

Applying Principles of *Standard Precautions*: General Guidelines

PURPOSE

- To identify work-practice controls that eliminate or minimize employee exposure to bloodborne pathogens and communicable diseases
- To identify work-practice controls that promote safe and competent patient care in the home
- To promote self-care in the home

RELATED PROCEDURE

- Physical Assessment (see Chapter 2)

GENERAL INFORMATION

Standard Precautions synthesize the major features from *Universal Precautions* (originally designed to reduce the risk of transmission of bloodborne pathogens) and *Body Substance Isolation* (designed to reduce the risk of transmission of pathogens from moist body substances). The following infection control guidelines reflect current recommendations from the Centers for Disease Control and Prevention (CDC); the Occupational Safety and Health Administration's (OSHA) bloodborne pathogen standard; the Hospital Infection Control Practices Advisory Committee (HICPAC), a CDC-supported committee; and the Association for Professionals in Infection Control and Epidemiology (APIC).

These guidelines are designed to reduce the transmission of bloodborne and other pathogens and apply to all patients regardless of their diagnosis. These guidelines reinforce the idea that all body substances (oral and body secretions; breast milk; blood; feces; urine; droplet or airborne spray from a cough; tissue, vomitus, wound, or other drainage) can be a source of infection. *These guidelines also emphasize that the environment is a potential source for infection; they contain recommendations to prevent droplet, direct or indirect contact, and true airborne transmission of infectious disease. Good judgment should be used in all circumstances.*

The guidelines provide general policy recommendations regarding infection control practices in the home (henceforth referred to as *Standard Precautions*). The remaining infection control procedures in this chapter provide more detailed steps for implementing such policy. In addition, as government regulations change, it is expected that home health agencies will keep current with and adhere to federal and individual state requirements for infection control. *Although the information in this manual is designed for use by home health nurses, the infection control procedures are applicable to all field staff who provide patient care in the home.*

Use *Standard Precautions* when implementing all clinical procedures (the word {STOP}) indicates that the home health nurse is to review the procedure before proceeding any further with patient care).

EQUIPMENT

1. Personal protective equipment provided to the employee by the home health agency should include the following:
 - a. Disposable nonsterile or sterile gloves
 - b. Utility gloves
 - c. Disinfectants recommended for blood or body substance spills, including the following:

- (1) Chemical germicides that are approved for use as agency disinfectants and are tuberculocidal when used at recommended dilutions
 - (2) Products registered by the Environmental Protection Agency (EPA) with an accepted label that are effective against hepatitis B
 - (3) A solution of 5.25% sodium hypochlorite (household bleach) diluted to 1:10 parts with tap water; mix a fresh supply of bleach every day for effective disinfection
- a. Masks, disposable cardiopulmonary resuscitation (CPR) masks, goggles, National Institute of Occupational Safety and Health (NIOSH)-approved respiratory protection devices, moisture-proof aprons or gowns, shoe covers, caps, and an extra uniform stocked in the car
 - b. Liquid soap (bacteriocidal), soap towelettes, dry hand disinfectants (bleach and alcohol based), hand lotion
 - c. Paper towels
 - d. Plastic bags with a seal and marked with a biohazard sign for use when transporting laboratory specimens
 - e. Leak-proof and puncture-proof containers marked with a biohazard sign on the outside of the containers for use when transporting laboratory specimens
 - f. Sharps containers
 - g. Large plastic container or cardboard box to store nursing bag and supplies in trunk of field staff car
 - h. Impermeable plastic trash bags for soiled dressings, etc.
 - i. Sterile bottled water

PROCEDURE

Handwashing

The hands should be washed before and after patient contact. The hands are to be washed during patient care if they become soiled. Wash the hands with liquid soap and water immediately after removing gloves. If soap and water are not available, use antiseptic hand cleanser or towelettes. The hands should then be washed with soap and water as soon as possible. See specific procedure for *Handwashing* for further recommendations.

Gloves

Wear gloves if the possibility of contact transmission may occur. Change gloves between each patient procedure or when going from dirty to clean (e.g., multiple dressing changes). Wear disposable nonsterile nonlatex gloves when performing any clinical procedure that may expose you to the patient's blood or other body substances (e.g., during venipuncture or perineal care). Sterile disposable nonlatex gloves are to be worn during certain clinical procedures that require sterile technique (e.g., during certain dressing changes or when inserting a urinary catheter). Sterile and nonsterile nonlatex disposable gloves are to be disposed of after each use in a leak-resistant waste receptacle, such as a plastic trash bag.

Utility gloves are to be used to clean up equipment, the work area, or spills. Utility gloves are to be issued to each household. Utility gloves may be disinfected and reused. Dispose of and replace utility gloves that show signs of cracking, peeling, tearing or puncture, or other signs of deterioration.

Impermeable Plastic Trash Bag

Place all soiled dressings, disposable gloves, etc. in an impermeable plastic trash bag, then secure it. Place the trash bag in the family trash. Follow federal, state, and local ordinances regarding disposal of biohazardous

waste in the community.

Additional Personal Protective Equipment

This type of equipment is provided to home health nurses by the home health agency for use in appropriate clinical circumstances and includes the following:

Blood Spill Kit

The blood spill kit travels with the nurse and should be kept in the car supply container. The kit should at least contain utility gloves, plastic trash bags, and paper towels. The kit should also contain a 1:10 bleach solution, bleach wipes, or an approved home health agency disinfectant for cleaning up blood or body substance spills in the patient's home. Make a new batch of bleach solution daily because chlorine deteriorates and loses efficacy over time.

Gowns, Aprons, Shoe Covers, Caps

Wear moisture-proof disposable gowns or aprons, shoe covers, and caps when there is a reasonable expectation that contact transmission may occur. After use, remove and dispose of personal protective equipment in an impermeable plastic trash bag in the work area.

Masks

Disposable face masks are to be worn whenever there is a reasonable expectation that droplet transmission may occur. Dispose of masks after each use.

When respiratory isolation is required, post a homemade "STOP" sign outside the sick patient's room. Instruct the family, caregivers, and/or visitors to wear masks when entering the room and/or when caring for the sick patient. The STOP sign should alert everyone, including children, of the necessity to wear a mask when entering the sick patient's room.

- ***DISPOSABLE CPR MASKS*** Use disposable CPR masks if artificial mouth-to-mouth or mouth-to-stoma ventilation is required. Most CPR masks are designed to be discarded after one use. Follow individual manufacturer's recommendations for usage and care.
- ***RESPIRATORY PROTECTION DEVICES*** Use a NIOSH-approved respiratory protection device when caring for patients and families with tuberculosis; fit-testing is required. Respirators must be cleaned according to the manufacturer's recommendations and discarded when excessive resistance, physical damage, or any other condition renders the respirator unsuitable for use.
- ***GOGGLES OR FACE SHIELDS*** Goggles or face shields are to be worn when there is a reasonable expectation that droplet transmission may occur to the eyes. Clean the goggles or shields according to the manufacturer's recommendations, and discard when physical damage or any other condition renders them unsuitable for use.

Sharp Objects and Needles

Place sharp objects and needles in a puncture-proof disposable container that can be sealed with a lid. A needle should not be bent, sheared, replaced in the sheath or guard, or removed from the syringe after use. Do not recap used needles unless using a capping device or one-hand scoop method (nursing staff should be inserviced on a

one-hand method if this technique is approved by the home health agency).

Sharps Containers

Sharps containers should have the following characteristics:

- Be puncture-proof
- Be red or opaque in color (do not use a clear container where needles can be easily identified)
- Be labeled or marked with a biohazard sign on the outside
- Be leak-proof

Never fill sharps containers so that the contents protrude out of the opening. *Do not fill sharps containers over two thirds full.* Store sharps containers out of reach of children (e.g., on the top shelf in a bedroom closet). Follow state and local ordinances regarding disposal of sharps containers.

Specimen Collection

Wear gloves when handling specimens. Handle all specimens carefully to minimize spillage. Blood or other body substance specimens should be placed in a leak-proof plastic bag and secured in a puncture/leak-proof container during collection, handling, storage, and transport. Label specimens with the patient's name and identifying data. Place the puncture/leak-proof container on the floor of the car during transport.

In accordance with the home health agency policy, a courier service may be called to pick up laboratory specimens that have been left at the patient's home.

Uniform

Nursing and field staff are responsible for keeping an extra (clean) uniform secured in a water-resistant bag in their car. The extra uniform shall be stored in the supply container in the trunk of the nurse's car. If a uniform becomes soiled during patient care, change into the clean uniform as soon as possible. Place the soiled uniform in a leak-proof plastic bag, and launder according to individual home health agency policy. (If the home health agency purchases scrubs for nurses to wear or a uniform *specific* for contact with blood and/or body substances, then the agency is responsible for laundering the uniform. Contact your local OSHA representative with further questions on this subject.)

If nurses choose to launder their uniform or work clothes at home, it is recommended that clothing soiled with blood or body substances be washed separately from household laundry in extremely hot water for about 25 minutes (use a detergent and bleach that will not damage colored clothes). Uniforms or work clothes not soiled with blood or body substances may be routinely cleaned in the regular family wash. Store one dry uniform or set of work clothes in a plastic bag in the field staff car for possible future use.

Principles of Cleaning, Disinfecting, and Sterilizing in the Home

All equipment must be cleaned thoroughly to remove organic material before disinfection or sterilization. Review the procedures in this manual for specific guidelines. Modifications to routine disinfection practices in the home may include the use of the following:

- Bleach

- Hydrogen peroxide
- Boiling water
- Hot, soapy water
- Phenolic resin (e.g., Lysol)
- Isopropyl alcohol (70%)
- Acetic acid (white vinegar)

Patient/Family Laundry

Laundry should be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of the persons handling the linen. Place linens soiled with blood or body fluids in a leak-resistant bag at the location where care was given. Instruct the family to wash soiled linens in hot, soapy water with a bleach solution, separate from the family wash.

Personal

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in patient care areas where there is reasonable likelihood of occupational exposure to blood or body substances. Food and drinks are not to be kept in patient care areas where blood or other potentially infectious materials are present.

Miscellaneous

All clinical procedures shall be performed in a manner that minimizes splashing, spraying, splattering, or generating droplets of blood or body substances. Mouth pipetting/suctioning of blood or other body substances is prohibited.

Immunizations

It is recommended that all staff involved in direct patient care (e.g., touching, working with patients/caregivers) be immunized against hepatitis B. In addition, ACIP strongly recommends that all staff be vaccinated against (or have documented immunity to) influenza, measles, mumps, rubella, and varicella.

Lastly, it is mandatory that all staff involved in direct patient care receive an initial two-step tuberculosis skin test (the Mantoux test with 5 tuberculin units of purified protein derivative [PPD]) at time of employment. Repeat skin testing is to be done annually. Previous bacille Calmette-Guérin (BCG) vaccination is not a contraindication for skin testing.

Exposure Incident

In the event of eye or body contact with the patient's blood or body substances, including deep wound puncture from a needlestick, (1) irrigate the eye with water or wash the exposed body part with soap and water (use bottled sterile water stocked in the nursing bag or car as necessary), and (2) contact the home health agency Infection Control Director for follow-up instructions and care. In addition, report suspect exposure to *Mycobacterium tuberculosis* or any other infectious organism to the Infection Control Director.

OSHA Regulations

Infection control standards and policies published by OSHA should be accessible to all home health staff for

reference. A copy of these regulations should be placed in the Infection Control Manual or in the appropriate policy or procedure manual located in an easily accessible place at the home health agency. The home health agency is responsible for having an infection control program, including a staff infection-control exposure plan, that identifies patient risk for infectious organisms on admission to the home health agency and includes guidelines for clinical management.

NURSING CONSIDERATIONS

Review the remaining procedures in this chapter.

The nursing bag is to be handled and transported in as clean a manner as possible.

Instruct the patient/caregiver on infection control precautions. See the Patient Education Guidelines box, Reducing the Risk of Transmitting a Communicable Disease.

Consider placing patients who have active infectious organisms, such as vancomycin-resistant *Staphylococcus aureus*, with an “infection control care team” or specific case manager to reduce the risk of staff exposure and transmission of infectious organisms to other patients. Try to visit these patients last or at the end of the day. When possible, use disposable equipment or keep needed equipment in the home with these patients, and contact the local health department for further surveillance/management guidelines.

Be aware that at the time of this writing, OSHA was proposing new rules for staff protection against exposure to *M. tuberculosis*, including skin retesting every 6 months for all staff who are at risk for exposure to sources of aerosolized *M. tuberculosis* or who come in contact with patients with suspected or active *M. tuberculosis*.

DOCUMENTATION GUIDELINES

Document the following on the visit report:

- Any patient/caregiver instructions regarding infection control precautions and response to teaching, including adherence to recommendations
- Implementation of *Standard Precautions*
- Physician notification, if applicable
- Other pertinent findings

Update the plan of care.