

*Hartman's Complete Guide for the Phlebotomy Technician*  
**Vocabulary Lists for Each Chapter**

**Chapter 1**

**provider:** a person or organization that provides health care, including doctors, nurses, clinics, and agencies.

**facility:** a place where health care is delivered or administered; may be a hospital, doctor's office, clinical laboratory, treatment center, etc.

**payer:** a person or organization paying for healthcare.

**diagnose:** to make a medical determination of illness.

**inpatient:** a type of medical care provided to patients who stay at a facility overnight.

**outpatient:** a type of medical care that does not require an overnight stay.

**acute:** as related to illness, short-term and requiring immediate care.

**discharge:** to release a patient from a medical facility.

**admit:** to check a patient in to a medical facility for inpatient care.

**long-term care facility:** a center that provides skilled care 24 hours a day to residents who live there.

**clinical laboratory:** a facility that collects and analyzes specimens from patients in order to provide doctors and other healthcare professionals with information.

**specimen:** a portion or sample of something larger, collected for study or analysis.

**reference laboratory:** facility that primarily analyzes specimens sent from other locations.

**Clinical Laboratory Improvement Amendments (CLIA):** federal regulations regarding the staffing and operation of clinical laboratories.

**accredit:** officially approve through a specific process.

**Joint Commission:** an independent, nonprofit organization that evaluates and accredits.

**chemistry:** in a clinical laboratory, the department concerned with analyzing specimens for the presence of particular chemicals.

**hematology:** in a clinical laboratory, the department concerned with analyzing specimens to study properties, diseases, or disorders of the blood.

**coagulation:** the process of blood clotting.

**microbiology:** in a clinical laboratory, the department concerned with the study of bacteria, viruses, fungi, and other microorganisms.

**microorganisms:** living things so small they can only be seen under a microscope.

**culture:** in medicine, to cause any microorganisms present to multiply.

**immunology:** in a clinical laboratory, the department concerned with analyzing specimens to study the body's response to disease.

**antibody:** a protein made by the body to protect against foreign substances.

**blood bank:** a facility or department within a facility concerned with collecting and preparing blood for transfusion.

**pathology:** in a clinical laboratory, the department concerned with the study of the causes and effects of disease.

**cytology:** in a clinical laboratory, the department concerned with the examination of the structure and function of cells in specimens.

**urinalysis:** the visual, microscopic, and chemical testing of urine specimens.

**stat:** in medical facilities, a designation of urgency.

**licensure:** a legally required process that must be completed to practice a profession.

**chain of command:** a legally required process that must be completed to practice a profession.

**liability:** a legally required process that must be completed to practice a profession.

**scope of practice:** the range of tasks a healthcare worker is allowed to perform according to state or federal law or to facility policy.

**venipuncture:** the puncture of a vein with a hollow needle for the purpose of extracting a blood specimen.

**vein:** a blood vessel that carries blood toward the heart.

**capillary:** the smallest blood vessels; they carry oxygen and nutrients to and remove carbon dioxide and wastes from cells throughout the body.

**capillary puncture:** the puncture of a patient's skin for the purpose of collecting a blood specimen from the capillaries beneath the puncture site; also called *dermal puncture*.

**policy:** a course of action that should be taken every time a certain situation occurs.

**procedure:** a method, or way, of doing something.

**requisition:** an order for diagnostic tests to be completed.

**quality assurance:** in health care, ensuring that care is being provided according to facility policy and procedures, with results to meet expectations.

**quality improvement:** in health care, practices that seek to make care better in a way that can be measured.

**quality control:** in health care, processes put into place to document that standards are being met.

**Clinical Laboratory Standards Institute (CLSI):** a nonprofit organization that develops standards of practice for laboratories worldwide.

**certification:** a process used in healthcare to ensure skills are mastered for particular positions.

**clinical experience:** experience working with patients in a healthcare facility.

**continuing education:** in health care, education intended to keep healthcare workers up to date on changes in medicine that affect their jobs; it may also address new equipment, new procedures, or policy changes, or provide a review of important topics.

**professional:** having to do with work or a job.

**personal:** having to do with life outside a job.

**professionalism:** behaving properly when on the job.

**empathy:** identifying with the feelings of others.

**tactful:** showing sensitivity and having a sense of what is appropriate when dealing with others.

**conscientious:** careful; guided by a sense of what is important and right.

**stress:** a state of being overwhelmed by mental or emotional demands.

**stressor:** something that causes stress.

## Chapter 2

**ethics:** the knowledge of right and wrong.

**law:** a rule established to help people live peacefully together and to ensure order and safety.

**confidentiality:** the legal and ethical principal of keeping information private.

**Health Insurance Portability and Accountability Act (HIPAA):** a federal law that requires health information be kept private and secure and that organizations take special steps to protect this information.

**protected health information (PHI):** a person's private health information, which includes name, address, telephone number, social security number, email address, and medical record number.

**Centers for Medicare & Medicaid Services (CMS):** a federal agency within the US Department of Health and Human Services that is responsible for Medicare and Medicaid, among many other responsibilities.

**CLIA waived test:** a diagnostic test determined by CLIA to be simple, easy to perform, and involving little risk of error; phlebotomists can often perform these tests.

**point-of-care test:** diagnostic test performed near or in the presence of the patient; many are CLIA waived.

**criminal law:** branch of law dealing with offenses considered to harm all of society.

**civil law:** branch of law dealing with disputes between individuals.

**tort:** a violation of civil law, e.g. negligence.

**negligence:** an action, or the failure to act or provide the proper care, that results in unintended injury to a person.

**abuse:** purposeful mistreatment that causes physical, mental, or emotional pain or injury to someone.

**mandated reporter:** person who is legally required to report suspected or observed abuse or neglect due to regular contact with vulnerable populations.

**consent:** in health care, acknowledgement of agreement to treatment or to a procedure.

**informed consent:** in health care, acknowledgement of agreement to treatment or to a procedure that is given after receiving information regarding risks and benefits; informed consent must usually be documented before treatment begins.

**express consent:** consent that is actively, consciously acknowledged.

**assault:** the use of words or actions to cause another person to feel fearful of being harmed.

**battery:** the intentional touching of another person without permission.

**minor:** a person less than 18 years of age.

**cognitive:** related to the ability to think and process information.

**implied consent:** the assumption that a person agrees to treatment or to a procedure; allows medical treatment to be provided in emergency situations, for example, even if the patient is not able to express consent.

**American Hospital Association (AHA):** a nonprofit membership organization concerned with providing information to the healthcare industry and the public regarding healthcare issues and trends.

**advance directive:** a legal document that allows people to decide what kind of medical care they wish to have in the event they are unable to make those decisions themselves.

**living will:** a type of advance directive that outlines specific medical care a person wants, or does not want, in case he becomes unable to make those decisions.

**do-not-resuscitate (DNR):** a medical order that instructs medical professionals not to perform cardiopulmonary resuscitation (CPR) in the event of cardiac or respiratory arrest.

**durable power of attorney for health care:** a signed, dated, and witnessed legal document that appoints someone else to make the medical decisions for a person in the event he or she becomes unable to do so.

**medical social worker:** employee at a health care facility who deals with patients' social, emotional, and financial needs.

### **Chapter 3**

**communication:** the process of exchanging information with others by sending and receiving messages.

**verbal communication:** communication involving the use of spoken or written words or sounds.

**nonverbal communication:** communication without using words.

**cliché:** phrase that is used over and over again and does not really mean anything.

**syncope:** loss of consciousness; also called fainting.

**cyanotic:** blue or gray, in reference to skin color.

**anticoagulant:** a substance that stops blood from clotting.

**hemostasis:** the condition in which all of the body's systems are balanced and are working together to maintain internal stability.

**hemoglobin:** an oxygen-carrying protein in red blood cells.

**documentation:** in health care, the creation of a record of care given to a patient.

**incident:** an accident, problem, or unexpected event during the course of care that is not part of the normal routine in a healthcare facility.

**objective:** based on what a person sees, hears, touches, or smells.

**impairment:** a loss of function or ability.

**populations:** in health care, a particular and distinct group of patients.

**pediatrics:** a branch of medicine dealing with people under the age of 18.

**geriatrics:** a branch of medicine dealing with elderly patients.

**developmental disability:** a disability that is present at birth or emerges during childhood or early adulthood that restricts physical and/or mental ability.

## **Chapter 4**

**infection prevention:** the set of methods practiced in healthcare facilities to prevent and control the spread of disease.

**infection:** the state resulting from pathogens invading the body and multiplying.

**pathogen:** microorganism that is capable of causing infection and disease.

**localized infection:** an infection that is limited to a specific location in the body and has local symptoms.

**systemic infection:** an infection that travels through the bloodstream and is spread throughout the body, causing general symptoms.

**healthcare-associated infection (HAI):** an infection acquired in a healthcare setting during the delivery of medical care.

**chain of infection:** a way of describing how disease is transmitted from one human being to another.

**causative agent:** a pathogenic microorganism that causes disease.

**reservoir:** a place where a pathogen lives and multiplies.

**portal of exit:** any body opening on an infected person that allows pathogens to leave.

**mode of transmission:** the way a pathogen travels.

**direct contact:** a way of transmitting pathogens through touching the infected person or his secretions.

**indirect contact:** a way of transmitting pathogens from touching an object contaminated by the infected person.

**portal of entry:** any body opening on an uninfected person that allows pathogens to enter.

**mucous membranes:** the membranes that line body cavities that open to the outside of the body, such as the linings of the mouth, nose, eyes, rectum, and genitals.

**susceptible host:** an uninfected person who could become sick.

**transmission:** passage or transfer.

**infectious:** contagious.

**medical asepsis:** measures used to reduce and prevent the spread of pathogens.

**surgical asepsis:** the state of being completely free of all microorganisms; also called *sterile technique*.

**Occupational Safety and Health Administration (OSHA):** a federal government agency that makes rules to protect workers from hazards on the job.



**Centers for Disease Control and Prevention (CDC):** a federal government agency that issues guidelines to protect and improve the health of individuals and communities.

**Standard Precautions:** a method of infection prevention in which all blood, body fluids, nonintact skin, and mucous membranes are treated as if they were infected with an infectious disease.

**lancet:**

a sharp instrument used to make small incisions, as in capillary puncture procedures.

**sharps:** needles, lancets, or other sharp objects.

**hand hygiene:** washing hands with either plain or antiseptic soap and water and using alcohol-based hand rubs.

**personal protective equipment (PPE):** equipment that helps protect employees from serious workplace injuries or illnesses resulting from contact with workplace hazards.

**invasive procedure:** a procedure that involves inserting a foreign object into a patient's body.

**don:** to put on.

**doff:** to remove

**Transmission-Based Precautions:** a method of infection prevention used when caring for persons who are infected or may be infected with certain infectious diseases.

**multidrug-resistant organisms (MDROs):** microorganisms, mostly bacteria, that are resistant to one or more antimicrobial agents that are commonly used for treatment.

**isolate:** to keep something separate, or by itself.

**bloodborne pathogen:** microorganism found in human blood, body fluid, draining wounds, and mucous membranes that can cause infection and disease in humans.

**acquired immunodeficiency syndrome (AIDS):** the final stage of HIV infection, in which infections, tumors, and central nervous system symptoms appear due to a weakened immune system that is unable to fight infection.

**human immunodeficiency virus (HIV):** the virus that attacks the body's immune system and gradually disables it; eventually can cause AIDS.

**hepatitis:** inflammation of the liver caused by certain viruses and other factors, such as alcohol abuse, some medications and trauma.

**Bloodborne Pathogens Standard:** federal law that requires that healthcare facilities protect employees from bloodborne health hazards.

**engineering controls:** features incorporated in medical devices to make their use less hazardous.

**exposure control plan:** a plan designed to eliminate or reduce employee exposure to infectious material.

**clean:** in health care, a condition in which objects are not contaminated with pathogens.

**dirty:** in health care, a condition in which objects have been contaminated with pathogens.

**disinfection:** a process that destroys most, but not all, pathogens; it reduces the pathogen count to a level that is considered not infectious.

**sterilization:** cleaning measure that destroys all microorganisms, including pathogens.

## Chapter 5

**flammable:** able to catch fire easily.

**ergonomics:** the science of designing equipment, areas, and work tasks to make them safer and to suit the worker's abilities.

**Hazard Communication Standard:** OSHA's system of identifying potential hazards in the workplace.

**Safety Data Sheet (SDS):** document describing the composition and possible hazards of chemicals in the workplace.

**aerosolize:** to disperse a substance through the air in such a way that it might be inhaled.

**centrifuge:** a machine commonly used to separate substances within liquids through rapid spinning.

## Chapter 6

**homeostasis:** the condition in which all of the body's systems are balanced and are working together to maintain internal stability.

**metabolism:** physical and chemical processes by which substances are broken down or transformed into energy or products for use by the body.

**organ:** structural unit in the human body that performs a specific function.

**tissue:** group of cells that performs a similar task.

**cell:** basic structural unit of the body that divides, develops, and dies, renewing tissues and organs.

**integument:** a natural protective covering

**dilate:** to widen.

**constrict:** to narrow.

**antibody:** a protein made by the body to protect against foreign substances.

**joint:** the place at which two bones meet.

**muscles:** group of tissues that provides movement of body parts, protection of organs, and creation of body heat.

**central nervous system (CNS):** the part of the nervous system that is composed of the brain and spinal cord.

**peripheral nervous system (PNS):** part of the nervous system made up of the nerves that extend throughout the body.

**respiration:** the process of inhaling air into the lungs and exhaling air out of the lungs.

**glucose:** natural sugar.

**hormone:** a chemical substance created by that body that controls body functions.

**diabetes:** a condition in which the pancreas produces too little insulin or does not properly use insulin.

**gestational diabetes:** a form of diabetes associated with pregnancy.

**nonspecific immunity:** a type of immunity that protects the body from disease in general.

**specific immunity:** a type of immunity that protects the body against a particular disease that is invading the body at a given time.

**lymph:** a clear yellowish fluid that carries disease-fighting cells called lymphocytes.

## **Chapter 7**

**septum:** in cardiology, the wall dividing the right and left sides of the heart.

**atria:** the two upper chambers of the heart (singular atrium).

**ventricles:** the two lower chambers of the heart.

**tricuspid valve:** the heart valve located between the right atrium and the right ventricle.

**pulmonary valve:** the heart valve located between the right ventricle and the pulmonary artery.

**bicuspid valve:** the heart valve located between the right ventricle and the pulmonary artery; also called the mitral valve.

**aortic valve:** the heart valve located between the left ventricle and the aorta.

**cardiac conduction system:** the pathway of electrical impulses that controls the heart's pumping action.

**sinoatrial node:** part of the electrical conduction system of the heart; acts as the primary pacemaker of the heart.

**atrioventricular node:** part of the electrical conduction system of the heart; located at the bottom of the right atrium.

**atrioventricular (AV) junction:** part of the electrical conduction system of the heart; located between the AV node and the bundle of His.

**bundle of His:** part of the electrical conduction system of the heart; located in the upper part of the septum dividing the ventricles.

**bundle branches:** part of the electrical conduction system of the heart; they divide from the bundle of His and carry the electrical impulse to the walls of the ventricles.

**Purkinje fibers:** part of the electrical conduction system of the heart; they divide from the bundle branches.

**artery:** a blood vessel that carries oxygenated blood away from the heart.

**capillary bed:** area where exchanges of oxygen and carbon dioxide, and nutrients and waste products, takes place.

**inferior vena cava:** large vein that carries blood to the heart from the legs and trunk.

**superior vena cava:** large vein that carries blood from the arms, head, and neck to the heart.

**palpate:** to examine the body using the fingers or hands.

**tunica adventitia:** the outer layer of veins or arteries.

**tunica media:** the middle layer of veins or arteries.

**tunica intima:** the inner later veins or arteries.

**pulmonary circuit:** the circulation of blood between the heart and the lungs.

**systemic circuit:** the circulation of blood between the heart and the rest of the body (except the lungs).

**plasma:** the liquid portion of blood.

**formed elements:** the solid portion of blood.

**erythrocyte:** a red blood cell; contains the protein (hemoglobin) that carries oxygen in the blood.

**leukocyte:** white blood cell; capable of producing antibodies and destroying pathogens.

**thrombocyte:** part of the formed elements of blood; plays a role in blood clotting; also called platelet.

**stem cell:** a cell that can become any type of cell.

**neutrophil:** a type of white blood cell that is the body's first defense against illness.

**eosinophil:** a type of white blood cell.

**basophil:** a type of white blood cell.

**granulocyte:** a category of short-lived white blood cells including eosinophils and basophils.

**lymphocyte:** a type of white blood cell that plays a role in boosting the body's immune system.

**B cell:** a type of lymphocyte that produces antibodies.

**T cell:** a type of lymphocyte that can give chemical signals to regulate immune response or fight infected cells directly.

**antigen:** a substance that can prompt an immune response.

**monocyte:** the largest of the white blood cells; matures into macrophages, which “eat” invading organisms.

**megakaryocyte:** a cell produced in the bone marrow that fragments into platelets.

**complete blood count (CBC):** a common blood test used to determine the number of red blood cells, white blood cells, and platelets are in a patient’s blood; CBC with differential specifies how many of each type of white cell is present.

**anemia:** a condition in which a person has either too few red blood cells or too little hemoglobin in the blood.

**blood type:** designation based on the presence or absence of specific antigens on a person’s red blood cells; A, B, AB, and O are the most common blood types.

**ABO blood group system:** system of classifying blood type based on the presence or absence of A and B antigens on a person’s red blood cells.

**Rh factor:** a protein that may be present on a person’s red blood cells.

**Rh positive:** designation for people who have Rh factor on their red blood cells.

**Rh negative:** designation for people who do not have Rh factor on their red blood cells.

**transfusion:** a transfer of blood from one person to the bloodstream of another.

**arterial blood:** blood in the arteries; oxygenated and marked by a bright red color.

**venous blood:** blood in the veins; it is deoxygenated and dark, deep red in color.

**syringe:** a tubular device with a plunger that, when pulled, acts to draw in fluid (e.g., blood).

**capillary blood:** blood in the capillaries; contains both arterial and venous blood and its color is somewhere between bright and deep red.

**thrombosis:** the formation of a clot within a blood vessel.

**hemostasis:** the stopping of a flow of blood.

**vasoconstriction:** reaction to injury in a blood vessel causing narrowing of muscular tissue at the site of the injury.

**enzyme:** a substance in the body that speeds up a specific reaction.

**thrombin:** an enzyme in plasma that controls platelet response.

**primary hemostasis:** the first stage of hemostasis, concluding with the formation of a platelet plug.

**fibrinogen:** a protein associated with blood clotting; fibrinogen is turned into fibrin when injury occurs, creating a mesh with platelets to stop bleeding.

**fibrin:** a protein that cannot be dissolved; forms a mesh with platelets to stop bleeding when injury occurs.

**hemostatic plug:** the mesh of fibrin and activated platelets formed at an injury site.

**secondary hemostasis:** the second stage of hemostasis, concluding with the formation of the hemostatic plug.

**fibrinolysis:** the breaking down of fibrin as an injury heals.

**plasmin:** enzyme that plays a vital role in breaking apart fibrin as an injury heals.

**clotting factor:** blood protein involved in the process of blood clotting.

**coagulation cascade:** the series of changes in the body to prevent blood loss while also avoiding unnecessary and dangerous excessive clotting.

**hemophilia:** a disorder that can cause excessive bleeding.

**thrombophilia:** a disorder that can cause excessive clotting.

**thrombus:** a clot formed within a blood vessel.

**pulmonary embolism:** a blood clot in the lungs; potentially deadly disorder.

**additive:** in phlebotomy, a chemical agent that affects how blood can be processed and tested.

**serum:** the liquid portion of blood that has been allowed to clot; it is distinct from plasma and does not contain fibrinogen.

**whole blood specimen:** an anticoagulated blood specimen that has not been separated into solid and liquid components by spinning in a centrifuge.

**buffy coat:** the middle layer of an anticoagulated blood specimen that has been spun in a centrifuge; contains white blood cells and platelets.

## Chapter 8

**blood culture:** a test for the presence of bacterial or fungal pathogens in the blood.

**peripheral blood smear:** a way of preparing blood for viewing under a microscope.

**preanalytical errors:** errors in diagnostic testing that occur prior to that actual analysis of a specimen (e.g., use of the wrong collection tube).

**fasting:** in medicine, the requirement to not eat or drink anything but water for a specified amount of time, usually 8–12 hours, prior to a test or procedure.

**basal state:** a rested state in which no food or beverage except water has been consumed in the last 12 hours and no strenuous exercise has been performed.

**order of draw:** the standard sequence in which collection tubes are filled during a blood draw.

**evacuated tube system:** a needle, holder, and vacuum tube used together to collect blood specimens by venipuncture.

**multisample needle:** a double-sided needle used in phlebotomy; one side pierces the patient's skin and the other punctures the stoppers of collection tubes.

**hub:** the threaded area at the base of a phlebotomy needle that can be screwed into a holder or syringe.

**bevel:** the angled opening of a phlebotomy needle.

**gauge:** indication of the size of a phlebotomy needle; higher gauge numbers correspond to thinner needles.

**lumen:** the hollow space inside a phlebotomy needle.

**winged collection set:** a phlebotomy needle with flaps at the base, attached to a length of tubing, which may be used either with a tube holder or a syringe; commonly called a *butterfly needle*.



**syringe transfer device:** a device similar to a tube holder, used to safely transfer blood from a syringe into evacuated tubes.

**isopropyl alcohol:** an antiseptic commonly used to clean venipuncture and capillary puncture sites.

**chlorhexidine gluconate:** an antiseptic often used to prepare a venipuncture site for blood culture collection.

**povidone-iodine:** an antiseptic commonly used in medical settings.

**benzalkonium chloride:** an antiseptic sometimes used in medical settings.

**iodine tincture:** solution of iodine, usually in ethyl alcohol, used as an antiseptic.

**tourniquet:** in phlebotomy, a band that temporarily restricts the return of venous blood below the area where it is applied, making veins easier to locate and access.

**microcollection tube:** a tube for collecting very small blood specimens, with volumes usually ranging between 125 and 600 microliters ( $\mu\text{L}$ ); generally used for capillary puncture collections.

**capillary tube:** a small, thin, straw-like tube for collecting blood from a capillary puncture site.

**analyte:** a substance measured or studied in a diagnostic test.

**serology:** the study of blood serum.

**serum separator tube (SST):** a blood collection tube containing no anticoagulant additive and a gel designed to separate the liquid and solid components of blood after centrifugation.

**stat serum tube:** a blood collection tube containing a fast-acting clot activator for quicker testing; usually has an orange stopper.

**sodium citrate:** anticoagulant additive used in blood collection tubes; usually in tubes with light blue stoppers.

**heparin:** anticoagulant, often used as an additive in blood collection tubes; usually in tubes with green stoppers.

**plasma separator tube (PST):** a blood collection tube containing an anticoagulant and a gel designed to separate the liquid and solid components of blood after centrifugation.

**EDTA:** anticoagulant additive used in blood collection tubes; most commonly in tubes with lavender stoppers.

**glycolysis:** deterioration of glucose (blood sugar); happens quickly in a blood specimen if it is not collected in a tube containing sodium fluoride.

**discard tube:** a tube that will not be tested, drawn to ensure additives from one tube do not carry over to the next.

**ASAP:** as soon as possible.

**routine:** in phlebotomy, a designation indicating that a test is not urgent.

**timed draw:** a blood draw that must happen at a specific time, often depending upon when the patient last took a medication.

**peak:** in relation to measuring medication levels, the point at which the medication is at its highest level in the bloodstream.

**trough:** in relation to measuring medication levels, the point at which the medication is at its lowest level in the bloodstream.

**glucose tolerance test:** a test for diabetes or gestational diabetes that measures fasting blood glucose and then measures changes to blood glucose after ingestion of a sweet beverage.

**bilirubin:** a substance in the blood associated with liver function.

## Chapter 9

**laboratory information system (LIS):** computer system integrating every part of the laboratory testing process, from orders through analysis and reports.

**accession number:** a number printed on all specimen labels and documents associated with a particular requisition.

**electrolyte:** a substance that affects the flow of nutrients and the removal of waste products in the blood.

**panel:** in phlebotomy, a group of tests either with related analytes or related to a unifying condition or organ.

**hemoconcentration:** a buildup of blood cells (solid components) relative the liquid components of the blood.

**hemolysis:** destruction of red blood cells.

**antecubital fossa:** the area inside the elbow.

**median cubital vein:** well-anchored vein in the middle of the antecubital fossa; first priority site for venipuncture.

**cephalic vein:** one of the veins present in the antecubital fossa; may be used for venipuncture.

**basilic vein:** one of the veins present in the antecubital area; may be used for venipuncture, but considered to be the vein of last resort due to its proximity to nerves and an artery.

**median cephalic vein:** one of the veins present in the antecubital area.

**hematoma:** injury caused by leaked blood beneath the skin.

**iatrogenic anemia:** a type of anemia caused by excessive removal of a patient's blood (e.g., by phlebotomy); especially common in infants and patients in intensive care wards.

**phobia:** a strong fear, usually inexplicable or illogical.

**lymphedema:** a condition caused by faulty lymphatic draining; a risk if phlebotomy is performed on an arm on the same side as a previous mastectomy.

**arteriovenous (AV) fistula:** a connection between a vein and an artery.

**graft:** a place where a person's vein has been redirected to a surgically implanted vein.

**phlebitis:** inflammation of superficial veins.

**petechiae:** a condition in which small, flat red or purple dots appear on the skin as a result of leaking capillaries.

**integrity:** having high quality and reliability.

**microclotting:** formation of small clots within a blood specimen.

**QNS:** laboratory marking for *quantity not sufficient*; indicates a specimen that is too small to allow ordered tests to be performed.

**aerobic bottle:** in phlebotomy, a receptacle for the portion of a blood culture specimen to be tested for aerobic (oxygen-requiring) microorganisms.

**anaerobic bottle:** in phlebotomy, a receptacle for the portion of a blood culture specimen to be tested for anaerobic (non-oxygen-requiring) microorganisms.

**glucose challenge test:** initial form of glucose testing performed in pregnant women to screen for gestational diabetes; patients whose results are high take the full glucose tolerance test.

**aerobic bottle:** in phlebotomy, a receptacle for the portion of a blood culture specimen to be tested for aerobic (oxygen-requiring) microorganisms.

**anaerobic bottle:** in phlebotomy, a receptacle for the portion of a blood culture specimen to be tested for anaerobic (non-oxygen-requiring) microorganisms.

**glucose challenge test:** initial form of glucose testing performed in pregnant women to screen for gestational diabetes; patients whose results are high take the full glucose tolerance test.

**pipette:** a narrow tube, often with a suction bulb, used to remove liquid from a specimen.

**aliquot:** a small amount of a larger specimen.

**lipemic:** description of a plasma or serum specimen that is cloudy or milky looking due to fats in a patient's recent meal(s).

**icteric:** description of a plasma or serum specimen that is markedly yellow due to high bilirubin levels.

**pneumatic tube system:** a type of automated specimen transport system used in some healthcare facilities.

**heating blocks:** a rack designed to hold tubes in an upright position while maintaining a specific temperature.

**ice slurry:** a mixture of crushed ice and water.

## Chapter 10

**jaundice:** an excess of bilirubin in the blood.

**edema:** swelling.

**calcaneus:** the heel bone.

**osteomyelitis:** a bone infection that can be caused if a lancet used for finger stick or heel stick strikes the bone.

**plantar surface:** the sole of the foot.

**arterialize:** in phlebotomy, to make capillary blood more closely resemble arterial blood by warming a capillary puncture site.

**phenylketonuria:** a rare condition that can cause brain damage if left untreated; newborns are tested for this and other metabolic disorders.

**PT/INR:** blood testing to determine a patient's prothrombin time and international normalized ratio, measures of blood clotting.

**critical value:** range for diagnostic testing results that requires intervention and must be reported immediately.

## **Chapter 11**

**swab:** pad of synthetic material at the end of a stick or wire.

**aspirate:** to draw by suction.

**culture and sensitivity test:** test performed on urine to identify microorganisms present and to aid in antibiotic selection.

**routine urine specimen:** a urine specimen that can be collected at any time; also called a random urine specimen.

**first void urine specimen:** urine specimen collected when a patient first urinates in the morning.

**clean-catch urine specimen:** urine specimen collected in such a way that contamination of the specimen is reduced.

**24-hour urine specimen:** urine specimen collected by adding all urine produced over a full day/night period.

**catheter:** a thin tube inserted into the body (e.g., into the bladder through the urethra to extract urine).

**suprapubic aspiration:** method of collecting a urine specimen in which a needle is inserted directly into the bladder through the patient's abdomen.

**postprandial:** after a meal.

**split specimen:** a specimen that is divided into more than one container to allow for repeat testing.

**reagent strip:** a strip used to test urine for presence or levels of various analytes; also called dipsticks or dip strips.

**double-voided specimen:** urine specimen in which two samples are collected; one is collected initially, then another collected approximately a half-hour later.

**occult:** hidden (e.g., blood in stool).

**stool:** solid waste eliminated through the digestive tract; also called *feces*.

**ova and parasites:** a test performed on stool to detect the presence of worms or amoebas.

**fecal occult blood testing:** a test used to detect bleeding in the digestive tract; part of routine colon cancer screening.

**ampule:** small container of liquid in a swab vial.

**throat culture:** a diagnostic test in which a patient's throat is swabbed and the specimen analyzed for the presence of bacteria.

**strep throat:** an illness caused by the bacterium *Streptococcus pyogenes*.

**buccal swab:** collection of a specimen from inside a patient's mouth.

**nasal swab:** collection of a specimen from inside a patient's nostrils.

**nasopharyngeal swabs:** collection of a specimen from the back of the nasal cavity.

**saliva:** fluid secreted in the mouth.

**semen:** the sperm-containing fluid associated with the male reproductive system; also called seminal fluid.

**sputum:** mucus coughed up from the respiratory tract.