National Healthcareer Association®

NHA Certified Phlebotomy Technician (CPT)

Test Plan for the CPT Exam

100 Scored Items/20 Pretest Items
Exam Time: 2 hours

**Based on The Results of a Job Analysis Completed in 2024*

This document provides both a summary and detailed outline of the topics that may be covered on the CPT Certification Examination. The summary examination outline specifies domains that are covered on the examination and the number of test items per domain.

The detailed outline adds to the summary outline by including task and knowledge statements associated with each domain on the test plan. Task statements reflect the duties that a candidate will need to know how to properly perform. Knowledge statements reflect information that a candidate will need to know and are in support of task statements. Items on the examination might require recall and critical thinking pertaining to a knowledge statement, a task statement, or both.

Generally, knowledge statements listed immediately after a set of tasks for a domain are only applicable to that domain. Knowledge statements listed under "Core Knowledge" are potentially applicable to any of the assessment domains.

CPT Summary Examination Outline

DOMAIN	# of Items on Examination	% of Items on Examination
1. Safety and Compliance	26	26
2. Patient Preparation	20	20
3. Routine Blood Collections	28	28
4. Special Collections	12	12
5. Processing	14	14
Total	**100**	**100**

Core Knowledge: The following knowledge does not represent standalone domains on the CPT exam. Rather, this is necessary knowledge for a phlebotomist, which could be used in the context of an assessment item, and are being provided for preparation, and review purposes.

Tasks	Knowledge of:
	k1. The role of phlebotomy technicians in laboratory testing k2. The role of phlebotomy technicians in patient care k3. Medical terminology related to phlebotomy k4. Blood components (e.g., serum, plasma, whole blood, RBC, WBC, platelets) k5. Blood group systems (A, B, AB, O, and Rh) k6. Cardiovascular system (e.g., anatomy and physiology of the heart, pulmonary and systemic blood flow, and blood vessels) k7. Phlebotomy-related vascular anatomy (e.g., antecubital fossa, hand, foot) k8. Hemostasis and coagulation process k9. The impact of pre-analytical errors on test results k10. Aseptic techniques k11. Universal and Standard Precautions k12. Needlestick Safety and Prevention Act k13. HIPAA regulations, patient privacy guidelines and protocols k14. Patient Bill of Rights k15. Verbal and non-verbal communication (e.g., active listening; pace, tone, and volume of voice; personal space; medical terminology) k16. Patient characteristics impacting communication (e.g., cultural differences, language barriers, cognitive level, developmental stage, hearing impairment) k17. Cultural, religious, psychosocial, and economic considerations impacting provision of care k18. Gender identity and expression, and pronoun use k19. Professionalism (e.g., integrity, punctuality, etiquette, respect, and professional presentation) k20. Practice management systems and software (for example, EMR/EHR, scheduling software, paper-based systems, maintenance logs for temperature recording)

	k21. Administrative skills (e.g., computer skills, computerized order entry, and inventory management) k22. Labeling procedures and requirements k23. Documentation and reporting requirements

Domain 1: Safety and Compliance (26 items)

Tasks	Knowledge of:
1A. Adhere to regulations regarding workplace safety (e.g., OSHA, NIOSH). 1B. Adhere to regulations regarding operational standards (e.g., The Joint Commission, Clinical and Laboratory Standards Institute, and CDC). 1C. Adhere to HIPAA regulations regarding Protected Health Information (PHI). 1D. Adhere to scope of practice and comply with ethical standards applicable to the practice of phlebotomy. 1E. Perform quality control for laboratory equipment (e.g., maintain logs for equipment inspection, reporting and troubleshooting of equipment issues, and refrigerator/freezer temperature monitoring). 1F. Perform quality control (e.g., machine calibration, test controls, storage controls) for point-of-care (POC) and CLIA-waived tests. 1G. Identify and dispose of sharps and biohazards according to bloodborne pathogens standard (e.g., good glass slides, BD Vacutainer plastic urine transfer system). 1H. Follow exposure control plans in the event of occupational exposure (e.g., needle sticks, blood spills, or eye contamination). 1I. Follow transmission-based precautions (e.g., airborne, droplet, contact, COVID precautions, and distancing). 1J. Follow standard precautions regarding personal protective equipment (e.g., gloves, gowns, masks, respirators, and eye protection). 1K. Follow hygiene guidelines and infection control techniques to prevent the spread of infections. 1L. Recognize and respond to emergencies that arise (e.g., perform CPR, respond to codes). 1M. Initiate first aid when necessary (e.g., wound care, manage excessive bleeding).	k24. Resources and regulations regarding workplace safety (e.g., Occupational Safety and Health Administration, National Institute for Occupational Safety and Health, and Centers for Disease Control and Prevention) k25. Operational standards (e.g., The Joint Commission, Clinical and Laboratory Standards Institute, and the College of American Pathologists) k26. Ethical standards applicable to the practice of phlebotomy (e.g., NHA code of ethics) k27. Manufacturer recommendations for laboratory equipment (e.g., routine maintenance and calibration) k28. Quality control and assurance procedures (e.g., maintaining logs, checking reference ranges, and troubleshooting) k29. Guidelines related to CLIA-waived and point-of-care (POC) tests k30. Requirements for sharps disposal k31. Bloodborne Pathogens Standard k32. Requirements related to biohazards (e.g., cleaning blood and bodily fluids, disinfection, and disposal) k33. Exposure control protocols (e.g., eye washing, hand washing, showers, notification requirements, needle stick protocols and reporting) k34. Transmission based precautions (e.g., airborne, droplet, and contact) k35. Hand hygiene guidelines k36. Personal protective equipment (e.g., gloves, donning and doffing equipment, goggles or face shields)

1N. Comply with documentation and reporting requirements (e.g., patient-related incidents, charting guidelines).	k37. First aid for phlebotomy-related issues (e.g., excessive bleeding, falls, fainting/syncope, and hypo and hyperglycemia) k38. Cardio-pulmonary resuscitation (CPR) guidelines k39. Reporting requirements and processes

Domain 2: Patient Preparation (20 items)

Tasks	Knowledge of:
2A. Demonstrate respect for diversity, cultural sensitivity and competence, and empathy. 2B. Communicate effectively with patients, colleagues, and other healthcare professionals. 2C. Obtain, review, and verify the order or requisition form (e.g., STAT or routine orders, timed draws). 2D. Introduce yourself to the patient and provide information such as name, title, and department. 2E. Positively identify the patient based on specific identifiers while following HIPAA guidelines. 2F. Receive implied, informed, or expressed consent from the patient. 2G. Obtain permission from legal guardian if unable to obtain verbal or expressed consent (e.g., children, patients with dementia or mental disabilities). 2H. Confirm insurance coverage and review orders and requisitions. 2I. Collect copayments and perform documentation and billing practices according to established protocol. 2J. Create new patient account in system and assist patients with registration. 2K. Verify patient compliance with testing requirements (e.g., fasting, medication, basal state) and proceed accordingly. 2L. Interview patients to identify special considerations that may impact collections (e.g., allergies, medical history, and history of fainting) and proceed accordingly. 2M. Explain the phlebotomy procedure to be performed to the patient. 2N. Position the patient to maximize comfort and safety and optimize specimen collection. 2O. Determine site for venipuncture collection, based on established Clinical and Laboratory Standards	k40. Patient interviewing techniques (e.g., open-ended questions and empathetic listening) k41. Patient identifiers required for verification k42. Requisition form field requirements (e.g., patient demographics, physician information, diagnosis code, tests ordered, and test priority) k43. Components required for informed, expressed, or implied consent k44. Coding systems (e.g., ICD-10-CM) k45. Timing requirements of draws (e.g., high and low levels, STAT, routines, and time of day) k46. Testing requirements (e.g., fasting, medication, basal state) k47. Collection tube color matches to laboratory test (e.g., blue stopper for coagulation) k48. Variables that may impact collections (e.g., allergies, medications, recent surgeries, and history of fainting) k49. Special considerations that may impact collections (e.g., age, physical and mental condition, presence of fistulas) k50. Non-blood specimen collection procedures k51. Minimum and maximum blood volume requirements k52. Patient positioning k53. Site selection criteria

Institute standards, to minimize patient risk and optimize outcome. 2P. Instruct patients on collection of non-blood specimens (e.g., stool, urine, semen, and sputum). 2Q. Ensure all pertinent information has been entered into the electronic medical record/electronic health record (EMR/EHR).	

Domain 3: Routine Blood Collections (28 items)

Tasks	Knowledge of:
3A. Select and assemble equipment (e.g., evacuated tube system, needle, syringe, winged collection set) needed for blood collection(s). 3B. Verify quality of equipment (e.g., sterility, expiration date, and manufacturer's defects). 3C. Adapt collection techniques for patients with special needs (e.g., burns, dementia, or bleeding disorders) 3D. Adapt collection based on instructions provided by analyzer (e.g., minimum blood volume tubes). 3E. Follow standard tourniquet (constricting band) application and removal procedures. 3F. Select final site through observation and palpation, for specimen collection. 3G. Apply antiseptic agent to blood collection site. 3H. Anchor vein below venipuncture site. 3I. Insert needle from venipuncture device into site. 3J. Follow order of draw when performing venipuncture. 3K. Ensure patient safety throughout the collection by identifying problematic patient signs and symptoms and discontinue draw if needed. 3L. Recognize and respond to potential complications resulting from procedure (e.g., lack of blood flow, hematoma, petechiae, or nerve pain). 3M. Remove venipuncture device and engage safety feature. 3N. Mix additives in evacuated tubes according to manufacturer guidelines (e.g. inversion). 3O. Perform dermal puncture for capillary collection. 3P. Follow order of draw when performing capillary collection.	k54. Blood collection devices k55. Considerations for device selection (e.g., current health status, stated history, vein size, requisition requirements) k56. Needle gauge sizes and lengths k57. Evacuated tubes required for lab testing (colors, additives and preservatives) k58. Equipment quality control checks (e.g., inspection of needles, check for cracks in tubes, and check expiration dates) k59. Order of draw, angle of tube insertion, fill level/ratios, and number of tube inversions k60. Standard tourniquet (constricting band) application procedures k61. Palpation techniques k62. Skin integrity, venous sufficiency, and any contra-indications k63. Types of antiseptic agents and methods of application k64. Techniques for anchoring the vein k65. Angle of needle insertion and withdrawal k66. Use of needle safety devices (e.g., retractable or sheath) k67. Adjustments for establishing blood flow (e.g., redirection, increase or decrease needle angle, and tube change) k68. Complications and signs and symptoms arising during routine blood collection (e.g., syncope, diaphoresis, nausea, seizures) k69. Responses to complications (e.g., cold packs, discontinuation of venipuncture) k70. Procedural steps when removing tourniquet (constricting band), tubes, and needle

3Q. Perform post-procedural patient care (e.g., acknowledge bleeding has stopped, bandage, and hydration). 3R. Label all specimens.	k71. Dermal puncture procedures for capillary collection k72. Order of draw for capillary collection k73. Bandaging procedures and considerations (e.g., allergies, skin types, patient age and condition) k74. Post-procedural complications and precautions

Domain 4: Special Collections (12 items)

Tasks	Knowledge of:
4A. Perform blood culture collections. 4B. Assist other healthcare professionals with specimen collection (e.g., pediatric or geriatric, non-tunneled and tunneled lines). 4C. Obtain information and collect blood samples for metabolic syndromes (e.g., PKU or galactosemia). 4D. Perform phlebotomy for blood donations. 4E. Calculate or look up volume requirements in patients who are at higher risk (e.g., pediatric, or geriatric) to avoid illness caused by the collection. 4F. Perform or process non-blood specimen collection (e.g., throat cultures, nasal swab, wound cultures). 4G. Perform point of care testing (e.g., hemoglobin and hematocrit levels, blood glucose screening, urine pregnancy testing, and urinalysis) 4H. Perform tolerance tests (e.g., gestational glucose, lactose, or 2-hour post-prandial glucose) 4I. Prepare site for blood alcohol testing. 4J. Collect specimens or samples for drug screening.	k75. Techniques, locations, and skin preparation for blood culture collections k76. Equipment needed for blood culture collections (e.g., needle type, hub/adaptor, and bottle type) k77. Volume requirements for blood culture collections k78. Order of draw for blood culture collections k79. Blood culture bottle preparation procedures k80. Equipment and transfer procedures needed when assisting other healthcare professionals with specimen collection k81. Techniques to collect blood on filter paper k82. Standards for blood donation (e.g., check hemoglobin and hematocrit levels, weight, and complete patient screening) k83. Calculation techniques and sources of information for pediatric volume requirements k84. Equipment and techniques for performing and processing non-blood specimen collection (e.g., collection methods, and processing times) k85. Skin preparation for blood alcohol level collection k86. Specimen collection requirements for drug screening.

Domain 5: Processing (14 items)

Tasks	Knowledge of:
5A. Prepare specimens (e.g., centrifuging, aliquoting, freezing or refrigeration) for testing or transport. 5B. Maintain integrity of specimens based on handling requirements (e.g., temperature, light, or time). 5C. Adhere to chain of custody guidelines when required (e.g., forensic studies or blood alcohol).	k87. Centrifuging procedures, techniques, and equipment k88. Aliquoting procedures and techniques k89. Handling, storage, transportation, and disposal requirements for specimens (e.g., biohazard bags/containers, viability and preservation

5D. Follow clinical research laboratory protocols (e.g., tube processing, obtain correct specimen bag, air waybill, and packaging). 5E. Coordinate communication between non-laboratory personnel for processing and collection. 5F. Input and retrieve specimen data using available lab information system. 5G. Recognize and report critical values for point-of-care and CLIA-waived testing. 5H. Ensure that laboratory results are distributed to ordering providers and medical record is updated. 5I. Contact patient for re-collection as needed.	guidelines, and clinical research specimen protocols and lab destination) k90. Laboratory requirements (e.g., CLIA regulations, environmental requirements and conditions, machine calibration, and blood volumes) k91. Chain of custody guidelines k92. Internal and external databases k93. Critical values for point-of-care and CLIA waived testing k94. Basic protocols to distribute laboratory results