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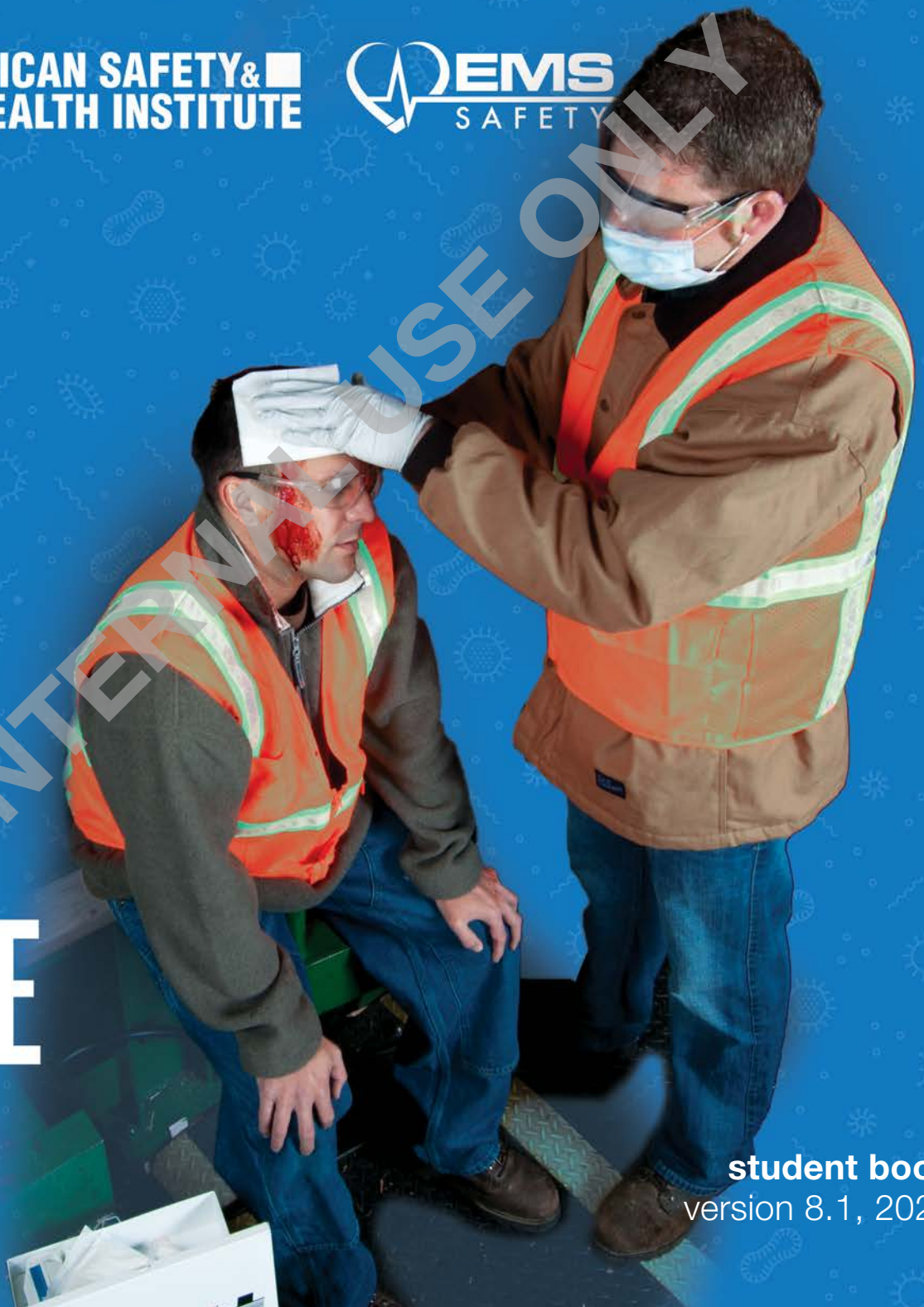

BLOODBORNE PATHOGENS

student book
version 8.1, 2023

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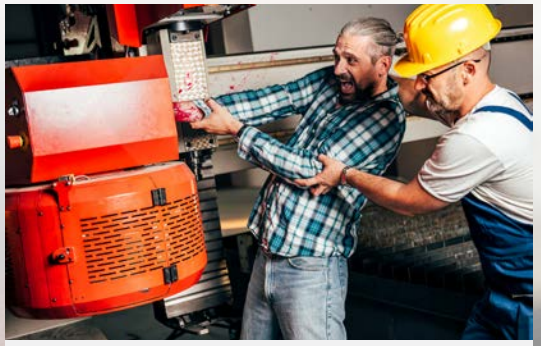
TRANSMITTING BLOODBORNE PATHOGENS

The transmission of bloodborne pathogens occurs through direct or indirect exposure to infected body fluids.



OCCUPATIONAL SETTINGS

The primary ways exposure to bloodborne pathogens occur in an occupational setting are through non-intact skin, such as a cut or abrasion; the mucous membranes of the eyes, nose, or mouth; or through a puncture wound from a sharp, contaminated object, such as a syringe or broken glass.

SOCIAL SETTINGS

Outside an occupational setting, the common modes of bloodborne pathogen transmission are sexual contact and shared hypodermic needles.

Casual contact like shaking hands or hugging does not transmit bloodborne pathogens.

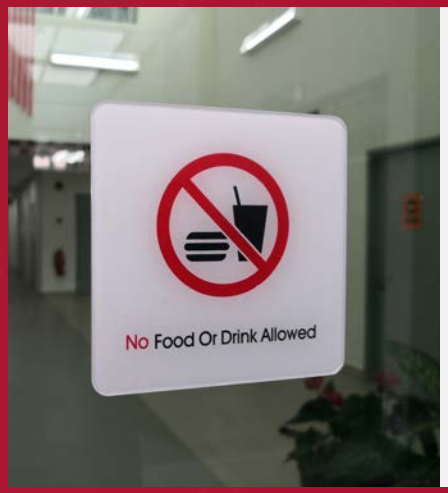
CONTACT METHODS

Direct contact with blood or other potentially infectious materials can cause an exposure incident.

Indirect contact with an intermediate object such as a work surface or door knob that has been contaminated with body fluids can also cause an exposure incident.

Standard Precautions

Standard precautions is a recommended approach to any scene where blood or other body fluids may be present. This means treating all body fluid as potentially infectious, even that of someone you know well.

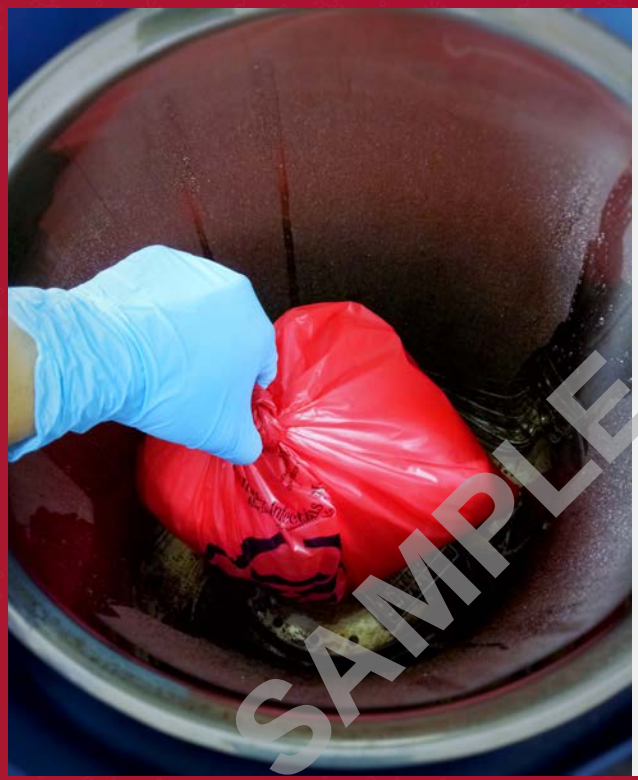


SAFE WORK PRACTICES

Safe work practices include eliminating eating, drinking, smoking, applying makeup or lip balm, or handling contact lenses in locations with potentially infectious materials. In healthcare facilities, employees are prohibited from wearing artificial nails.

PROHIBITED PRACTICES

Practices that are prohibited in the workplace include bending, recapping, and removing contaminated needles; shearing or breaking needles; and mouth pipetting, or suctioning by mouth, of potentially infectious materials.



STANDARD PRECAUTIONS VERSUS UNIVERSAL PRECAUTIONS

According to the U.S. Department of Health & Human Services, Centers for Disease Control and Prevention (CDC), "Standard Precautions are designed to protect health care personnel and to prevent them from spreading infections to patients. They are based on the premise that all blood, body fluids, secretions, excretions (except sweat), nonintact skin, and mucous membranes might contain transmissible infectious agents. Standard Precautions include 1) hand hygiene, 2) use of personal protective equipment (PPE), 3) respiratory hygiene and cough etiquette, 4) safe injection practices, and 5) safe handling of potentially contaminated equipment or surfaces in the patient environment."

According to the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA), Universal Precautions is an approach to infection control to treat all human blood and certain human body fluids as if they were known to be infectious for HIV, HBV, and other bloodborne pathogens. The OSHA Bloodborne Pathogen Standard 29 CFR 1910.1030(d)(1) requires employees to observe universal precautions to prevent contact with blood or other potentially infectious materials (OPIM). Universal precautions include use of gloves, masks, gowns, as well as engineering and work practice controls to limit exposure if blood or OPIM exposure is anticipated.

Chain of Infection

In order for an exposure to blood or other body fluids to result in an infection, a number of links in a "chain of infection" must be in place.[8]

An infectious agent or pathogen must be present.

(For example, the hepatitis C virus.)

A source of the infectious agent must exist.

(Such as, the infected person's blood.)

A means of exit from the source must exist.

(A bleeding injury on the infected person.)

A direct or indirect way to transmit the infectious agent must occur.

(Such as a contaminated surface or hands, splashing or spraying, etc.)

A suitable entry site for the infectious material to enter the non-infected person's body must exist.

(Like a break in the skin, the mucous membrane of mouth, nose, or eyes, etc.)

A susceptibility to the infectious agent must exist for the non-infected person.

(For instance, non-immunity, the person is young or old, has a weakened immune system, a pre-existing condition, etc.)

Exposure to an infectious agent or pathogen does not mean that an infection will occur. It depends on whether all of the links in the chain of infection are present. By eliminating one or more of the links, the risk of infection is removed.

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