

INFECTION CONTROL

EVERYONE'S CONCERN

**A PROGRAM DESIGNED TO MEET
IN-SERVICE TRAINING
FOR LICENSING**

(ONE HOUR TRAINING)

**LIFETECH INSTRUCTIONAL SERVICES
PALM HARBOR, FL. 34683**

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Infection Control: Everyone's Concern

Key Terms

Airborne precautions: a category of transmission-based precautions that health care workers use to protect themselves from airborne pathogens.

Airborne transmission: the spread of disease by very small particles carried or suspended in the air.

Aseptic: the absence of any disease-causing microbes

Bacteria: one-celled microorganisms, some of which cause disease

Biohazardous waste: waste products contaminated by contact with blood or body fluid that require special handling

Blood and body fluid transmission: a method of transmitting disease that occurs when blood or any body fluid except sweat contacts nonintact skin or mucous membranes

Chain of Infection: a description of the factors necessary for an infection to spread

Communicable: diseases that are easily transmitted to other persons

Contact precautions: a category of transmission-based precautions used when caring for patients who have infections that are spread by skin and wound drainage, secretions, excretions, blood, body fluids, or contact with mucous membranes

Contact transmissions: the spread of pathogens by direct or indirect contact, such as touching an infectious object or person

Contaminated: unclean, soiled articles or equipment

Disinfection: the process that destroys or slows the growth of disease-causing microorganisms

Droplet precaution: a category of transmission-based precautions used to prevent the spread of infection from patients whose infection is spread by droplets in the air

Droplets: moist secretions produced by sneezing, coughing, laughing, talking, and singing that are spread into the air

Droplet transmission: the spread of disease in the air. Droplets usually remain within three feet of the resident. Droplet transmission occurs by inhaling droplets of secretions that contain pathogens.

Excretion: substance that is excreted. Urine and feces are forms of excrement.

HBV: (hepatitis B virus) the virus that causes hepatitis B, a disease of the liver

HIV: Human Immunodeficiency Virus. The virus that causes HIV disease and AIDS

Medical asepsis: the practices and techniques used in the health care setting to prevent the spread of microorganisms from one person or place to another

Microbe: a microorganism

Microorganism: living plants and animals that are so small they can only be seen with a microscope

Pathogen: a microorganism that is harmful and causes disease; disease-causing microbes

Personal Protective Equipment: common medical equipment such as gowns, gloves, masks, and other items that protect the nursing assistant from contact with blood or any other body fluids

Secretions: discharge from a mucous membrane.

Standard precautions: special protective procedures and practices used in the care of all residents. Standard precautions protect both the health care worker and the resident.

Sterile: free from ALL microorganisms

Sterilization: a process that destroys all microorganisms

TB: tuberculosis. A serious disease that is spread by airborne transmission

Transmission-based precautions: CDC (Center for Disease Control) recommendations for preventing the spread of infection in residents known or suspected to have certain diseases.

Virus: extremely small microbes that grow in living plants and animals; viruses cause infections that cannot be eliminated by antibiotics

Understanding Infection Control

Understanding infection control is an invaluable tool in reducing the spread of infections and diseases. Microorganisms are small, living plants and animals that cannot be seen without a microscope. Microorganisms are also called microbes or pathogens. Pathogens are the microbes that cause disease. Microbes are found everywhere. They are in the air, in soil, in water, on food, on clothing, and on our bodies. Microbes need food, warmth and moisture to grow and thrive. They grow best in warm, dark, damp areas. Disinfection is a procedure used to kill some pathogens. Sterilization is a procedure that is used to kill all microorganisms. This procedure is done with heat, gas, or chemicals under controlled environments and is used for sterile techniques such as surgery.

In our effort to reduce the spread of infection, employees in Adult Living Facilities must use proper Hand washing techniques and incorporate the utilization of gloves in their day to day care of their residents. This technique is called medical asepsis and is important in protecting both the resident and the employee. Many residents do not have strong resistance to disease because of age and illness (i.e. diabetes mellitus or

cancer). You must prevent the spread of disease from resident to resident, resident to staff, or staff or resident.

The Chain of Infection

1. Source: a carrier of the germ that causes the disease. The source can be human or environmental.
2. Reservoir or host: a place where the source or germ can grow
3. Carrier: a reservoir or host, usually a person, who may or may not have the signs of the disease; the person may not know that he or she is carrying the disease.
4. Causative agent: the germ that causes the disease.
5. Transmission: the way in which a pathogen is spread from one person to another
6. Portal of entry: a place where the germ can get into the susceptible host's body.
7. Susceptibility: the ability or inability of the susceptible host's body to resist the disease-causing germ.

Spread of Infection

Airborne transmission

Pathogens are suspended in the air or in dust particle and may travel for long distances. They are inhaled by the susceptible host.

Contact transmission

Pathogens are spread by direct contact when the susceptible host actually touches the source. Touching an infected area or secretions is a form of direct contact. Pathogens that are spread by indirect contact are spread when the susceptible host contacts a contaminated item, such as soiled linen.

Droplet Transmission

Pathogens are spread via moist particles (called droplets) when the carrier coughs or sneezes. These pathogens usually do not travel beyond three feet from the source. The susceptible host usually inhales them.

Blood and Body Fluid Transmission

This is a form of contact transmission. Diseases can occur when the susceptible host comes into direct or indirect contact with blood, body fluids, mucous membranes, nonintact skin, or any moist body substance except sweat.

Prevention: the Use of Asepsis in the Workplace

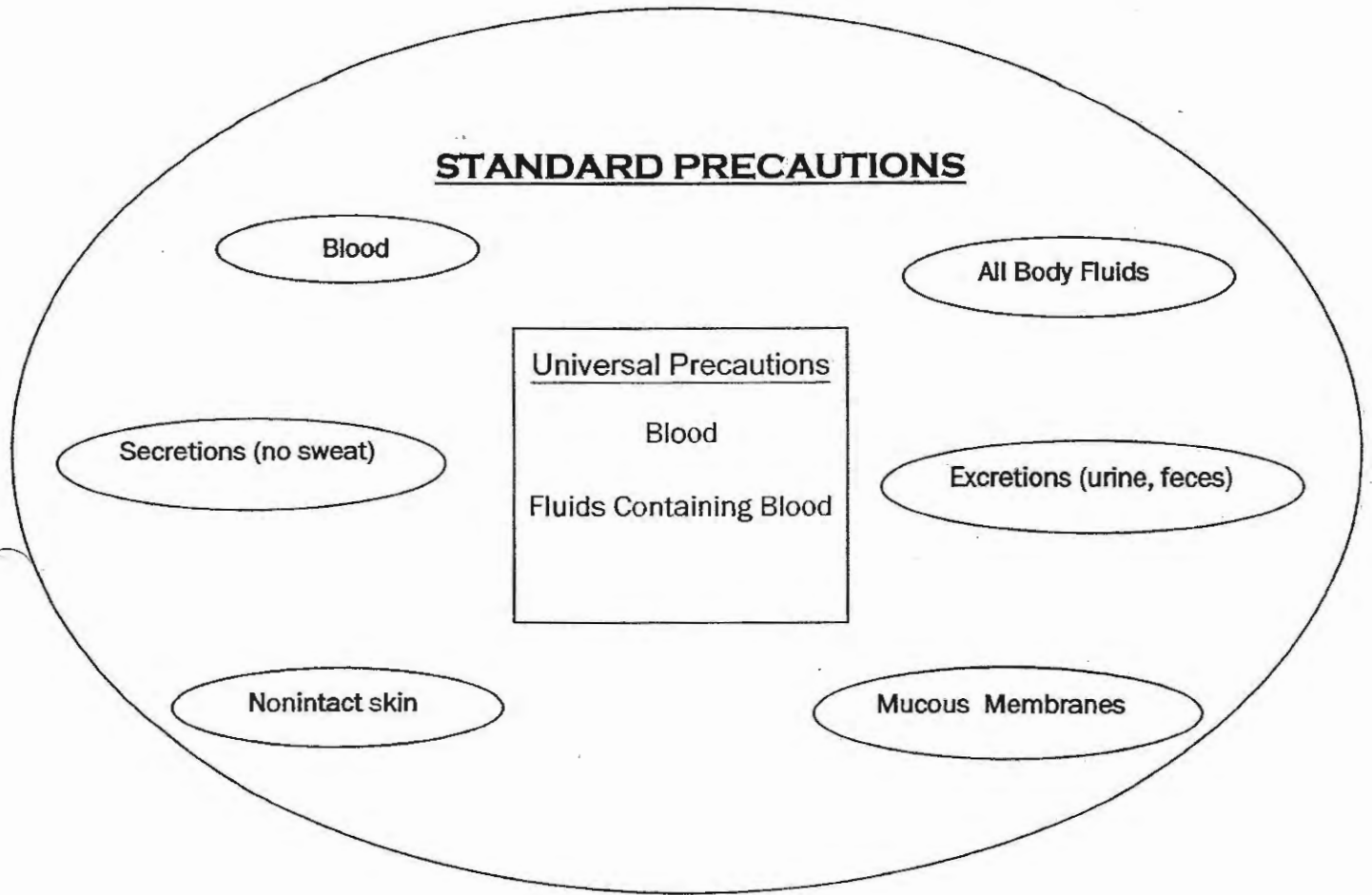
Universal Precautions

Universal Precautions are measures that health care workers use to prevent contact with another person's blood and body fluids. They utilize barriers that provide protection for the individuals involved, that is universal precautions are used for both the health care worker's benefit and the resident's benefit. If there exists a potential for exposure to body fluids splatters or sprays, the health care provider should use personal protective equipment. These precautions are used for all residents regardless of their disease or diagnosis.

Universal precautions uses the assumption that everyone's blood and body fluids visibly contaminated with blood are infectious and must be handled using that assumption.

Standard Precautions

Standard precautions are measures that health care workers use to prevent the spread of infection to themselves and others. It requires that all health care worker routinely use appropriate techniques of medical asepsis when contact with blood or any other moist body fluid (except sweat), secretions, or excretions is anticipated. Standard Precautions are also used for contact with mucous membranes and nonintact skin. These precautions are used for all residents regardless of their disease or diagnosis.



UNIVERSAL AND STANDARD PRECAUTIONS

Hand washing is the most important measure in preventing the spread of infection.

Hand washing should be performed as follows:

1. Turn on the water to a comfortable temperature.
2. obtain soap (liquid soap is preferred)
3. Wet hands and begin brisk friction for about 15 seconds (hint: hum the ABC's song to time yourself). The friction should include between the fingers and up the wrist approximately 3 inches.
4. Rinse wrists and hands and fingers with the fingertips in a downward position.
5. Leaving the water running, obtain paper towels to dry hands thoroughly and dispose of these used towels.
6. Obtain a clean, dry paper towel and turn off the water faucet. Dispose of this towel.

Hands should be washed:

- Upon starting work and when leaving work
- Before and after each resident's care
- Before and after using gloves
- Before handling food
- After personal use of the bathroom
- After combing your hair, using a tissue, eating, drinking, smoking, applying face make-up, eyeglasses, and contacts
- Before and after any oral contact
- After handling a resident's belongings
- After working with anything soiled

Gloves are an important component to infection control. The use of gloves is necessary to follow Standard Precautions and Universal Precautions. The Assistant should not use gloves for routine contact and care.

Gloves should always be used:

- When touching excretions, secretions, blood, body fluids, mucous membranes, or nonintact skin. If gloves become contaminated with body substances, remove them, wash your hands, and put on a clean pair of gloves before continuing the procedure or care.
- When your hands have cuts, are chapped or scraped, or you have a rash or other skin condition
- When cleaning spills of any body fluid
- When cleaning any equipment or environmental surface that may be contaminated
- When washing or caring for a resident's eyes, nasal discharges, or discharges from the mouth
- When providing mouth or oral care, or assisting with a dental procedure
- When shaving residents
- Any time you perform a procedure in an area where the resident's skin is cut, scraped, torn, or otherwise not intact
- When changing colostomy bags
- When cleaning after episodes of incontinence
- During any procedure when you are not sure if an area is contaminated

Change you gloves:

- Before and after each resident contact
- Immediately before touching mucous membranes

- Immediately before touching nonintact skin
- After you touch a resident's secretions or excretions, before moving to care for another part of the body
- After touching blood or body fluids, before moving to care for another part of the body
- After touching contaminated environmental surfaces or equipment
- Any time your gloves become visibly soiled
- If your gloves become torn
- Before caring for another resident

Avoid:

- Double or triple gloving unless you are specifically instructed to do so
- Washing your gloved hands
- Touching an environmental surface with used gloves, even if the gloves are not visibly soiled. Gloves are considered contaminated after resident contact
- Contaminating clean supplies, linen, equipment, or environmental surfaces with gloved hands. Remove one glove and use your ungloved hand, or place a clean paper towel under one glove and contact environmental surfaces with the towel
- Wearing the same gloves to care for more than one resident

Use of Protective Eyewear

The resident assistant must use protective eyewear if the potential for blood or body fluid splatters or sprays is present while working or performing resident hygiene. The eyewear may be attached to a mask, or they may be goggle-type. Which ever type is used, they must wrap around the side of the face sufficiently to protect from splatters or sprays from the side.

Use of a Surgical Mask

The resident assistant must use a surgical mask if the potential for blood or body fluid splatters or sprays is present while working or performing resident hygiene. The mask may be worn only once and should not be worn from one resident contact to another. If the mask has string-type closures, tie the top string first, then the bottom string. Always pinch the nose piece (usually a flexible metal band that will form to the bridge of the nose) to assure the mask is properly fitted.

Gowns, Bonnets, and Booties

The resident assistant should wear a gown when the potential for blood or body fluid splatters and sprays is present in working or performing resident hygiene. The gown is put on outside the room and removed before leaving the room, unless isolation precautions are in use. Refer to your facility's policy and procedure manual for guidance or ask your supervisor for directions.

Health Care and the Elderly

Normal aging processes leave the body vulnerable for a number of issues. Skin, bones, muscles, kidneys, intestines, heart, and lungs are some of the body's systems that are affected. The immune system is not exempt from the aging process. The ability to fight off infections or to rebound from infections is greatly reduced with age. The immune system can have further demands made upon it from illnesses such as diabetes, rheumatoid arthritis (and other autoimmune diseases), and cancer. Poor nutrition and poor general health also leaves a person at risk for infection as well.

The elderly need to be protected from pathogens that may cause illness. It is up to us to provide that protection through infection control techniques.

Facility Sanitation Procedures

Note to the administrator: Please insert facility specific policies and procedures in this section for the staff member's education.

Note to the Staff: Always follow the facilities policies regarding sanitation procedures.

Sanitizing and Disinfecting

Use bactericidal and virucidal preferred for disinfecting surfaces- always follow manufacturer's directions. Do not bring any chemicals from outside the facility that have not been approved by your supervisor for use in an adult living facility. If allowed, the staff can use a 1:10 ratio bleach/water solution (1 part bleach and 10 parts water) for a virucidal. This solution is only stable for 24 hours. The best practice is to make only enough to meet the immediate need and dispose of any solution left when the task (i.e. blood spill clean up) is completed.

Areas that Need Special Attention

Objects that are touched frequently need to be disinfected or sanitized frequently. Items such as door knobs, telephones, drinking fountains, table tops, chair arms (such as in the dining room), light switches, hand-rails, and counter/desk tops are used by many different people: residents, families and visitors, employees, and vendors. Be aware that the list of frequently touched items and those who handle them is not to be considered as an all inclusive list.

Areas that are visibly soiled with excrement (urine and feces) should be disinfected/sanitized per the facility policy. Floors, rugs, toilets, sinks, clothing, and sheets are some of the items that may need specialized attention. Always follow your facility's policy procedure for sanitizing procedures.

Handling and Cleaning Visibly soiled Sheets and Towels

Whenever there are visibly soiled linens the staff member should carefully fold them upon themselves to prevent introducing pathogens into the environment/air. NEVER shake linens as this can cause bacteria to be introduced into the air. Following the clean-dirty theory, hold used/soiled linens away from the body (linens are dirty and the staff uniform is clean). When replacing linens hold them away from the body (now the uniform is considered dirty and the linens are considered clean). Always follow your facility's policy for washing/sanitizing visibly soiled linens. Usually these items are washed separately with hot water (minimum 120 degrees) twice. If needed, linens should be rinsed to remove larger amounts of stool prior to placing them into the washer.

Conclusion

Your facility should have a routine cleaning schedule for the disinfecting and sanitizing of the environment. It is everyone's responsibility to protect each resident from unnecessary exposure to pathogens that may cause infection. Understanding infection control is the first step in meeting that responsibility. Putting infection control into practice in the workplace is the next step in meeting your commitment in caring.

Infection Control Test

Name _____ Date _____

(Circle the Best Answer)

1. Practices used in health care facilities to prevent the spread of disease care called:
 - a. Sterilization
 - b. Disinfection
 - c. Medical asepsis
 - d. Techniques
2. What is the most important measure you can take to prevent the spread of infection?
 - a. Sterilize all items
 - b. Wear isolation gowns
 - c. Wash hands
 - d. Wear glove
3. Microorganisms can be spread by all the following except:
 - a. Contaminated dressings
 - b. Sterile items
 - c. Food and water
 - d. All of the above
4. Infection is spread:
 - a. In the air
 - b. In droplet secretions
 - c. By contact
 - d. All of the above
5. When performing the hand washing procedure, you should:
 - a. Turn the faucet off with a clean paper towel
 - b. Wash for a minimum of five seconds
 - c. Shake the excess water off your hands
 - d. All of the above
6. Most Elderly people:
 - a. Have low resistance to disease
 - b. A strong resistance to disease
 - c. Have an immune deficiency syndrome
7. When handling visibly soiled linens, the employee should:
 - a. Shake the sheets out
 - b. Soak the sheets in pure bleach solution for one hour
 - c. Fold sheets carefully upon themselves to prevent introducing pathogens to the environment
 - d. Wash separately using cold water and dry outside in the sun
8. Wash your hands:
 - a. Before applying gloves
 - b. After removing gloves
 - c. After touching blood
 - d. All of the above

FILL OUT YOUR INFORMATION BELOW AND SEND YOUR COMPLETED ANSWER SHEET TO THE ADDRESS BELOW.

INCLUDE YOUR CHECK OR MONEY ORDER FOR \$ 10.00 (PER TEST)

NAME: _____
ADDRESS: _____
PHONE: _____
EMAIL: _____
PRESCHOOL NAME: _____

MAIL TO:

**Life Tech Instructional
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