

Universal Precautions
at the National Institutes of Health
Clinical Center

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Universal Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection.

Introduction

CDC

In 1983 the Centers for Disease Control (CDC) published “Guideline for Isolation Precautions in Hospitals” which contained a section entitled “Blood and Body Fluid Precautions” for handling a patient known or suspected to be infected with a bloodborne pathogen. In response to the increasing number of persons with HIV infection, CDC’s “Recommendations for Prevention of HIV Transmission in Health-Care Settings” was published in 1987. In contrast to the 1983 document, the 1987 document recommended that Blood and Body Fluid Precautions be used consistently for all patients regardless of their bloodborne pathogen status. This extension of Blood and Body Fluid Precautions became known as Universal Precautions. This document provided guidelines for a wide variety of situations common to health-care workers who might have contact with blood, instruments or equipment contaminated with blood. Compliance with Universal Precautions has been mandatory at the Clinical Center since approval by the Medical Board in November 1987.

In 1988, CDC issued an update to Universal Precautions that detailed the fluids to which Universal Precautions do and don’t apply. This document stated that Universal Precautions apply to: (1) blood and other body fluids containing blood, (2) semen and vaginal secretions, (3) tissues, and (4) the following six body fluids; cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid and amniotic fluid. The document also stated that Universal Precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine and vomitus unless they contained visible blood. In certain circumstances additional precautions were advocated for breast milk (breast milk banks) and saliva (dental procedures). Universal Precautions also advocated the use of protective barriers such as gloves, masks and protective eyewear for health care workers when working with the blood and body fluids to which Universal Precautions apply. The importance of injury prevention when handling sharps during use, cleaning and disposal was also addressed.

OSHA

In 1989 the Occupational Safety and Health Administration (OSHA) of the Department of Labor (DoL) issued an advisory notice calling for implementation of the principles of Universal Precautions and other requirements for the health care industry. The final OSHA standard, 29 CFR 1910.1030 was issued in December 1991 and became effective in March 6, 1992. This standard is federal law. Employers have a legal responsibility to implement and maintain procedures designed to protect employees. Employers must also ensure that all employees covered by the standard receive initial and annual training regarding bloodborne pathogens. OSHA verifies compliance with the standard through an enforcement program including on site inspections and investigation of complaints.

The OSHA Bloodborne Pathogens Standard identified the following substances for risk of transmission of bloodborne pathogens; 1) blood and other potentially infectious materials (OPIM), semen, vaginal secretions, cerebrospinal fluid, synovial fluid, peritoneal fluid, pleural fluid, pericardial fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids where it is difficult or impossible to differentiate between body fluids; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead), and 3) HIV-containing cell or tissue cultures, and HIV or HBV containing culture medium or other solutions, and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

The mission of OSHA is to save lives, prevent injuries and protect the health of America's workers. Many people in the health care community were concerned that this standard over-emphasized employee protection at the expense of patient protection. In 1996, CDC issued a revised Guideline for Isolation Precautions in Hospitals to address these concerns. The guideline was written to clarify not only which body fluids are at risk of transmitting bloodborne infections but also which secretions and excretions can transmit other infectious diseases. The guideline also emphasized health care worker and patient protection issues. The term Standard Precautions was proposed to include all body fluids with the exception of sweat. The Clinical Center chose to continue using the term Universal Precautions since it was familiar to many people. At the Clinical Center Universal Precautions apply to the following; 1) blood; 2) all body fluids, secretions and excretions except sweat regardless of the presence of visible blood, 3) nonintact skin, 4) mucous membranes, 5) any unfixed tissue or organ (other than intact skin) from a human (living or dead), 6) HIV-containing cell culture medium or other solutions, and 7) blood, organs, or other tissues from experimental animals infected with HIV or HBV. Universal Precautions include a hierarchy of controls (Engineering Controls, Work Practice Controls and Personal Protective Equipment) for the protection of both patients and health care workers.

In January 2000, Congress passed the "Needlestick Safety and Prevention Act" which mandated the following changes to 29CFR 1910.1030: 1) Definitions must be modified to encompass newer technologies in safer medical devices that have been available since the regulation was enacted or may be available in the future. 2) Exposure Control Plans must reflect changes in technology and document annual consideration of commercially available safer medical devices. 3) Record keeping requirements were expanded to include type and brand of device, location where the injury occurred and an explanation of how the injury occurred. 4) Input from non-managerial employees with direct patient care responsibilities must be solicited for the identification, evaluation, and selection of effective engineering and work practice controls.

The Clinical Center's Bloodborne Pathogens Exposure Control Plan

One of the OSHA requirements is the development of an "exposure control plan" by each health care employer. The Clinical Center (CC) Bloodborne Pathogens Exposure Control Plan details the methods used to implement all provisions of the OSHA standard in the

CC, the job classifications in which employees have occupational exposure, and the evaluation of exposure incidents. To review or obtain a copy of the OSHA standard and/or the CC Bloodborne Pathogens Exposure Control Plan, please contact the Hospital Epidemiology Service (HES) at 301-496-2209.

Risks to the Healthcare Worker

You are a HCW who may have a risk for occupational exposure to bloodborne pathogens. The following is a review of three important bloodborne pathogens: hepatitis B virus (HBV), human immunodeficiency virus (HIV), and hepatitis C virus (HCV). HBV can be transmitted parenterally, sexually, and perinatally. Although percutaneous inoculation is the most common mechanism for occupational infection, HCWs are also at risk when blood, body fluids and other infectious materials contaminate mucous membranes or nonintact skin. Even microscopic breaks in the skin can permit infection with HBV. Initial symptoms of hepatitis B infection range from none to nausea, malaise, and jaundice, with the development of acute, chronic, or fulminant hepatitis. In the mid-1980s the CDC estimated that 12,000 infections occurred each year among United States HCWs who had occupational exposure to blood and other potentially infectious materials. Each year, more than 200 deaths occurred among HCWs due to acute fulminant hepatitis B or to the chronic sequelae of HBV infection, such as cirrhosis or hepatoma. Since the introduction of the hepatitis B vaccine in 1982, the institution of Universal Precautions in 1987, and the issuance of the OSHA bloodborne pathogen standard in 1991, the CDC estimates the number of cases of HBV infections among health care workers declined from 17,000 per year in 1983 to approximately 400 cases in 1995 (a 95% decrease). The risk of infection with HBV following a needlestick exposure to blood from an HBV-infected individual has been estimated to be between 19% to 37% if the donor blood is hepatitis B e core antigen (HbeAg) positive.

The best way to prevent HBV infection in the health care setting is to decrease the chances of exposure and to receive the hepatitis B vaccine series from the Occupational Medical Service (OMS). This vaccine is produced in yeast using recombinant DNA technology, contains no human plasma, and has no possibility of being infectious for HIV or other bloodborne infections. The vaccine is used worldwide, has been tested extensively, and has been shown to be safe and effective. It has also been added to the list of recommended childhood immunizations. The vaccine has been shown to induce protective antibody levels in 85% to 97% of healthy adults. The hepatitis B vaccine is free to all CC employees with potential exposure to any human blood, body fluids and other infectious materials and is given in a series of three intramuscular injections over six months. All HCWs with potential occupational exposure to blood, body fluids and other infectious materials should be immunized. Those electing not to receive the vaccine must sign a declination statement, which is filed in their medical record. Employees should call OMS at 301-496-4411 for information.

Hepatitis B vaccine booster doses for those who initially respond to the vaccine but whose antibody levels decline over time are not considered necessary. Periodic serologic testing to monitor antibody levels is also not recommended. However, health care

workers who have ongoing contact with blood, body fluids and other infectious materials should be tested for antibody one to two months after the completion of the three-dose vaccination series.

Another bloodborne infection that represents an occupational risk for HCWs is HIV. This virus is also transmitted parenterally, sexually, and perinatally. HIV adversely affects the immune system, with several stages of disease progression. Within a month after exposure, an individual may experience an acute retroviral syndrome (a mononucleosis-like syndrome), with signs and symptoms that can include fever, lymphadenopathy, myalgia, arthralgia, diarrhea, fatigue, and rash. Individuals may be asymptomatic for months to years after infection, although they can transmit the virus to others. Most HIV-infected persons will eventually develop acquired immunodeficiency syndrome (AIDS), which can result in fatal opportunistic infections or neoplastic processes. Occupational infection with HIV may occur after an adverse exposure to blood, body fluids and other infectious materials from a patient infected with this virus. The risk of infection following an adverse exposure is very low when compared with HBV and is estimated to be about three HIV infections per 1000 percutaneous exposures. Qualified CC employees have the opportunity to enter a confidential surveillance program to screen for occupational exposures to HIV. Interested employees should call OMS at 301-496-4411.

Hepatitis C virus (HCV) is another bloodborne infection that represents an occupational risk for health care workers. HCV accounts for the majority of hepatitis formerly called non-A, non-B hepatitis. Like HBV, this virus is transmitted parenterally but less efficiently. Studies attempting to define the risk of occupational HCV transmission are difficult to interpret, both because the presence of anti-HCV testing in the source patient does not necessarily indicate infectivity, and anti-HCV testing in the health care worker does not detect all infected persons. Health care workers with frequent blood contact account for 1% to 2% of reported HCV cases. However, seroprevalence studies indicate that health care workers' HCV infection risk is only slightly higher than that of volunteer blood donors. The risk of transmission after percutaneous exposures averages 21 per 1000 percutaneous injuries with a range from approximately 10 to 100 per 1000 percutaneous injuries. Because HCV prevalence varies by geographic region and patient populations, occupational risk will necessarily vary by these conditions. This virus causes an infection that is usually asymptomatic, but more likely than hepatitis B to progress to a chronic stage. Chronic infection can lead to cirrhosis and liver cancer. Almost 4 million Americans (1.8 %) have been infected with HCV, and most are chronically infected. Unlike HBV, there is no vaccine available to protect HCWs from HCV infection.

Occupational transmission of other bloodborne pathogens has also been reported, primarily "non-A to E" hepatitis viruses, syphilis, malaria, and relapsing fever. Other bloodborne infections, such as human immunodeficiency virus type 2 (HIV-2), babesiosis, brucellosis, leptospirosis, arboviral infections, human T lymphotropic virus type I (HTLV-I), and viral hemorrhagic fever, have the potential for occupational transmission.

Recognizing Occupational Exposures to Potentially Infectious Materials

Occupational exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood, body fluids and other infectious materials. "Other infectious materials" include the following human body fluids: urine, semen, vaginal secretions, amniotic fluid, peritoneal fluid, pericardial fluid, pleural fluid, sputum, saliva in dental procedures, cerebrospinal fluid, synovial fluid, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. In addition, any human or infected-experimental-animal unfixed tissue or organ (other than intact skin), organ cultures, and HIV- or HBV-containing culture media or other solutions should also be considered infectious.

Certain tasks and activities may have a high likelihood of occupational exposure. Tasks in which occupational exposure may occur require the use of Universal Precautions. Examples of such tasks are: blood drawing, suctioning an intubated patient's airway, providing wound care, transporting or handling laboratory specimens or contaminated instruments, and handling infectious waste.

Universal Precautions in the Clinical Center

Universal Precautions are designed to minimize occupational exposure to blood, body fluids and other infectious materials. Universal Precautions include engineering and work-practice controls, and the use of personal protective equipment (PPE).

- Universal Precautions are to be used by all HCWs with all patients. HCWs must always use PPE when handling any blood, body fluids, and other infectious material.
- Additional precautions may be indicated when a patient has an infectious disease requiring special isolation procedures. For more information, refer to the CC Infection Control Program Guidelines flipchart found in each clinical area or call HES at 301-496-2209. An electronic version of the CC Infection Control Guidelines flipchart is available at the HES Web site <http://www.cc.nih.gov/hes>.

Engineering and Work-Practice Controls

Engineering and work-practice controls are the first line of defense to prevent occupational exposures. For example, providing handwashing facilities and appropriate puncture-resistant containers for sharp instrument disposal are important because good handwashing practices and careful disposal of sharps are ways to decrease or prevent potential exposure. Additional examples of engineering controls are safer medical devices, such as sharps with engineered sharps injury protections and needleless systems. Providing facilities and equipment is not enough; hospitals must also ensure that employees receive adequate training and follow safe work-practice controls.

Handwashing

- Hands should be washed promptly and thoroughly as soon as possible after contact with a patient, after removal of gloves or other personal protective equipment, and after contact with blood, body fluids and other infectious materials and equipment or articles contaminated by them. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites. Handwashing is necessary because gloves may have inconspicuous holes and because microbial growth may occur due to the moist environment inside gloves.

Needles and Sharp Instruments

- Contaminated needles and other contaminated sharps should not be bent, recapped, or removed by hand. Shearing or breaking of contaminated needles is prohibited. Exceptions to the policy prohibiting the recapping of needles require the development of a specific procedure by the department seeking the exception, with approval by the Hospital Infections Committee. If no alternative to recapping or needle removal is feasible and such action is required by a specific medical procedure, the recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique. For example, a one-handed recapping technique involves laying the needle cap down on a flat surface and, without touching the cap, carefully inserting the needle into the isolated cap and lifting, so the cap slides down to the hub of the needle. Only then should you use your other hand to tighten the cap on the needle hub.

- Disposable contaminated sharp objects should be placed in a puncture-resistant, leakproof, closeable container that is color coded or labeled with the biohazard symbol. Do not overfill these containers or reach into them. Remember that gloves do not prevent needlesticks. When the container is 3/4 full, it should be sealed and placed in a Medical Pathological Waste (MPW) box.

- Reusable contaminated sharps should be separated from disposable ones, then put directly into an OSHA transport tray (a Central Hospital Supply [CHS]-issued, puncture-resistant transport container) found in dirty utility rooms located throughout the Clinical Center in patient care areas. Do not rinse, soak, or scrub the instruments first. Do not reach into transport trays by hand. Equipment that is grossly soiled with blood, body fluids and other infectious materials or has tissue adhering to it should be processed as soon as possible. Place equipment carefully into an OSHA transport tray, and call CHS, 6-2243 or 6-2244, for immediate pick-up. Instruments with minimal contamination (soiling) will be picked up on an established twice-daily pick-up schedule (or according to routine unit schedules).

Procedures

- All procedures involving blood, body fluids and other infectious materials should be performed in such a manner as to minimize splashing, spraying, or spattering of these substances.

- Mouth pipetting/suctioning of blood, body fluids and other infectious materials is prohibited.

Personal Conduct

- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure to blood, body fluids and other infectious materials.
- Food and drink should not be kept in refrigerators, freezers, cabinets, or on countertops, bench tops, or shelves where blood, body fluids and other infectious materials are present.

Containers and Equipment

- Specimens of blood, body fluids and other infectious materials should be placed in a biohazard-labeled container that prevents leakage during collection, handling, processing, storage, transport, and shipping. Because the CC utilizes Universal Precautions in the handling of all specimens, the biohazard labeling of specimens is not necessary if the containers are recognizable as containing specimens and the specimens/containers remain within the facility. Thus, sealed, clear, zip-type plastic bags are commonly used to transport specimens within the CC. Biohazard labeling of specimens/containers is required when specimens/containers leave the facility. If external contamination of the primary container occurs, it should be placed within a clean second container that prevents leakage and is biohazard-labeled. If the specimen could puncture the primary container, the primary container should be placed within a secondary container that, in addition to the above characteristics, is puncture-resistant.
- Medical equipment should be cleaned of visible contamination before repair or shipping. Send equipment to CHS first for decontamination if manual cleaning is not satisfactory. If complete decontamination of the equipment is not possible, a readily observable biohazard label should be attached, indicating which portions of the equipment remain contaminated. This information must be conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping, so that precautions can be taken.

Labeling Requirements

Warning labels must be affixed to containers of regulated (contaminated) waste, disposable sharps containers, containers used to handle reusable sharps, and containers used to store, transport, or ship blood, body fluids and other infectious materials (e.g., refrigerators, freezers, shipping containers, waste containers). The label must include the universal biohazard symbol and word "Biohazard" (at left). The label must be colored fluorescent orange or orange-red and have lettering or symbols in a contrasting color. The label must be affixed to the container to prevent loss or unintentional removal. Two

exceptions are as follows: 1) contaminated laundry in the CC, which is "labeled" as such by the yellow isolation bag; and 2) blood products that are labeled as to their contents and released for transfusion.

Personal Protective Equipment (PPE)

Where potential occupational exposure remains after institution of engineering and work-practice controls, PPE should also be used. To minimize occupational exposure, Universal Precautions employ PPE such as gloves, gowns, face shields or masks, eye protection, pocket masks, etc. Personal protective equipment is considered appropriate only if it does not permit blood, body fluids, and other infectious materials to pass through to or reach the employee's clothes, skin, eyes, mouth, or other mucous membranes under normal conditions of use. The CC will ensure that appropriate PPE is readily available or is issued to HCWs.

When to Use PPE

Personal protective equipment is to be used in clinical situations in which blood, body fluids, and other infectious materials are likely to contact a HCW's exposed skin or mucous membranes. The types of barriers used will depend upon the procedure.

Gloves

- Gloves should be worn 1) to provide a protective barrier to prevent gross contamination of the hands when touching blood, body fluids and other infectious materials, mucous membranes, nonintact skin, and contaminated items; 2) to reduce the likelihood that microorganisms present on the hands of personnel will be transmitted to patients during invasive or other patient-care procedures that involve touching a patient's mucous membranes and skin; 3) to reduce the likelihood that hands of personnel contaminated with microorganisms from a patient or fomite can transmit these microorganisms to another patient.
- Wear gloves whenever you can reasonably anticipate having contact with blood, body fluids and other infectious materials, and contaminated items; when performing phlebotomy or other vascular access procedures; or when handling or touching contaminated items or surfaces. Put on clean gloves just before touching mucous membranes and nonintact skin. Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms. Gloves must be changed between patient contacts. Disposable (single-use) gloves should never be washed and reused. Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. Utility gloves must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised. Remove gloves promptly after use, before touching uncontaminated items and environmental surfaces (such as doorknobs, telephones, computers, and elevator buttons), and before going to another patient. Wash hands promptly and thoroughly after removal of gloves to

avoid transfer of microorganisms to other patients or environments. Wearing gloves does not replace the need for handwashing, because gloves may have small, unseen defects or may be torn during use, and hands can become contaminated during removal of gloves. Failure to change gloves between patient contacts is an infection control hazard.

- Different sizes of sterile and non-sterile gloves (latex and latex-free), as well as glove liners, are available from CHS. In addition, specialty glove types are available from CHS. Call the CHS Nurse Consultant at 301-496-3392 for questions. If you think you are allergic to certain types of gloves, contact OMS at 301-496-4411 for an appointment to be evaluated so that an alternative can be arranged.

- OSHA permits a single exception to the requirement to wear gloves for all phlebotomy procedures. Volunteer-blood-donation centers may apply for a special exemption to permit blood collection without gloves under certain circumstances.

Disposable Gowns

- A gown should be worn to protect the skin, and prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids and other infectious materials. For example, gowns are indicated when changing bed linen that is heavily soiled with body fluids, secretions, or excretions. Select a gown that is appropriate for the activity and amount of fluid likely to be encountered. If a gown is penetrated with blood, body fluids and other infectious materials, the gown should be removed immediately or as soon as feasible. Gowns should be replaced after each use or when their ability to function as a barrier is compromised.

Protective Eyewear

- Eye-protection devices, such as plastic glasses with solid side shields, goggles, masks with clear visors, and chin-length face shields, should be worn whenever splashes, spray, spatter, or droplets of blood, body fluids and other infectious materials may be generated toward the eyes, nose, or mouth. In these situations, wear either: 1) a mask and eye protection or 2) a chin-length face shield. Personal eyewear is not recommended as barrier equipment unless side shields are present. Select protective eyewear that is appropriate for the particular procedure. Different types of eye-protection devices are available from CHS.

Masks

- Masks, in combination with eye protection devices, should be worn whenever splashes of blood, body fluids and other infectious materials may be generated toward the eyes, nose, or mouth (e.g., when suctioning an intubated patient). Masks should cover both the nose and mouth. Staff providing care to patients with productive coughs (e.g., during a sputum induction procedure) should consider use of masks and protective eyewear. Used masks should be discarded into either a patient waste receptacle or an MPW box.

Other Barriers

- Surgical caps or hoods and/or shoe covers or boots should be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).
- CPR masks will be available in all patient care areas and other sites around the CC for use during emergency resuscitation.

PPE Equipment Supply, Storage, Cleaning, and Disposal

- All patient care and laboratory areas will have a designated location for maintaining PPE supplies.
- HCWs should remove and discard PPE prior to leaving the area where they were used. Removed PPE, such as disposable gloves, gowns, lab coats, and masks, should be placed in an appropriately labeled container (an MPW box). Waste material grossly soiled with blood, body fluids, and other infectious material should be placed immediately into an MPW box. Remember to take off gloves and wash hands after disposal of a contaminated item. Non-contaminated waste such as office trash should be placed in regular trash receptacles, not MPW boxes. Refer to the NIH Waste Disposal Guide for more information on the disposal of medical pathological waste.
- Reusable protective clothing, such as cloth lab coats or clinic jackets, should be laundered only by the CC when intentionally used as a barrier or contaminated with blood, body fluids, and other infectious material. Clothing visibly contaminated with blood, body fluids and other infectious materials should be handled with gloves and placed into yellow isolation laundry bags lined with water-soluble liners.
- Personal eyewear does not provide adequate protection and cannot be used as protective equipment unless side shields are present. Protective eyewear can be cleaned with soap and water; alcohol can be used for disinfection if necessary.

What to Do with Spills of Blood, Body Fluids, and Other Infectious Materials

Employees must put on gloves and, if indicated, other personal protective equipment before cleaning spills of blood, body fluids, and other infectious material.

Small Spills

To clean a small spill (<20 mL): Carefully remove visible material with paper towels or some other absorbent material; apply a disinfectant, or a dilute solution of bleach (no older than 24 hours) mixed as follows: 1 part bleach to 9 parts water. The area should remain wet with disinfectant for 10 minutes.

Large Spills

To clean a large spill (>20 mL): Contact Housekeeping and Fabric Care Department (301-496-2417). Prior to the arrival of housekeeping personnel, close the spill area to traffic. Do not cover the spill with paper towels and do not apply disinfectant or any other liquid cleaner to the spill. Housekeeping staff will: 1) ensure the spill has been appropriately contained, 2) carefully remove visible blood, body fluids, and other infectious material, and 3) sanitize the area with a disinfectant.

An absorbent powder is available for absorbing spills not located on carpeting. Disinfection must follow the use of the powder. Do not apply powdered absorbent, disinfectant, or bleach to spills on carpets.

What to do if Exposed to Blood, Body Fluids and Other Infectious Materials

First Aid

All injuries and exposures to blood, body fluids and other infectious materials should be given first aid immediately:

Skin wounds (i.e., percutaneous injuries) and intact skin contaminated with blood, body fluids and other infectious materials should be washed thoroughly with soap and water for 15 minutes.

Contaminated mucous membranes (e.g., eyes) should be irrigated for 15 minutes with normal saline or water.

Reporting

- All injuries should be promptly reported to OMS (301-496-4411) after first aid has been administered. Prompt reporting of exposures is important, as the timing of initiating postexposure treatment may be critical to efficacy. Do not delay contacting an OMS representative if exposed to blood or other material thought to be contaminated with HIV. An OMS physician is available after working hours through the page operator at 301-496-1211.
- All injuries should be reported to your supervisor.

Postexposure Management and Follow-up

- Appropriate assessment for employees with exposures to blood, body fluids and other infectious materials will be coordinated through OMS. Examination will include a confidential medical evaluation, counseling, collection and testing of blood for several bloodborne diseases (with informed consent) for the exposed employee and source patient (if known).

- OMS will provide the exposed employee with the results of the evaluation, including the source patient's laboratory testing (if known), and will inform the employee about any medical conditions resulting from the exposure that could require further evaluation or treatment. If requested, OMS will provide the employee with a copy of the written opinion within 15 days of the completed evaluation.

Other Employee Health Issues

- Workers with exudative lesions or weeping dermatitis should be evaluated in OMS before reporting to work.
- CC policy states that no susceptible worker, including pregnant workers, should care for patients with chickenpox, herpes zoster, parvovirus B19, or rubella. Pregnant workers are not restricted from providing care for other patients. Pregnant workers but should be knowledgeable of the mechanisms of transmission and the techniques to prevent the transmission of bloodborne infectious diseases because of the known risk for vertical/perinatal transmission of both HBV and HIV.

Summary

This booklet provides a summary of Universal Precautions and conveys the CC policy regarding their use by employees. Compliance with this policy is required, and federal law states that non-compliant workers be disciplined.

Universal Precautions are designed to provide protection to the worker by use of a combination of engineering controls, work practices, and personal protective equipment. Workers should be familiar with and use these precautions for their own personal safety.

Note: An electronic version of this document is available at the HES website: <http://www.cc.nih.gov/hes/>. HES is available to discuss any concerns or questions you have about Universal Precautions. Please contact HES at 301-496-2209. CC physicians may fulfill their annual training requirement by reviewing this booklet and completing a written test available from HES or a computer version of the written test available in the Clinical Center's Medical Information System (MIS).

(Revised February 2003)