



## NHA Certified Patient Care Technician/Assistant (CPCT/A) Test Plan

*100 scored items, 20 pretest items  
Exam Time: 2 hours*

*\*Based on the results of a job analysis completed in 2018*

*This document provides both a summary and detailed outline of the topics and associated weighting that may be covered on the CPCT/A Certification Examination. The summary examination outline contains 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 tasks and knowledge statements associated with each task. 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.*

## Summary CPCT/A Examination Outline

DOMAIN	# of Items on Examination
1. Patient Care	45
2. Compliance, Safety, and Professional Responsibility	20
3. Infection Control	11
4. Phlebotomy	14
5. EKG	10
<b>Total</b>	<b>100</b>

Domain 1: Patient Care	<u>45</u> <u>Items</u>
<p><b>A. Provide basic patient care under the direction of nursing staff (e.g., bathing, bed-making, catheter care, assisting with activities of daily living [ADLs], positioning).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Proper body mechanics</li> <li>2. Patient bathing techniques (e.g., partial bath, sitz bath, full bed bath)</li> <li>3. Oral care (e.g., denture care, special mouth care)</li> <li>4. Perineal care (e.g., catheter care)</li> <li>5. Foley catheter care</li> <li>6. Types of patient beds (e.g., closed, open, surgical, occupied)</li> <li>7. How to operate patient beds</li> <li>8. Considerations in caring for patients who have functional limitations (e.g., physical, sensory, cognitive, or mental impairment)</li> </ol>	
<p><b>B. Provide emotional support for a patient and family while performing patient care.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Therapeutic communication techniques</li> <li>2. Culturally competent care</li> <li>3. Positive and negative coping mechanisms</li> </ol>	



<p><b>C. Set up equipment to be used by a patient (e.g., oxygen equipment, suction equipment, monitors).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Oral suctioning</li> <li>4. How to operate patient beds</li> <li>5. Oxygen delivery systems (e.g., rebreather masks, nasal cannula)</li> </ol>	
<p><b>D. Provide care for a patient who has a feeding tube (e.g., take aspiration precautions, observe tubing for kinks or problems).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Types of feeding tubes (e.g., percutaneous endoscopic gastrostomy [PEG] tube, gastrostomy [G] tube, nasogastric [NG] tube)</li> <li>4. Considerations for patients who have feeding tubes (e.g., recognizing and reporting complications)</li> <li>5. Aspiration precautions for patients who have difficulty swallowing (e.g., patient positioning)</li> </ol>	
<p><b>E. Recognize and adapt approach to care for a patient who has functional limitations (e.g., physical, sensory, cognitive, or mental impairment).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Considerations in caring for patients who have functional limitations (e.g., physical, sensory, cognitive, or mental impairment)</li> </ol>	
<p><b>F. Report any changes in a patient's condition (e.g., level of consciousness, shortness of breath).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Signs and symptoms of changing patient condition (e.g., loss of consciousness, shortness of breath, change to psychological or emotional state)</li> </ol>	
<p><b>G. Monitor and record functions related to bodily functions (e.g., urine output, emesis, bowel movements).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> </ol>	



<ol style="list-style-type: none"> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Characteristics and measurement of expected and unexpected intake and output</li> </ol>	
<p><b>H. Perform ostomy care, excluding irrigation.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Ostomy care</li> </ol>	
<p><b>I. Assist with ostomy care.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Ostomy care</li> </ol>	
<p><b>J. Monitor, record, and accurately measure intake and output (e.g., percentage of meal eaten, mL of fluid).</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Characteristics and measurement of expected and unexpected intake and output</li> </ol>	
<p><b>K. Perform passive range-of-motion (ROM) exercises for a patient.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Passive ROM techniques</li> </ol>	
<p><b>L. Assist the patient with adaptive devices for ADLs (e.g., feeding and dressing devices, ambulatory assistive devices).</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Adaptive devices and their operation/use</li> </ol>	
<p><b>M. Perform patient rounding (e.g., check for consciousness, breathing, positioning).</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Signs and symptoms of changing patient condition (e.g., loss of consciousness, shortness of breath, change to psychological or emotional state)</li> <li>2. Elements of patient rounding (e.g., pain, positioning, personal needs, proactive ADLs)</li> <li>3. Factors to consider when prioritizing patient needs (e.g., fall risk, elopement risk, rapid responses, stat laboratory values)</li> </ol>	



4. Hospital Consumer Assessment of Healthcare Providers (HCAHPS)	
<b>N. Remove peripheral IVs.</b> <i>Supporting Knowledge</i> 1. IV discontinuation process and techniques	
<b>O. Assist in sterile and aseptic dressing changes.</b> <i>Supporting Knowledge</i> 1. Aseptic and sterile dressing techniques	
<b>P. Assist a patient with ambulation.</b> <i>Supporting Knowledge</i> 1. Purpose and use of a gait belt	
<b>Q. Transfer a non-weight-bearing patient (e.g., stretcher to bed).</b> <i>Supporting Knowledge</i> 1. Mechanical lift operation, including safety precautions 2. Types of transfers (e.g., stretcher to bed, bed to wheelchair)	
<b>R. Transfer a weight-bearing patient.</b> <i>Supporting Knowledge</i> 1. Purpose and use of a gait belt 2. Types of transfers (e.g., stretcher to bed, bed to wheelchair)	
<b>S. Transport a patient via bed, stretcher, or wheelchair.</b> <i>Supporting Knowledge</i> 1. Patient transport considerations (e.g., backing into elevator, moving slowly over bumps, raised side rails)	
<b>T. Apply immobility splints to a patient.</b> <i>Supporting Knowledge</i> 1. Structure and function of body 2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease) 3. Safe splint application	
<b>U. Provide skin care (e.g., repositioning, nonprescription creams, moisture barriers) and use devices (e.g., air mattresses, draw sheets) to prevent skin breakdown</b> <i>Supporting Knowledge</i> 1. Signs of impaired circulation 2. Stages of skin breakdown 3. Devices to prevent skin breakdown (e.g., air mattresses, draw sheets) 4. Basic body positions (e.g., prone, supine, Fowler's) and when to use them	
<b>V. Identify and report changes in skin integrity.</b> <i>Supporting Knowledge</i> 1. Structure and function of body systems 2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease) 3. Signs of impaired circulation 4. Stages of skin breakdown	
<b>W. Apply sequential compression devices.</b>	



<p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Purpose and use of sequential compression devices</li> </ol>	
<p><b>X. Apply antiembolism stockings/compression hose.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Purpose and use of antiembolism stockings/compression hose</li> </ol>	
<p><b>Y. Assist a patient with turn, cough, and deep breathing (TCDB) exercises.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Purpose and use of TCDB exercises</li> </ol>	
<p><b>Z. Assist a patient with incentive spirometry.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Purpose and use of an incentive spirometer</li> </ol>	
<p><b>AA. Administer first aid.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Basic first aid techniques</li> </ol>	
<p><b>BB. Perform healthcare provider CPR.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Signs of need for CPR</li> <li>2. Basic life support for healthcare providers</li> <li>3. American Heart Association CPR guidelines</li> </ol>	
<p><b>CC. Report critical values (e.g., blood glucose levels, vital signs) to the appropriate nurse assigned to the patient.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Critical values (e.g., point-of-care testing, vital signs)</li> <li>4. Vital signs, parameters, and methods for obtaining them</li> </ol>	
<p><b>DD. Recognize and report edema.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Signs and symptoms of edema</li> </ol>	
<p><b>EE. Recognize and report patient pain using a pain scale.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Signs and symptoms of pain</li> </ol>	
<p><b>FF. Recognize and report signs and symptoms of a wound infection.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Structure and function of body systems</li> <li>2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)</li> <li>3. Indicators of the need for a dressing change</li> <li>4. Wound care techniques</li> </ol>	



<p><b>GG. Follow the Five Rights of Delegation.</b>  <i>Supporting Knowledge</i>  1. Five Rights of Delegation</p>	
<p><b>HH. Prioritize patient care based on patient's needs.</b>  <i>Supporting Knowledge</i>  1. Factors to consider when prioritizing patient needs (e.g., fall risk, elopement risk, rapid responses, stat laboratory values)</p>	
<p><b>II. Recognize visual abnormalities in patient specimens (e.g., stool, sputum, urine, emesis).</b>  <i>Supporting Knowledge</i>  1. Structure and function of body systems  2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)  3. Appearances and quantities of expected and unexpected specimens</p>	
<p><b>JJ. Obtain, record, monitor, and report vital signs.</b>  <i>Supporting Knowledge</i>  1. Structure and function of body systems  2. Common disease processes (e.g., myocardial infarction, cardiovascular disease, congestive heart failure, diabetes, cancers in general, chronic obstructive pulmonary disease)  3. Vital signs, parameters, and methods for obtaining them  4. Special considerations in obtaining blood pressure readings (e.g., patients who have venous or arterial access, mastectomy patients)</p>	
<p><b>KK. Weigh a patient (e.g., standing, wheelchair-bound, using bed scales).</b>  <i>Supporting Knowledge</i>  1. Types of scales (e.g., electronic, bed, mechanical) and their use</p>	
<p><b>LL. Provide noncurative care to a patient who is receiving hospice care</b>  <i>Supporting Knowledge</i>  1. Positive and negative coping mechanisms  2. Kübler-Ross' five stages of grief  3. End-of-life care</p>	
<p><b>MM. Support the coping mechanisms of a patient and family who are dealing with grief, death, and dying.</b>  <i>Supporting Knowledge</i>  1. Positive and negative coping mechanisms  2. Kübler-Ross' five stages of grief  3. End-of-life care</p>	
<p><b>NN. Perform postmortem care.</b>  <i>Supporting Knowledge</i>  1. Postmortem care process</p>	



<b>Domain 2: Compliance, Safety, and Professional Responsibility</b>	<b><u>20</u> Items</b>
<p><b>A. Define, identify, and report abuse or neglect.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Different types of abuse</li> <li>2. Methods for identifying indications of abuse</li> <li>3. Role of social services in health care</li> <li>4. Mandated reporting</li> <li>5. Patients' Bill of Rights</li> <li>6. Medical ethics</li> </ol>	
<p><b>B. Prevent workplace injuries by following Occupational Safety and Health Administration (OSHA) guidelines</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Resources and regulations regarding workplace safety (e.g., OSHA, National Institute for Occupational Safety and Health [NIOSH], Centers for Disease Control [CDC])</li> <li>2. Safety Data Sheets (SDS)</li> <li>3. Emergency/disaster preparedness (e.g., RACE, PASS)</li> <li>4. Operational standards (e.g., JC, CLSI, HCAHPS)</li> </ol>	
<p><b>C. Recognize and respond to emergency situations (e.g., fire, hostage, biological hazard).</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Resources and regulations regarding workplace safety (e.g., OSHA, National Institute for Occupational Safety and Health [NIOSH], Centers for Disease Control [CDC])</li> <li>2. Safety Data Sheets (SDS)</li> <li>3. Emergency/disaster preparedness (e.g., RACE, PASS)</li> </ol>	
<p><b>D. Follow procedures for identifying patients.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. The two patient identifiers using National Patient Safety Goals (i.e., name and date of birth)</li> <li>2. Operational standards (e.g., JC, CLSI, HCAHPS)</li> <li>3. HIPAA regulations</li> <li>4. Patients' Bill of Rights</li> <li>5. Electronic health records</li> </ol>	
<p><b>E. Follow Joint Commission (JC) patient safety guidelines.</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Resources and regulations regarding workplace safety (e.g., OSHA, National Institute for Occupational Safety and Health [NIOSH], Centers for Disease Control [CDC])</li> <li>2. Safety Data Sheets (SDS)</li> <li>3. Operational standards (e.g., JC, CLSI, HCAHPS)</li> </ol>	
<p><b>F. Follow safety procedures when using medical supplies and equipment (e.g., lock hospital bed, lock wheelchairs, raise stretcher side rails, apply safety belts and restraints).</b>  <i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Resources and regulations regarding workplace safety (e.g., OSHA, National Institute for Occupational Safety and Health [NIOSH], Centers for Disease Control [CDC])</li> </ol>	





2. Operational standards (e.g., JC, CLSI, HCAHPS)	
<p><b>G. Report and document work-related accidents.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Mandated reporting</li> <li>2. Resources and regulations regarding workplace safety (e.g., OSHA, National Institute for Occupational Safety and Health [NIOSH], Centers for Disease Control [CDC])</li> <li>3. Safety Data Sheets (SDS)</li> </ol>	
<p><b>H. Adhere to HIPAA regulations regarding protected health information (PHI).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. HIPAA regulations</li> </ol>	
<p><b>I. Adhere to Patients' Bill of Rights.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Patients' Bill of Rights</li> <li>2. Medical ethics</li> </ol>	
<p><b>J. Communicate with other health care professionals using electronic health records and appropriate medical terminology.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Electronic health records</li> <li>2. Medical terminology</li> </ol>	
<p><b>K. Follow the chain of command.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Healthcare setting chain of command</li> </ol>	
<p><b>L. Adhere to operational standards (e.g., JC, Clinical and Laboratory Standards Institute [CLSI], national standards, Hospital Consumer Assessment of Healthcare Providers [HCAHPS], medical codes of ethics).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Operational standards (e.g., JC, CLSI, HCAHPS)</li> <li>2. Medical ethics</li> </ol>	
<p><b>M. Practice within defined scope of patient care technician practice.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Scope of practice of the patient care technician</li> </ol>	

<b>Domain 3: Infection Control</b>	<b><u>11</u></b> <b><u>Items</u></b>
<p><b>A. Use standard and transmission-based precautions</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. Cause and prevention of health care-associated infections</li> <li>3. OSHA guidelines</li> <li>4. Personal protective equipment use while following standard precautions (e.g., gloves, gowns, masks, shoe covers)</li> </ol>	



<ul style="list-style-type: none"> <li>5. Chain of infection</li> <li>6. Common health care-associated infections (e.g., urinary tract infection, methicillin-resistant Staphylococcus aureus [MRSA], Clostridium difficile [C. difficile])</li> </ul>	
<p><b>B. Disinfect equipment before and after use.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. Cause and prevention of health care-associated infections</li> <li>3. Disinfectant dry times (e.g., bleach, alcohol, ammonia chlorides)</li> </ul>	
<p><b>C. Dispose of biohazardous materials (e.g., sharps containers, red bags) according to OSHA standards.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. OSHA guidelines</li> <li>3. Personal protective equipment use while following standard precautions (e.g., gloves, gowns, masks, shoe covers)</li> </ul>	
<p><b>D. Follow exposure control plans in the event of occupational exposure.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. OSHA guidelines</li> </ul>	
<p><b>E. Perform aseptic technique.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. Cause and prevention of health care-associated infections</li> <li>3. Personal protective equipment use while following standard precautions (e.g., gloves, gowns, masks, shoe covers)</li> <li>4. Chain of infection</li> <li>5. Common health care-associated infections (e.g., urinary tract infection, methicillin-resistant Staphylococcus aureus [MRSA], Clostridium difficile [C. difficile])</li> </ul>	
<p><b>F. Perform sterile technique.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. CDC standard and transmission-based precautions</li> <li>2. Cause and prevention of health care-associated infections</li> <li>3. Personal protective equipment use while following standard precautions (e.g., gloves, gowns, masks, shoe covers)</li> <li>4. Chain of infection</li> <li>5. Common health care-associated infections (e.g., urinary tract infection, methicillin-resistant Staphylococcus aureus [MRSA], Clostridium difficile [C. difficile])</li> </ul>	

<b>Domain 4: Phlebotomy</b>	<b><u>14</u> Items</b>
<p><b>A. Perform capillary punctures.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Vascular system as it relates to phlebotomy</li> </ul>	



<ol style="list-style-type: none"> <li>2. Order of draw for capillary and venipuncture collections</li> <li>3. Site selection</li> <li>4. Appropriate equipment for capillary and venipunctures</li> <li>5. Chain of infection</li> <li>6. Patient identification guidelines for phlebotomy</li> <li>7. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>8. Information required on requisition forms (e.g., testing requirements, patient information)</li> <li>9. Implied or informed consent requirements</li> <li>10. Testing requirements (e.g., fasting, medication, basal state)</li> <li>11. Insertion and removal techniques</li> <li>12. Tube additives appropriate to testing requirements</li> <li>13. Patient safety considerations (e.g., arm rest on chair, wheelchair wheels locked, fall precautions)</li> <li>14. Common complications during or as a result of primary collection (e.g., lack of blood flow, hematoma, petechiae, nerve injury)</li> </ol>	
<p><b>B. Perform venipuncture (e.g., winged infusion set, evacuated tube system, syringe).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Vascular system as it relates to phlebotomy</li> <li>2. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>3. Order of draw for capillary and venipuncture collections</li> <li>4. Site selection</li> <li>5. Appropriate equipment for capillary and venipunctures</li> <li>6. Chain of infection</li> <li>7. Patient identification guidelines for phlebotomy</li> <li>8. Special considerations for venipuncture (e.g., medication review, limb restrictions, mastectomy, stroke)</li> <li>9. Considerations in determining venous accessibility (e.g., patient age and condition)</li> <li>10. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>11. Information required on requisition forms (e.g., testing requirements, patient information)</li> <li>12. Implied or informed consent requirement</li> <li>13. Testing requirements (e.g., fasting, medication, basal state)</li> <li>14. Insertion and removal techniques</li> <li>15. Tube additives appropriate to testing requirements</li> <li>16. Patient safety considerations (e.g., arm rest on chair, wheelchair wheels locked, fall precautions)</li> <li>17. Common complications during or as a result of primary collection (e.g., lack of blood flow, hematoma, petechiae, nerve injury)</li> </ol>	
<p><b>C. Collect nonblood specimens.</b></p> <p><i>Supporting Knowledge</i></p>	



<ol style="list-style-type: none"> <li>1. Chain of infection</li> <li>2. Patient identification guidelines for phlebotomy</li> <li>3. Nonblood specimen collection techniques</li> <li>4. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>5. Information required on requisition forms (e.g., testing requirements, patient information)</li> <li>6. Implied or informed consent requirements</li> </ol>	
<p><b>D. Perform blood culture collections.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Vascular system as it relates to phlebotomy</li> <li>2. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>3. Order of draw for capillary and venipuncture collections</li> <li>4. Site selection</li> <li>5. Chain of infection</li> <li>6. Patient identification guidelines for phlebotomy</li> <li>7. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>8. Information required on requisition forms (e.g., testing requirements, patient information)</li> <li>9. Implied or informed consent requirements</li> <li>10. Testing requirements (e.g., fasting, medication, basal state)</li> <li>11. Insertion and removal techniques</li> <li>12. Tube additives appropriate to testing requirements</li> <li>13. Patient safety considerations (e.g., arm rest on chair, wheelchair wheels locked, fall precautions)</li> <li>14. Common complications during or as a result of primary collection (e.g., lack of blood flow, hematoma, petechiae, nerve injury)</li> <li>15. Blood culture collection technique</li> </ol>	
<p><b>E. Identify and respond to adverse reactions to collection (e.g., syncope, diaphoresis, nausea, seizure).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. Common adverse reactions to collection (e.g., syncope, diaphoresis, nausea, seizure)</li> <li>3. Common complications during or as a result of primary collection (e.g., lack of blood flow, hematoma, petechiae, nerve injury)</li> </ol>	
<p><b>F. Handle and transport blood samples.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Vascular system as it relates to phlebotomy</li> <li>2. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>3. Chain of infection</li> <li>4. Patient identification guidelines for phlebotomy</li> </ol>	



<ul style="list-style-type: none"> <li>5. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>6. Information required on requisition forms (e.g., testing requirements, patient information)</li> </ul>	
<p><b>G. Transport specimens based on handling requirements (e.g., temperature, light, time).</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. Information required on requisition forms (e.g., testing requirements, patient information)</li> </ul>	
<p><b>H. Label specimens at the bedside.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. Patient identification guidelines for phlebotomy</li> <li>3. Information required on requisition forms (e.g., testing requirements, patient information)</li> <li>4. Specimen labeling techniques and requirements</li> </ul>	
<p><b>I. Verify appropriate functioning of equipment (e.g., sterility, expiration date, manufacturer's defects).</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. Appropriate equipment for capillary and venipunctures</li> <li>3. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> </ul>	
<p><b>J. Perform quality control related to Clinical Laboratory Improvement Amendments (CLIA)-waived procedures.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> </ul>	
<p><b>K. Explain nonblood specimen collection procedures to patient (e.g., stool, urine, semen, sputum).</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Nonblood specimen collection techniques</li> </ul>	
<p><b>L. Handle and transport patient-collected nonblood specimens.</b></p> <p><i>Supporting Knowledge</i></p> <ul style="list-style-type: none"> <li>1. Chain of infection</li> <li>2. Patient identification guidelines for phlebotomy</li> <li>3. CDC standards as they relate to specimen collection and transportation (e.g., prevention of blood-borne pathogens, exposure control, asepsis)</li> <li>4. Information required on requisition forms (e.g., testing requirements, patient information)</li> </ul>	



<p><b>M. Avoid preanalytical errors when collecting blood specimens (e.g., quantity not sufficient [QNS], hemolysis).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Vascular system as it relates to phlebotomy</li> <li>2. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>3. Preanalytical errors when collecting blood specimens (e.g., QNS, hemolysis)</li> </ol>	
<p><b>N. Adhere to chain of custody guidelines when required (e.g., forensic studies, blood alcohol, drug screen).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Phlebotomy standards (e.g., CLSI, CLIA)</li> <li>2. Order of draw for capillary and venipuncture collections</li> <li>3. Patient identification guidelines for phlebotomy</li> <li>4. Chain of custody guidelines</li> </ol>	

<b>Domain 5: EKG</b>	<b><u>10</u> Items</b>
<p><b>A. Prepare the patient (e.g., patient history, patient positioning, skin preparation, lead placement).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Basic functions of an EKG machine</li> <li>2. Placement of 3-lead, 5-lead, and 12-lead electrodes</li> <li>3. Patients who have special considerations (e.g., pediatric patients, mastectomy, right-sided heart, posterior chest, amputations)</li> </ol>	
<p><b>B. Apply electrodes on patient.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Placement of 3-lead, 5-lead, and 12-lead electrodes</li> <li>2. Patients who have special considerations (e.g., pediatric patients, mastectomy, right-sided heart, posterior chest, amputations)</li> </ol>	
<p><b>C. Identify and respond to signs and symptoms of cardiopulmonary compromise.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Cardiac conduction system</li> <li>2. Basic life support for healthcare providers</li> <li>3. Signs and symptoms of cardiopulmonary compromise</li> </ol>	
<p><b>D. Identify and resolve artifacts from the tracing (e.g., wandering baseline, somatic, electrical).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Artifacts (e.g., wandering baseline, somatic, electrical)</li> <li>2. Artifact resolution techniques</li> </ol>	
<p><b>E. Recognize and report dysrhythmias.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Cardiac conduction system</li> <li>2. Characteristics of waveforms of a cardiac cycle to determine symmetry, direction, and amplitude (e.g., P waves, QRS complexes, S-T segments, T waves, U waves)</li> </ol>	



<p><b>F. Respond to potentially life-threatening arrhythmias (e.g., ventricular tachycardia, ventricular fibrillation).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Cardiac conduction system</li> <li>2. Basic life support for health care providers</li> <li>3. Signs and symptoms of cardiopulmonary compromise</li> <li>4. Life-threatening arrhythmias (e.g., ventricular tachycardia, ventricular fibrillation)</li> </ol>	
<p><b>G. Verify EKG machine paper speed (e.g., 25 mm, 50 mm).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Basic functions of an EKG machine</li> </ol>	
<p><b>H. Verify EKG machine sensitivity (e.g., h, 1, 2).</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. Basic functions of an EKG machine</li> </ol>	
<p><b>I. Maintain EKG equipment.</b></p> <p><i>Supporting Knowledge</i></p> <ol style="list-style-type: none"> <li>1. EKG equipment maintenance and cleaning requirements</li> </ol>	

