

# National Certified Phlebotomy Technician Detailed Test Plan

Effective: January 2025  
EX-0513

## NCPT Detailed Test Plan

This detailed test plan reflects the results of a national job analysis study that determined the critical job competencies to be tested by NCCT in this certification examination. It contains 100 scored items, 25 unscored pretest items, and candidates are allowed three (3) hours to complete the examination. This certification examination is comprised of 92% standard, 4-option multiple-choice items and 8% alternative items (e.g., Drag and Drop, Multi-Select, Hotspot).

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### Number of Scored Items    Content Categories

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15	<b>1 Infection Control and Safety</b>	
	1	Take measures to prevent infection and transmission, including hospital acquired infections.
	2	Maintain patient safety during collection.
	3	Clean and disinfect equipment and facilities.
	4	Use personal protective equipment (e.g., gloves, gown, masks).
	5	Activate safety mechanisms on phlebotomy equipment.
	6	Follow the appropriate course of action for blood and bodily fluid exposure.
	7	Dispose of phlebotomy equipment following OSHA bloodborne pathogens and hazardous material standards.
25	<b>2 Preparing for Specimen Collection</b>	
12	<b>A Equipment Selection</b>	
	1	Verify quality of equipment (e.g., sterility, expiration date, defects).
	2	Identify and differentiate between additives/anticoagulants added to collection tubes.
	3	Select proper equipment for patients with allergies (e.g., latex, iodine).
	4	Select appropriate venipuncture equipment for the test ordered and type of patient.
	5	Select appropriate capillary puncture equipment for the test ordered and type of patient.
	6	Select proper antiseptic agents for the test ordered.
	7	Select proper bandaging material.
13	<b>B Patient and Site Preparation</b>	
	1	Adhere to standards for patient identification.
	2	Review and clarify orders for patient specimen collection.
	3	Evaluate pretest conditions for patient prior to collection (e.g., fasting, medications, fistula).
	4	Educate patients about specimen collection.
	5	Apply and release the tourniquet.
	6	Select the appropriate site for venous blood collection.
	7	Select the appropriate site for capillary blood collection.
	8	Prepare the site for blood collection based on test ordered (e.g., cleansing, warming site, fist pump).
	9	Document patient and collection information.
30	<b>3 Specimen Collection</b>	
	1	Prioritize patient collections based on order request (e.g., STAT, timed, routine).
	2	Take precautions for patients with medical conditions (e.g., mastectomy, IV, bleeding disorders).
	3	Adapt to patients with special considerations (e.g., age, special needs).

- 4 Collect samples using CLSI recommended order of draw.
- 5 Recognize commonly ordered tests and the tubes needed for collection.
- 6 Anchor the vein.
- 7 Position the needle for venipuncture (e.g., direction, angle, depth).
- 8 Perform venipuncture.
- 9 Follow manufacturer recommendations for fill level and tube inversion.
- 10 Perform blood culture collection.
- 11 Perform capillary puncture collection.
- 12 Perform post-collection care for the patient.
- 13 Perform point of care testing (e.g., urinalysis, glucose, pregnancy test).
- 14 Perform special collections (e.g., trace metal elements, newborn screen, chain of custody).
- 15 Assess the suitability of a specimen for analysis.
- 16 Process specimens for testing (e.g., centrifuge, aliquot, storage).
- 17 Instruct the patient in the proper collection and preservation of non-blood specimens (e.g., sputum, urine, stool).
- 18 Collect non-blood specimens per requirements (e.g., urine, stool, culture swabs).
- 19 Process standard non-blood specimens (e.g., urine, sputum, stool, swabs).
- 20 Label specimens.
- 21 Maintain integrity of specimens based on handling requirements (e.g., temperature, light, time).
- 22 Deliver specimens to the correct department.
- 23 Perform quality assurance in the collection of blood specimens.

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#### **4 Collection Complications and Troubleshooting**

- 1 Follow protocols for patients on anticoagulant therapy or with clotting deficiencies.
- 2 Perform specimen collection of difficult to draw patients (e.g., dialysis, pediatric, geriatric) using appropriate techniques.
- 3 Respond to patient adverse reactions that may accompany blood collection (e.g., hematoma, nerve injury, nausea).
- 4 Take appropriate action when blood return is not established (e.g., collapsed vein, missed vein).
- 5 Prevent interference in clinical analysis of blood constituents (e.g., alcohol, IV fluids, edema).
- 6 Prevent pre-analytical sources of error regarding specimen integrity (e.g., hemolysis, QNS, clotted).

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#### **5 Law and Ethics**

- 1 Recognize legal responsibilities and the scope of practice for a phlebotomy technician.
- 2 Adhere to the Patient's Bill of Rights of the AHA.
- 3 Obtain consent to perform specimen collection.
- 4 Prevent occurrences that could result in legal action (e.g., nerve damage, probing, patient falls).
- 5 Adhere to regulations regarding workplace safety (e.g., OSHA, MSDS, NFPA).
- 6 Comply with laws related to medical records and confidentiality (e.g., HIPAA).
- 7 Comply with laws and regulations governing specimen collection as related to reliability and accuracy in lab testing (e.g., CLIA, Joint Commission, CLSI).
- 8 Comply with chain of custody collection requirements (e.g., paternity testing, drug screening, blood alcohol levels).
- 9 Comply with laws governing reportable incidents (e.g., mistakes, negative outcomes).

## Essential Knowledge Base:

### Apply a working understanding of these integrated concepts:

- 1 Infection control (e.g., PPE, biomedical waste handling)
- 2 Patient safety and first aid
- 3 Emergency response
- 4 Pre-analytical errors
- 5 Order of draw
- 6 Patient identification
- 7 Patient education
- 8 Patient preparation
- 9 Phlebotomy equipment
- 10 Pre-test conditions
- 11 Collection test types
- 12 Additives
- 13 Anatomy and physiology
- 14 Pathology and disorders
- 15 Blood collection procedures
- 16 Non-blood collection procedures
- 17 Specimen handling and transporting procedures
- 18 Clinical laboratory departments
- 19 Special considerations
- 20 Point-of-care testing
- 21 Quality assurance
- 22 Collection complications
- 23 Complication protocols
- 24 Scope of practice
- 25 Patient bill of rights
- 26 Federal regulations (e.g., HIPAA, OSHA)
- 27 Medical ethics
- 28 Consent

