5 Infection Prevention and Standard Precautions

1. Define *infection prevention* and explain the chain of infection

Infection prevention is the set of methods used to prevent and control the spread of disease. This chapter explains the importance of preventing infection and how to protect against disease.

A **microorganism** (*my-kro-OR-gan-izm*), also called a *microbe*, is a tiny living thing that is not visible to the eye without a microscope. Microorganisms are always present in the environment. Infections occur when harmful microorganisms, called **pathogens** (*PATH-oh-gens*), invade and multiply within the body.

The **chain of infection** describes how disease is transmitted from one human being to another (Fig. 5-1). There are six links in the chain of infection:

Chain Link 1: The **causative agent** is a pathogenic microorganism that causes disease. Examples include bacteria, viruses, fungi, and parasites.

Chain Link 2: A **reservoir** is where the pathogen lives and multiplies. A reservoir can be a human, an animal, a plant, soil, or substance. Warm, dark, and moist places are the ideal environments for microorganisms to live, grow, and multiply. Some microorganisms need oxygen to survive while others do not. Examples of reservoirs include the lungs, blood, and the large intestine.

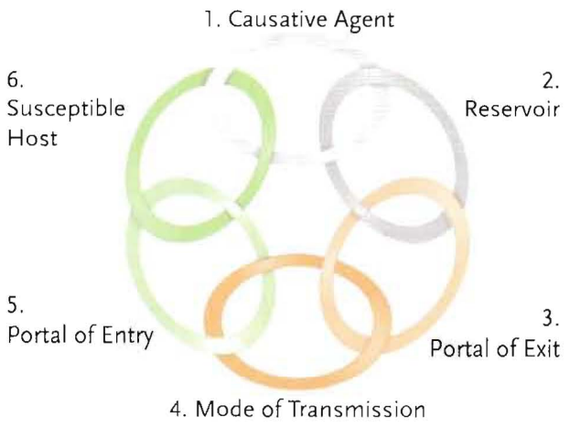

Fig. 5-1. *The chain of infection.*

Chain Link 3: The **portal of exit** is any body opening on an infected person that allows pathogens to leave. These include the nose, mouth, eyes, or a cut in the skin (Fig. 5-2).

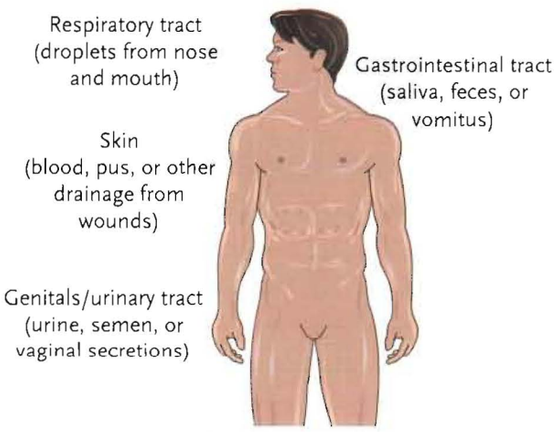

Fig. 5-2. *Portals of exit.*

Chain Link 4: The **mode of transmission** describes how the pathogen travels. The main routes of transmission are contact, droplet, and airborne transmission. **Direct contact** happens by touching the infected person or his secretions. **Indirect contact** results from touching an object contaminated by the infected person, such as a tissue, needle, dressing, or bed linen. Learning Objective 6 contains more information about the routes of transmission. In the healthcare setting, the primary route of disease transmission is via the hands of healthcare workers.

Chain Link 5: The **portal of entry** is any body opening on an uninfected person that allows pathogens to enter. These include the nose, mouth, eyes, and other mucous membranes, cuts in the skin, and cracked skin (Fig. 5-3). **Mucous** (*MYOO-kus*) **membranes** are the membranes that line body cavities that open to the outside of the body. These include the linings of the mouth, nose, eyes, rectum, and genitals.

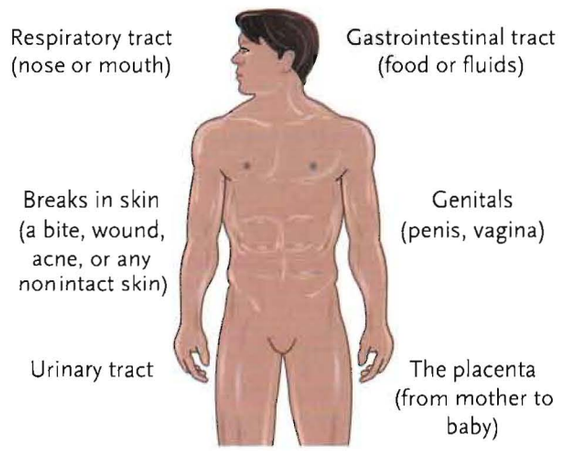

Fig. 5-3. *Portals of entry.*

Chain Link 6: A **susceptible host** is an uninfected person who could become ill. Examples include all healthcare workers and anyone in their care who is not already infected with that particular disease.

If one of the links in the chain of infection is broken, then the spread of infection is stopped. Infection prevention practices help stop pathogens from traveling (Link 4) and from getting on a person's hands, nose, eyes, mouth, skin, etc. (Link 5). Immunizations (Link 6) reduce a person's chances of getting sick from diseases such as hepatitis B and influenza (flu).

Transmission of most **infectious** (*in-FEKT-shus*), diseases can be blocked by using proper infection prevention practices, such as handwashing. Handwashing is the most important way to stop the spread of infection. All caregivers should wash their hands often.

Handwashing is a part of medical asepsis. **Medical asepsis** refers to measures used to reduce and prevent the spread of pathogens. Medical asepsis is used in all healthcare settings. **Surgical asepsis**, also known as *sterile technique*, makes an object or area completely free of all microorganisms (not just pathogens). Surgical asepsis is used for many types of procedures, such as changing catheters. Home health aides are responsible for following medical asepsis practices; however, surgical asepsis practices are not within their scope of care.

2. Explain Standard Precautions

State and federal government agencies have guidelines and laws concerning infection prevention and control. The **Occupational Safety and Health Administration** (**OSHA**, osha.gov) is a federal government agency that makes rules to protect workers from hazards on the job. The **Centers for Disease Control and Prevention** (**CDC**, cdc.gov) is a federal government agency that issues guidelines to protect and improve the health and safety of individuals and communities.

The CDC created an infection prevention system to reduce the risk of contracting infectious diseases in healthcare settings. There are two levels of precautions within the infection prevention system: Standard Precautions and Transmission-Based Precautions.

Following **Standard Precautions** means treating blood, body fluids, nonintact skin (like

abrasions, pimples, or open sores), and mucous membranes as if they were infected. Body fluids include tears, saliva, sputum (mucus coughed up), urine, feces, semen, vaginal secretions, pus or other wound drainage, and vomit. They do not include sweat.

Standard Precautions must be used with every client; this promotes safety. A home health aide cannot tell by looking at clients or even by reading their medical charts if they have an infectious disease such as tuberculosis, hepatitis, or influenza. Many diseases can be spread even before the infected person shows signs or has been diagnosed.

Standard Precautions and Transmission-Based Precautions are ways to stop the spread of infection by interrupting the mode of transmission. In other words, these guidelines do not stop an infected person from giving off pathogens. However, home health aides help prevent those pathogens from infecting them or those in their care by following these guidelines:

- Standard Precautions must be practiced with every single person in a home health aide's care.
- Transmission-Based Precautions vary based on how an infection is transmitted. When indicated, these precautions are used **in addition** to Standard Precautions. More information about these precautions is located later in the chapter.

Guidelines: Standard Precautions

- **Wash your hands** before putting on gloves. Wash your hands immediately after removing gloves. Be careful not to touch clean objects with your used gloves.
- **Wear gloves** if you may come into contact with any of the following: blood; body fluids; secretions; excretions; broken or open skin, such as abrasions, acne, cuts, stitches, or staples; or mucous membranes. Such contacts occur during mouth care; toilet assistance; **perineal care** (care of the genital and anal area); helping with a bedpan or urinal; ostomy care; cleaning up spills; cleaning basins, urinals, bedpans, and other containers that have held body fluids; and disposing of wastes.
- **Remove gloves** immediately when finished with a procedure and wash your hands.
- **Immediately wash all skin surfaces that have been contaminated** with blood and body fluids.
- **Wear a disposable gown** that is resistant to body fluids if you may come into contact with blood, body fluids, secretions, excretions, or when splashing or spraying blood or body fluids is likely. If a client has a contagious illness, wear a gown even if it is not likely you will come into contact with blood or body fluids.
- **Wear a mask and protective goggles and/or a face shield** if you may come into contact with blood, body fluids, secretions, excretions, or when splashing or spraying blood or body fluids is likely (for example, when emptying a bedpan).
- **Wear gloves and use caution when handling razor blades, needles, and other sharps.** **Sharps** are needles or other sharp objects. Avoid nicks or cuts when shaving clients. Place sharps carefully in a biohazard container for sharps. Biohazard containers used for sharps are puncture-resistant, leakproof containers. They are clearly labeled and warn of the danger of the contents inside (Figs. 5-4 and 5-5). They must close and must be kept in an upright position to keep items inside from spilling out. They should not be filled past the line indicating that the container is full. Biohazard bags are used for biomedical waste that is not sharp, such as soiled dressings, contaminated tubing, and other items (Fig. 5-6). OSHA recommends that biomedical/biohazard waste be disposed of at the *point of origin*, or where the waste occurs.

Fig. 5-4. This label indicates that the material is potentially infectious.

Fig. 5-5. One type of container for sharps.

Fig. 5-6. Biohazard bags are used for biomedical waste that is not sharp and must be sealed tightly.

- **Never attempt to recap needles or sharps after use.** You might stick yourself. Request that the client dispose of them in a biohazard container for sharps.
- **Bag all disposable contaminated supplies.** Dispose of them according to your agency's policy.
- **Clearly label body fluids that are being saved for a specimen** with the client's name, date of birth, date, and a biohazard label. Keep them in a container with a lid. Put in a biohazard specimen bag for transportation if required.
- **Dispose of contaminated wastes according to your agency's policy.** Waste containing blood or body fluids is considered biohazardous waste. It should be disposed of separately from household garbage. Your agency will have a policy on how to dispose of biohazardous waste.

Standard Precautions should always be practiced on all clients, regardless of their infection status. This greatly reduces the risk of transmitting infection. There is more information about Standard Precautions in the next several learning objectives. Learning Objectives 8, 9, and 10 contain information about bloodborne diseases.

3. Define *hand hygiene* and identify when to wash hands

Home health aides use their hands constantly while they work. Microorganisms are on everything they touch. The single most common way for healthcare-associated infections (HAIs) to be spread is via the hands of healthcare workers. Handwashing is the most important thing HHAs can do to prevent the spread of disease (Fig. 5-7).

Fig. 5-7. All people working in health care must wash their hands often. Handwashing is the most effective way to prevent the spread of disease.

The CDC has defined **hand hygiene** as washing hands with soap and water or using an alcohol-based hand rub (ABHR). Alcohol-based hand rubs (often referred to as *hand sanitizer*) include gels, rinses, and foams that do not require the use of water.

Alcohol-based hand rubs have proven effective in reducing bacteria on the skin. However, they are not a substitute for frequent, proper handwashing. When hands are visibly soiled, they should be washed with soap and water. Hand rubs can be used in addition to handwashing anytime hands are not visibly soiled. When using a hand rub, the hands must be rubbed together until the product has completely dried. Hand lotion can help prevent dry, cracked skin.

Home health aides should avoid wearing rings and bracelets while working because they may increase the risk of contamination. Fingernails should be short, smooth, and clean. Artificial nails (acrylic, gel, sculptured, or wraps) should not be worn because they harbor bacteria and increase the risk of contamination even if hands are washed often. Home health aides should wash their hands at these times:

- When first arriving at a client's home
- Whenever hands are visibly soiled
- Before and after all contact with a client
- Before putting on gloves and after removing gloves
- After contact with any body fluids, mucous membranes, nonintact skin, or wound dressings
- After handling contaminated items
- Before and after making meals or working in the kitchen
- Before and after feeding a client
- Before getting clean linen
- Before reaching into the clean area of a supply bag
- After touching garbage or trash
- After picking up anything from the floor
- Before and after using the toilet
- After blowing or wiping the nose or coughing or sneezing into the hands
- Before and after eating
- After smoking
- After touching areas on the body, such as the mouth, face, eyes, hair, ears, or nose
- Before and after applying makeup
- After any contact with pets and after contact with pet care items
- Before leaving a client's home

Washing hands (hand hygiene)

Equipment: soap, paper towels

1. Turn on water at sink. Keep your clothes dry, because moisture breeds bacteria. Do not let your clothing touch the outside portion of the sink or counter.
2. Wet your hands and wrists thoroughly (Fig. 5-8).

Fig. 5-8. *Keeping arms angled downward, wet hands and wrists thoroughly.*

3. Apply soap to your hands.
4. Keep your hands lower than your elbows and your fingertips down. Rub your hands together and fingers between each other to create a lather. Lather all surfaces of wrists, hands, and fingers, using friction for at least 20 seconds. Friction helps clean (Fig. 5-9).

Fig. 5-9. *Using friction for at least 20 seconds, lather all surfaces of wrists, fingers, and hands.*

5. Clean your nails by rubbing them in the palm of your other hand.
6. Keep your hands lower than your elbows and your fingertips down. Being careful not to touch the sink, rinse thoroughly under running water. Rinse all surfaces of your wrists and hands. Run water down from your wrists to your fingertips. Do not run water over unwashed arms down to clean hands.
7. Use a clean, dry paper towel to dry all surfaces of your fingers, hands, and wrists, starting at the fingertips. Do not wipe the towel on unwashed forearms and then wipe your clean hands. Discard the towel into the waste container without touching the container. If your hands touch the sink or wastebasket, start over.
8. Use a clean, dry paper towel to turn off the faucet (Fig. 5-10). Discard the towel into the waste container. Do not contaminate your hands by touching the surface of the sink or faucet.

Fig. 5-10. *Use a clean, dry paper towel to turn off the faucet so that you do not contaminate your hands.*

4. Identify when to use personal protective equipment (PPE)

Personal protective equipment (**PPE**) is equipment that helps protect employees from serious injuries or illnesses resulting from contact with workplace hazards. In the home, PPE helps protect home health aides from contact with potentially infectious material. Employers are responsible for providing HHAs with the appropriate PPE for client assignments.

Personal protective equipment includes gowns, masks, goggles, face shields, and gloves. Gowns protect the skin and/or clothing. Masks protect the mouth and nose. Goggles protect the eyes. Face shields protect the entire face—the eyes, nose, and mouth. Gloves protect the hands. Gloves are used most often by all caregivers.

HHAs must wear PPE if there is a chance of coming into contact with blood, body fluids, secretions, excretions, mucous membranes, or open wounds. They should put on, or **don**, gowns, masks, goggles, and face shields when splashing or spraying of body fluids or blood could occur. Hand hygiene should be performed before donning PPE and after removing and discarding PPE.

Gowns

Clean, nonsterile gowns protect exposed skin. They also prevent soiling of clothing. Gowns should fully cover the torso. They should fit comfortably over the body and have long sleeves that fit snugly at the wrists.

OSHA requires fluid-resistant gowns if fluid penetration is likely. If a gown becomes wet or soiled during care, it should be discarded and a new gown should be donned. A gown can only be worn once. When finished with a procedure, the HHA should remove, or **doff**, the gown as soon as possible and wash her hands.

Putting on (donning) and removing (doffing) a gown

1. Wash your hands.
2. Open the gown. Hold it out in front of you and allow it to open/unfold. Do not shake the gown or touch it to the floor (Fig. 5-11). Facing the back opening of the gown, place an arm through each sleeve.

Fig. 5-11. *Let the gown unfold without shaking it.*

3. Fasten the neck opening.
4. Reaching behind you, pull the gown until it completely covers your clothing. Secure the gown at your waist (Fig. 5-12).

Fig. 5-12. *Reaching behind you, secure the gown at the waist.*

5. Put on your gloves after putting on the gown. The cuffs of the gloves should overlap the cuffs of the gown (Fig. 5-13).

Fig. 5-13. *The cuffs of the gloves should overlap the cuffs of the gown.*

6. When removing a gown, first remove and discard gloves properly. Then unfasten the gown at the neck and waist. Remove the gown without touching the outside of the gown. Roll the dirty side in, while holding the gown away from your body. Discard the gown properly and wash your hands.

Masks and Goggles

Masks can prevent inhalation of microorganisms through the nose or mouth. Masks should be worn when caring for clients with respiratory illnesses. They should also be worn when it is likely that contact with blood or body fluids may occur. Sometimes special masks (respirators) are required for certain diseases, such as tuberculosis (TB). Masks should fully cover the nose and mouth and fit snugly to prevent fluid penetration.

Masks can only be worn once before they need to be discarded. Masks that become wet or soiled must be changed immediately without touching the outside of the soiled mask. Home health aides must always change masks when moving between clients; the same mask should not be worn from one client to another.

Goggles are worn with a mask and are used whenever it is likely that blood or body fluids may be splashed or sprayed into the eye area or into the eyes. Eyeglasses alone do not provide proper eye protection. Goggles should fit snugly over and around the eyes or eyeglasses.

Putting on (donning) a mask and goggles

1. Wash your hands.
2. Pick up the mask by the top strings or the elastic strap. Do not touch the mask where it touches your face.
3. Pull the elastic strap over your head, or if the mask has strings, tie the top strings first, then the bottom strings. Do not wear a mask hanging from only the bottom ties or straps.
4. Pinch the metal strip at the top of the mask (if part of the mask) tightly around your nose so that it feels snug (Fig. 5-14). Fit the mask snugly around your face and below the chin.

Fig. 5-14. *Adjust the metal strip until the mask fits snugly around your nose.*

5. Put the goggles on over your eyes or eyeglasses. Use the headband or earpieces to secure them to your head. Make sure they fit snugly.
6. Put on your gloves after putting on the mask and goggles.

Face Shields

Face shields may be worn when blood or body fluids may be splashed or sprayed into the eyes or eye area. A face shield can be substituted for a mask or goggles, or it can be worn with a mask. The face shield should cover the forehead, go below the chin, and wrap around the sides of the face. The headband secures it to the head.

Gloves

Nonsterile gloves are used for basic care. They are available in different sizes and may be made of nitrile, vinyl, or latex. However, due to allergy issues, some agencies have banned the use of latex gloves.

Gloves should fit the hands comfortably and should not be too loose or too tight. Agencies have specific policies for when to wear gloves. HHAs must learn and follow these rules. Gloves must always be worn for the following tasks:

- Any time the caregiver might come into contact with blood or any body fluid, secretions, excretions, open wounds, or mucous membranes
- When performing or helping with mouth care or care of any mucous membrane
- When performing or helping with **perineal** (*payr-i-NEE-al*) **care** (care of the genital and anal area)
- When performing care on nonintact skin—skin that is broken by abrasions, cuts, rashes, acne, pimples, lesions, surgical incisions, or boils
- When the caregiver has any open sores or cuts on his hands
- When shaving a client
- When disposing of soiled bed linens, gowns, dressings, and pads
- When touching surfaces or equipment that are either visibly contaminated or may be contaminated

Disposable gloves can only be worn once; they cannot be washed or reused. Gloves should be changed immediately if they become wet, worn, soiled, or torn. Gloves should also be changed before contact with mucous membranes or broken skin. After removing gloves, the HHA should wash his hands before donning new gloves. Nonintact areas on the hands should be covered with bandages or gauze before putting on gloves.

Putting on (donning) gloves

1. Wash your hands.
2. If you are right-handed, slide one glove on your left hand (reverse if left-handed).
3. Using your gloved hand, slide the other hand into the second glove.
4. Interlace your fingers to smooth out folds and create a comfortable fit.
5. Carefully check for tears, holes, cracks, or discolored spots. Replace the glove if needed.
6. Adjust the gloves until they are pulled up over your wrists and fit correctly. If wearing a gown, pull the cuffs of the gloves over the sleeves of the gown (Fig. 5-15).

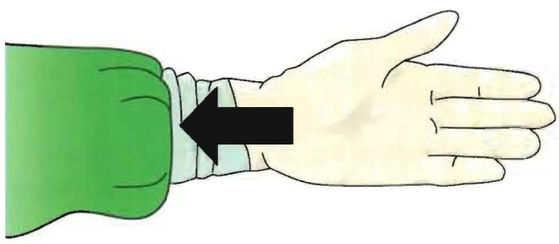

Fig. 5-15. *Adjust gloves until they are pulled up over the sleeves of the gown.*

Gloves should be removed promptly after use, and the HHA should wash his hands directly after removing gloves. He should be careful not to contaminate his skin or clothing when removing gloves. Gloves are worn to protect the skin from becoming contaminated. After giving care, gloves are contaminated. If an HHA opens a door with the gloved hand, the doorknob becomes contaminated. Later, anyone who opens the door with an ungloved hand will be touching a contaminated surface. Before touching surfaces or leaving the room, the HHA must remove gloves and wash his hands. Afterward, new gloves can be donned if necessary.

Removing (doffing) gloves

1. Touch only the outside of one glove. With one gloved hand, grasp the other glove at the palm and pull the glove off (Fig. 5-16).

Fig. 5-16. *Grasp the glove at the palm and pull it off.*

2. With the fingertips of your gloved hand, hold the glove you just removed. With your ungloved hand, slip two fingers underneath the cuff of the remaining glove at the wrist. Do not touch any part of the outside of the glove (Fig. 5-17).

Fig. 5-17. *Reach inside glove at the wrist, without touching any part of the outside of the glove.*

3. Pull down, turning this glove inside out and over the first glove as you remove it.
4. You should now be holding one glove from its clean inner side and the other glove should be inside it.
5. Drop both gloves into the proper container without contaminating yourself.
6. Wash your hands.

Environmentally Friendly Care

Gloves

Natural rubber latex gloves are the most environmentally friendly choice among disposable gloves because they are **biodegradable**. This means they are capable of breaking down or being decomposed by bacteria or other living organisms. Nitrile and vinyl gloves are not biodegradable. They remain intact when discarded in landfills.

This is the correct order that the HHA should follow when donning (putting on) personal protective equipment (PPE) (Fig. 5-18):

1. Wash your hands.
2. Put on gown.
3. Put on mask.
4. Put on goggles or face shield.
5. Put on gloves.

Fig. 5-18. *Sequence for putting on personal protective equipment.* (IMAGE REPRINTED FROM THE CDC'S WEBSITE, WWW.CDC.GOV/HAI/PDFS/PPE/PPE-SEQUENCE.PDF)

This is the correct order that the HHA should follow when doffing (removing) personal protective equipment (PPE) (Fig. 5-19):

1. Remove and discard gloves.
2. Remove goggles or face shield.
3. Remove and discard gown.
4. Remove and discard mask.
5. Wash your hands. Performing hand hygiene is always the final step after removing and discarding PPE. Hand hygiene should also be performed between steps if hands become contaminated at any time.

Fig. 5-19. *Sequence for removing personal protective equipment.* (IMAGE REPRINTED FROM THE CDC'S WEBSITE, WWW.CDC.GOV/HAI/PDFS/PPE/PPE-SEQUENCE.PDF)

5. Explain how to handle spills

Spilled blood or any body fluid and other fluids increase the risk of infection. Spills also put clients and others at risk for falls. Home health

aides must clean spills using the proper solutions and equipment.

Guidelines: Cleaning Spills Involving Blood, Body Fluids, or Glass

- Apply gloves before starting. In some cases, industrial-strength gloves are best.
- If blood or other body fluids are spilled on a hard surface such as a linoleum floor or countertop, clean immediately using a solution of one part household bleach to nine parts water. You can mix the solution in a bucket and, with gloves on, wipe up the spill with rags or paper towels dipped in the solution. Be careful not to spill bleach or bleach solution on clothes, carpets, or bedding. It can discolor and damage fabrics. Your employer may provide you with special products for cleaning spills.
- If blood or other body fluids are spilled on fabrics such as carpets, bedding, or clothes, do not use bleach to clean the spill. Commercial disinfectants that do not contain bleach are available. When using these disinfectants, follow the manufacturer's directions for how to use the product. If you have no disinfectant, wear gloves and wipe up the spill. Then use soap and water to clean the area. Clean carpet with regular carpet cleaner. Use gloves to load soiled bedding or clothes into the washing machine and add color-safe bleach to the washer with the laundry detergent.
- Do not pick up any pieces of broken glass, no matter how large, with your hands. Use a dustpan and broom or other tools.
- Waste containing broken glass, blood, or body fluids should be properly bagged. Waste containing blood or body fluids may need to be placed in a special biohazard waste bag and disposed of separately from household trash. Follow your agency's policy.

6. Explain Transmission-Based Precautions

The CDC set forth a second level of precautions beyond Standard Precautions. These guidelines are used for persons who are infected or may be infected with certain infectious diseases. These precautions are called **Transmission-Based Precautions**. When ordered, these precautions are used in addition to Standard Precautions. These precautions will always be listed in the client's care plan and on the home health aide's assignment sheet. Following these precautions promotes the HHA's safety, as well as the safety of others.

There are three categories of Transmission-Based Precautions: Airborne Precautions, Droplet Precautions, and Contact Precautions. The category used depends on what type of pathogen or disease the person has or may have and how it spreads. They may also be used in combination for diseases that have multiple routes of transmission.

Airborne Precautions prevent the spread of pathogens that can be transmitted through the air after being expelled (Fig. 5-20). The pathogens are able to remain floating in the air for some time. They are carried by moisture, air currents, and dust. An example of an airborne disease is tuberculosis. Precautions include wearing a special mask, such as an N95 or HEPA respirator, to avoid being infected. More information about tuberculosis may be found later in this chapter.

Fig. 5-20. *Airborne Precautions are used for diseases that can be transmitted through the air.*

Droplet Precautions are used for diseases that are spread by droplets in the air. Droplets normally do not travel farther than six feet. Talking, coughing, sneezing, laughing, or singing can spread droplets (Fig. 5-21). An example of a droplet disease is influenza (flu).

Fig. 5-21. *Droplet Precautions are followed when the disease-causing microorganism does not remain in the air.*

Droplet Precautions include wearing a face mask during care procedures and restricting visits from uninfected people. In addition, home health aides should cover their noses and mouths with a tissue when they sneeze or cough and ask others to do the same. Used tissues should be disposed of in the nearest waste container. Used tissues should not be placed in a pocket for later use. If a tissue is not available, HHAs should cough or sneeze into their upper sleeve or elbow, not their hands. They should wash their hands immediately afterward.

Contact Precautions are used when the client may spread an infection by direct contact with another person or an object. The infection can be spread by touching a contaminated area on the client's body or her contaminated blood or body fluids (Fig. 5-22). It may also be spread by touching contaminated items, linen, equipment, or supplies. Conjunctivitis (pink eye) and *Clostridioides difficile* (*C. diff*) are examples of situations that require Contact Precautions. *Clostridioides difficile* is discussed later in this chapter.

Contact Precautions include wearing gloves and a gown and client isolation. To **isolate** means to keep something separate, or by itself. Contact Precautions require washing hands with soap and not touching infected surfaces with ungloved hands or uninfected surfaces with contaminated gloves. Clients should not share towels, linen, or clothing with family members. Disposable equipment, such as thermometers and other items, may be used.

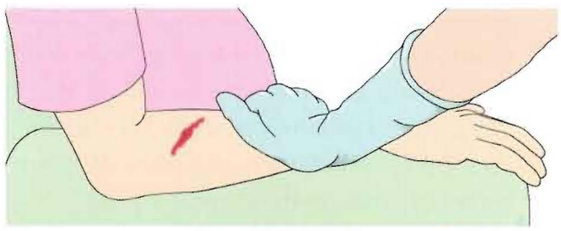

Fig. 5-22. *Contact Precautions are followed when the person is at risk of transmitting a microorganism by touching an object or another person.*

Guidelines: Isolation Procedures

- When they are indicated, Transmission-Based Precautions are always used **in addition** to Standard Precautions.
- Wash plates and utensils thoroughly in very hot water with antibacterial soap. Bleach may need to be added to the water. Follow agency policy. Encourage family members to use separate dishes and utensils.
- Wear disposable gloves when handling soiled laundry. Bag laundry in the client's room and carry it to the laundry area in the bag. Wash the client's laundry separately. Use hot water and detergent.
- The amount of nondisposable equipment brought into the home should be limited. Ideally, the client's care equipment should be left in the home until home health services are no longer needed. If some care equipment cannot remain in the home (for example, your stethoscope), clean and disinfect items before taking them from the home. Contaminated reusable items can also be placed in a plastic bag for transport.

- A solution of bleach and water (one part bleach to nine parts water) should be mixed in a clearly labeled, plastic spray bottle and stored in a safe place. The bleach solution can be used to disinfect surfaces that may have been contaminated.
- Clean and disinfect frequently touched surfaces and equipment, such as tables, bedside commodes, television remotes, canes, wheelchairs, and doorknobs, at least daily. A client in contact or airborne isolation should use a separate bathroom if possible. If the client uses the same bathroom as others, disinfect it after each use by the client.
- Clients need to feel that caregivers understand what they are going through. Listen to what clients are saying. Reassure them and explain why these special steps are being taken. Relay any questions outside your scope of practice to your supervisor.

7. Explain sterilization and disinfection

In health care, an object can be called **clean** if it has not been contaminated with pathogens. An object that is **dirty** has been contaminated with pathogens. Here is a short list of some of the substances and objects that are considered dirty in the home:

- The floor
- Saliva and other discharges from the mouth and nose; this includes any objects that come into contact with these discharges, such as hands, toothbrushes, sinks, napkins, pillowcases, cigarettes, eating utensils, handkerchiefs, etc.
- Body wastes, such as stool (feces) and urine; this includes anything that comes into contact with these wastes, such as toilet paper, underwear, bed linens, and toilets
- Drainage from wounds; this includes objects that come in contact with drainage, such as dressings, tissues, cloths, clothing, and bed linens
- Spoiled food; this includes objects that come into contact with this food, such as other food, dishes, cooking utensils, kitchen working areas, and surfaces

Measures like sterilization and disinfection decrease the spread of pathogens that could cause disease. **Disinfection** is a process that destroys most, but not all, pathogens. It reduces the pathogen count to a level that is considered not infectious. **Sterilization** is a cleaning measure that destroys all microorganisms, including those that form spores. Spore-forming microorganisms are a special group of organisms that produce a protective covering that is difficult to penetrate. Sterilization is part of surgical asepsis and is accomplished by the use of special equipment and devices.

In home care, the HHA may disinfect items used by the client. He will also disinfect some areas while doing housekeeping tasks. The care plan and assignments will specify what disinfection needs to be done. General methods of disinfection are by wet and dry heat and by chemicals. Wet heat disinfection uses boiling water to disinfect. Dry heat disinfection means baking in the oven. Chapter 21 contains information on household chemical disinfecting solutions. The method used depends on the type of item that needs to be disinfected. Home health agencies should have policies and procedures for disinfection in the home.

Disinfecting using wet heat

Equipment: items to be disinfected, clean pot with enough room to hold items, clean lid for pot, cold water, timer or clock, stove, potholders

1. Wash your hands.
2. Place items in the pot and fill it with water. Make sure the water covers all items, leaving enough room at the top for steam to escape.

3. Place the lid on the pot and place the covered pot on the burner on the stove.
4. Turn on heat and bring the water to a boil. Do not open the lid at any time during the boiling process.
5. Set the timer and boil for 20 minutes. You should see steam escaping from the sides of the pot.
6. Turn off the heat. Allow the items and water to cool.
7. After the items have cooled, remove the cover with the potholders.
8. Remove the items. Place on a rack or a clean towel to air dry.
9. Wash and dry the disinfecting equipment. Return to proper storage.
10. Wash your hands.
11. Document the procedure.

Disinfecting using dry heat

Equipment: items to be disinfected, clean metal pan (cookie sheet, cake pan, etc.), timer or clock, oven, potholders

1. Wash your hands.
2. Place the items in the pan.
3. Place the sheet or cake pan in the oven.
4. Turn on the oven to 350°F. Set the timer and bake for one hour. Keep the oven door closed while items are baking.
5. Turn off the heat. Allow the items to cool.
6. After the items have cooled, remove with the potholders.
7. Store the items.
8. Wash and dry the disinfecting equipment. Return to proper storage.
9. Wash your hands.
10. Document the procedure.

8. Explain how bloodborne diseases are transmitted

Bloodborne pathogens are microorganisms found in human blood that can cause infection and disease in humans. They may also be found in other body fluids, draining wounds, and mucous membranes. These pathogens are transmitted by infected blood entering the bloodstream, or if infected semen or vaginal secretions contact mucous membranes. Having sexual contact with someone carrying a bloodborne disease can also transmit the disease. Sexual contact includes sexual intercourse (vaginal and anal), contact of the mouth with the genitals or anus, and contact of the hands with the genital area. Sharing infected drug needles is another way to spread bloodborne diseases. Infected pregnant women may transmit bloodborne disease to their babies in the womb or at birth.

In health care, contact with infected blood or body fluids is the most common way to be infected with a bloodborne disease. Infections can be spread through contact with contaminated blood or body fluids, needles or other sharp objects, or contaminated supplies or equipment. Standard Precautions, handwashing, isolation, and using PPE are all methods of preventing transmission of bloodborne diseases. Employers are required by law to help prevent exposure to bloodborne pathogens. Following Standard Precautions and other procedures helps protect caregivers from bloodborne diseases.

Bloodborne diseases cannot be spread by casual contact. Home health aides can safely touch, hug, and spend time talking with clients who have a bloodborne disease (Fig. 5-23). These

clients need the same thoughtful, personal attention given to all clients. HHAs need to follow Standard Precautions but should never isolate clients emotionally because they have a bloodborne disease.

Fig. 5-23. *Hugs and touches cannot spread a bloodborne disease.*

OSHA's Bloodborne Pathogens Standard

The Bloodborne Pathogens Standard is a federal law that requires healthcare facilities to protect employees from bloodborne health hazards. By law, employers must follow these rules to reduce or eliminate the risk of exposure to infectious diseases. The standard also guides employers and employees through the steps to follow if exposed to infectious material.

Guidelines employers must follow include:

- Employers must have a written exposure control plan designed to eliminate or reduce employee exposure to infectious material. This plan identifies, step by step, what to do if an employee is exposed to infectious material (for example, if an HHA is stuck by a needle). This includes medical treatment and plans to prevent any similar exposures. It also includes specific work practices that must be followed. This plan must be accessible to all employees, and they must receive training on this plan.
- Employers must give employees proper personal protective equipment (PPE) to wear when needed at no cost. Employers must make sure the PPE is available in the appropriate sizes and is readily accessible.
- Employers must give in-service training on bloodborne pathogens and updates on any new safety standards at the time of hire and annually to all employees.
- Employers must provide a free hepatitis B vaccine to all employees after hire.

9. Explain the basic facts regarding HIV and hepatitis infection

Two major bloodborne diseases in the United States are acquired immunodeficiency syndrome (AIDS) and the viral hepatitis family. **HIV** stands for human immunodeficiency (*im-yoo-no-de-FISH-en-see*) virus, and it is the virus that can cause AIDS. Over time, HIV weakens the immune system so that the body cannot effectively fight infections. The final stage of HIV infection is **AIDS**. People with AIDS lose all ability to fight infection and can die from illnesses that a healthy immune system could handle. There is more information about HIV and AIDS in the next several learning objectives and in Chapter 9.

Hepatitis (*hep-a-TYE-tis*) is inflammation of the liver caused by certain viruses and other factors, such as alcohol abuse, some medications, and trauma. Liver function can be permanently damaged by hepatitis. It can lead to other chronic, lifelong illnesses. Several different viruses can cause hepatitis. The most common types of hepatitis are A, B, and C. Hepatitis B and C are bloodborne diseases that can cause death. Many more people have hepatitis B than HIV. In the United States today, the risk of getting hepatitis is greater than the risk of acquiring HIV.

The virus causing hepatitis A (HAV) is a result of fecal-oral contamination, which means through food or water contaminated by stool from an infected person.

Hepatitis B (HBV) is a bloodborne disease. It is spread through sexual contact, by sharing infected needles, and from a mother to her baby during delivery. It can be spread through improperly sterilized needles used for tattoos and piercings and through grooming supplies, such as razors, nail clippers, and toothbrushes. It is also spread by exposure at work from accidental contact with infected needles or other sharps or from splashing blood.

The hepatitis B virus can survive outside the body at least seven days and can still cause infection in others during that time. HBV may cause few symptoms or may become a severe infection. HBV can cause short-term illness that leads to

- Loss of appetite
- Diarrhea and vomiting
- Fatigue
- **Jaundice** (*JAWN-dis*) (a condition in which the skin, whites of the eyes, and mucous membranes appear yellow)
- Pain in muscles, joints, and stomach

It can also cause long-term illness that leads to

- Liver damage (cirrhosis)
- Liver cancer
- Death

HBV is a serious threat to healthcare workers. Employers must offer home health aides a free vaccine to protect against hepatitis B. The vaccine is usually given as a series of three shots. Prevention is the best option for dealing with this disease, and employees should take the vaccine when it is offered.

Hepatitis C (HCV) is also transmitted through blood or body fluids. Hepatitis C can lead to cirrhosis and liver cancer; it can even cause death. There is no vaccine for hepatitis C.

10. Identify high-risk behaviors that allow the spread of HIV

Specific behaviors put people at high risk for acquiring HIV. HIV is most commonly transmitted by the following:

- Having unprotected or poorly protected anal sex with an infected person
- Having unprotected or poorly protected vaginal sex with an infected person
- Having sexual contact with many partners
- Sharing drug needles or syringes

In the healthcare setting, infections can be spread through accidental contact with contaminated blood or body fluids, needles or other sharp objects, or contaminated supplies or equipment.

Ways to prevent HIV infection and protect against the spread of HIV and AIDS include the following:

- Following Standard Precautions at work
- Never sharing needles or syringes
- Not having unprotected sex (always using condoms during sexual contact)
- Staying in a monogamous relationship (being monogamous means having only one sexual partner)
- Practicing abstinence (abstinence means not having sexual contact with anyone)
- Getting tested for HIV and retested if necessary (HIV is able to be detected in most people within three to eight weeks after exposure. However, it can take up to three months for HIV to be able to be detected and up to six months in rare cases.)
- Following the pre-exposure prophylaxis (PrEP) approach, which involves taking specific medication every day to lower an uninfected person's risk of getting HIV

11. Demonstrate knowledge of the legal aspects of HIV, including testing

The right to confidentiality may be especially important to a person who has HIV or AIDS because others may pass judgment on people with this disease. HIV testing requires consent; a person cannot be tested for HIV unless he agrees. HIV test results are confidential and cannot be shared with a person's family, friends, or employer without his consent. A person with HIV or AIDS cannot be fired from a job because of the disease. However, a healthcare worker with

HIV or AIDS may be reassigned to duties that have a lower risk of transmitting the disease.

If a home health aide is HIV-positive, he might want to confide in his supervisor. Assignments can be adjusted to avoid putting employees at high risk for exposure to other infections. Everyone has a right to privacy regarding their health status. As a reminder, an HHA should never discuss his client's status with anyone.

12. Identify community resources and services available to clients with HIV or AIDS

Depending on the community, many resources and services may be available for people with HIV or AIDS. These may include counseling, meal services, access to experimental drugs, and other services. Many available online resources contain comprehensive information, such as AIDSinfo (aidsinfo.nih.gov) and the CDC's website (cdc.gov/hiv).

An HHA should speak to her supervisor if she feels a client with HIV/AIDS needs more help. A social worker or another member of the care team may be able to coordinate services for clients with HIV/AIDS.

13. Explain tuberculosis and list infection prevention guidelines

Tuberculosis (*too-ber-kyoo-LOH-sis*), or **TB**, is a highly contagious disease caused by a bacterium, *Mycobacterium tuberculosis*, that is carried on mucous droplets suspended in the air. The bacteria usually affect the lungs, known as *pulmonary tuberculosis*. TB is an airborne disease. People can be exposed to TB when they spend time with a person who is infected with TB. When the infected person talks, coughs, breathes, sings, laughs, or sneezes, he may spread the disease. Pulmonary tuberculosis causes coughing, difficulty breathing, fever, weight loss, and fatigue. Usually it can be cured by taking all prescribed medication. However, if left untreated, TB may cause death.

There are two types of tuberculosis: **latent TB infection** (**LTBI**) and **TB disease**. Someone with latent TB infection carries the disease but does not show symptoms and cannot infect others. A person with TB disease shows symptoms of the disease and can spread TB to others. Latent TB infection can progress to TB disease. Signs and symptoms of TB include the following:

- Fatigue
- Loss of appetite
- Weight loss
- Slight fever and chills
- Night sweats
- Prolonged coughing
- Coughing up blood
- Chest pain
- Shortness of breath
- Difficulty breathing

Tuberculosis is more likely to be spread in areas with poor ventilation or in small, confined spaces. People are more likely to get TB disease if their immune systems are weakened by illness, malnutrition, cancer, HIV/AIDS, alcoholism, or drug abuse.

Multidrug-resistant TB (**MDR-TB**) is a form of tuberculosis caused by an organism that is resistant to medication that is used to treat TB. **Resistant** means drugs no longer work to kill the specific bacteria. It may develop when a person infected with TB does not take all of his prescribed medication. When the full course of medication is not taken, bacteria remain in the body and are less likely to be killed by the medication. The disease becomes more difficult to cure. Other reasons for drug resistance are that the TB medication is used incorrectly or the medication is ineffective due to poor quality or poor storage conditions.

Guidelines: Tuberculosis

- Follow Standard Precautions and Airborne Precautions.
- Wear personal protective equipment as instructed during care. Special masks, such as N95 or high efficiency particulate air (HEPA) respirators, may be needed (Fig. 5-24). These masks help prevent a person from inhaling droplets. You must be fitted for these special masks and will be trained how to use them.

Fig. 5-24. *An N95 respirator may be required when caring for someone who has tuberculosis.*

- Use special care when handling sputum or phlegm. **Phlegm** is thick mucus from the respiratory passage.
- Ensure proper ventilation in the client's room. Open windows when possible.
- Follow isolation procedures for airborne diseases if indicated in the care plan.
- Help the client remember to take all medication prescribed. Failure to take all medication is a major factor in the spread of TB.

14. Explain the importance of reporting a possible exposure to an airborne or bloodborne disease

If a home health aide thinks she may have been exposed to TB, HIV/AIDS, or hepatitis at work, she should report this to her supervisor immediately. She will need to complete an incident report or a special exposure report form. The employer will provide help during this process to discover if the employee has been infected and to take steps to prevent the employee from becoming sick. In order to protect the health of everyone involved, HHAs should report any potential exposures right away. Steps will also be taken to help prevent similar incidents from occurring again. Depending on the exposure, an agency may require tests and other measures as part of this process.

15. Discuss COVID-19 and identify care guidelines

In late 2019 a new human coronavirus was identified in Wuhan, China. Although there are many types of coronaviruses (some of which cause mild respiratory illnesses similar to the common cold), this virus had not previously been seen in humans. This virus, called *severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)*, causes coronavirus disease, or COVID-19. COVID-19 was declared a pandemic in March 2020 by the World Health Organization. A *pandemic* is the global outbreak of a disease. (SARS-CoV-2 is not the same virus that caused the SARS pandemic in 2003.)

COVID-19 is classified as both a droplet and airborne disease. It is transmitted through respiratory droplets produced when the infected person sneezes, coughs, sings, or talks. It is also carried on mucous droplets suspended in the air. It can spread among people who are in close contact, within 6 feet of one another. However, inhalation of the virus in the air can also occur at distances greater than 6 feet. Aerosol particles can move through an indoor space and can linger for some time even after an infected person has left the area. Enclosed indoor spaces with poor ventilation increase the risk of infection, as do crowded spaces and prolonged exposure. In addition, the CDC states it may be possible for a person to become infected by touching a surface or an object that has the virus on it and then touch-

ing his nose or mouth, but this is not considered the main method of transmission.

Signs and symptoms of COVID-19 often appear within 3–5 days of exposure to the virus. They include fever, chills, cough, congestion, fatigue, and shortness of breath. Muscle aches, sore throat, loss of taste or smell, nausea or vomiting, diarrhea, and headache are also signs and symptoms. Some people experience mild symptoms, while others have severe symptoms that require hospitalization, medication, and the use of a ventilator (a machine that assists with or replaces breathing when a person cannot breathe on his own). The disease can also result in death.

People who are at a higher risk for serious complications and death from this disease include older adults and people of any age with certain underlying medical conditions.

Some people develop *long COVID* or *post-COVID conditions (PCC)* after having the disease, which has been defined as signs, symptoms, and conditions lasting 3 months or more after having the virus that were not present before the person had SARS-CoV-2 infection or COVID-19. Long COVID can happen even in people who had a mild infection.

COVID-19 is generally diagnosed using two types of viral tests. *Rapid tests*, sometimes called *antigen tests*, provide results quickly (often within 15 minutes) but are not always accurate. *PCR tests* may take longer to get results (usually within 24 to 72 hours) but are generally more accurate.

Treatment for COVID-19 includes antiviral medications and monoclonal antibodies. Some treatments need to be started immediately in order to be effective in reducing the risk of serious illness or death.

Several vaccines have been approved for preventing or reducing the severity of COVID-19. The recommended vaccine may be a single dose or multiple doses, depending on a person's age and health condition. The CDC encourages everyone to remain up to date with all recommended COVID-19 vaccine doses.

Many people who have COVID-19 can recover at home. Care at home can help stop the transmission of the virus and will protect others who are at a higher risk of becoming seriously ill.

Guidelines: Caring for Clients with Suspected or Confirmed COVID-19

Healthcare agencies must follow federal and state guidelines, so policies may change as new information becomes available.

- Follow Standard Precautions and Transmission-Based Precautions.
- Have the client stay in one room away from others, including yourself, as much as possible. If in the same room or area, maintain a distance of at least 6 feet.
- Because enclosed spaces with poor ventilation increase the risk of infection, proper air circulation is important. Keep windows open if possible. Follow instructions in the care plan.
- Do not share any personal household items.
- Wash your hands often. Use soap and running water and scrub for at least 20 seconds. If soap and water is not available, use a hand sanitizer that contains at least 60% alcohol.
- Wear the proper mask—usually an N95 or other respirator—and be sure it covers your nose and mouth when caring for the client. Follow the care plan and the agency's policies about which type of mask to wear. Wear additional PPE (gown, gloves, and eye protection) as required.
- Have the client wear a mask when she is near you and others.
- Do not touch your eyes, nose, or mouth.

- Clean frequently touched surfaces with the proper household cleaning spray or wipes. Follow instructions on the label, paying close attention to the amount of time required to disinfect.
- Wear gloves when handling laundry, and keep soiled items away from your body. After use, always remove and discard gloves properly and wash hands immediately.
- Encourage clients to rest and drink fluids to maintain hydration.
- Unnecessary visitors must be restricted. Follow instructions regarding visitors.
- Do not go to work if you feel sick or have a fever. Follow your agency's policies regarding testing, quarantine, and isolation.
- For many people, symptoms improve within a week, but it is important to report any signs and symptoms that indicate the illness is getting worse:
  - Difficulty breathing or shortness of breath
  - Chest pain or pressure
  - Confusion
  - Difficult waking or remaining alert
  - Prolonged elevated temperature
  - Discolored or cyanotic (bluish) skin
- In the event of a medical emergency, call 911 and tell the dispatcher that the client has or is suspected of having COVID-19. Follow the dispatcher's instructions.

If a client was mildly ill and is not moderately or severely immunocompromised, home isolation can end when the following conditions have been met:

- No fever for 24 hours without the use of medications that reduce fever
- Symptoms (e.g., cough, shortness of breath) have improved or are no longer present
- At least 5 days have passed since the client's symptoms first appeared (day 0 is the first day symptoms appeared and day 1 is the next full day after)

If a client was moderately ill and is not moderately or severely immunocompromised, home isolation and precautions can end when at least 10 days have passed since the first symptoms appeared (day 0 is the first day symptoms appeared and day 1 is the next full day after).

If a client was severely ill and is not moderately or severely immunocompromised, home isolation and precautions can end when at least 10 days have passed since the first symptoms appeared (day 0 is the first day symptoms appeared and day 1 is the next full day after).

16. Discuss MRSA, VRE, and *C. difficile*

Multidrug-resistant organisms (**MDROs**) are microorganisms, mostly bacteria, that are resistant to one or more antimicrobial agents that are commonly used for treatment. An **antimicrobial** agent destroys, resists, or prevents the development of pathogens. There has been an increase in MDROs, and this is a serious problem. Two common types of MDROs are methicillin-resistant *Staphylococcus aureus*, commonly referred to as **MRSA** (*MUR-suh*) and vancomycin (*van-co-MY-sin*)-resistant *Enterococcus* (*en-ter-oh-KAH-kus*), called **VRE**.

Staphylococcus aureus is a common type of bacteria that can cause infection. Methicillin is a powerful antibiotic often used in healthcare facilities. MRSA is an infection that is resistant to methicillin. This type of MRSA is also known as *HA-MRSA*, which stands for hospital-associated MRSA.

Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) is a type of MRSA infection that occurs in people who have not recently been admitted to healthcare facili-

ties and who have no past diagnosis of MRSA. Often CA-MRSA manifests as skin infections, such as boils or pimples. This type of infection is becoming more common.

MRSA is almost always spread by direct physical contact with infected people. This means that if a person has MRSA on his skin, especially on his hands, and touches another person, he may spread MRSA. Spread also occurs through indirect contact by touching equipment or supplies (for example, towels, wound dressings, or clothes) contaminated by a person with MRSA.

Symptoms of MRSA infection include drainage, fever, chills, and redness. Home health aides can prevent MRSA by practicing proper hygiene. Handwashing, using soap and warm water, is the single most important measure to control the spread of MRSA. HHAs must always follow Standard Precautions, along with Transmission-Based Precautions as ordered. Cuts and abrasions should be kept clean and covered with a proper dressing (e.g., bandage) until healed. Contact with other people's wounds or material that is contaminated from wounds should be avoided.

Enterococci are bacteria that live in the digestive and genital tracts. Although they normally do not cause problems in healthy people, they can sometimes cause infection. Vancomycin is a powerful antibiotic used to treat infections caused by enterococci. If the enterococci become resistant to vancomycin, then it is called vancomycin-resistant *Enterococcus*, or VRE.

VRE is spread through direct and indirect contact. Symptoms of VRE infection include fever, fatigue, chills, and drainage. VRE infections are often difficult to treat and may require the use of several medications. VRE infections can cause life-threatening infections in people with compromised immune systems—the very young, the very old, and the very ill.

Preventing VRE is much easier than trying to treat it. Proper hand hygiene can help prevent the spread of VRE. Home health aides should wash their hands often and wear PPE as directed. HHAs must always follow Standard Precautions, along with Transmission-Based Precautions as ordered. Items may need to be disinfected, and that information should be listed in the care plan.

Clostridioides difficile (formerly known as *Clostridium difficile*) infection (CDI) is commonly known as ***C. diff*** or ***C. difficile***. It is a spore-forming bacterium that can be part of the normal intestinal flora. When the normal intestinal flora is altered, *C. diff* can flourish in the intestinal tract and can cause infection. It produces a toxin that causes a watery diarrhea. Enemas, nasogastric tube insertion, and GI tract surgery increase a person's risk of developing the disease. The elderly are at a higher risk of getting *C. diff* infection. The overuse of antibiotics may alter the normal intestinal flora and increase the risk of developing this infection. *C. diff* infection can also cause colitis, a more serious intestinal condition.

When released in the environment, *C. diff* can form a spore that makes it difficult to kill. These spores can be carried on the hands of people who have direct contact with infected clients or with environmental surfaces (floors, bedpans, toilets, etc.) contaminated with *C. diff*. Touching an object contaminated with *C. diff* can transmit *C. diff*. Alcohol-based hand sanitizers are not considered effective on *C. diff*. Soap and water must be used each time hand hygiene is performed.

A person can harbor *C. diff* without knowing it or showing symptoms. Symptoms of *C. diff* include frequent, foul-smelling, watery stools and abdominal cramps. Other symptoms are fever, diarrhea that contains blood and mucus, nausea, and lack of appetite. Proper handwashing with soap and water is vital to prevent the spread of the infection. Handling contaminated wastes properly can help prevent the spread of the

infection. Cleaning surfaces with an appropriate disinfectant, such as a bleach solution, can also help reduce transmission. Limiting the use of antibiotics helps lower the risk of developing *C. diff* infection.

17. List employer and employee responsibilities for infection prevention

Several state and federal government agencies have guidelines and laws concerning infection prevention. OSHA requires employers to provide for the safety of their employees through rules and suggested guidelines. The CDC issues guidelines for healthcare workers to follow on the job. Some states have additional requirements. Home health agencies consider these rules very carefully when writing their policies and procedures. It is very important that employees learn these and follow them. They exist to protect all staff members and clients. Some of the infection prevention requirements are listed below.

The **employer's** responsibilities for infection prevention include the following:

- Establish infection prevention procedures and an exposure control plan to protect workers
- Provide continuing in-service education on infection prevention and control, including education on bloodborne and airborne pathogens and updates on any new safety standards
- Have written policies and procedures to follow should an exposure occur, including medical treatment and plans to prevent similar exposures
- Provide personal protective equipment (PPE) for employees to use, and teach them when and how to properly use it
- Provide free hepatitis B vaccinations for all employees

The **employee's** responsibilities for infection prevention include the following:

- Follow Standard Precautions
- Follow all agency policies and procedures
- Follow client care plans and assignments
- Use provided personal protective equipment as indicated or appropriate
- Take advantage of the free hepatitis B vaccination
- Immediately report any exposure to infection, blood, or body fluids
- Participate in annual education programs covering the prevention of infection

Chapter Review

1. What does infection prevention mean?
2. Which link in the chain of infection is broken by wearing gloves, and why?
3. Under Standard Precautions, what are considered body fluids?
4. On whom should Standard Precautions be practiced?
5. What is the single most important thing an HHA can do to prevent the spread of disease?
6. What is hand hygiene?
7. For how long should an HHA use friction when washing her hands?
8. If a gown becomes wet or soiled during care, what should the HHA do?
9. How many times can disposable gloves be worn?
10. In what order should personal protective equipment be put on and removed?
11. When blood or body fluids are spilled, what should an HHA do first, before starting to clean the spill?

12. What are Transmission-Based Precautions?
13. If an HHA sneezes and does not have a tissue, into what area of the body should she sneeze?
14. Before leaving the home of a client who has an infectious disease, what should an HHA do with items that are nondisposable and cannot remain in the home (for example, her stethoscope)?
15. How would an HHA disinfect items using wet heat? How would an HHA disinfect items using dry heat?
16. How are bloodborne diseases transmitted? What is the most common way to be infected with a bloodborne disease in the healthcare setting?
17. What is hepatitis?
18. What does HIV do to a person's immune system?
19. Why may confidentiality be especially important to a person who has HIV or AIDS?
20. What types of resources may be available to clients with HIV/AIDS?
21. What is the difference between latent TB infection and TB disease?
22. What is the first thing an HHA should do if she suspects she has been exposed to TB, HIV/AIDS, or hepatitis at work?
23. How is COVID-19 transmitted?
24. How long can a person be sick with COVID-19 before showing symptoms?
25. What is one of the best ways to prevent the spread of MRSA and VRE?
26. What are two ways that an HHA can help prevent the spread of *C. difficile*?
27. What is an employer required to do with regard to the hepatitis B vaccination?
28. What should the employee do with regard to the hepatitis B vaccination?