

Phlebotomy Technician (CPT) Certification Exam Test Plan

This test plan is based on the 2016 Job Analysis Study. The tasks under each content domain are examples that are representative of the content. Items reflective of these stated tasks may or may not appear on the examination. Additionally, items that are reflective of tasks other than those included in the outline below may appear on the examination, as long as they represent information that is considered part of the major content domain by experts in the phlebotomy profession. Refer to the full test plan at www.nhanow.com.

SAFETY AND COMPLIANCE

Adhere to regulations regarding workplace safety (Occupational Safety and Health Administration, National Institute for Occupational Safety and Health).

- The role of phlebotomy technicians in patient care
- Documentation and reporting requirements
- Resources and regulations regarding workplace safety (Occupational Safety and Health Administration, National Institute for Occupational Safety and Health, Centers for Disease Control)
- Requirements related to biohazards (cleaning of blood spills, disinfection, disposal, OPIM)
- Requirements for sharps disposal
- Exposure control protocols (eye washing, handwashing, showers, notification requirements)

Adhere to regulations regarding operational standards (The Joint Commission, Clinical and Laboratory Standards Institute, Centers for Disease Control).

- The role of phlebotomy technicians in laboratory testing
- Documentation and reporting requirements
- Operational standards (The Joint Commission, Clinical and Laboratory Standards Institute, College of American Pathologists)

Adhere to HIPAA regulations regarding protected health information.

- The role of phlebotomy technicians in patient care
- Documentation and reporting requirements
- HIPAA regulations

Adhere to scope of practice and comply with ethical standards applicable to the practice of phlebotomy.

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- Professionalism (integrity, punctuality, etiquette, respect, professional presentation)
- Ethical standards applicable to the practice of phlebotomy (NHA code of ethics)

Perform quality control for laboratory equipment (maintaining logs for equipment inspection, reporting and troubleshooting equipment issues).

- The role of phlebotomy technicians in laboratory testing
- The effect of preanalytical errors on test results
- Quality control and assurance procedures (maintaining logs, checking reference ranges, troubleshooting)

Perform quality control (machine calibration, test controls, storage controls) for CLIA-waived tests.

- The role of phlebotomy technicians in laboratory testing
- The effect of preanalytical errors on test results
- Quality control and assurance procedures (maintaining logs, checking reference ranges, troubleshooting)
- Guidelines related to CLIA-waived tests

Identify and dispose of sharps and biohazards according to the Bloodborne Pathogens Standard.

- The role of phlebotomy technicians in patient care
- Bloodborne Pathogens Standard
- Requirements related to biohazards (cleaning of blood spills, disinfection, disposal, OPIM)
- Requirements for sharps disposal

Follow exposure control plans in the event of occupational exposure.

- The role of phlebotomy technicians in patient care
- Needlestick Safety and Prevention Act
- Requirements related to biohazards (cleaning of blood spills, disinfection, disposal, OPIM)
- Exposure control protocols (eye washing, handwashing, showers, notification requirements)

Follow transmission-based precautions (airborne, droplet, contact).

- The role of phlebotomy technicians in patient care
- Medical terminology related to phlebotomy
- Needlestick Safety and Prevention Act
- Transmission-based precautions (airborne, droplet, contact)
- Personal protective equipment
- Hand hygiene guidelines

Follow standard precautions regarding personal protective equipment (gloves, gowns, masks, shoe covers, respirators).

- The role of phlebotomy technicians in patient care
- Standard precautions
- Personal protective equipment

Use aseptic and infection control techniques throughout the phlebotomy process.

- Aseptic techniques
- The effect of preanalytical errors on test results
- Standard precautions
- Transmission-based precautions (airborne, droplet, contact)
- Personal protective equipment

Follow hand hygiene guidelines to prevent the spread of infections.

- The role of phlebotomy technicians in patient care
- Aseptic techniques
- Standard precautions
- Hand hygiene guidelines

Initiate first aid and CPR when necessary. (Check for DNR bands.)

- First aid and CPR

Comply with documentation and reporting requirements.

- Documentation and reporting requirements

PATIENT PREPARATION

Introduce yourself to the patient and provide information such as name, title, and department.

- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Patient characteristics affecting communication (cultural and religious differences, language barriers, cognitive level, developmental stage)
- Professionalism (integrity, punctuality, etiquette, respect, professional presentation)

Positively identify the patient based on specific identifiers while following HIPAA guidelines.

- The effect of preanalytical errors on test results
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Patient identifiers

Receive implied, informed, or expressed consent from the patient.

- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Informed, expressed, or implied consent requirements

Review and clarify the requisition form.

- Requirements of requisition forms (patient demographics, physician information, diagnosis code, tests ordered, test priority)
- Timing requirements of draws (peaks and troughs, stats, routines, time of day)
- Minimum and maximum blood volume requirements

Verify patient compliance with testing requirements (fasting, medication, basal state) and proceed accordingly.

- The effect of preanalytical errors on test results
- Documentation and reporting requirements

- Timing requirements of draws (peaks and troughs, stats, routines, time of day)
- Testing requirements (fasting, medication, basal state)
- Patient interviewing techniques
- Variables that can affect collections (allergies, medications, recent surgeries, history of fainting)

Interview patients to identify special considerations that can affect collections (allergies, medications, recent surgeries, history of fainting) and proceed accordingly.

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- The effect of preanalytical errors on test results
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Professionalism (integrity, punctuality, etiquette, respect, professional presentation)
- Patient interviewing techniques
- Variables that can affect collections (allergies, medications, recent surgeries, history of fainting)
- Special considerations (age, physical and mental condition)
- Minimum and maximum blood volume requirements

Explain the phlebotomy procedure to be performed to the patient.

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- Medical terminology related to phlebotomy
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Patient characteristics affecting communication (cultural and religious differences, language barriers, cognitive level, developmental stage)
- Professionalism (integrity, punctuality, etiquette, respect, professional presentation)

Position the patient to maximize comfort and safety, and optimize specimen collection.

- The role of phlebotomy technicians in patient care

- The effect of preanalytical errors on test results
- Needlestick Safety and Prevention Act
- Patient positioning

Determine site for specimen collection, based on the Clinical and Laboratory Standards Institute standards, to minimize patient risk and optimize outcome.

- Phlebotomy-related vascular anatomy (antecubital fossa, hand, foot)
- Cardiovascular system (anatomy and physiology of the heart, pulmonary and systemic blood flow, blood vessels)
- The effect of preanalytical errors on test results
- Needlestick Safety and Prevention Act
- Special considerations (age, physical and mental condition)
- Site selection criteria

Instruct patients on collection of nonblood specimens (stool, urine, semen, sputum).

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- The effect of preanalytical errors on test results
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Nonblood specimen collection procedures

ROUTINE COLLECTION

Select and assemble equipment (evacuated tube system, syringe, winged collection set) needed for blood collection(s).

- Manufacturer recommendations for laboratory equipment
- Blood collection devices
- Considerations for device selection (current health status, stated history, vein size and patency, requisition requirements)
- Needle gauge sizes and lengths
- Evacuated tubes required for laboratory testing (colors, additives, preservatives)
- Use of needle safety devices (retractable, sheath)

Verify quality of equipment (sterility, expiration date, manufacturer's defects).

- Manufacturer recommendations for laboratory equipment
- Evacuated tubes required for laboratory testing (colors, additives, preservatives)
- Equipment quality control checks (inspection of needles, checking for cracks in tubes, checking expiration dates)

Follow standard tourniquet application and removal procedures.

- Standard tourniquet application and removal procedures
- Procedural steps when removing tourniquet, tubes, and needle

Select final site through observation and palpation, for specimen collection.

- Phlebotomy-related vascular anatomy (antecubital fossa, hand, foot)
- Cardiovascular system (anatomy and physiology of the heart, pulmonary and systemic blood flow, blood vessels)
- Palpation techniques
- Skin integrity, venous sufficiency, contraindications

Apply antiseptic agent to blood collection site.

- Aseptic techniques
- Types of antiseptic agents and methods of application
- Skin preparation for blood culture collections
- Skin preparation for blood alcohol level collection

Anchor below venipuncture site.

- Techniques for anchoring the vein

Insert venipuncture device.

- Angle of needle insertion and withdrawal

Follow order of draw when performing venipuncture.

- Evacuated tubes required for laboratory testing (colors, additives and preservatives)
- Order of draw, number of tube inversions, angle of tube insertion, fill level/ratios

Ensure patient safety throughout the collection by identifying problematic patient signs and symptoms (syncope, diaphoresis, nausea, seizure).

- Hemostasis and coagulation process

- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Considerations for device selection (current health status, stated history, vein size and patency, requisition requirements)
- Problematic patient signs and symptoms during collection (syncope, diaphoresis, nausea, seizures)
- Potential complications resulting from procedure

Recognize and respond to potential complications resulting from procedure (lack of blood flow, hematoma, petechiae, nerve pain).

- Problematic patient signs and symptoms during collection (syncope, diaphoresis, nausea, seizures)
- Potential complications resulting from procedure
- Adjustments for establishing blood flow (redirection, increase or decrease needle angle, change tube)

Remove venipuncture device.

- Angle of needle insertion and withdrawal
- Procedural steps when removing tourniquet, tubes, and needle

Invert evacuated tubes with additives according to procedural guidelines.

- Evacuated tubes required for laboratory testing (colors, additives, preservatives)

Perform dermal puncture for capillary collection based on patient age and condition.

- Dermal puncture procedures for capillary collection
- Techniques to collect blood on filter paper/ Guthrie cards

Follow order of draw when performing capillary collection.

- Order of draw for capillary collection

Label all specimens.

- Labeling procedures and requirements

Perform postprocedure patient care.

- Hemostasis and coagulation process
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)

- Bandaging procedures and considerations (allergies, skin types, patient age and condition)
- Postprocedure complications and precautions

SPECIAL COLLECTION

Prepare peripheral blood smears.

- The effect of preanalytical errors on test results
- Needlestick Safety and Prevention Act
- Equipment needed for peripheral blood smears (slides, lancet, tubes)
- Techniques to perform peripheral blood smears
- Type of sample for blood smears and timing requirements
- Labeling procedures and requirements

Perform blood culture collections.

- The effect of preanalytical errors on test results
- Needlestick Safety and Prevention Act
- Techniques and locations for blood culture collections
- Equipment needed for blood culture collections (needle type, hub/adaptor, bottle type)
- Skin preparation for blood culture collections
- Volume requirements for blood culture collections
- Order of draw for blood culture collections
- Blood culture bottle preparation procedures
- Labeling procedures and requirements

Assist other health care professionals with specimen collection.

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- Equipment and transfer procedures needed when assisting other health care professionals with specimen collection

Collect blood samples for inborn errors of metabolism (PKU, galactosemia).

- Techniques to collect blood on filter paper/Guthrie cards
- Labeling procedures and requirements

Perform phlebotomy for blood donations.

- Blood group systems (A, B, AB, O, Rh)
- The effect of preanalytical errors on test results
- Needlestick Safety and Prevention Act
- Standards for blood donation (hemoglobin and hematocrit levels, weight, complete patient screening)
- Labeling procedures and requirements

Calculate volume requirements in patients who are at higher risk (pediatric, older adults) to avoid causing iatrogenic anemia.

- The effect of preanalytical errors on test results
- Minimum and maximum blood volume requirements
- Pediatric volume calculations

Perform nonblood specimen collection (throat cultures, nasal swab, wound cultures).

- The role of phlebotomy technicians in laboratory testing
- The role of phlebotomy technicians in patient care
- Equipment and techniques for performing non-blood specimen collection (throat cultures, nasal swab, wound cultures)
- Labeling procedures and requirements

PROCESSING SPECIMENS

Prepare specimens (centrifuging, aliquoting, freezing or refrigeration) for testing or transport.

- Blood components (serum, plasma, whole blood, RBC, WBC, platelets)
- Centrifuging procedures and techniques
- Aliquoting procedures and techniques
- Chain of custody guidelines
- Laboratory requirements

Maintain integrity of specimens based on handling requirements (temperature, light, time).

- The role of phlebotomy technicians in laboratory testing
- Ethical standards applicable to the practice of phlebotomy (NHA code of ethics)

- Handling, storage, transportation and disposal requirements for specimens (biohazard bags/containers, temperature, exposure to light, viability guidelines)
- Laboratory requirements

Adhere to chain of custody guidelines when required (forensic studies, blood alcohol, drug screen).

- The role of phlebotomy technicians in laboratory testing
- Chain of custody guidelines
- Internal and external databases
- Laboratory requirements

Coordinate communication between non-laboratory personnel for processing and collection.

- The role of phlebotomy technicians in laboratory testing
- Documentation and reporting requirements
- Verbal and nonverbal communication (active listening; pace, tone, and volume of voice; personal space; use of jargon)
- Chain of custody guidelines
- Laboratory requirements

Input and retrieve specimen data using available laboratory information system.

- The role of phlebotomy technicians in laboratory testing
- Documentation and reporting requirements
- Internal and external databases
- Laboratory requirements

Recognize and report critical values for point-of-care testing.

- The role of phlebotomy technicians in laboratory testing
- Documentation and reporting requirements
- Critical values for point-of-care testing
- Laboratory requirements

Distribute laboratory results to ordering providers.

- The role of phlebotomy technicians in laboratory testing
- Documentation and reporting requirements
- Critical values for point-of-care testing
- Basic protocol to distribute laboratory results
- Laboratory requirements