



Practice Go to the workbook and use the evaluation sheet for 13:2, *Washing Hands*, to practice this procedure. When you feel you have mastered this skill, sign the sheet and give it to your instructor for further action.

Final Checkpoint Using the criteria listed on the evaluation sheet, your instructor will grade your performance.

13:3

INFORMATION

Observing Standard Precautions

  In order to prevent the spread of pathogens and disease, the chain of infection must be broken. The standard precautions discussed in this unit are an important way health care workers can break this chain.

One of the main ways that pathogens are spread is by blood and body fluids. Three pathogens of major concern are the hepatitis B virus (HBV), the hepatitis C virus (HCV), and the human immunodeficiency virus (HIV), which causes AIDS. Consequently, extreme care must be taken at all times when an area, object, or person is contaminated with blood or body fluids. In 1991, the Occupational Safety and Health Administration (OSHA) established Bloodborne Pathogen Standards that must be followed by all health care facilities. The employer faces civil penalties if the regulations are not implemented by the employer and followed by the employees. These regulations require all health care facility employers to:

- ◆ Develop a written exposure control plan, and update it annually, to minimize or eliminate employee exposure to bloodborne pathogens.
- ◆ Identify all employees who have occupational exposure to blood or potentially infectious materials such as semen, vaginal secretions, and other body fluids.
- ◆ Provide hepatitis B vaccine free of charge to all employees who have occupational exposure, and obtain a written release form signed by any employee who does not want the vaccine.

- ◆ Provide **personal protective equipment (PPE)** such as gloves, gowns, lab coats, masks, and face shields in appropriate sizes and in accessible locations.
- ◆ Provide adequate handwashing facilities and supplies.
- ◆ Ensure that the worksite is maintained in a clean and sanitary condition, follow measures for immediate decontamination of any surface that comes in contact with blood or infectious materials, and dispose of infectious waste correctly.
- ◆ Enforce rules of no eating, drinking, smoking, applying cosmetics or lip balm, handling contact lenses, and mouth pipetting or suctioning in any area that can be potentially contaminated by blood or other body fluids.
- ◆ Provide appropriate containers that are color coded (fluorescent orange or orange-red) and labeled for contaminated sharps (needles, scalpels) and other infectious or biohazard wastes.
- ◆ Post signs at the entrance to work areas where there is occupational exposure to biohazardous materials.
- ◆ Provide a confidential medical evaluation and follow-up for any employee who has an exposure incident. Examples might include an accidental needle stick or the splashing of blood or body fluids on the skin, eyes, or mucous membranes.
- ◆ Provide training about the regulations and all potential biohazards to all employees at no cost during working hours, and provide additional education as needed when procedures or working conditions are changed or modified.

In 2001, OSHA revised its Bloodborne Pathogen Standards in response to Congress passing the *Needlestick Safety and Prevention*

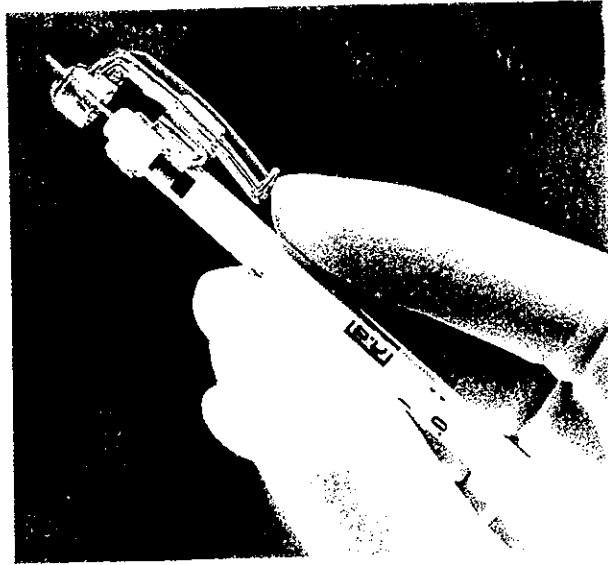
In November, 2000. This act was passed after the Centers for Disease Control and Prevention (CDC) estimated that 600,000 to 800,000 needle sticks occur each year, exposing health care workers to bloodborne pathogens. Employers are required to:

Identify and use effective and safer medical devices: OSHA defines safer devices as sharps with engineered injury protections and includes, but is not limited to, devices such as syringes with a sliding sheath that shields the needle after use, needles that retract into a syringe after use, shielded or retracting catheters that can be used to administer intravenous medications or fluids, and intravenous systems that administer medication or fluids through a catheter port or connector site using a needle housed in a protective covering (see figure 13-9). OSHA also encourages the use of needleless systems which include, but are not limited to, intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a blunt cannula or other non-needle connection, and jet injection systems that deliver subcutaneous or intramuscular injections through the skin without using a needle.

Incorporate changes in annual update of Exposure Control Plan: Employers must include changes in technology that eliminate or reduce exposure to bloodborne pathogens in the annual update and document the implementation of any safer medical devices.

Solicit input from nonmanagerial employees who are responsible for direct patient care: Employees who provide patient care, and are exposed to injuries from contaminated sharps, must be included in a multidisciplinary team that identifies, evaluates, and selects safer medical devices, and determines safer work practice controls.

Maintain a sharps injury log: Employers with more than 11 employees must maintain a sharps injury log to help identify high risk areas and evaluate ways of decreasing injuries. Each injury recorded must protect the confidentiality of the injured employee, but must state the type and brand of device involved in the incident, the work area or department where the exposure injury



The Safety-Glide syringe is one example of a safer device to prevent needlesticks. (Photo reprinted courtesy of BD [Becton Dickinson and Company])

occurred, and a description of how the incident occurred.

Employers are also required to make sure that every employee uses standard precautions at all times to prevent contact with blood or other potentially infectious materials. **Standard precautions** (see figure 13-10) are rules developed by the Centers for Disease Control and Prevention (CDC). According to standard precautions, every body fluid must be considered a potentially infectious material, and all patients must be considered potential sources of infection, regardless of their disease or diagnosis. Standard precautions must be used in any situation where health care providers may contact:

- Blood or any fluid that may contain blood
- Body fluids, secretions, and excretions, such as mucus, sputum, saliva, cerebrospinal fluid, urine, feces, vomitus, amniotic fluid (surrounding a fetus), synovial (joint) fluid, pleural (lung) fluid, pericardial (heart) fluid, peritoneal (abdominal cavity) fluid, semen, and vaginal secretions
- Mucous membranes
- Nonintact skin
- Tissue or cell specimens

A major precaution is to wash your hands before and after contact with any patient. If your hands or other skin surfaces are contaminated with blood, body fluids, secretions, or excretions, they must be washed immediately and thoroughly with soap and water. Hands must always be washed immediately after removal of gloves.

Gloves (see figure 13-11) must be worn whenever contact with blood, body fluids, secretions, excretions, mucous membranes, tissue specimens, or nonintact skin is possible; when handling or cleaning any contaminated items or surfaces; when performing any invasive (entering the body) procedure; and when performing venipuncture or blood tests. Rings must be removed before putting on gloves to avoid puncturing the gloves. Gloves must be changed after contact with each patient, and hands must be washed immediately after removal of gloves. Care must be taken while removing gloves to avoid contamination of the skin. Gloves must not be washed or disinfected for reuse because washing may allow penetration of liquids through undetected holes, and disinfecting agents may cause deterioration of gloves.

Gowns must be worn during any procedure that is likely to cause splashing or spraying of

blood, body fluids, secretions, or excretions. This helps prevent contamination of clothing or uniforms. Contaminated gowns must be handled according to agency policy and local and state laws. Wash hands immediately after removing a gown.

Masks and protective eyewear or face shields (see figure 13-12) must be worn during procedures that may produce splashes or sprays of blood, body fluids, secretions, or excretions. Examples include irrigation of wounds, suctioning, dental procedures, delivery of a baby, and surgical procedures. This prevents exposure of the mucous membranes of the mouth, nose,



FIGURE 13-11 Gloves must be worn whenever contact with blood, body fluids, secretions, excretions, mucous membranes, or nonintact skin is possible.



FIGURE 13-12 Gloves, a gown, a mask, and protective eyewear must be worn during any procedure that may produce droplets or cause splashing of blood, body fluids, secretions, or excretions.

and eyes to any pathogens. Masks must be used once and then discarded. In addition, masks should be changed every 30 minutes or anytime they become moist or wet. They should be removed by grasping the ties or elastic strap. Hands must be washed immediately after the mask is removed. Protective eyewear or face shields should provide protection for the front, top, bottom, and sides of the eyes. If eyewear is not disposable, it must be cleaned and disinfected before it is reused.

To avoid accidental cuts or punctures, extreme care must be taken while handling sharp objects. Whenever possible, safe needles or needleless devices must be used. Disposable needles must never be bent or broken after use. They must be left uncapped and attached to the syringe and placed in a leakproof puncture-resistant sharps container (see figure 13-13). The sharps container must be labeled with a red biohazard symbol (see figure 13-14). Surgical blades, razors, and other sharp objects must also be discarded in the sharps container. The containers must *not* be emptied or reused. Federal, state, and local laws establish regulations for the disposal of sharps containers. In some areas, the filled container is placed in a special oven and melted. The material remaining is packaged as biohazard or infectious waste

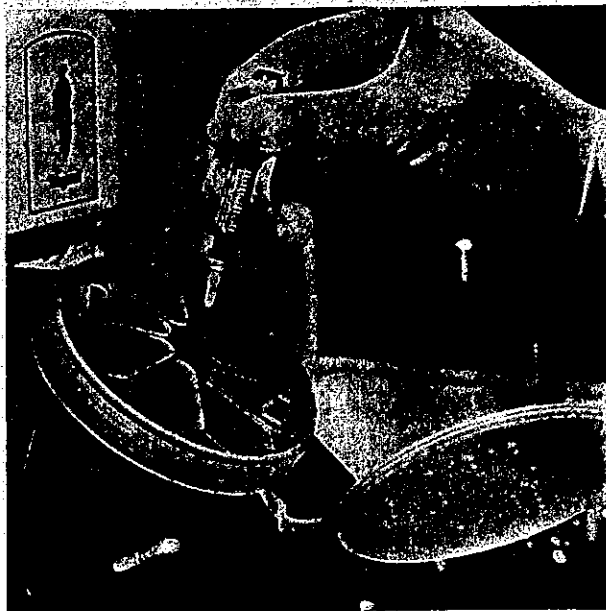


FIGURE 13-13 All needles and sharp objects must be discarded immediately in a leakproof puncture-resistant sharps container.

and disposed of according to legal requirements for infectious waste.

Spills or splashes of blood, body fluids, secretions, or excretions must be wiped up immediately (see figure 13-15). Gloves must be worn while wiping up the area with disposable cleaning cloths. The area must then be cleaned with a disinfectant solution such as a 10-percent bleach solution. Furniture or equipment contaminated by the spill or splash must be cleaned and disinfected immediately. For large spills, an

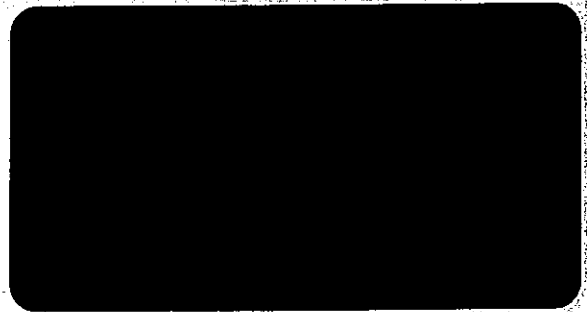


FIGURE 13-14 The universal biohazard symbol indicates a potential source of infection.



FIGURE 13-15 Gloves must be worn while wiping up any spills of blood, body fluids, secretions, or excretions.

absorbent powder may be used to soak up the fluid. After the fluid is absorbed, it is swept up and placed in an infectious waste container.

Whenever possible, mouthpieces or resuscitation devices should be used to avoid the need for mouth-to-mouth resuscitation. These devices should be placed in convenient locations and be readily accessible for use.

To dispose of waste and soiled linen, wear gloves and follow the agency policy developed according to law. Infectious wastes such as contaminated dressings; gloves; urinary drainage bags; incontinent pads; vaginal pads; disposable emesis basins, bedpans, and/or urinals; and body tissues must be placed in special infectious waste or biohazardous material bags (see figure 13-16) according to law. Other trash is frequently

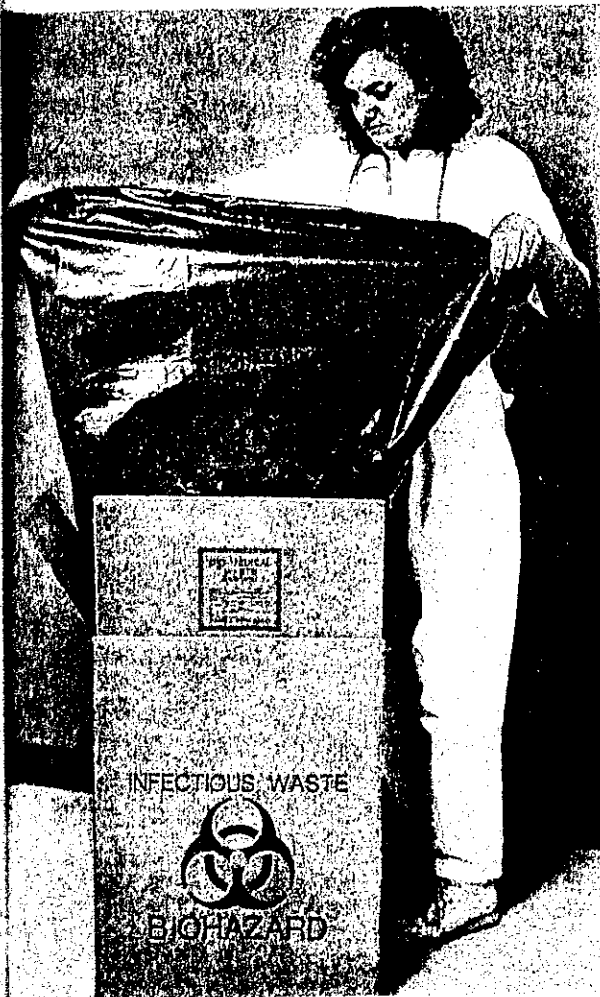


FIGURE 13-16 All infectious wastes must be placed in special infectious waste or biohazardous material bags.

placed in plastic bags and incinerated. The health care worker must dispose of waste in the proper container (see figure 13-17) and know the requirements for disposal. Soiled linen should be placed in laundry bags to prevent any contamination. Linen soiled with blood, body fluids, or excretions is placed in a special bag for contaminated linen and is usually soaked in a disinfectant prior to being laundered. Gloves must be worn while handling any contaminated linen, and any bag containing contaminated linen must be clearly labeled and color coded.

Any cut, injury, needle stick, or splashing of blood or body fluids must be reported immediately. Agency policy must be followed to deal with the injury or contamination. Every health care facility must have a policy for documenting any exposure incident, recording the care given, noting follow-up to the exposure incident, and identifying ways to prevent a similar incident.

Standard precautions must be followed at all times by all health care workers. By observing these precautions, health care workers can help break the chain of infection and protect themselves, their patients, and all other individuals.

STUDENT: Go to the workbook and complete the assignment sheet for 13:3, Observing Standard Precautions. Then return and continue with the procedure.



FIGURE 13-17 The health care worker must know the requirements for disposal of waste materials and dispose of wastes in the proper containers.

