollection container for capillary blood gases allows the phlebotomist to collect the sample from a capillary bed, typically from a finger or heel stick, which is less invasive and safer than arterial collection.

7. C — After safely disposing of all contaminated materials
Answer: After safely disposing of all contaminated materials Gloves should be removed and hands sanitized after handling and disposing of all contaminated materials to prevent the spread of biohazards. Ensure the area is cleaned before removing gloves to maintain a sterile environment. Gloves should not be removed before the cleanup is completed or after leaving the lab as this increases the risk of cross-contamination.

8. B — Unused gauze pads
Answer: Unused gauze pads Unused gauze pads do not contain biohazardous material and can go in the regular trash. It is essential to avoid placing non-biohazardous items in biohazard waste bags to prevent unnecessary disposal costs and to leave space for hazardous materials. Contaminated needles, blood-soaked bandages, and used lancets should all be discarded in appropriate biohazard containers to minimize the risk of exposure to potentially infectious materials.

9. C — Immediately washing the area with soap and water and reporting the injury
Answer: Immediately washing the area with soap and water and reporting the injury OSHA guidelines emphasize that healthcare workers should immediately wash the area of needlestick injury with soap and water, report the injury to a supervisor, and seek medical evaluation. Applying antiseptic or alcohol wipes is not sufficient as it does not replace immediate soap and water washing. Delay in reporting can hinder timely intervention, and bandaging without reporting can result in serious health consequences.

10. D — To ensure consistency and quality in sampling procedures
Answer: To ensure consistency and quality in sampling procedures Standard Operating Procedures (SOPs) are designed to ensure that all procedures are performed consistently and to a high standard, beyond merely meeting minimum requirements. This helps maintain quality control and accurate results in lab environments.

11. B — Two
Typically, a blood culture collection requires two tubes. One is for the aerobic culture, and the other is for the anaerobic culture. This ensures that any bacteria present, regardless of their preferred growing conditions, can be detected.

12. C — EDTA (Ethylenediaminetetraacetic acid)
Answer: EDTA (Ethylenediaminetetraacetic acid) Lavender-top tubes contain EDTA, which is an anticoagulant used for hematology tests like complete blood counts (CBC) and blood smears. The anticoagulant prevents blood from clotting.

13. D — Blood culture tubes, coagulation tubes, serum tubes, heparin tubes, EDTA tubes, glycolytic inhibitor tubes
Answer: Blood culture tubes, coagulation tubes, serum tubes, heparin tubes, EDTA tubes, glycolytic inhibitor tubes The order of draw is crucial to prevent cross-contamination and inaccurate test results caused by additives from one tube mixing with another. Blood culture tubes are collected first to avoid contamination, followed by coagulation tubes for accurate clotting test results, serum and heparin tubes for chemistry tests, EDTA tubes for hematology, and glycolytic inhibitor tubes last to preserve glucose.

14. B — Gray top
Answer: Gray top The gray top tube contains additives like sodium fluoride and potassium oxalate, which prevent glycolysis and stabilize glucose levels in the blood sample.

15. A — In a circular motion from the center moving outward
Answer: In a circular motion from the center moving outward The phlebotomist should select the fingerstick site and then clean the patient's skin using small circles starting from the site and moving outward. This method helps to prevent microorganisms from being spread back onto the site, ensuring a more sterile environment before puncture.

16. C — EDTA
Answer: EDTA EDTA (Ethylenediaminetetraacetic acid) is an anticoagulant that works by binding calcium ions in the blood, which inhibits the clotting process and prevents the aggregation of platelets. EDTA is typically used in blood collection tubes for complete blood count (CBC) tests.

17. A — Sodium polyanethol sulfonate (SPS) and charcoal
Answer: Sodium polyanethol sulfonate (SPS) and charcoal Blood culture bottles used to identify bacteria in cases of septicemia typically contain the additive SPS to prevent the blood from clotting and to inhibit phagocytosis of bacteria, as well as charcoal to neutralize potential antibiotics in the sample. These additives help ensure the accuracy of blood cultures.

18. B — Incidents of dizziness must be reported and documented according to facility policy
Answer: Incidents of dizziness must be reported and documented according to facility policy Any incident related to specimen collection, including dizziness, must be reported and documented as per the facility policy. Every patient has the potential to feel dizzy during or after a procedure. Factors like dehydration, hypoglycemia, or anxiety could contribute to dizziness.

19. D — On the gauze pad to wipe it off
Answer: On the gauze pad to wipe it off. The first drop of blood is usually wiped away because it may contain tissue fluid, which can alter the test results. The second drop of blood is used for accurate testing.

20. A — New Patient Button
Answer: New Patient Button To add a new patient record in most Electronic Health Record (EHR) systems, users must typically click on the 'New Patient Button'. The search bar is used to find existing patients, and the settings or file menus are generally used for configuration and other administrative tasks.

21. B — 90/60 mmHg to 120/80 mmHg
Answer: 90/60 mmHg to 120/80 mmHg Phlebotomists may check a patient's blood pressure to ensure it is within the normal range. The normal range for adult blood pressure is 90/60 mmHg to 120/80 mmHg. Blood pressure below 90/60 mmHg is considered hypotensive, while blood pressure above 120/80 mmHg is considered hypertensive.

22. A — 48-72 hours
Answer: 48-72 hours Routine blood culture tests typically take between 48 to 72 hours to process because they require time for bacterial growth and subsequent identification.

23. D — Diurnal variations
Answer: Diurnal variations Diurnal variations refer to changes in physiological parameters such as hormone levels, blood pressure, and other bodily functions that occur at different times throughout the day. Understanding these variations is crucial in a clinical setting to ensure accurate blood collection and analysis.

24. A — The patient is a newborn requiring a heel stick blood collection.
Answer: The patient is a newborn requiring a heel stick blood collection. A nurse or specialized staff should perform heel stick blood collections on newborns. Special precautions and techniques are needed for newborns to ensure their safety and to obtain an accurate sample. This type of collection requires specialized training and equipment to avoid injury or infection.

25. C — Centrifuges can cause hemolysis if not used properly
Centrifuges can cause hemolysis, which is the destruction of red blood cells, if the machine is not operated

correctly. This is a significant disadvantage compared to manual separation methods, which are less likely to cause hemolysis.

26. B — Confirmed for accuracy by 'read-back'
Answer: Confirmed for accuracy by 'read-back' When phoning test results, it is important to make certain the person receiving the results is authorized to receive the information, writes it down, and then reads it back to you for accuracy. This practice is known as 'read-back.' Urgent and critical condition test results are reported to the physician right away, not to the patient. Results are reported first before a decision is made about repeating the test if indicated.

27. D — Contact a specialized lab courier service trained in handling biological samples to transport the specimens securely
The best way to coordinate processing for specimens in a mobile clinic setup is to use specialized couriers trained in handling biological samples. These couriers are equipped with the necessary tools to ensure that the specimens are transported securely and arrive at the lab without being compromised. Improper handling or transport of specimens can lead to sample degradation, incorrect results, and potential fines or legal issues.

28. D — That the needle is in the artery
Answer: That the needle is in the artery During an arterial blood gas (ABG) draw, a flash of blood in the syringe barrel indicates that the needle is correctly positioned in the artery. This is essential for obtaining an arterial blood sample. If the blood stops flowing, repositioning the needle may be necessary to resume blood flow.

29. C — To increase the accessibility of complete medical records to the general public
Answer: To increase the accessibility of complete medical records to the general public HIPAA establishes guidelines to ensure the privacy and security of patient health information. While it promotes the patient's control over their own health data and aims to combat healthcare fraud and abuse, it does not support public access to complete medical records.

30. C — Discard the first-morning urine sample
Answer: Discard the first-morning urine sample For a 24-hour urine collection, the patient should discard the first-morning urine sample to start the collection period with an empty bladder. This helps ensure that the collected urine represents the entire 24-hour period accurately.

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